दिसंबर Dec 2023

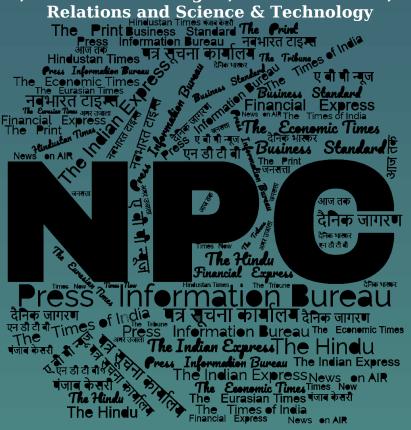
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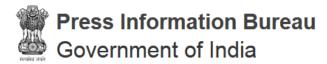
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Defence News

Defence Strategic: National/International



Ministry of Defence

Fri, 22 Dec 2023

Indian Ocean Naval Symposium (IONS) – 2023

Culmination of IONS COC (19 - 22 DEC 23), Bangkok, Thailand

India took over as the co-Chair of IONS Working Groups on Maritime Security and HADR Republic of Korea Navy welcomed as the latest 'Observer'

The 8th edition of Indian Ocean Naval Symposium (IONS) Conclave of Chiefs (CoC) was conducted by Royal Thai Navy at Bangkok, Thailand from 19 - 22 Dec 23. Chiefs of Navies/ Senior Delegates from 27 Members/ Observer countries participated in the event. Admiral R Hari Kumar, Chief of the Naval Staff, attended the event with a three member Indian Naval delegation.

(https://www.pib.gov.in/PressReleasePage.aspx?PRID=1988673)

During the Conclave of Chiefs, Thailand assumed the duties of Chair of IONS and Work Plan for next two years was finalised. As a first, Flag designed by India was selected as the IONS Flag. India also took over as the co-Chair of IONS Working Groups on Maritime Security and HADR for the forthcoming cycle. Republic of Korea Navy was welcomed by the Conclave as the latest 'Observer', raising the collective strength of IONS to 34 (25 Members & 09 Observers).

During the Conclave, CNS, IN held fruitful interaction with the host, Adm Adoong Pan-Iam, Commander-in-Chief, Royal Thai Navy and complimented him for taking over Chairmanship of IONS. Both Leaders expressed commitment towards sustaining an upward trajectory of Bilateral Defence engagements including naming of IN - RTN Bilateral based on historical and cultural connect. Further, he also interacted with Heads of Delegation from Australia, Bangladesh, France, Iran, Italy, Malaysia, Maldives, Russia, Saudi Arabia and Spain, and discussed bilateral maritime issues. On the side-lines of Conclave, the CNS also visited Indian Naval Ship Kadmatt, at Bangkok, and interacted with the ship's crew, commending them for successful long range deployment.

IONS was conceived by the Indian Navy in 2008 as a forum which seeks to enhance maritime cooperation among Navies of the littoral states of the Indian Ocean Region by providing an open and inclusive platform for discussions on regionally relevant maritime issues that would lead to common understanding on the way ahead. The inaugural edition of IONS was held in Feb 2008 at New Delhi, with Indian Navy as the Chair for two years (2008 - 2010). India is also scheduled to take over as the Chair of IONS (2025-27) during 9th CoC planned to be conducted in India in end 2025.

https://pib.gov.in/PressReleasePage.aspx?PRID=1989652



Ministry of Defence

Fri, 22 Dec 2023

Subroto Mukherjee Seminar Conducted by CAPS on "India & the Global South: Challenges and Opportunities

The Centre for Air Power Studies conducted the 20th Subroto Mukerjee Seminar at the Manekshaw Centre in New Delhi today. The theme of the seminar was "India & the Global South: Challenges and Opportunities." Air Chief Marshal VR Chaudhari PVSM AVSM VM ADC, Chief of the Air Staff (CAS), graced the event and delivered the inaugural address.

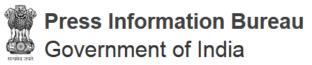
During his talk, the CAS emphasised India's proactive role in raising the concerns of the countries of Global South. He spoke on the relevance of air power and the need for IAF to act as a catalyst for progress, fostering strategic partnerships and contributing to the collective advancement of the Global South.

