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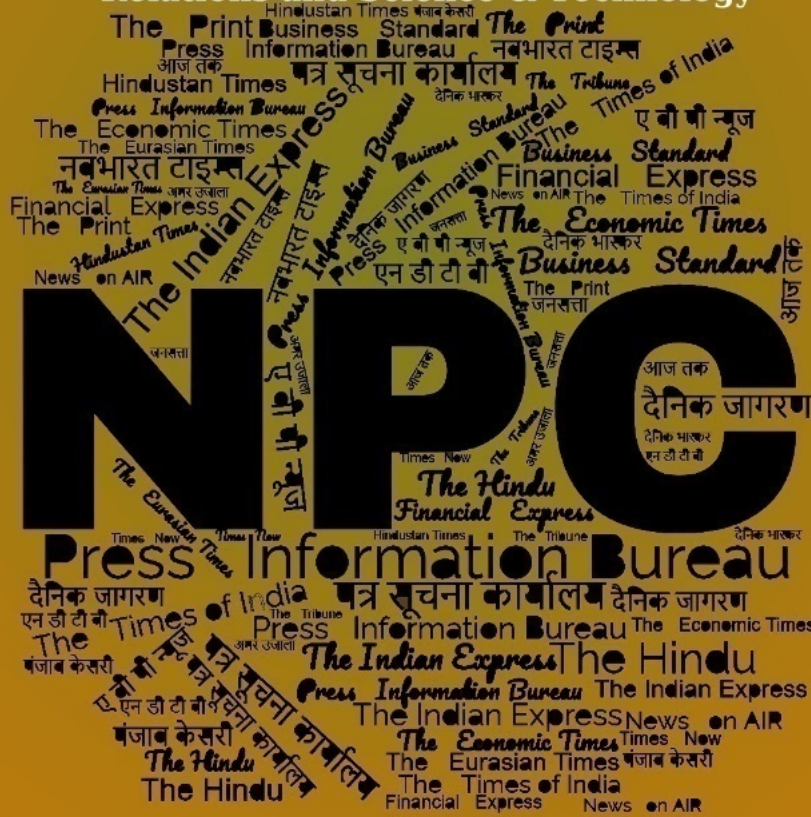
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13/03/2024

# 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

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



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# अमरउजाला

Wed, 13 Mar 2024

## DRDO: इस वैज्ञानिक महिला की वजह से अग्नि-5 को मिली सफलता, अब मिल रही 'दिव्य पुत्री' नाम से पहचान

भारत ने सोमवार को पांच हजार किलोमीटर की दूरी तक मार करने वाली न्यूक्लियर बैलेस्टिक मिसाइल अग्नि-5 का सफल परीक्षण किया। इस मिसाइल के सफल परीक्षण के साथ ही पूरा पाकिस्तान और चीन भी अब भारतीय मिसाइलों के जद में आ गया है।

इस खास उपलब्धि की घोषणा करते हुए प्रधानमंत्री नरेंद्र मोदी ने इसे 'मिशन दिव्यास्त्र' का नाम दिया। इस परियोजना का नेतृत्व महिला वैज्ञानिक शीना रानी ने किया था, जो 1999 से अग्नि मिसाइल प्रणाली पर काम कर रही हैं। जिस प्रकार पीएम मोदी ने पूरे मिशन को 'मिशन दिव्यास्त्र' का नाम दिया ठीक वैसे ही वैज्ञानिक शीना रानी की चर्चा अब 'दिव्य पुत्री' के रूप में हो रही है।

### पावरहाउस ऑफ एनर्जी नाम से फेमस

57 वर्षीय शीना रानी हैदराबाद में रक्षा अनुसंधान विकास संगठन (डीआरडीओ) की हाईटेक लैब में कार्यरत एक उत्कृष्ट वैज्ञानिक हैं। अपने साथियों के बीच वह एक खास नाम से जानी जाती हैं। काम के प्रति लगन और गजब के उत्साह के कारण उनके सहकर्मी 'पावरहाउस ऑफ एनर्जी' के नाम से भी बुलाते हैं।

शीना रानी 'अग्नि पुत्री' के नाम से प्रसिद्ध, मशहूर मिसाइल तुमेन टेसी थॉमस के नक्शेकदम पर चलती हैं। टेसी थॉमस ने अग्नि सीरीज की मिसाइलों के विकास में महत्वपूर्ण योगदान दिया था और शीना रानी उसी विरासत को आगे बढ़ा रही हैं।

### डीआरडीओ का सदस्य होने पर गर्व

डीआरडीओ में 25 साल बिताने वाली शीना रानी के कार्यकाल की यह सर्वोच्च उपलब्धि है। वह गर्व से कहती हैं मैं भारत की रक्षा करने में सहायता करने वाले डीआरडीओ परिवार की सदस्य हूं। अगर उनके शुरुआती जीवन पर गौर करें तो उन्होंने तिरुवनंतपुरम के कॉलेज ऑफ इंजीनियरिंग से पढ़ाई की है।

इलेक्ट्रॉनिक्स और कम्युनिकेशन के साथ ही कंप्यूटर साइंस में भी शीना रानी को महारत हासिल है।

