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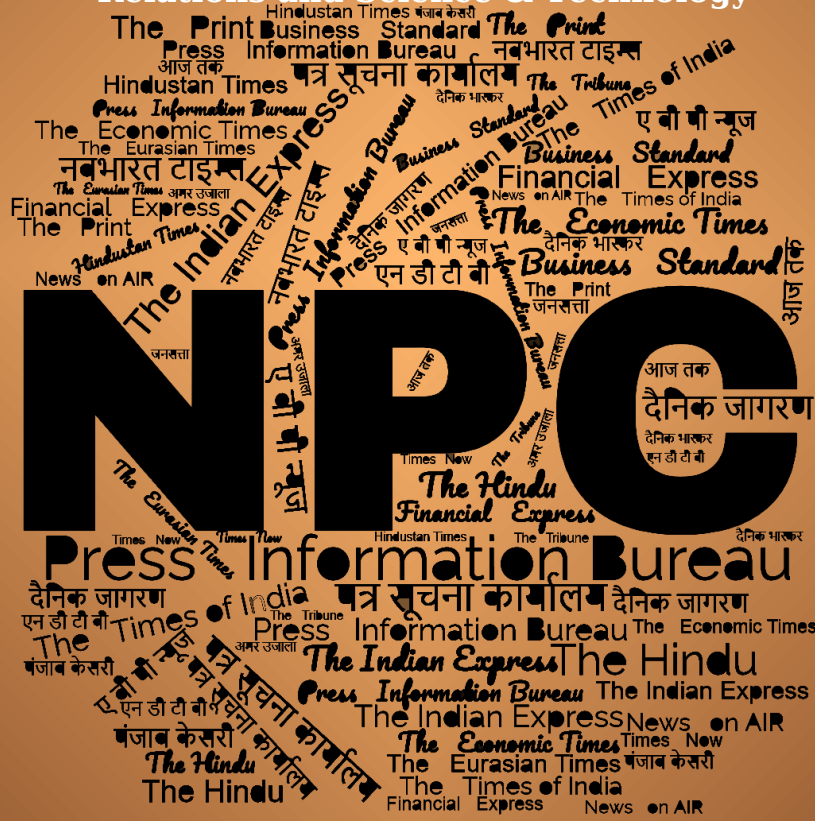
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# समाचार पत्रों से चयित अंश Newspapers Clippings

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

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*Sat, 06 May 2023*

### **Defence Minister Rajnath Singh Reviews Security Situation in Rajouri and Poonch Districts of J&K**

Defence Minister Rajnath Singh took stock of the security situation in the twin border districts of Rajouri and Poonch on Saturday. AIR Jammu Correspondent reports that the visit of the defence minister to Rajouri comes a day after five elite para commandos of Special Force of the army were martyred during an anti-terrorist operation in the forested Kesari Hills of Kandi area of the district. Singh, accompanied by Army Chief, General Manoj Pande and Lt Governor Manoj Sinha, reached Ace of Spades Division headquarters in Rajouri after a brief stopover in Jammu, also interacted with the troops engaged in the ongoing operation against the terrorists.

Five army personnel were killed and a major-rank officer was injured during a combing operation, 'Operation Trinetra' in the Kandi area on Friday. However, a holed up terrorist was killed and one more is believed to be injured this morning. Lt General Upendra Dwivedi, GOC in Chief Northern Command, Corps commander White Knight Corps, and Divisional Commissioner, Jammu are also accompanying Rajnath to Rajouri. After getting a brief on the operation in Kandi forest, the defence minister chaired a high-level security meeting to review the overall security situation in J&K, especially in twin border districts of Rajouri and Poonch before returning to Jammu. More than 250 people were detained for questioning during combing operations in the wake of the incident. Six overground workers who extended full support to terrorists were arrested.

<https://newsonair.com/2023/05/06/defence-minister-rajnath-singh-visits-jks-rajouri-and-poonch-reviews-security-situation/>

**THE  HINDU**

*Mon, 08 May 2023*

### **Defence Minister Rajnath Singh Inaugurates IAF Heritage Centre in Chandigarh**

Defence Minister Rajnath Singh inaugurated the first-of-its-kind Indian Air Force (IAF) Heritage Centre in Chandigarh on May 8, officials said.