IAF's increased footprint during regular training engagements with partner nations has resulted in sharing of best practices in operations and maintenance. He also mentioned the role played by Indian Military Advisory Teams and courses offered through Indian Technical and Economic Cooperation program, which had paved the way for increased cooperation by conducting training for more than 200,000 officials in both the civil and defence sector.

The CAS brought out that in the past nine years, IAF had trained more than 5000 foreign trainees from countries of the Global South. He also added that indigenous aerospace platforms such as LCA, LCH, Akash Missile systems and radars offer competitive and reliable options for air forces of the Global South, boosting India's economic and technological clout.

He reiterated IAF's role in international HADR operations, which had further strengthened India's leadership role in the Global South. The event also included the launch of two books. "Indian Air Power: Contemporary and Future Dynamics" authored by Air Marshal (Dr) Diptendu Choudhury (Retd) and "Aeroengine Fundamentals and Landscape in India: A Way Forward" authored by Air Vice Marshal Suresh Singh.

https://pib.gov.in/PressReleasePage.aspx?PRID=1989564



Ministry of Defence

Mon, 25 Dec 2023

Preliminary Assessment of Attack on MV Chem Pluto

MV Chem Pluto, (Liberian Flag Chemical/Oil Tanker), carrying 21 Indian and 01 Vietnamese crew, earlier reported as attacked by suspected drone on 23 Dec 23, reached Mumbai and anchored safely at Outer Anchorage off Mumbai at 1530hr on 25 Dec 23.

On her arrival, the Indian Navy Explosive Ordnance Disposal team inspected the vessel to make a preliminary assessment of the type and nature of attack.

Analysis of the area of attack and debris found on the ship points towards a drone attack. However, further forensic and technical analysis will be required to establish the vector of attack, including type and amount of explosive used.

A Joint Investigation by various agencies has commenced on completion of the analysis by the Navy's Explosive Ordnance Team.

MV Chem Pluto has been cleared for further operation by her company-in-charge at Mumbai.

The ship is scheduled to undergo mandatory checks by the various inspecting authorities before undertaking Ship to Ship (STS) transfer of cargo.

This is likely to be followed by docking and repairs of the damaged portion of MV Chem Pluto.

Considering the recent spate of attacks in the Arabian Sea, Indian Navy has deployed Guided Missile Destroyers, INS Mormugao, INS Kochi and INS Kolkata (Guided Missile Destroyers) in various areas to maintain a deterrent presence.

Long-range maritime reconnaissance P8I aircraft are being regularly tasked to maintain domain awareness.

Western Naval Command's Maritime Operations Centre is actively monitoring the situation in close coordination with Coast Guard and all concerned agencies.

https://pib.gov.in/PressReleasePage.aspx?PRID=1990363



Tue, 26 Dec 2023

'Will Find Merchant Ship Attackers even from the Depth of Seas': Defence Minister

Defence Minister Rajnath Singh vowed to find and take action against those who attacked the merchant vessel MV Chem Pluto in the Arabian Sea when it was on its way to New Mangalore port.

Rajnath Singh said that he would find those who attacked the merchant ship "even from the depth of seas".

Defence Minister Rajnath Singh said that the Indian Navy has increased surveillance in the sea.

"The government has taken the attacks at sea very seriously and has increased surveillance. We will find those who carried out this attack even from under the sea and take strict action against them," the defence minister said.

The minister added that some nations are miffed with the development of India.

MV Chem Pluto, a cargo vessel carrying crude oil from Saudi Arabia, was targeted in a drone attack allegedly by Houthi militants by a drone off India's west coast in the Arabian Sea when it was on its way to New Mangalore port.

The chemical tanker, under Liberian flag, owned by Japan, and operated by the Netherlands, was struck by the drone on December 23, about 200 nautical miles off the Indian coast. It was carrying crude oil from Al Jubail port in Saudi Arabia to New Mangalore port.

According to the Indian Navy, 20 Indian and Vietnamese crew were onboard the merchant ship. No one was injured in the attack.

The cargo ship reached Mumbai port on Monday under the protection of the Indian Coast Guard ship ICGS Vikram.

https://www.indiatoday.in/india/story/defence-minister-rajnath-singh-on-attack-on-merchant-shop-in-arabian-sea-will-find-attackers-even-from-depth-of-seas-2480649-2023-12-26

Business Standard

Tue, 26 Dec 2023

Navy to Commission Stealth-guided Missile Destroyer 'Imphal' Today

The Indian Navy is all set to commission its latest stealth-guided missile destroyer Imphal, at the Naval Dockyard, Mumbai, on December 26, in the presence of Defence Minister Rajnath Singh as the Chief Guest.