### आठ साल तक किया काम

भारत के सबसे प्रमुख अंतरिक्ष रॉकेट केंद्र, विक्रम साराभाई अंतरिक्ष केंद्र (वीएसएससी) में उन्होंने आठ साल तक काम किया। सन् 1998 में भारत के पोखरण परमाणु परीक्षण के बाद वह सीधे तौर पर डीआरडीओ में शामिल हो गईं। 1999 से ही शीना रानी अग्नि सीरीज की सभी मिसाइलों के लॉन्च कंट्रोल सिस्टम पर काम कर रही हैं।

### **इन लोगों से लिया प्रेरणा**

उन्हें भारत के 'मिसाइल मैन' और पूर्व राष्ट्रपति डॉ. एपीजे अब्दुल कलाम से प्रेरणा मिलती है, जो डीआरडीओ के प्रमुख भी रह चुके हैं। डॉ. कलाम ने भी अपना करियर विक्रम साराभाई अंतरिक्ष केंद्र से शुरू किया था और फिर इंटीग्रेटेड गाइडेड मिसाइल डेवलपमेंट प्रोग्राम का नेतृत्व करने के लिए डीआरडीओ में शामिल हुए थे।

वहीं, उन्होंने बताया कि उन्हें एक और व्यक्ति से काफी प्रेरणा मिली, जिसकी मदद से वह आगे बढ़ सकीं। वो हैं डॉ. अविनाश चंद्रर। चंद्रर ने कुछ कठिन वर्षों में डीआरडीओ का नेतृत्व किया है।

### **पति भी इस संगठन का हिस्सा**

ऐसा नहीं है कि शीना रानी एकमात्र अपने परिवार से रक्षा अनुसंधान विकास संगठन के लिए काम कर रही हैं। बल्कि उनके पति पीएसआरएस शास्त्री ने भी मिसाइलों पर डीआरडीओ के साथ काम किया है। साल 2019 में इसरो द्वारा लॉन्च किए गए कौटिल्य उपग्रह के प्रभारी भी थे।

### **क्या है MIRV तकनीक**

लंबी दूरी की मिसाइल अग्नि-5 को डीआरडीओ द्वारा विकसित किया गया है। यह मिसाइल मल्टीपल इंडीपेंडेंटली टारगेटेबल रि-एंट्री व्हीकल (MIRV) तकनीक पर आधारित है। एमआईआरवी तकनीक एक ही मिसाइल से कई टारगेट को निशाना बना सकती है।

साथ ही अग्नि मिसाइल परमाणु हथियार ले जाने में भी सक्षम है। अभी तक एमआईआरवी तकनीक सिर्फ अमेरिका, रूस, चीन, फ्रांस, ब्रिटेन के पास ही है और इस मिसाइल को जमीन से या समुद्र से और पनडुब्बी से भी लॉन्च किया जा सकता है। ऐसी खबरें हैं कि पाकिस्तान और इस्राइल भी ऐसे मिसाइल सिस्टम को विकसित करने की कोशिश कर रहे हैं।

MIRV तकनीक की खास बात ये है कि इसकी मदद से कई हथियार ले जाए जा सकते हैं और अलग-अलग स्पीड और अलग-अलग दिशाओं में इन हथियारों से टारगेट को निशाना बनाया जा सकता है। यह काफी मुश्किल तकनीक है और यही वजह है कि सिर्फ कुछ ही देशों के पास यह तकनीक मौजूद है।

अमेरिका ने साल 1970 में ही एमआईआरवी तकनीक विकसित कर ली थी और अब भारत भी उस ग्रुप का हिस्सा बन गया है, जिन देशों के पास एमआईआरवी तकनीक है।

<https://www.amarujala.com/india-news/meet-divya-putri-sheena-rani-scientist-behind-agni-5-missile-with-multiple-warheads-2024-03-13>

## **'Missile Rani': Meet Sheena Rani, the DRDO force behind Agni-5 missile with multiple warheads technology**

Missile expert R Sheena Rani spearheaded a Defence Research Development Organisation (DRDO) team that was behind India's first flight-test of Agni-5 missile with multiple independently targetable re-entry vehicle (MIRV) technology, which was launched on Monday from the Dr A P J Abdul Kalam Island off the Odisha coast.

The 57-year-old led the missile project as programme director at Hyderabad-based Advanced Systems Laboratory (ASL) of DRDO, which developed the missile with multiple nuclear warheads that has not only put India in an elite club of nations but also raised China's eyebrows as the 5,000-km-range missile covers almost all of India's neighbouring country with its range.

She is also the associate director of DRDO's ace lab ASL, which has developed several Agni variants.

Rani, who previously worked at Isro's Vikram Sarabhai Space Centre for eight years, joined DRDO as a lateral entry in 1999 soon after the Pokhran-II nuclear tests in 1998, and has been working for the country's Agni missile programme since then. Though several Agni variants have been developed and inducted into the forces under the missile programme, the new MIRV technology is considered Rani's crowning glory, as she put her heart and soul into developing it with her DRDO team, which also includes several women scientists. "I am really proud of being part of the Agni missile programme as the missiles are safeguarding the nation's borders," she said in a media interview earlier.

Born in Thiruvananthapuram, Rani was raised by her mother as her father passed away when she was in class 10. "My mother is the real pillar of support in my and my sister's life," the scientist, who did her engineering from College of Engineering Trivandrum (CET), said. Though Rani has been working with several DRDO units that are engaged in developing different subsystems of the Agni missile, her work involves checking and ensuring the overall health of missiles before their launch. "There were butterflies in my stomach as we prepared for the launch. But I really did not anticipate the delirium among the common public," Rani, an electronics and communications engineer, had told TOI when India first test-fired Agni-5 on April 19, 2012 and the entire world took note of it.

