अप्रैल Apr 2024

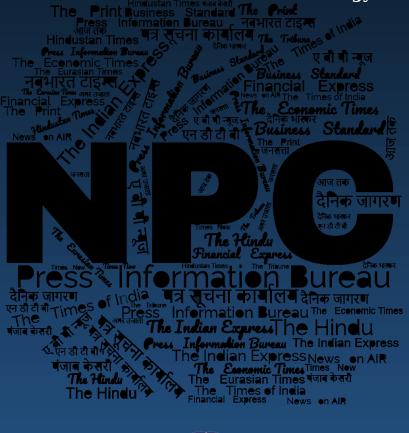
खंड/Vol.: 49 अंक/Issue: 67

09/04/2024

# 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





रक्षा विज्ञान पुस्तकालय

Defence Science Library रक्षा वैज्ञानिक सूचना एवं प्रलेखन केंद्र

Defence Scientific Information & Documentation Centre

ਸੇਟਗੱफ हाउस, दिल्ली - 110 054 Metcalfe House, Delhi - 110 054

## **CONTENTS**

| S. No. | TITLE   |                             | Page No. |
|--------|---|-----------------------------|----------|
|        | DRDO News   |                             | 1        |
|        | DRDO Technology News  |                             | 1        |
| 1.     | 'Made in India Devices in Hospitals in 5 to 10 Years'   | The Times of India          | 1        |
|        | Defence News  |                             | 2-11     |
|        | Defence Strategic: National/International   |                             | 2-11     |
| 2.     | COAS Gen Manoj Pandey Addresses Officers<br>Undergoing 79th Staff Course at DSSC, Wellington  | Press Information<br>Bureau | 2        |
| 3.     | Tri-service Conference 'Parivartan Chintan' Held in New Delhi   | Press Information<br>Bureau | 2        |
| 4.     | Need to Develop Joint Culture in Armed Forces: CDS at Tri-service Conference  | The Indian Express          | 3        |
| 5.     | Be Prepared for 'Black Swan' Events, Expect the Unexpected: Army Chief to Force   | The Economic Times          | 4        |
| 6.     | राजस्थान में हाईवे पर उतरे लड़ाकू विमान तेजस और सुखोई,<br>पाकिस्तान सीमा से करीब 40 किलोमीटर दूर हुई टेस्टिंग                           | जागरण                       | 5        |
| 7.     | Indian Army Gets Portable Igla-S Air Defence System;<br>Here's all about Next-gen Missiles to be Deployed at<br>China, Pakistan Borders | The Economic Times          | 6        |
| 8.     | 'Must March with Time': SC to Govt on Permanent Stint for Women in Coast Guard  | The Times of India          | 7        |
| 9.     | Cochin Shipyard Signs Ship Repair Agreement with U.S. Navy  | The Hindu                   | 8        |
| 10.    | Tata's Military-grade Satellite Successfully Placed into Orbit  | The Economic Times          | 9        |
| 11.    | Israel Deploys C-Dome Defence System for First Time.<br>Here's Why  | NDTV                        | 10       |
| 12.    | South Korea Launches its 2nd Military Spy Satellite amid Animosities with North Korea   | The Times of India          | 10       |
| 13.    | US Army to Hold Combat Training in Philippines  | The Tribune                 | 11       |
|        | Science & Technology News   |                             | 12       |
| 14.    | ISRO's Chandrayaan-3 Team Receives John L "Jack"<br>Swigert Jr Award at Space Symposium   | The Print                   | 12       |

## DRDO News

## **DRDO Technology News**

## THE TIMES OF INDIA

Tue, 09 Apr 2024

### 'Made in India Devices in Hospitals in 5 to 10 Years'

In the next 5-10 years hospitals in the country will be well-equipped with Made in India equipment, ending reliance on imports of high-end medical devices, said Defence Research and Development Organisation (DRDO) director-general (life sciences) UK Singh on Monday. "Currently, India is importing medical equipment worth Rs40,000 crore every year," he said.