The Centre has been set up under a memorandum of understanding between the Union Territory of Chandigarh and the IAF which was signed last year.

Punjab Governor and Chandigarh Administrator Banwarilal Purohit, Air Chief Marshal V.R. Chaudhari and Chandigarh MP Kirron Kher were also present on the occasion.

The IAF chief had visited the Indian Air Force Heritage Centre last month to review its progress.

Spread over 17,000 square feet, this is the first heritage centre of the IAF and depicts its role in various wars, including in 1965, 1971 and the Kargil war, and the Balakot air strike through murals and memorabilia.

Its exhibits will be a source of inspiration for future generations and will showcase the indomitable spirit of the Indian Air Force, officials said.

<https://www.thehindu.com/news/national/defence-minister-rajnath-singh-inaugurates-iaf-heritage-centre-in-chandigarh/article66825909.ece>



*Sat, 06 May 2023*

## **Indian Defence Forces Ground ALH Dhruv Helicopter in View of Recent Crashes**

Indian defence forces have temporarily grounded the Advanced Light Helicopter (ALH) Dhruv in view of the recent crashes. The move has been made as a precautionary measure to prevent any further accidents. The choppers will stay grounded for more than a month or two. The decision was supplemented by the chopper crash on May 4, claiming the lives of Indian Army personnel.

ANI quotes defence officials saying, "In view of the crash in which one Army jawan lost his life on May 4, operations of the ALH Dhruv choppers have been halted as a precautionary measure by the force."

In the incident on May 4, a chopper crashed in the Kishtwar region of Jammu and Kashmir. The hard landing of the chopper claimed the life of a technician onboard while injuring two pilots onboard. This was the third crash incident with the ALH Dhruv in the past two months. Previously, the helicopter has been involved in crashes of the Indian Coast Guard and Indian Navy.

Official figures provided to Parliament by the Ministry of Defence show that during the previous 20 years, 22 ALHs have crashed and that several of them have necessitated numerous emergency landings throughout the nation. Six reported occurrences involving the ALH were documented between 2017 and 2021, according to statistics from the parliament.

The indigenously developed Advanced Light Helicopter (ALH) Dhruv is part of all three defence forces in India. The twin-engine, multi-role helicopter is a new generation machine in the 5.5-ton category. Currently, Indian defence forces possess 300 units of the chopper. Besides India, the Dhruv helicopter is also part of the forces of the Nepal Army, Mauritius Police & Maldives.

The major variants of the indigenously developed helicopter are Mk-I Conventional cockpit, MK-II & Mk-III Glass cockpit, MK-III Maritime Role (Navy/ Coast Guard), and MK-IV armed version.

<https://zeenews.india.com/aviation/indian-defence-forces-ground-alh-dhruv-helicopter-in-view-of-recent-crashes-2603655.html>

## अब टेरिटोरियल आर्मी के महिला अधिकारियों की भी एलओसी पर होगी तैनाती, रक्षा मंत्री ने दी मंजूरी

रक्षा मंत्री राजनाथ सिंह ने क्षेत्रीय सेना (टेरिटोरियल आर्मी) की महिला अधिकारियों को पाकिस्तान के साथ नियंत्रण रेखा पर प्रादेशिक सेना के इंजीनियर रेजिमेंटों के साथ, संगठनात्मक आवश्यकता के अनुसार नई दिल्ली में क्षेत्रीय सेना के समूह मुख्यालय और महानिदेशालय में स्टाफ अधिकारियों के रूप में तैनाती को मंजूरी दे दी।

इस प्रगतिशील नीतिगत उपाय का उद्देश्य महिला अधिकारियों के रोजगार के दायरे को बढ़ाने के साथ-साथ उनकी पेशेवर आकांक्षाओं को पूरा करना है। वे अब इकाइयों और नियुक्तियों की एक विस्तृत शृंखला में अपने पुरुष समकक्षों के समान परिस्थितियों में सेवा और प्रशिक्षण देंगे।