Rani, whose husband P S R S Sastry also worked with DRDO on missiles, drew inspiration from India's 'Missile Man' and former DRDO chief & President of India, A P J Abdul Kalam. Missile technologist Dr Avinash Chander also helped shape her career at DRDO. During her stint in DRDO, Rani has won several awards, including the "scientist of the year award" in 2016.

<https://timesofindia.indiatimes.com/india/missile-rani-drdo-expert-who-spearheaded-agni-5-success/articleshow/108443388.cms>



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

**Ministry of Defence**

*Tue, 12 Mar 2024*

### **In a joint operation, Indian Coast Guard apprehends Pakistani Boat in Arabian Sea near Porbandar**

**Narcotics worth about Rs 480 Cr seized onboard**

In an overnight joint operation during intervening nights of 11 & 12 Mar 2024, the Indian Coast Guard (ICG), based on intelligence inputs, apprehended a Pakistani Boat with 06 crew and narcotics onboard, worth approx Rs 480Cr. The Boat was apprehended about 350 Km from Porbandar into Arabian Sea in a sea-air coordinated operation involving ICG ships and Dornier Aircraft. The operation exhibited well-coordinated efforts between ICG, NCB and ATS Gujrat.

The Indian Coast Guard, on specific intelligence input from agencies, strategically positioned its ships in Arabian Sea on Monday, 11 March 24. ICG also tasked its Dornier aircraft to scan and locate the boat in likely areas. After an exhaustive search in area, the ICG Ships, with teams of NCB and ATS Gujarat, arrived location and positively identified the boat which was moving suspiciously in dark. On being challenged by ICG Ships, the boat started evasive manoeuvring, but was deftly chased and forced to stop by ICG ships. Boarding team immediately embarked the ship for preliminary checks and investigations.

The boat was found to be a Pakistani boat with six crew. Investigation by the joint boarding team and rummaging of boat revealed approx. 80 Kg of drugs worth approx. Rs 480 Cr.

The boat along with crew has been apprehended and is being brought to Porbandar for further investigation. This is the tenth apprehension by ICG, jointly with ATS Gujarat and NCB, in last three years, amounting to 517Kg Narcotics worth Rs 3135 Crores.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2013835>



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**Ministry of Defence**

*Tue, 12 Mar 2024*

**Launch and Keel Laying of 25t Bollard Pull Tug  
Bahubali and Yuvan at M/S Titagarh Rail Systems  
Limited, Kolkata**

Second 25T Bollard Pull Tug, Bahubali was launched and Keel for the 4<sup>th</sup> 25T BP Tug, Yuvan was laid by **Cmde Atul Maini, President SSB (Kolkata)** on **12 Mar 24** at M/s Titagarh Rail Systems Limited, Kolkata. This Tug is a proud flag bearer of “Make in India” initiative of Govt of India. Contract for construction and delivery of six 25T BP Tugs was concluded with M/s Titagarh Rail Systems Limited (M/s TRSL), in consonance with “Aatmanirbhar Bharat” initiative of the Government of India. These Tugs are being built under the classification rules of Indian Register of Shipping (IRS).

The availability of Tugs will provide impetus to Operational commitments of *IN* by facilitating assistance to Naval ships and submarines during berthing and unberthing, turning and maneuvering in confined waters. The Tugs will also provide afloat firefighting assistance to ships alongside, at anchorage and will also have capability to conduct limited Search and Rescue Operations.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2013865>

**THE ECONOMIC TIMES**

*Wed, 13 Mar 2024*

**Defence Minister Rajnath Singh approves expansion of  
National Cadet Corps by adding 3 lakh cadet vacancies**

Defence Minister Rajnath Singh has approved a proposal for the expansion of the National Cadet Corps (NCC) with the addition of three lakh cadet vacancies. This decision comes in response to the growing demand for NCC enrolment from educational institutions across India. Since its inception in 1948 with just 20,000 cadets, the NCC will now have a sanctioned strength of 20 lakh cadets, solidifying its position as the world's largest uniformed youth organization. The inclusion of NCC as an elective subject under the National Education Policy 2020 aligns with the government's efforts to empower youth to become future leaders of the nation.

The expansion plan aims to evenly distribute vacancies across all States and Union Territories, reducing the waiting list of institutions seeking NCC affiliation. It involves the establishment of four new Group Headquarters and the addition of two new NCC units.

A significant aspect of the expansion is the proposal to employ ex-servicemen as NCC instructors, leveraging their skills and experience. This initiative not only ensures high-quality training for NCC cadets but also creates employment opportunities for veterans. The expansion underscores a commitment to nurturing future leaders who embody discipline, leadership, and service. It is expected to create a pool of motivated, disciplined, and patriotic youth, contributing to the vision of a developed India.