Talking about projects underway in various DRDO labs, Singh said they have achieved partial success in developing Cochlear implants too. "The device is being imported on a large-scale," he said.

Singh was delivering a talk on various projects ranging from infrastructure, biofuels, agriculture, biotech, health and information technology during the 66th foundation day of CSIR-Neeri at its auditorium. "The govt is supporting production-linked investment in areas where most of the medical equipment are being manufactured. Investigation machines like MRI have already been made in Mumbai and Bengaluru," he said.

Regarding biotechnological advancements, Singh said a lot of research needs to be done in genomic interventions. "Diseases like cancer can be intercepted much in advance. Some pharma firms are offering services on predicting disease one is likely to suffer based on genomic sequences. We intend to develop models for human organs like guts," he said.

DRDO labs are also engaged in developing chemical biological radiation and nuclear (CBRN) warfare drugs and antidotes, he said. "In case of clashes with enemies, drugs and antidotes could be used. There are various specific drugs being made by DRDO labs. We have already achieved more than 50% of requirements," he said.

According to Singh, India is much ahead in drug development and production than any other country. "Indigenous sources are being utilized. India is also the biggest vaccination, drug development and drug production centre," he said.

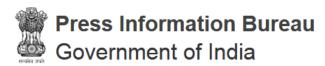
He said DRDO has developed many medicines for the armed forces and naval ships venturing in high sea. "One junior doctor is allowed to go with them but what if there is a major trouble. Helicopter too has a limited range. So, do they abort the mission? We have developed telemedicines which can be delivered and configuration is given where it is required. It can also help elderly people living alone.

Earlier, CSIR-Neeri director Atul Vaidya outlined the genesis of the institute. He said the institute has positioned itself to address the challenges posed by environmental issues. He described various parameters on which CSIR-Neeri is performing well, including technological developments and planning aligned with the vision for 2047 to ensure sustainable development.

https://timesofindia.indiatimes.com/city/nagpur/made-in-india-devices-in-hospitals-in-5-to-10-years/articleshow/109147163.cms

## **Defence News**

## Defence Strategic: National/International



**Ministry of Defence** 

Mon, 08 Apr 2024

## COAS Gen Manoj Pandey Addresses Officers Undergoing 79th Staff Course at DSSC, Wellington

Gen Manoj Pande highlights rebalancing & restructuring underway in Indian Army along with Human Resource reforms

The Chief of Army Staff, Gen Manoj Pande visited Defence Services Staff College, Wellington on 08 April 2024. The COAS addressed the student officers from the Indian Armed Forces and Friendly Foreign countries undergoing the 79th Staff Course and the permanent staff of DSSC.

The COAS, in his address, dwelt upon the myriad security challenges and transformation reforms underway in the Indian Army. He specifically highlighted the rebalancing & restructuring underway along with Human Resource reforms that are in various stages of implementation.

He also elaborated on the requirement for all officers to remain abreast with the latest technological developments and changing character of war. He specifically stressed upon the need for all three services to focus on synergy and jointmanship.

https://pib.gov.in/PressReleasePage.aspx?PRID=2017453



**Ministry of Defence** 

Mon, 08 Apr 2024

## Tri-service Conference 'Parivartan Chintan' Held in New Delhi

CDS Gen Anil Chauhan stresses on need for developing Joint Culture for Armed Forces

The Tri-service Conference, 'Parivartan Chintan', was held in New Delhi on 08 April 2024. The 'Chintan' was curated as a brainstorming and idea incubation discussion to generate new and fresh ideas, initiatives and reforms to further propel Jointness and Integration in the Armed Forces.

Jointness and Integration are the cornerstones of the transformation to Joint Structures which the Indian Armed forces are progressing towards with the intention of being "Future Ready".

Chief of Defence Staff Gen Anil Chauhan initiated the 'Chintan' by highlighting the need for developing a Joint Culture for the Armed Forces, which while respecting the uniqueness of each service, distils the best of each service to give a de-novo approach to traditional concepts. He also stressed upon the need to integrate the capabilities of each service by creating structures that increase our efficiency and enhance our war fighting ability and interoperability.