प्रादेशिक सेना ने 2019 में पारिस्थितिक कार्य बल इकाइयों, टीए तेल क्षेत्र की इकाइयों और टीए रेलवे इंजीनियर रेजिमेंट में महिला अधिकारियों को कमीशन देना शुरू किया। इस दौरान मिले अनुभव के आधार पर टीए में महिला अधिकारियों के लिए रोजगार का दायरा बढ़ाने का निर्णय लिया गया है। प्रादेशिक सेना एक नागरिक सैनिकों की सेना की अवधारणा पर आधारित है। इसके अधिकारी नागरिक जीवन में लाभप्रद रूप से नियोजित रहते हुए बुनियादी सैन्य कौशल पर वार्षिक प्रशिक्षण से गुजरते हैं।

### रक्षा मंत्री आज चंडीगढ़ में करेंगे वायुसेना विरासत केंद्र का उद्घाटन

रक्षा मंत्री राजनाथ सिंह अपनी तरह के पहले भारतीय वायुसेना विरासत केंद्र का सोमवार को यहां उद्घाटन करेंगे। अधिकारियों ने बताया, इस केंद्र की स्थापना केंद्रशासित प्रदेश चंडीगढ़ और वायुसेना के बीच एक सहमति पत्र पर हस्ताक्षर के तहत की गई है। पिछले महीने, वायुसेना प्रमुख वीआर चौधरी ने भारतीय वायुसेना विरासत केंद्र की समीक्षा करने के लिए इसका दौरा किया था। यह विरासत केंद्र 17,000 वर्ग फुट से अधिक क्षेत्र में फैला हुआ है। इसमें 1965, 1971 के युद्धों, कारगिल युद्ध व बालाकोट हवाई हमले में निभाई गई वायुसेना की भूमिका को भित्तिचित्रों और स्मृति चिह्नों के जरिये बयां किया गया है।

<https://www.amarujala.com/india-news/rajnath-singh-approves-posting-of-women-officers-of-territorial-army-along-loc-with-pakistan-2023-05-07>



## Defence Ministry to Organise All Women Republic Day Parade in 2024

In yet another push to Nari Shakti, the Government of India is going to organise Republic Day, 2024 parade with only women taking part in all the activities on the Kartavya Path. This will be for the first time that such a decision has been taken by the government.

Speaking to India Today, sources from the defence ministry said that only females would be participating in the march past, tableaux and performances that will take place in the parade.

The Ministry of Defence, in its notice, said, "After detailed deliberations, it has been decided that Republic Day 2024 will have women participation, including contingents (marching and bands), tableaux and performances during the parade at the Kartavya Path."

The Defence Ministry has also informed other ministries, including Home Affairs, Culture and Urban Development about its decision.

In recent years, the defence forces and paramilitary contingents have chosen women contingent commanders and deputy commanders in line with Prime Minister Narendra Modi's drive to promote women's participation in all possible roles in the military as they have been given command opportunities along with deployment in combat roles.

While addressing the 99th edition of PM Modi's monthly radio programme "Mann Ki Baat", the prime minister said that Indian women and their empowerment are playing a big role in pushing India's growth. He further said that 'Nari Shakti' is leading from the front.

<https://www.indiatoday.in/india/story/defence-ministry-organise-all-women-republic-day-parade-2024-2375805-2023-05-06>

# THE ECONOMIC TIMES

Sun, 07 May 2023

## **India Carrying out Reforms in Military Attaches Deployment Abroad for Expanding Defence Exports**

In line with Prime Minister Narendra Modi's directive to increase exports, the centre is carrying out a major change in their deployments as they would be posted to countries where they can help in expanding domestic defence exports.

The Department of Military Affairs and the Department of Defence are carrying out this reform soon after Prime Minister Narendra Modi discussed the ways of increasing defence exports from the country at the combined commanders' conference.

"The military or the defence attaches will now be deployed in countries where they can mainly help in increasing defence exports of the country including products from both the public sector and the private sector," senior defence officials told here.

This would also lead to a reduction of military officers posted in countries from where we have been importing military hardware traditionally, they said.

"At a time when we have stopped importing weapon systems from abroad and are insisting on production in India under the Make in India scheme, there is no point in maintaining a significant number of attaches in countries which have been exporting weapon systems to us," they said.

India has put a virtual ban on imports and is buying only highly essential equipment from external sources and insisting on make in India.