<https://economictimes.indiatimes.com/news/defence/defence-minister-rajnath-singh-approves-expansion-of-national-cadet-corps-by-adding-3-lakh-cadet-vacancies/articleshow/108453661.cms>

## नवभारत टाइम्स

Tue, 12 Mar 2024

### पीएम मोदी बने 'भारत शक्ति-2024' युद्धाभ्यास के गवाह, आज पोकरण में देखी स्वदेशी हथियारों की ताकत

लोकसभा चुनाव की आचार संहिता लगने से ठीक पहले पीएम नरेंद्र मोदी आज राजस्थान दौरे पर रहेंगे। पीएम मोदी वायु सेना के विशेष विमान से दोपहर डेढ़ बजे जैसलमेर एयर फोर्स स्टेशन आएंगे। इसके बाद वे हेलीकॉप्टर के जरिए पोकरण फायरिंग रेंज जाएंगे। पोकरण फायरिंग रेंज में तीनों सेनाएं थल, जल और वायु के सैनिकों की ओर से स्वदेशी हथियारों के साथ अपनी ताकत और युद्ध कौशल का प्रदर्शन किया जाएगा।

#### पहली बार स्वदेशी हथियारों की ताकत का प्रदर्शन

तीनों सेनाओं की ओर से पहली बार स्वदेशी हथियारों के साथ युद्ध कौशल का प्रदर्शन करते हुए भारत में निर्मित विमनों का इस्तेमाल किया जाएगा। सेना की ओर से इस प्रदर्शन को भारत शक्ति नाम दिया गया है। युद्धाभ्यास में भाग लेने वाले प्रमुख उपकरण और हथियार प्रणालियों में टी-90 (आईएम) टैंक, धनुष और सारंग गन सिस्टम, आकाश हथियार प्रणाली, लॉजिस्टिक्स ड्रोन, रोबोटिक ड्रोन, हल्के हेलीकॉप्टर (एएलएच) और मानव रहित हवाई की एक श्रृंखला शामिल है। भारतीय सेना के अन्य वाहन, उन्नत जमीनी युद्ध और हवाई निगरानी क्षमताओं का प्रदर्शन कर रहे हैं। नौसेना समुद्री ताकत और तकनीकी परिष्कार को उजागर करते हुए नौसेना एंटी-शिप मिसाइलों, स्वायत्त कार्गो ले जाने वाले हवाई वाहनों और व्यय योग्य हवाई लक्ष्यों का प्रदर्शन करेगी।

#### रक्षा क्षेत्र में भारत की 'आत्मनिर्भरता' का होगा प्रदर्शन

इस अभ्यास के दौरान भारत में निर्मित हथियार प्रणालियां, अर्जुन टैंक, धनुष होवित्जर, तेजस लड़ाकू विमान और एएलएच ध्रुव हेलीकॉप्टर अपनी मारक क्षमता का प्रदर्शन किया जाएगा। रक्षा क्षेत्र में भारत की 'आत्मनिर्भरता' के इस प्रदर्शन को देखने के लिए प्रधानमंत्री नरेंद्र मोदी के साथ चीफ ऑफ डिफेंस स्टाफ जनरल अनिल चौहान, सेना प्रमुख जनरल मनोज पांडेय भी मौजूद रहेंगे। आर्मी डिजाइन ब्यूरो के मेजर जनरल सी एस मान एडीजी ने बताया कि नौसेना के मार्कोस, वायुसेना के गरुड़ और थलसेना की स्पेशल फोर्सस अभ्यास के लिए बनाए गए दुश्मन के इलाके में घुसकर ऑपरेशन करेंगे। आसमान से ड्रोन और



वायुसेना की मदद भी ली जाएगी, ताकि कोई इस दौरान उनपर हमला ना कर पाए। इसके बाद लंबी दूरी के हथियारों और आर्टिलरी गन से लक्ष्यों पर सटीक निशाना लगाकर उन्हें नष्ट किये जाने का प्रदर्शन होगा।

<https://navbharattimes.indiatimes.com/state/rajasthan/jaisalmer/pm-modi-to-witness-bharat-shakti-2024-exercise-in-pokhran-rajasthan-today/articleshow/108424250.cms>



*Tue, 12 Mar 2024*

## **Modi at Pokhran: PM sees homegrown Defence Prowess at 'Bharat Shakti' exercise**

Prime Minister Narendra Modi arrived at the Pokhran firing range in Rajasthan on Tuesday to witness the Bharat Shakti exercise, showcasing the prowess of indigenously manufactured defence equipment across the three services. Prime Minister Modi emphasised the importance of reducing dependence on others to develop a self-reliant India. He stressed focus on 'atmanirbharta' across various sectors, from edible oils to modern aircraft.

During his visit to Pokhran, PM Modi said that in the past decade, the country's defence production has more than doubled, exceeding ₹1 lakh crore. He credited the youth for playing a significant role in this achievement. Over the last 10 years, more than 150 defence startups have emerged, and the armed forces have committed orders worth ₹1,800 crore to support them, PM said.

PM Modi asserted that a self-reliant India in the defence sector instils confidence in the armed forces. The integrated tri-service firepower and manoeuvre exercise lasted approximately 50 minutes. Pokhran has become witness to trinity of India's atmanirbharta (self-reliance), belief and self-pride, said PM Modi at 'Bharat Shakti' exercise.

He added, "Roar of aircraft mid-air, valour displayed on the ground during Bharat Shakti exercise is the call of a 'new India'."

### **PM Narendra Modi in Pokhran, Rajasthan | 5 points**

1. PM Modi participated in 'Bharat Shakti' Tri-Services Live Fire and Manoeuvre Exercise in Pokhran, Rajasthan.
2. Exercise aligns with the Aatmanirbharta initiative, showcasing India's capabilities in multi-domain operations.
3. Features indigenous weapon systems: T-90 (IM) Tanks, Dhanush and Sarang Gun Systems, Akash Weapons System, Logistics Drones, Robotic Mules, ALH, and various unmanned aerial vehicles.
4. Indian Navy displays Naval Anti-Ship Missiles, Autonomous Cargo Carrying Aerial Vehicles, and Expendable Aerial Targets.