The Tri-Service Conference was attended by Heads of the Andaman and Nicobar Command and Strategic Forces Command, Commandants of National Defence Academy, Defence Services Staff College, College of Defence Management and Military Institute of Technology as well as Heads of the Armed Forces Special Operations Division, Defence Space Agency, Defence Cyber Agency and the Defence Communication Agency. The brainstorming was orchestrated by the Headquarters Integrated Defence Staff.

Officers from all the three Services and Headquarters IDS, with diverse service experience also attended the discussion and contributed ideas towards initiating the next generation of reforms related to modernization, procurement, training, adaptation and collaboration while embracing emerging and innovative technologies. Inputs on National Strategic Issues impacting National Security in both the civil and military domains were also deliberated upon.

Chief of Integrated Defence Staff to the Chairman, Chiefs of Staff Committee (CISC) Lt Gen JP Mathew in his closing remarks expressed confidence that such interactions will provide the necessary guidelines as Joint Operational Structures evolve to transform to a Future Ready Indian Armed Forces.

https://pib.gov.in/PressReleasePage.aspx?PRID=2017419



Tue, 09 Apr 2024

### Need to Develop Joint Culture in Armed Forces: CDS at Triservice Conference

Chief of Defence Staff (CDS) General Anil Chauhan on Monday said there is a need to develop a joint culture for the armed forces to distil the best of each service while respecting the uniqueness of each.

He said the best of each service is needed to give a de novo approach to traditional concepts, while highlighting the need to integrate the capabilities of the services by creating structures that increase the military's efficiency and enhance its war-fighting ability and interoperability.

Gen Chauhan was addressing the tri-service conference, 'Parivartan Chintan', that brainstormed on fresh ideas, initiatives and reforms to push integration among the three services.

One of the key mandates of the CDS is to work towards the creation of theatre commands as part of a greater transformation. While the CDS has been regularly interacting with the officials of the three services over ways to increase jointness among them and on creation of theatre commands, this was the first-of-its-kind brainstorming to generate fresh ideas, initiatives and reforms to propel jointness and integration in the military to transform it into a future-ready force.

The conference was attended by heads of the Andaman and Nicobar Command and Strategic Forces Command, commandants of National Defence Academy, Defence Services Staff College, College of Defence Management and Military Institute of Technology as well as heads of the Armed Forces Special Operations Division, Defence Space Agency, Defence Cyber Agency and Defence Communication Agency, the Defence Ministry said in a statement.

Officers from all three services and Headquarters IDS also attended the discussion and shared ideas towards initiating the next generation of reforms related to procurement, training, adaptation and collaboration while embracing emerging and innovative technologies, the ministry said.

https://indianexpress.com/article/india/need-to-develop-joint-culture-in-armed-forces-cds-at-tri-service-conference-9259124/

## THE ECONOMIC TIMES

Tue, 09 Apr 2024

### Be Prepared for 'Black Swan' Events, Expect the Unexpected: Army Chief to Force

Army Chief Gen Manoj Pande on Monday called upon the force to be always prepared for 'black swan' events and "expect the unexpected" even as he identified technology as the new area for strategic competition among nations.

In an address at the Defence Services Staff College in Wellington, Gen Pande highlighted the weaponisation of technology, especially its extension across various domains - from information to supply chains.

The Army Chief emphasised the importance of cross-functional synergy among the three services to effectively assess threats, articulate strategies, identify capabilities, formulate policies, achieve preparedness, and respond appropriately within the national security framework.

He further delved into the expansion of warfare into new domains, including space, cyber, electromagnetic spectrum and information technology, sources in the Army headquarters here said.

Gen Pande noted the rapid technological advancement in kinetic war instruments, saying it has made the battlefield increasingly complex, contested, and lethal.

The Chief of Army Staff urged the officers to be always prepared for 'black swan' events and "expect the unexpected".

A black swan event is a high-impact event that is difficult to predict.

The Army Chief pointed out the emergence of new trendlines triggered by this rapid change, underscoring how disruptive technologies are reshaping conventional combat force ratios.