In a post on X, Raksha Mantri's Office said, "The Indian Navy is all set to commission its latest Stealth Guided Missile Destroyer 'Imphal' at the Naval Dockyard in Mumbai. Tomorrow, December 26th, RM Rajnath Singh will grace the ceremony.

"The event marks the formal induction into the Navy of the third of four 'Visakhapatnam' class destroyers, indigenously designed by the Indian Navy's in-house organisation, Warship Design Bureau and constructed by Mazagon Dock Limited, Mumbai. Notably, Imphal is the first warship to have been named after a city from the North East, the approval for which was accorded by the President on April 16, 2019, thus underlining the importance of the region for national security, sovereignty and prosperity," as per a press release from the Ministry of Defence.

Imphal was delivered to the Indian Navy on October 20 after completing a rigorous and comprehensive trial programme both in the harbour and at sea."Subsequently, the ship successfully test-fired the extended-range supersonic BrahMos missile in November 2023, a first for any indigenous warship before commissioning, thus demonstrating the Navy's thrust on combat effectiveness and confidence in its cutting-edge indigenous weapons and platforms.

Following this milestone achievement, the ship's crest was unveiled by the Hon'ble Raksha Mantri at New Delhi on November 28, in the presence of the Hon'ble Chief Minister of Manipur and other senior dignitaries. Upon commissioning, INS Imphal will join the Western Naval Command," as per the release.

A significant addition to the naval fleet, Imphal is a state-of-the-art warship, designed by the Indian Navy's Warship Design Bureau and built by M/s MDL, with significant contributions from the public and private sectors, including MSMEs, and the Defence Research and Development Organisation (DRDO).

Project 15B (Visakhapatnam class) is the latest in the lineage of Project 15A (Kolkata class) and Project 15 (Delhi class) indigenous destroyers, with upgraded capabilities and greater indigenous content. Measuring 163 metres in length, displacing 7,400 tons and having 75 per cent indigenous content, Imphal can rightfully be regarded as one of the most potent warships to have been constructed in India.

A testament to India's growing shipbuilding prowess in pursuit of the national vision of 'AatmaNirbhar Bharat'. Imphal is also a true harbinger of a developed India, in tune with the national vision for 'Amrit Kaal'."A formidable moving fortress at sea, Imphal is capable of achieving speeds in excess of 30 knots and is packed with sophisticated 'state of the art' weapons and sensors such as Surface to Surface Missile and Surface to Air Missiles.

The ship is fitted with a modern Surveillance Radar which provides target data to the gunnery weapon systems of the ship. The ship's Anti-Submarine Warfare capabilities are provided by the indigenously developed Rocket Launchers, Torpedo Launchers and ASW helicopters. The ship is equipped to fight under Nuclear, Biological and Chemical (NBC) warfare conditions and has a high degree of automation and stealth features further enhancing her combat capability and survivability," the release stated.

Some of the major indigenous equipment/system onboard Imphal include Indigenous Medium Range Surface to Air Missiles, Surface to Surface Missiles, Torpedo Tubes, Anti-Submarine Rocket Launchers, Super Rapid Gun Mount, besides Combat Management System, Integrated Platform Management System, Automated Power Management System, Foldable Hangar Doors, Helo Traversing system, Close-in Weapon System and Bow mounted SONAR.Major OEMs, as well as MSMEs such as BEL, L & T, Godrej, Marine Electrical, BrahMos, Technico, Kineco, Jeet & Jeet, Sushma Marine, Techno Process, etc., have all contributed to the making of the mighty Imphal."

The time taken to build Imphal and for her trials is the shortest for any indigenous destroyer. Imphal's keel was laid on May 19, 2017, and the ship was launched into water on April 20, 2019. Imphal sailed out for her maiden sea trials on April 28, and has completed a comprehensive schedule of trials, both in the harbour and at sea, leading up to its delivery on October 20, within a record time frame of six months--the fastest for a ship of its size," as per the release.

Imphal will have the unique distinction of being the largest and most advanced destroyer to ever be named after a city from the northeast.