5. Indian Air Force showcases indigenous aircraft: Light Combat Aircraft Tejas, Light Utility Helicopters, and Advanced Light Helicopters.

<https://www.hindustantimes.com/india-news/modi-at-pokhran-pm-sees-homegrown-defence-prowess-at-bharat-shakti-exercise-101710233495303.html>



*Tue, 12 Mar 2024*

## **Indian Army working on AI, autonomous combat vehicles, robotic surveillance platforms, more: Report**

The Indian Army top officials are currently exploring ways they can utilise artificial intelligence to improve the ‘mobility and protection’, revealed Army Chief General Manoj Pande said at a recent NDTV's maiden Defence Summit.

He stated that natural language processing, facial recognition, vehicle tracking, satellite imagery analysis and other autonomous systems are among the AI projects that they are working on currently. He added that with the help of subject experts, Indian Army is building an AI roadmap that will serve good for the next 20 to 25 years.

They are also working on projects like robotic surveillance platforms, autonomous combat vehicles and manned-unmanned cleaning solutions. He said, “A tri-services project is being undertaken to develop a high-powered computing AI cloud.” Indian Army is also exploring 5G communications and its use in training and operations.

### **Tech on battlefield**

He said, “Battlefield situational awareness is being increased or enhanced through border surveillance systems and having a range of surveillance drones for target acquisition and precision fires. We have swarm drones and new artillery platforms. Our night fighting capabilities have been enhanced through night sights for small arms and handheld thermal images. The effectiveness of our communication right down to the soldier level is being upgraded through the induction of software-defined videos. We are also deploying terrain-specific electronic warfare systems, drone and anti-drone systems. Logistic capacities and efficiencies are being augmented by employing or introducing of logistic drones”.

### **New to gradually replace old**

While the Army Chief seemed optimistic about the modern technology, he did explain that the modernisation and replacement of all vintage platforms in one go is “neither feasible nor desirable”. Hence, they will be scaling up the ratio of vintage to current state-of-the-art equipment substantially by 2030 with a focused “atmanirbhar” capability development roadmap.

Not just India, the United States Army Laboratory is also experimenting with AI. They are assessing the potential of OpenAI's generative AI solution in battle planning albeit within the context of a military video game.

<https://www.businesstoday.in/technology/news/story/indian-army-working-on-ai-autonomous-combat-vehicles-robotic-surveillance-platforms-more-report-420964-2024-03-11>



*Tue, 12 Mar 2024*

## **US Intel flags India-China Tensions as Chinese military Villages mushroom near Borders**

US intelligence agencies say it's facing an "increasingly fragile world order", strained by great power competition, transnational challenges and regional conflicts, in a report released by the Director of National Intelligence (DNI).

According to the 2024 Annual Threat Assessment, Beijing is described as "expanding its global covert influence posture" in alignment with the objectives of the Chinese Communist Party. The report indicates that Beijing's intentions to maintain "large troop deployments and sporadic encounters" with India could risk "miscalculation and escalation into armed conflict." China's strategic deployments involve the expansion of a 'Xiaokang' village network (moderately prosperous society) across the eastern and central sectors opposite the Line of Actual Control.

One such defence village in Arunachal Pradesh, lying just 3 kilometres from the recently inaugurated Sela tunnel, has been pinpointed by India Today's OSINT team upon analysing publicly available satellite imagery. Amidst China's assertions that Tawang and the broader Arunachal Pradesh region form part of what it terms 'southern Tibet', India has significantly strengthened its military presence in the area. Additionally, India is advancing infrastructure development to enhance the logistical movement of troops in the region.

Undertaken by the Border Road Organisation (BRO) at an altitude of 13,000 feet and a cost of Rs. 825 crore, the construction of the Sela tunnel was aimed at providing all-weather connectivity to Tawang across Sela pass on the Balipara-Charduar-Tawang (BCT) road, which connects Tezpur in Assam to Tawang in the Arunachal Pradesh.

Based on satellite imagery, this specific settlement features approximately 25 to 30 rooftops, rendered in shades of grey and green, mirroring the architectural characteristics commonly observed in other Chinese model villages. However, such model villages are not new as China continues to expand the village network in the eastern and middle sectors near the border areas since 2019. Recent media reports also indicate that such villages are being populated by Chinese nationals over the last few months across the Lohit Valley and Tawang sector of Arunachal Pradesh.

According to reports, China has 628 “Xiaokang villages on the border” in the Tibet autonomous region, built according to Chinese President Xi Jinping’s strategy of “stabilising Tibet for the governance of frontier regions” and to meet the goal of building a xiaokang – or “moderately well off” – society by 2021. In all, there are 241,835 residents and 62,160 households in these villages in 21 Himalayan border counties, from Nyingchi, Shannan and Shigatse to Ngari prefecture.

While the exact nature of these villages is unclear, the establishments are perceived to be dual-use - both for civil and military purposes - and seen as a Chinese assertion of its territorial claims along the LAC.

In a counter move, India plans to develop 663 border villages with modern amenities under the Vibrant Villages programme. Of them, 17 such villages have been selected as a pilot project under the programme along the border with China in Ladakh, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh.