Highlighting India's ascent on the global stage, Gen Pande stressed the growing need to safeguard India's national interests across expanding strategic horizons.

The Army Chief called for strategic balance, underscoring the necessity for India to be strong and self-reliant in defence capabilities.

He also shed light on the Indian Army's ongoing "transformative initiatives", particularly emphasising the forces' approach in making 2024 the "year of technology absorption".

He highlighted the key areas of focus in the process and said it includes aligning and synergizing technology at strategic, operational, and tactical levels within existing systems.

Under the new initiative, mapping futuristic and emerging technologies as drivers of military technology is a priority, he said, adding strengthening the defence technology ecosystem to maintain a lead in the military technology curve is another focus area.

The Army Chief said the force is ensuring that acquisition and procurement facilitates the seamless induction of technology and it fosters "techno warriors and commanders".

Gen Pande was addressing the faculty and officers of the 79th Staff Course, including 36 officers from friendly foreign nations.

His address covered critical topics such as national security, the geostrategic landscape and emerging trends, and the Indian Army's transformational initiatives.

Addressing the geo-strategic landscape and emerging trends, Gen Pande highlighted the unprecedented scale and speed of change in the current global arena.

https://economictimes.indiatimes.com/news/defence/be-prepared-for-black-swan-events-expect-the-unexpected-army-chief-to-force/articleshow/109136158.cms



Mon, 08 Apr 2024

## राजस्थान में हाईवे पर उतरे लड़ाकू विमान तेजस और सुखोई, पाकिस्तान सीमा से करीब 40 किलोमीटर दूर हुई टेस्टिंग

भारत-पाकिस्तान सीमा से करीब 40 किलोमीटर दूर राष्ट्रीय राजमार्ग संख्या-925 ए पर सोमवार को भारतीय वायुसेना के लड़ाकू विमान उतरे। सांचौर-बाड़मेर जिले से सटे अगड़वा से गुजर रहे इस राष्ट्रीय राजमार्ग पर बनी आपातकालीन लैंडिंग फील्ड पर सबसे पहले लडाकू विमान तेजस को टच एंड गो किया गया। इसके बाद तेजस उतरा।

#### लड़ाकू विमान हाईवे पर उतरे

इसके बाद लड़ाकू विमान जगुआर और फिर सुखोई-30 सहित अन्य विमान उतारे गए। दोपहर में सी-295 ट्रांसपोर्ट एयरक्राफ्ट और एंटोनोव एन-32 ट्रांसपोर्ट एयरक्राफ्ट उतरा। यह विमान 55 डिग्री सेल्सियस तापमान में भी उतर सकता है।

पश्चिमी सीमा पर गर्मी के मौसम में तापमान 50 डिग्री सेल्सियस या इससे अधिक तक पहुंच जाता है। हवाई पट्टी पर लडाकू विमानों को उतारने के अभ्यास के दौरान राजमार्ग पर यातायात पूरी तरह से बंद किया गया था। हवाई पट्टी को वायुसेना के हवाले किया गया है।

### आपातकालीन परिस्थितियों में हवाई पट्टी का उपयोग

वायुसेना युद्ध और अन्य आपातकालीन परिस्थितियों में इस हवाई पट्टी का उपयोग कर सकेगी। यह हवाई पट्टी करीब तीन किलोमीटर लंबी और 33 मीटर चौड़ी है। इसके निर्माण में 33.92 करोड़ रूपये का खर्च हुआ है। यह हवाई पट्टी 19 महीने में बनकर तैयार हुई थी। सोमवार को लड़ाकू विमानों के हवाई पट्टी पर उतारने को लेकर किए गए अभ्यास के लिए तीन दिन पहले से वायुसेना के अधिकारी और जवान यहां जमे हुए थे।

https://www.jagran.com/rajasthan/jaipur-tejas-and-sukhoi-fighter-aircraft-landed-on-highway-in-rajasthan-testing-near-pakistan-border-23692469.html

## THE ECONOMIC TIMES

Mon, 08 Apr 2024

# Indian Army Gets Portable Igla-S Air Defence System; Here's all about Next-gen Missiles to be Deployed at China, Pakistan Borders

The Indian Army has received the first batch of 24 Russia-made Igla-S Man Portable Air Defence Systems (MANPADS), along with 100 missiles, as part of a larger deal that includes domestic production in India, reports ThePrint.