The officials said that while positing these officers, the focus would be on countries in Africa, middle eastern countries along with the friendly nations in south-east Asia which have shown interest in Indian equipment like the BrahMos supersonic cruise missiles.

A number of Indian public sector units have also opened offices to support the Armenian military to help increase exports.

Officials said that the government is also going to allow the attaches to promote the sale of hardware manufactured by the private sector of the country.

The officials said when Western countries promote the sale of their hardware in India or other countries, their military personnel accompany their sales teams to make the pitch as it is in their national interest and the same can be followed here as well. Indian side feels that the military hardware produced by it can find buyers in Africa or South East Asian countries who are looking at a constant supply at reasonable and affordable cost.

The DMA led by Chief of Defence Staff Gen Anil Chauhan has been working towards increasing the defence exports along with reducing the import in the defence sector.

The DMA has already issued a negative list for imports and over 400 items are there in that.

India in the recent past has junked many import deals and r put them on hold like the plan to buy 33 fighter aircraft from Russia, buying high calibre guns for the Navy from the US, high altitude long endurance drones and many other items.

Relaxation's have been given to the forces to import equipment at the highest level only in the defence ministry.

The Department of Defence Production under Defence Secretary Giridhar Armane has envisaged an export target of USD 5 billion by 2025.

They have also been planning to use the defence trachea to achieve the export target as it is felt that they can play a pivotal role as they understand the defence requirements of the respective country and can promote the export of Indian defence products in their respective countries.

<https://economictimes.indiatimes.com/news/defence/india-carrying-out-reforms-in-military-attaches-deployment-abroad-for-expanding-defence-exports/articleshow/100054107.cms>

## THE ECONOMIC TIMES

*Fri, 05 May 2023*

### **We have to Take Disengagement Process Forward: Jaishankar on Eastern Ladakh Border Row**

The relations between India and China cannot be normal if peace and tranquillity in border areas are disturbed, External Affairs Minister S Jaishankar said on Friday. His comments at a press conference came a day after his talks with Chinese Foreign Minister Qin Gang.

"I think the issue is that there is an abnormal position in border areas," he said, adding "we had a frank discussion about it."

"We have to take the disengagement process forward," he further said.

Jaishankar and Qin held bilateral talks on Thursday on the sidelines of a meeting of the Council of Foreign Ministers of the Shanghai Cooperation Organisation (SCO).

The meeting between the two foreign ministers was their second in the last two months. The Chinese foreign minister visited India in March to attend a meeting of the G20 foreign ministers.

During the talks, Jaishankar conveyed to his Chinese counterpart that the state of India-China relations is "abnormal" because of the lingering border row in eastern Ladakh.

Last week, Defence Minister Rajnath Singh told his Chinese counterpart Li Shangfu at a meeting that China's violation of existing border agreements "eroded" the entire basis of ties between the two countries and that all issues relating to the frontier must be resolved in accordance with the existing pacts.

The meeting on April 27 took place in New Delhi on the sidelines of a conclave of the SCO defence ministers.

Days ahead of the meeting between the two defence ministers, the Indian and Chinese armies held 18th round of talks on ending the border row. In the Corps Commander talks on April 23, the two sides agreed to stay in close touch and work out a mutually acceptable solution to the remaining issues in eastern Ladakh at the earliest.

However, there was no indication of any clear forward movement in ending the three-year row.

The ties between India and China nosedived significantly following the fierce clash in the Galwan Valley in June 2020 that marked the most serious military conflict between the two sides in decades.

The Indian and the Chinese troops are locked in a standoff in a few friction points along the Line of Actual Control (LAC) in eastern Ladakh for the last three years though they disengaged in several places following a series of military and diplomatic talks.

India has been maintaining that the relationship between the two countries should be based on "three mutuals" -- mutual respect, mutual sensitivity and mutual interests.

The eastern Ladakh border standoff erupted on May 5, 2020, following a violent clash in the Pangong lake area.

As a result of a series of military and diplomatic talks, the two sides completed the disengagement process in 2021 on the north and south banks of the Pangong lake and in the Gogra area.