In Arunachal Pradesh, villages in the eastern part of the state and in the Tawang region have been identified as Zemithang, Taksing, Chayang tajo, Tuting, and Kibithu. Three major highways are also being developed - the Trans-Arunachal Highway, the Frontier Highway and the East-West Industrial Corridor Highway.

Tezpur is the hub of the Indian Army’s IV Corps, which monitors Assam and Western Arunachal Pradesh. Both the Balipara-Charduar-Tawang (BCT) road and Orang-Kalaktang-Shergaon-Rupa-Tenga(OKSRT) road from Tezpur and Tawang respectively meet at Sela pass and merge into one route to Tawang.

Last year, Defence Minister Rajnath Singh inaugurated the Nechiphu Tunnel in September. Both Sela and Nechiphu tunnels provide all-weather connectivity to Tawang, reducing the distance by at least 15 kms and aiding in faster troop deployment.

### **WHAT IS CHINA SAYING?**

On March 11, China said it “strongly deplors” Prime Minister Narendra Modi’s recent visit to Arunachal Pradesh and has raised concerns with India in a sharp statement. The Chinese response was to a question from a media conference about the visit on March 9 by Narendra Modi, where he inaugurated a number of development projects in the eastern sector, including the Sela Tunnel.

“India’s relevant moves only complicate the boundary question and disrupt the situation in the border areas between the two countries,” the Chinese MFA spokesperson Wang Wenbin said at a briefing in Beijing, referring to Arunachal Pradesh, which the Chinese call “Zangnan”, as Chinese territory. India, which has full control of the state, has always asserted the whole of Arunachal Pradesh as India’s sovereign territory.

Referring to the China-India boundary dispute, where India and China’s Special Representatives have not met since the LAC stand-off began in April 2020, Wang said that it was “yet to be solved”. “India has no right to arbitrarily develop the area of Zangnan in China,” he claimed.

The Ministry of External Affairs rejected the claims, stating that the state is an “integral and inalienable” part of India and objecting to such visits by Beijing “does not stand to reason”.

"We reject the comments made by the Chinese side regarding the visit of the Prime Minister to Arunachal Pradesh. Indian leaders visit Arunachal Pradesh from time to time, as they visit other States of India. Objecting to such visits or India's developmental projects does not stand to reason," Randhir Jaiswal, Spokesperson, MEA said Tuesday in response to media queries.

With reference to the United States, the DNI report mentions that while China is providing economic and security assistance to Russia as it wages war in Ukraine, it could also use technology to try to influence this year's US elections.

"China may attempt to influence the US elections in 2024 at some level because of its desire to sideline critics of China and magnify US societal divisions," the report says.

<https://www.indiatoday.in/india/story/us-intelligence-report-india-china-xiaokang-village-lac-arunachal-pradesh-tibet-2513951-2024-03-12>

## DECCAN Chronicle

*Tue, 12 Mar 2024*

### **Time to restructure Indian Navy's 'Command, Control'**

- **By Abhijit Bhattacharyya**

Is India taking note of the crucial role which naval forces are playing in the land wars of Europe and the Levant? Or the unprecedented rise in Chinese naval aggression, which is constantly hunting anyone and everyone in the seas around the South Asia coastline? Isn't India feeling the heat of the Communist Party of China's People's Liberation Army and Navy's hostile acts in and around India's Exclusive Economic Zone and over islands adjacent to New Delhi's 4,104 nautical mile coastline?

It's time for India's establishment to recognise the emergency-like situation that requires restructuring of the command, control and forward deployment of naval forces in its own region. There is no other non-Western Navy like India that could be peacefully deployed or is qualified to help at least 20 Indian Ocean rim states in the way India's seamen are operating across the Bab el Mandeb, Arabian Sea and the Red Sea waters.

In the Middle East, while India has good relations with the Jewish state and friendly ties with most of its neighbours, as well as the Gulf emirates, all of which have a large Indian diaspora, the erratic behaviour of the Houthi rebels in the Red Sea and terrorist groups like Hezbollah and Hamas bring the unpredictability factor, even though they may not have any serious issues with India or its professional Navy. The great unknown factor that might affect the sea routes between Europe and Asia are the activities of the PLA Navy -- should it extend its domineering conduct around the South China Sea to the Bay of Bengal, the Arabian Sea and the Indian Ocean!

The geopolitical scenario for India indeed is becoming more complicated, with the conventional land and territorial issues spilling over water with far-reaching consequences. The latest grave

provocations originate from a shaky, erratic and misguided Maldives establishment. In its eagerness to demonstrate its strategic importance and play a “larger than life” role in the sea, it has unwittingly stirred the beehive. China has clearly got a willing and pliable Lilliput inside India’s EEZ. The Indian Navy will now have to get more assertive in these waters, as it cannot allow such arm-twisting at the behest of an outside power. The need for a restructuring of the Indian Navy’s command and control, and of modifying its fleet deployment, has become extremely urgent.

The Navy has three regional Command, Visakhapatnam (East), Mumbai (West) and Kochi (South). Effectively, however, only the East and West are operational commands, with the South in charge of training. This writer believes that the Navy must prepare to expand and strengthen its teeth by upgrading all its bases. Let Kochi be the “Training, Ship Building and Maintenance Command”. Besides Vizag and Mumbai, Laccadive and Minicoy can be made the new South-West Naval Command, with long-range and offensive capable ships, submarines and air wing. The Andamans Tri-Services Command must be expanded further to make it a full-fledged self-sufficient command.