#### **Procurement Details**

The Igla-S system is being acquired to enhance the Indian Army's Very Short Range Air Defence (VSHORAD) capabilities. Sources in the defence establishment revealed that this procurement is a significant one, as opposed to the smaller emergency purchase made in 2021.

#### Capabilities of Igla-S

The Igla-S is a hand-held defence system that can be operated by an individual or crew. It is designed to bring down low-flying aircraft and can also identify and neutralise air targets such as cruise missiles and drones.

According to a report in The Defense Post, the Igla-S system comprises the 9M342 missile, the 9P522 launching mechanism, the 9V866-2 mobile test station, and the 9F719-2 test set. These components work together to provide a comprehensive air defence solution.

#### **Russian Contract and Indigenous Production**

India signed a contract with Russia in November last year for 120 launchers and 400 missiles. While the first batch has come from Russia, the rest of these systems will be made in India through Transfer of Technology (ToT) from Russia by an Indian company.

— Sputnik\_India (@Sputnik\_India)

#### **Deployment and Delivery**

The Igla-S systems are intended for new air defence formations for high mountainous terrain along the northern border. Sources mention that one regiment has already received these systems, and more will follow as deliveries progress.

#### **Background and Selection Process**

The Request for Proposal (RFP) for VSHORADs was issued in 2010 under the previous United Progressive Alliance (UPA) government. In 2018, Russia's Rosoboronexport-manufactured Igla-S won a competitive bid as the lowest bidder (L1) over France's MBDA-manufactured Mistral and Sweden's SAAB-manufactured RBS 70 NG.

#### Significance and Replacement of Igla-1M

The Igla-S acquisition addresses the Indian Army's need to replace the outdated Igla-1M systems. This move is crucial, as highlighted in a 2012 letter from then Army chief General V.K. Singh to Prime Minister Manmohan Singh, citing the obsolescence of existing air defence systems.

#### **Future Plans and DRDO Tests**

Once the current requirement is fulfilled, the Indian Army plans to replace the older Igla systems with advanced laser-beam riding and infrared VSHORADS. The Defence Research and Development Organisation (DRDO) recently conducted two flight tests of indigenous VSHORADS missiles, indicating progress in this direction.

The acquisition of the Igla-S MANPADS marks a significant step in enhancing India's air defence capabilities, particularly in mountainous regions. With plans for indigenous production and future advancements, the Indian Army is poised to strengthen its VSHORAD capabilities in the coming years.

https://economictimes.indiatimes.com/news/defence/indian-army-gets-portable-igla-s-air-defence-system-heres-all-about-next-gen-missiles-to-be-deployed-at-china-pakistan-borders/articleshow/109133759.cms

## THE TIMES OF INDIA

Tue, 09 Apr 2024

## 'Must March with Time': SC to Govt on Permanent Stint for Women in Coast Guard

After granting permanent commission to women short service commission officers in Army, Navy and Air Force, Supreme Court on Monday decided to examine similar career opportunity to women short service agreement (SSA) officers in Indian Coast Guard while ordering interim reinstatement of a woman officer who was discharged in Dec 2023 after a 14-year stint.

A bench of Chief Justice D Y Chandrachud, and Justices J B Pardiwala and Manoj Misra also ordered transfer of the petition by the woman SSA officer Priyanka Tyagi from Delhi high court, which had declined to grant interim relief to her while agreeing to examine the larger issue of PC for women in ICG, to Supreme Court saying it presented a national issue of gender equality.

In a virtual one-sided hearing of Tyagi's lawyer, senior advocate Archana Pathak Dave, the bench said when different branches of armed forces have granted PC to women short service commission officer, ICG cannot remain an outlier. "The petition needs to be heard given the broader constitutional mandate of Article 15 (prohibition of discrimination on grounds of religion, race, caste, sex or place of birth)," it said.