<https://economictimes.indiatimes.com/news/defence/we-have-to-take-disengagement-process-forward-jaishankar-on-eastern-ladakh-border-row/articleshow/100019788.cms?from=mdr>



*Fri, 05 May 2023*

## **India-Maldives Defence and Security Cooperation**

*Dr Gulbin Sultana*

Defence Minister Rajnath Singh made a three-day official visit to the Maldives on 1 May 2023, at the invitation of his Maldivian counterpart Mariya Ahmed Didi. During the visit, Minister Singh held discussions with Maldivian President Ibrahim Solih, Foreign Minister Abdulla Shahid and bilateral delegation-level talks with Defence Minister Didi. Minister Singh also attended a formal ceremony to hand over an Offshore Patrol Vessel, along with an assault landing craft and inaugurate the India-assisted development project of the Maldivian National Defence Force (MNDF) Coast Guard Harbour and repair facility at Sifavaru.

The main purpose of the Defence Minister's visit was to review and bolster the longstanding defence cooperation between the two countries. In this context, the visit can be termed as fruitful as all the Maldivian leaders during their official engagement with Minister Rajnath Singh reaffirmed



their commitment to further intensify the defence cooperation with India. Maldivian mainstream media describes the visit as “a significant milestone in the relationship between the two countries.”

The discussions held during the official engagements and the Joint Press Communique issued at the end of the visit suggest that the two friendly neighbours are committed to enhancing the peace, security, stability and prosperity of their respective countries and the region by working together to address common security challenges. In these regards, both sides agreed to deepen their cooperation in the defence and security domains as well as expressed their commitment to respect international law and upholding the principle of rules-based international order. The importance of sharing best practices and expertise in areas such as counter-terrorism, disaster management, cyber security and maritime security was also underscored during the official deliberations. Both sides agreed to explore additional avenues for cooperation in the areas of defence trade, capacity building and joint exercises.

The foundation of a strong defence and security cooperation between the two countries was laid down in 1988 when India launched “Operation Cactus” to provide military assistance to thwart a coup attempt at the request of the government of Maldives. Following the successful completion of “Operation Cactus,” India emerged as a prominent defence partner of the Maldives in terms of strengthening its defence capacity and capability. A Comprehensive Action Plan for Defence was signed between the two countries in April 2016 to consolidate the defence partnership. However, the defence and security ties between the two countries reached a new level of dynamism from 2019 onwards.

The main aspects of India-Maldives defence and security cooperation include training the Maldivian forces; supplying defence equipment, assisting in the development of defence infrastructure, the institutionalisation of bilateral engagement in the realm of defence and security through the Annual Defence Cooperation Dialogue at the level of Defence Secretary and Annual Joint mil-to-mil Staff Talks. The two countries also regularly collaborate in the sub-regional and multilateral platforms including IONS, Goa Maritime Conclave, Goa Symposium, joint Coast Guard/Naval exercises – DOSTI, Colombo Security Conclave and so on to strengthen the bonds of friendship and enhance mutual operational capability and cooperation in the region.

India provides the largest number of training opportunities for the MNDF, meeting around 70 per cent of its defence training requirements. India has trained over 1250 MNDF trainees over the past 10 years. MNDF has also been participating in various military-to-military activities such as sea-rider programme, adventure camps and sailing regatta. India has offered to depute Mobile Training Teams (MTT) based on MNDF requirements and to train MNDF personnel for UN peacekeeping operations at CUNPK. India has also offered customised training for MNDF Fire and Rescue Service in India.

In its endeavour to strengthen the defence capability, India offered the Maldives a state-of-the-art 260-ton fast attack craft in 2006. Since 2009, the Indian Coast Guard has been carrying out regular sorties over the Maldives to look for suspicious vessels. India supplied two Helicopters and a Dornier aircraft which significantly boosted Maldives’ surveillance capability to foil terrorist and criminal activities at sea. Helicopters are also being constantly used to transport patients from one island to another at the time of emergency. Pollution dispersants and the oil spill control equipment provided by India have enabled the MNDF Coast Guard to ensure maritime safety.

Key India-assisted infrastructure projects in the Maldives in the defence sector include the Composite Training Centre for MNDF, Coastal Surveillance Radar System (CSRS), construction of new Ministry of Defence Headquarters, Dockyard in UthuruThilaFalhu (UTF) Base, MNDF Coast Guard Harbour and repair facility at Sifavaru. In February 2021, A US\$ 50 million Credit Line Agreement for defence purposes was signed between the two countries.