Two frontier states in the west and east -- Gujarat and West Bengal – must be urgently upgraded with two fleets (though not necessarily under a three-star vice-admiral), with independent operational responsibility and capability. The Chinese, one must remember, have already penetrated deep into all three neighbouring navies -- of Myanmar, Bangladesh and Pakistan. Submarines, frigates, destroyers and corvettes are all sourced by Dhaka, Naypitaw and Islamabad from Beijing, thereby banking on spares, logistics and maintenance; all influenced by Chinese naval doctrine on ops against India, the biggest naval power in South Asia. True, India’s targets are not Bangladesh or Myanmar, but the Chinese PLA Navy’s vessels are brazenly lurking in the vicinity, using these country’s ports. On Pakistan, it’s a different ballgame owing to the congenital defective psyche and inferiority complex of Islamabad’s Army generals born out of the surrender in Dhaka in December 1971.

Both Bangladesh and Pakistan today have four naval bases each with small shoreline of 367 nautical miles (Dhaka) and 567 nautical miles (Islamabad), in comparison to India’s 4,104 nautical miles along with mid-ocean islands. The Chinese are cunningly eyeing India’s South Asian neighbours’ ports and naval bases under the garb of the Belt and Road Initiative. Also, while India’s seven Army and seven Air Force Commands have to keep vigil over 32.88 lakh sq km of territory, the Navy, with two operational commands, has to survey and do surveillance of 7,05,40,000 sq km of Indian Ocean and the two comparatively smaller water bodies of the Bay of Bengal and Arabian Sea. The waters around India are now becoming choppy by the day. Today’s Black Sea and Red Sea hostilities clearly show that the mightiest of warships have vulnerabilities, and are often shaken by small, minuscule boats with agile sailors operating small arms like drones and missiles.

The Russian fleet’s repeated failures in the Black Sea and the US aircraft- carrier strike groups facing trouble handling the non-state Houthi rebels are a clear warning to all conventional navies. The problem arises due to big ships operating in small seas, shallow waters and restricted spaces, which make it hard to manoeuvre. The dispersal of fleets, sailors and command structures is thus the preferable way out. The concentration of too many ships in a single port or single command can spell disaster.

Pearl Harbour in December 1941 is a classic example, so is the Pakistan Navy's treatment in Karachi port in December 1971. Since then, Pakistan has dispersed its fleet across 567 nautical miles, while Bangladesh's 386 nautical miles also has four naval bases. The naval infrastructure of each of India's neighbours has fallen into Chinese hands. Therefore, it is vital for the Indian fleet to disperse, deploy and destroy with multiple commands with different types of combat vessels. India's unique advantage is its ability to do "forward deployment" without being 10,000 km away from its forward bases, unlike the US and British navies in relation to Guam, Guadalcanal, Okinawa or Falklands. India's own islands are there for our Navy to dock, develop and deploy to take on all those sailing down the adjacent sea lanes.

India's islands, both west and east, are natural runways for long-range maritime patrol, reconnaissance, anti-submarine warfare and very low frequency (VLF) listening posts for sub-surface adversary flotillas with bases in the strategic mouths of waterways. In addition, satellite communications and high-altitude aerial photos in mid-ocean islands will add to overall preparedness of the Navy's mission. It's time, therefore, for India to push for a radical expansion and upgrade of command/combat preparedness around all its bodies. Any delay could lead to a future disaster like 1962. (The writer is an alumnus of the National Defence College, New Delhi. The views expressed here are personal)

<https://www.deccanchronicle.com/opinion/columnists/abhijit-bhattacharyya-time-to-restructure-indian-navys-command-control-885000>

## THE ECONOMIC TIMES

*Wed, 13 Mar 2024*

### **Iran, Russia and China show off their ships in a joint naval drill in the Gulf of Oman**

United Arab Emirates - China, Iran and Russia have begun a joint naval drill in the Gulf of Oman, a crucial waterway near the mouth of the Persian Gulf, officials said Tuesday. Footage aired by Chinese state television and a video released by the Russian navy showed the ongoing drill, known as "Marine Security Belt 2024." China sent the guided-missile destroyer Urumqi and the guided-missile frigate Linyi to the exercise. Russia's forces are being led by the Varyag, a Slava-class cruiser.

More than 20 ships, support vessels and combat boats from the three countries, as well as naval helicopters, are involved in the exercise. A report by Iranian state television quoted the drill's spokesperson, Adm. Mostafa Tajaddini, as saying the drill will take place in 17,000 square kilometers (6,600 square miles) of water. Tajaddini added that the three nations' drill - their fourth since 2019 - was also meant to improve trade, confront "piracy and terrorism, support to humanitarian activities and the exchange of information in the field of rescue," among other goals. Iran has stepped up its military cooperation with Beijing and Moscow in response to regional tensions with the United States, including due to supplying military drones to Russia now being

used in Moscow's war on Ukraine. Azerbaijan, Kazakhstan, Oman, Pakistan and South Africa are observers of the drill. The Gulf of Oman has seen a series of attacks since 2019 that the U.S. has blamed on Iran, as well as ship seizures by Tehran, since the collapse of its nuclear deal with world powers. A fifth of all oil traded passes through the Strait of Hormuz, the Persian Gulf's narrow mouth.