When attorney general R Venkataramani and additional solicitor general Vikramjit Banerjee attempted to convey the factual aspects of the denial of permanent commission to Tyagi, the bench said, "Look at the resistance you have for absorbing women in permanent commission in ICG, which must march with time."

In her 14-year stint with ICG as an SSA officer in the rank of assistant commandant, Tyagi saved more than 300 lives in the sea, logged 4,500 flying hours - the highest among men and women in armed forces, and in 2016, was part of first-ever all women crew on Dornier aircraft to undertake maritime patrolling on the eastern region.

Yet for all her accomplishments, she was denied permanent entry into ICG, which issued an order in May last year for releasing her from service on Dec 30, 2023. Citing grant of permanent commission to women in all three wings of armed forces, she moved Delhi HC seeking similar relief. Though HC entertained her petition, it refused to grant her interim relief by directing ICG to continue her service till a judicial decision on her plea.

Tyagi said there is no policy for permanent absorption of SSA women officers in ICG. The petitioner said she cleared a special aviation medical test and completed 13 months of flying training to qualify as a navigator. She said she has highest-flying hours as per her seniority in all the forces including male and female - 4,500 hours on the Dornier Aircraft - and has saved more than 300 lives at sea.

 $\frac{https://timesofindia.indiatimes.com/india/must-march-with-time-sc-to-govt-on-permanent-stint-for-women-in-coast-guard/articleshow/109144234.cms$ 



Mon, 08 Apr 2024

## Cochin Shipyard Signs Ship Repair Agreement with U.S. Navv

As India and the United States look to expand cooperation in ship repair and maintenance to turn India into a regional hub, Cochin Shipyard Limited (CSL) became the third Indian shipyard to enter into a Master Shipyard Repair Agreement (MRSA) with the U.S., which will enable to repair U.S. Navy ships.

The State-run shipbuilding facility in Kochi is the latest in the line after Larsen & Toubro (L&T) and Mazagon Dock Shipbuilders Limited (MDL).

L&T shipyard in Kattupalli near Chennai, which has so far repaired three U.S. Navy fleet support ships, was the first Indian shipyard to sign the agreement in July last year. Last month, a United Kingdom naval ship arrived for the first time at Kattupalli for repairs.

"We would like to inform that CSL has signed the MSRA with United States Navy. The MSRA is a non-financial agreement and is effective from April 05, 2024. This will facilitate repair of U.S. Naval vessels under Military Sealift Command in CSL," the entity said in a disclosure to stock exchanges, adding: "CSL has been qualified for entering into the MSRA after a detailed evaluation process and capability assessment by the U.S. Navy — Military Sealift Command".

Both India and the U.S. are quite keen on expanding cooperation in ship maintenance and repairs as it benefits both countries, giving business and expertise to Indian shipyards while giving alternate options to the U.S. Navy for its smaller repairs of its ships without going faraway increasing their turnaround time and at significantly lesser cost. Defence shipyard MDL concluded an MSRA in August 2023.

In a joint statement issued after bilateral talks held between Prime Minister Narendra Modi and U.S. President Joe Biden in September last year, both sides recommitted to advancing India's "emergence as a hub for the maintenance and repair" of forward-deployed U.S. Navy assets and other aircraft and vessels, while also adding that the leaders welcomed "further commitments from U.S. industry to invest more in India's maintenance, repair, and overhaul capabilities and facilities for aircraft."

#### U.K. deploying its fleet

On March 26, the U.K.'s Littoral Response Group (LRG) arrived in Chennai as the first engagement of its deployment to the Indian Pacific region. The U.K. High Commission said the Royal Fleet Auxiliary Argus and RFA Lyme Bay conducted maritime exercises with the Indian Navy as they entered the Arabian Sea and will undergo essential maintenance at L&T shipyard. "This is the first time a Royal Navy vessel will undergo maintenance at an Indian shipyard — a

direct result of the logistics-sharing agreement signed between the U.K. and India in 2022," the High Commission said.