In addition to MNDF, India has been also assisting the Maldivian police. One of India's largest grant-funded projects in the Island nation-The National College of Police and Law Enforcement- is expected to assist Maldives Police Service to train its officers and enhance crime-fighting capacities. Additionally, MoU was also signed between Sardar Vallabhbhai Patel National Police Academy and the Maldives police force to develop the police infrastructure across the archipelago.

Since 2019, both countries have emphasised their commitment and support for increased cooperation in combating terrorism in all its forms and manifestations both within the region and elsewhere. In this regard a Joint Working Group on Counter-Terrorism, Countering Violent Extremism and De-radicalisation was set up between India and the Maldives.

During President Ibrahim Mohamed Solih's maiden visit to India in 2019, President Solih and Prime Minister Modi expressed their willingness to safeguard mutual interests in the Indian Ocean region, particularly in the area of maritime security through coordinated patrolling and aerial surveillance, exchange of information and capacity building. Some of the important developments in this regard are: the MoU for Cooperation in the Field of Hydrography and the Technical Agreement on Sharing White Shipping Information between the Indian Navy and the MNDF signed in June 2019. Maldives is well connected with the Information Fusion Centre (IFC), Gurgaon through the CSRS set up by India on all 26 atolls. A Liaison Officer from Maldives is attached to the IFC Gurgaon. These arrangements have not only enhanced Maldives' Maritime Domain Awareness but also enable the island to meaningfully contribute to the collaborative effort of the regional countries to ensure maritime safety and security in the Indian Ocean. The fast patrol vessel, handed over by Rajnath Singh on 2 May is capable of coastal and offshore surveillance at high speeds. This will help Maldives capability to monitor its vast area of maritime domain.

India's immense contribution to strengthening Maldives' defence and security capabilities has been highly appreciated and recognised in Maldives. Nonetheless, there does exist an anti-India constituency in the Maldives led by the Opposition coalition of Progressive Party of Maldives (PPM) and PNC combine, which strongly object to strengthening defence ties with India. Their opposition is based on the misperception that India through the defence cooperation agreements is trying to make a military presence in the Island and thus undermining the sovereignty and independence of the Maldives. The PPM-PNC coalition has been spearheading an "India out" movement against the Indian military. On the insistence of the Opposition parties, the Parliament Committee on National Security known as "241 Committee" conducted an enquiry to review three agreements between MNDF and the Indian military including the agreement to develop a dockyard in the UTF base; an agreement to operate a Dornier aircraft; and a hydrographic agreement.

"241 committee" in its report stated that the three agreements between MNDF and the Indian military do not contain any clauses that cause concern to the island nation. Chief of Defence Force Major General Abdulla Shamaal and Defence Minister Mariya Didi during the "241 committee" investigation made it amply clear that the UTF agreement was designed to increase the operational capacity of the MNDF Coast Guard and India would provide technical expertise in training MNDF officers and provide assistance in operating and maintaining the dockyard and harbour facilities for 15 years, as per the agreement. It was also pointed out that 75 Indian military personnel are present in the Maldives to operate the Dornier aircraft and two helicopters, but they are under the full command and control of the MNDF and thus do not affect the sovereignty and independence of the Maldives.

Though in 2022 the "India Out" movement gained some traction among the Maldivian youth, the majority of the Maldivian population and most of the mainstream political parties barring the PPM-PNC coalition consider the "India Out" movement as a politically motivated irrational movement. The movement has acted as an irritant in India-Maldives relations from time to time since 2015 onwards. Nevertheless, it is unlikely that the movement will have any major impact on India-

Maldives defence cooperation as long as the Maldivian government is committed to strengthening its defence capabilities for the sake of its safety and security as well as for the region as a whole. Rajnath Singh during his visit to Male re-emphasised the point that India's enhanced defence capabilities have enabled the country to "offer a defence partnership to the friendly foreign countries that are accommodative of their national priorities and capacities" and thereby "creating a win-win situation for one and all".