<https://economictimes.indiatimes.com/news/defence/iran-russia-and-china-show-off-their-ships-in-a-joint-naval-drill-in-the-gulf-of-oman/articleshow/108443045.cms>

## Science & Technology News



**Press Information Bureau  
Government of India**

**Ministry of Science & Technology**

*Tue, 12 Mar 2024*

### **Study of Technology Transfer Centres aiming to increase commercialization of innovations released**

A study titled “Technology Transfer Centres to increase commercialization of innovations in India” carried out by DST – Centre for Policy Research, Panjab University was released on March 11, 2024.

The report released by Dr Akhilesh Gupta, Senior Adviser, Department of Science and Technology (DST) aims to improve Technology Transfer Offices (TTOs) and the Technology Transfer process in India by examining their structure and functions, administrative processes and governance frameworks, capacity building needs, and challenges.

“The report emphasizes the critical role the Technology Transfer Centres play in expediting the transition of ideas from research laboratories to the marketplace, thereby enhancing the nation's global competitiveness,” Dr. Gupta explained while releasing the report that supports and strengthens the Science Technology and Innovation initiatives of the Government of India to accelerate innovation to achieve energy transition and net-zero emission goals.

Highlighting the role of Technology Transfer offices, Dr. Gupta said that these offices play a crucial role in facilitating the commercialization of innovative ideas, thereby transforming them into tangible products and services that benefit society.

The study carried out under the Facility for Low Carbon Technology Deployment (FLCTD) by the DST – Centre for Policy Research, Panjab University, was supported by United Nations Industrial Development Organization (UNIDO), New Delhi.



The report highlights the crucial role played by Technology Transfer Offices in bridging the gap between academia and industry. It sheds light on the mechanisms and instruments employed to successfully transfer technology from academia to the industry.

Providing valuable insights to policymakers the report will enable them to identify areas that require attention in strengthening the mechanisms that foster innovation and facilitate Technology Transfer in our country.

It also provides recommendations on how to strengthen the function of technology transfer and deepen industry-academia partnership, comprehensive policy ecosystem for technology transfer, widening stakeholder network to support grassroot level and indigenous innovations.

Shri Sandeep Tandon, National Project Manager, UNIDO-FLCTD; Dr Kashmir Singh Professor Department of Biotechnology & Coordinator DST-Centre for Policy Research Panjab University and officials from Bureau of Energy Efficiency, and DST were present at the release event.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2013818>



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

**Ministry of Science & Technology**

*Tue, 12 Mar 2024*

## **Union Minister Dr. Jitendra Singh launched ‘Common Fellowship Portal’-a single interface between applicants and various fellowship schemes by Department of Biotechnology**

Union Minister Dr. Jitendra Singh launched ‘Common Fellowship Portal’-a single interface between applicants and various fellowship schemes by Department of Biotechnology today at National Media Centre, New Delhi.

“Prime Minister Narendra Modi envisaged “Ease of Doing science” for ignited scientific minds of Viksit Bharat” said Dr. Jitendra Singh while addressing the programme after launch of the portal. He added that this portal will save the energy and time of aspiring students and StartUps, besides bringing ease of applying will enable a simplified and streamlined process from the submission of application form to the selection.

The applicants can create their profile on the portal and use the same information to auto-fill different applications. Thus, this Portal will help all applicants by reducing their time and energy by getting full information and submission of applications at a single place by click of a mouse!

Dr. Jitendra Singh said initiatives of science & technology are in line with PM Modi’s whole of Government Approach- one centralized portal for all research applications. Dr. Singh further informed that at present, Departments under the Ministry of Science & Technology (DST, DBT,

CSIR) have come together for submission of application forms and soon application forms for all other Departments such as ICMR, UGC and AICTE will also be on-boarded.

The Union Minister of State (Independent Charge) for Science & Technology, MoS PMO, Department of Atomic Energy, Department of Space, Personnel, Public Grievances and Pensions, Dr. Jitendra Singh said “Eligibility Calculator- a unique feature of portal will prove to be a real gateway to research aspirations which allows applicants to check their eligibility for various fellowship schemes by providing specific details and also act as a data repository.

Union Minister Dr. Jitendra Singh Categorically mentioned that PM Modi has emphasized on providing level playing field and giving equal opportunities to students and scholars from even the remotest parts of India. He expressed confidence that in coming days we will also strive for industry linkage to create a bridge between academia and industry and prevent brain drain from our country.

Dr. Jitendra while addressing the ceremony congratulated the team of the ‘Department of Biotechnology’ under guidance of Dr Rajesh Gokhale – for developing the Common Fellowship Portal for benefit of PhD and Post-doctoral students of the country. Dr. Singh guided them by saying that we have set a benchmark in technology and lead by example for other departments.

Dr. Jitendra Singh also congratulated the Working Group consisting of HRD divisions of DBT, CSIR and INSPIRE, KIRAN Divisions of the DST for their hard work in designing and successfully on boarding of application forms of various schemes of the Ministry. He acknowledged that it is not an easy task to coordinate, gather and map the information from various Departments and develop such a common portal.

Dr. Rajesh Gokhale, Secretary, Department of Bio-technology. Prof. Abhay Karandikar, Secretary, Department of Science & Technology. Dr Sanjay Mishra, Senior advisor along with Dr. Pragya Palliwal Gaur, Director General, Press Information Bureau and Ms. Namita Gupta , head, INSPIRE were also present for the launch ceremony.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2013816>