"The visit of the Littoral Response Group (LRG) attests to the U.K.'s capability and commitment to the Indo Pacific. The sight of Royal Navy ships undergoing essential maintenance at an Indian shipyard is yet another example of the India-UK Logistic Exchange Memorandum of Agreement in practice," said Brigadier Nick Sawyer, Defence Advisor, British High Commission. "It also signals the continued growing importance of the strategic defence partnership between the UK and India as we build towards achieving the ambition set out in the India-U.K. 2030 Roadmap."



Tue, 09 Apr 2024

## Israel Deploys C-Dome Defence System for First Time. Here's Why

Israel for the first time deployed its ship-mounted defence system, called the C-Dome, against a "suspicious" target that entered the country's airspace near the southern city of Eilat, the military said Tuesday. The C-Dome is a naval version of the Iron Dome air defence system used to shield against rocket and missile attacks.

On Monday evening, the Israel Defense Forces (IDF) reported an alert in the area of Eilat, which was targeted in February by intercepted ballistic missile fire from Yemen's Houthi rebels, allies of Palestinian militants Hamas.

"Following the sirens that sounded in the area of Eilat regarding the infiltration of a hostile aircraft, IDF Naval forces identified a suspicious aerial target crossing into Israeli territory," the IDF said in a statement released early Tuesday.

"The target was successfully intercepted by the 'C-Dome' naval defence system," it said.

No injuries or damage were reported.

An IDF spokesperson would not confirm whether the "suspicious" target had been a drone but told AFP this was "the first operational use of C-Dome".

Mounted on Sa'ar 6-class corvettes, German-made warships, the C-Dome uses the same interceptor as the Iron Dome, according to state-owned operator Rafael Advanced Defence Systems.

The land-based Iron Dome has been used countless times to intercept rockets fired from the Hamas-controlled Gaza Strip. That defence system costs roughly \$50,000 per launch.

https://www.ndtv.com/world-news/israel-deploys-c-dome-defence-system-for-first-time-after-spotting-suspicious-target-5403351

## THE TIMES OF INDIA

Mon, 08 Apr 2024

#### South Korea Launches its 2nd Military Spy Satellite amid Animosities with North Korea

South Korea launched its second military spy satellite into space from the Kennedy Space Center in Florida on Monday morning. This comes after North Korea reaffirmed its plan to launch multiple reconnaissance satellites this year.

Both nations introduced their inaugural spy satellites last year—North Korea in November and South Korea in December—amid escalating tensions. These satellites were touted to bolster surveillance capabilities over each other and enhance their missile attack potential.

According to South Korea's defense ministry, the satellite was successfully detached from the rocket and will undergo checks for operational functionality through communication with an overseas ground station.

As part of an agreement with SpaceX, South Korea aims to launch five spy satellites by 2025. The first launch occurred on December 1 from California's Vandenberg Space Force Base.

In 2022, South Korea joined the league of nations capable of launching satellites independently, using a domestically developed rocket to deploy a "performance observation satellite" into orbit. However, experts argue that employing SpaceX rockets for satellite launches is more cost-effective, and South Korea needs additional launches to ensure rocket reliability.

North Korea is also keen on establishing its space-based surveillance system to counter perceived military threats from the United States and South Korea.

Following two unsuccessful launch attempts in 2023, North Korea successfully placed its Malligyong-1 spy satellite into orbit on November 21. While North Korea claims the satellite transmitted imagery of key US and South Korean locations, including the White House and the Pentagon, it hasn't provided evidence to substantiate these claims.

Pak Kyong Su, vice general director of North Korea's National Aerospace Technology Administration, said that North Korea plans to launch several more reconnaissance satellites this year. During a significant political conference in late December, North Korean leader Kim Jong Un pledged to launch three additional military spy satellites in 2024.

The United Nations prohibits North Korea from conducting satellite launches, viewing them as veiled tests of long-range missile technology.

North Korea's November satellite launch exacerbated tensions on the Korean Peninsula, prompting both Koreas to breach their 2018 agreement to de-escalate military tensions.