<https://www.financialexpress.com/business/defence-india-maldives-defence-and-security-cooperation-3075502/>



*Mon, 08 May 2023*

## **IMDEX 2023: Rafael Introduces Modular Variant of C-Dome Air-Defence System**

Rafael Advanced Defense Systems has unveiled a modular variant of its C-Dome fleet-area naval air-defence system that can be cross-deployed quickly across multiple vessels.

The concept was unveiled at the IMDEX 2023 exhibition in Singapore, which took place from 3 to 5 May at the Changi Exhibition Centre. It is based on the C-Dome set-up that was declared operational in 2017 and is now found on several Israeli Navy vessels such as the Sa'ar 6-class corvettes. The C-Dome is a naval air-defence system that is derived from Rafael's land-based Iron Dome, which is designed to intercept rockets, artillery shells, and mortars. The C-Dome employs the Tamir interceptor missile, which is launched via the host ship's vertical launching system (VLS). The variant of the system that was unveiled at the IMDEX 2023 utilises the same interceptor. However, instead of utilising a host vessel's VLS, the interceptors are launched from a containerised module that can be deployed on a suitable open space such as the flight deck, said a Rafael representative who spoke to Janes at the exhibition.

This allows the system to be deployed quickly and on short notice, without the need for any hull-penetrating works to be done. It provides navies with greater flexibility when it comes to the deployment of vessels for area-wide air-defence missions, and the vessel that plays this role can be switched rapidly according to availability, the representative said.

<https://www.janes.com/defence-news/news-detail/imdex-2023-rafael-introduces-modular-variant-of-c-dome-air-defence-system>



*Sat, 06 May 2023*

## **Ukraine 'Shoots Down' Hypersonic Russian Missile with US Air Defence System**

Ukrainian air defences shot down a Russian hypersonic missile for the first time during an attack on the capital Kyiv this week, the Air Force said on Saturday, in a potentially major setback for the Kremlin's campaign of long-range air strikes. The Kinzhal, which means "dagger" in Russian, is one of six "next generation" weapons unveiled by President Vladimir Putin in 2018 when the Russian leader boasted that it cannot be shot down by any of the world's air defence systems.

Ukrainian Air Force Commander Mykola Oleshchuk said the Kh-47 Kinzhal had been shot down on Thursday night over the region outside Kyiv. The Air Force said it had been taken down by a U.S. Patriot air defence system. "I congratulate the Ukrainian people on the historic event. Yes, we shot down the 'unparalleled' Kinzhal," he said on the Telegram app.

The U.S. Patriot system is one of an array of sophisticated air defence units supplied by the West to help Ukraine repel a months-long Russian campaign of air strikes that has targeted critical infrastructure, power facilities and other sites. Hundreds of civilians have been killed in the attacks that Russia stepped up in October ahead of winter. The strikes failed to cripple the power grid but caused sweeping power cuts and other outages. Russia denies targeting civilians.

Russia, which did not immediately comment on Ukraine's statement about the Kinzhal, has in the past boasted that the missile has no equivalent in the West.

The air-launched ballistic missile, which can reach speeds of up to Mach 10 (12,350 kilometres per hour), is capable of carrying nuclear or conventional warheads. It has a reported range of 1,500 to 2,000 km. Ukraine said the missile was fired during a drone attack on Kyiv and other cities in the early hours of Thursday. The Air Force had not previously disclosed that a Kinzhal was used for the attack, although Kyiv officials said immediately that a ballistic missile had been involved.

The Thursday air strike came less than a day after Russia accused Ukraine of a failed attempt to assassinate President Vladimir Putin in a drone attack on the Kremlin citadel in Moscow and threatened to retaliate. Moscow has since accused Washington of involvement in allegations denied by both Ukraine and the United States. Russia has already intensified drone and missile attacks on Ukrainian regions over the past week as Kyiv prepares to launch a counter-offensive against Russian forces who have dug in across swathes of occupied land in the south and east.

U.S. Patriot missiles were only delivered to Ukraine last month, officials said.

Kinzhal missiles have been used on several occasions in Ukraine. The first known use of the weapon in combat was when Russia said it had fired the missile at a munitions dump in southwestern Ukraine on March 19, 2022.

Ukraine's Air Force was previously seen as unable to shoot down ballistic missiles, which Russia used to strike residential areas and Ukraine's power infrastructure.

The Air Force on Saturday said it shot down eight Shahed drones launched by Russia on the eastern and south-east Ukrainian regions in an overnight attack.

<https://www.hindustantimes.com/world-news/attack-on-kyiv-ukraine-shoots-down-hypersonic-russian-missile-with-us-air-defence-system-101683369875885.html>



*Mon, 08 May 2023*

## **US Navy Test Fires New Extended-Range Anti-Radiation Missile; can be Integrated with F-35s, EA-18s & Super Hornets**

“Northrop Grumman announced the fifth consecutive successful flight test of the US Navy’s AGM-88G Advanced Anti-Radiation Guided Missile Extended Range (AARGM-ER),” the release said.

The missile successfully detected, identified, located, and engaged an advanced, land-based emitter target, Northrop Grumman said.

The test marked the first firing overland of the missile against operationally-representative modern air defense system targets, the company said.

“ARGM-ER deliveries will begin later this year to support initial operational capability for the Navy in 2024,” the release said.

The missile is being integrated on the Navy F/A-18E/F Super Hornet and EA-18G Growler as well as the Air Force F-35A, Marine Corps F-35B, and Navy/Marine Corps F-35C, Northrop Grumman said.

Meanwhile, the Canadian Defense Minister said on Monday that Canada has trained over 36,000 Ukrainian troops and will continue to do so,

“The Canadian Armed Forces have trained over 36,000 Ukrainian personnel through Operation UNIFIER, and we will keep going together with partners like Poland,” Anand said during a joint press conference with her Polish counterpart, Mariusz Blaszczak, in Ottawa.

Since the beginning of Russia’s special military operation in Ukraine, the Royal Canadian Air Force, in cooperation with Poland, has transported over 8 million Pounds of military assistance, Anand added, noting that aid deliveries will continue.

Anand thanked Blaszczak for Poland’s “leadership” in supporting Ukraine and its contributions to NATO.

Canada is a leading supporter of Ukraine, having provided over C\$5 billion (\$3.7 billion) in military, financial, and humanitarian assistance to the country since the onset of Russia’s military operation.

<https://eurasianimes.com/extended-range-anti-radiation-missile-that-can-be-integrated/>

## Science & Technology News



*Sun, 07 May 2023*

### **ISRO's Missions to Moon, Sun Likely to Take Place in July**

The Indian Space Research Organisation (ISRO) is planning to launch the third edition of India’s moon mission and the first sun mission in July, an official said on Saturday.

The space agency is aiming to launch Chandrayaan-3 in July, followed by Aditya-L1, an Isro official aware of the project development said. “We are completing all tests and hoping we will be able to stick to schedule,” the official said, seeking anonymity. Chandrayaan, India’s lunar exploration programme, is an ongoing series of outer space missions by Isro. The first moon rocket, Chandrayaan-1, was launched in 2008 and was successfully inserted into lunar orbit.

Chandrayaan-2 was successfully launched and inserted into lunar orbit in 2019, but its lander crash-landed on the moon when it deviated from its trajectory while attempting to land on September 6, 2019, due to a software glitch.

Chandrayaan-3 consists of an indigenous lander module, a propulsion module and a rover. Its objectives include developing and demonstrating new technologies required for interplanetary missions. The lander will have the capability to soft land at a specified site and deploy the rover, which will carry out a chemical analysis of the lunar surface during its mobility.

Aditya-L1 is India's first scientific mission to study the sun. Earlier, this mission was conceived as Aditya-1 with a 400kg class satellite carrying one payload, the VELC, and was planned to be launched in an 800km low earth orbit.

However, since a satellite placed in the halo orbit around the First Lagrangian Point (L1) of the sun-earth system has the major advantage of continuously viewing the sun without any occultation or eclipses, the Aditya-1 mission was renamed as Aditya-L1 mission, which will be inserted in an orbit around the L1 point, 1.5 million km from the earth towards the sun.

<https://www.hindustantimes.com/india-news/isro-to-launch-chandrayaan-3-and-aditya-l1-india-s-moon-and-sun-missions-in-july-official-confirms-development-101683397788585.html>