In recent years, North Korea has conducted a series of provocative missile tests to modernize and expand its weapons arsenal. In response, the US and South Korea have intensified their military drills. Experts suggest that North Korea aims to enhance its bargaining power in future diplomatic negotiations with the US by bolstering its weapons stockpile.

https://timesofindia.indiatimes.com/world/rest-of-world/south-korea-launches-its-2nd-military-spy-satellite-amid-animosities-with-north-korea/articleshow/109118406.cms

## The Tribune

Tue, 09 Apr 2024

#### **US Army to Hold Combat Training in Philippines**

The US army is introducing a joint battlefield training in the Philippines to improve combat readiness including by ensuring adequate supply of ammunition and other needs in difficult conditions in tropical jungles and on scattered islands, a US general said.

The Biden administration has been strengthening an arc of military alliances in the Indo-Pacific to better counter China, including in any future confrontation over Taiwan.

The US moves dovetail with Philippine efforts to shore up its territorial defences amid disputes with China in the South China Sea.

https://www.tribuneindia.com/news/world/us-army-to-hold-combat-training-in-philippines-608982

## **Science & Technology News**

## **ThePrint**

Tue, 09 Apr 2024

### ISRO's Chandrayaan-3 Team Receives John L "Jack" Swigert Jr Award at Space Symposium

ISRO's Chandrayaan-3 mission team received the 2024 John L "Jack" Swigert, Jr, Award for Space Exploration, a top award from the US-based Space Foundation. This annual award honors a space agency, company, or consortium of organizations in the realm of space exploration and discovery.

The award was presented at the Space Foundation's yearly opening ceremony of the Space Symposium in Colorado on April 8. Consul General of India in Houston, DC Manjunath received the award on behalf of ISRO's Chandrayaan team. Recent winners of the John L. "Jack" Swigert, Jr. Award include NASA and the University of Arizona OSIRIS-REx team, the teams behind the NASA JPL Mars Ingenuity Helicopter and InSight-Mars Cube One, NASA Dawn, and Cassini.

Space Foundation is a nonprofit organization founded in 1983 offering information, education and collaboration for the global space ecosystem. Space Symposium, hosted by Space Foundation since 1984, is the assembly for the global space ecosystem.

Earlier in January, Space Foundation announced that it has selected the Chandrayaan-3 Mission Team as the recipient of the 2024 John L "Jack" Swigert Jr Award for Space Exploration.

India was the first nation to land a spacecraft on the Moon's South Pole. Chandrayaan-3, a mission developed by the Indian Space Research Organization, extends humanity's space exploration aspirations to new and fertile areas for understanding and cooperation, according to the Space Foundation. Furthermore, the technical and engineering achievements showcased by this mission show the world the unquestioned leadership and ingenuity of the people of India in the global space ecosystem. In a press release, Space Foundation CEO Heather Pringle said, "India's leadership in space is an inspiration to the world." He added, "The pioneering work of the entire Chandrayaan-3 team has again raised the bar for space exploration, and their remarkable lunar landing is a model to us all. Congratulations and we can't wait to see what you do next!"

The press release issued by Space Foundation stated, "The John L "Jack" Swigert Jr Award for Space Exploration recognizes extraordinary accomplishments by a company, space agency, or consortium of organizations in the realm of space exploration and discovery."

"The award honors the memory of astronaut John L "Jack" Swigert Jr., one of the inspirations for the creation of Space Foundation. A Colorado native, Swigert served with retired US Navy Captain James A Lovell Jr and Fred Haise on the legendary Apollo 13 lunar mission, which was aborted after the perilous rupture of an oxygen tank while in route to the Moon," it added.

In September last year, Chandrayaan-3 touched down on the uncharted lunar South Pole after a 40-day journey into space, making India the first country to do so. India also became only the fourth nation after the US, Russia, and China to successfully conduct a lunar landing mission.

https://theprint.in/world/isros-chandrayaan-3-team-receives-john-l-jack-swigert-jr-award-at-space-symposium/2033510/