This is a befitting tribute to Manipur's sacrifices and contributions in India's freedom struggle, be it the Anglo-Manipur War of 1891; or Netaji Subash Chandra Bose's hoisting of the INA flag for the first time on April 14, 1944, at Moirang; or the pitched Battle of Imphal between British and Imperial Japanese forces, with Indians on both sides, that turned the tide of the Burma campaign and shaped the outcome of the Second World War and the new world order. The commissioning of Imphal underscores the salience and contribution of the city of Imphal, the state of Manipur and the larger North-eastern region to national security, sovereignty and prosperity.

https://www.business-standard.com/india-news/navy-to-commission-stealth-guided-missile-destroyer-imphal-today-123122600021_1.html



Fri, 22 Dec 2023

IAF Chief Seeks Greater Defence Engagements with Global South

One of India's senior most military leaders on Friday suggested greater defence engagements with countries in the Global South for ensuring "regional stability" besides opening up potential markets for home-grown military products.

"Platforms like Light Combat Aircraft, Light Combat Helicopter and Akash missiles offer competitive and reliable options for air forces of the Global South, boosting India's economic and technological clout," Air Chief Marshal V R Chaudhari said here.

Delivering a lecture at the Centre for Air Power Studies, the Indian Air Force chief said engagements with such countries would be "crucial for tackling shared security challenges and ensuring regional stability."

New Delhi has been projecting itself as a leading force in the Global South, raising issues concerning the poor and developing nations at multilateral fora like G20.

"We are witnessing resilience and sustained economic growth by countries of the Global South. By 2030, it is projected that the top 10 largest economies will be from this group, India being one amongst them. While there are challenges, the future also promises many opportunities," he said.

Describing air power as a symbol of national strength, Air Chief Marshal Chaudhari said, "Our air power engagements with the countries of the Global South have allowed us to exchange best practices, improve interoperability and build trust. These engagements are crucial for tackling shared security challenges and ensuring regional stability."

The IAF has a long tradition of training Air Force cadets from countries belonging to the Global South and more than 5,000 cadets from such countries were trained in the last nine years. The IAF now plans to create short term courses tailored to their requirements.

Flagging the potential of indigenous defence industries, ACM Chaudhari said platforms like LCA, LCH and Akash would offer competitive and reliable options for air forces of the Global South, boosting India's economic and technological clout. Further, establishing joint ventures with these nations can be mutually beneficial.

"This could involve co-development of components, sharing production facilities and creating regional maintenance and support hubs. Capability development in the areas of global supply chains, creating manufacturing hubs and setting up MROs are some areas that we need to concentrate on," he said.

The IAF has undertaken humanitarian assistance and disaster relief in several Global South nations like Sudan, Syria and Nepal. "Providing logistics support for environmental conservation and resource management programmes can elevate our cooperation and leadership role to the next level," ACM Chaudhari said.

https://www.deccanherald.com/india/iaf-chief-seeks-greater-defence-engagements-with-global-south-2822665



Mon, 25 Dec 2023

Army Chief Visits Poonch, Exhorts Commanders to Conduct Ops in 'Most Professional Manner'

Amid an ongoing operation to track down terrorists behind the ambush that left four soldiers dead in Poonch last week, Army Chief General Manoj Pande visited the ground zero on Monday and exhorted the commanders to conduct the operations in the "most professional manner".

The Chief of Army Staff (CoAS) also asked them to remain resolute and steadfast against all challenges. Three civilians picked up by the Army for questioning after the terrorist ambushed two Army vehicles on Thursday at Dhatyar Morh between Dhera Ki Gali and Buffliaz in Poonch were found dead on December 23.

"General Manoj Pande #COAS visited #Poonch sector and was given an update on the prevalent security situation. #COAS interacted with commanders on ground, exhorted them to conduct the operations in the most professional manner and remain resolute & steadfast against all challenges," the Additional Directorate General of Public Information (ADGPI) of the Indian Army posted on X.

General Manoj Pande #COAS visited #Poonch sector and was given an update on the prevalent security situation. #COAS interacted with commanders on ground, exhorted them to conduct the operations in the most professional manner and remain resolute & steadfast against all... pic.twitter.com/Ek0zjYy0J2

— ADG PI – INDIAN ARMY (@adgpi) December 25, 2023

Earlier, a defence spokesman in Jammu said the army chief reached Jammu in the afternoon and immediately left for Rajouri-Poonch sector to review the operational preparedness and the prevailing security situation.

The officials said General Pande visited Dhera Ki Gali and reviewed the anti-terrorist operation going on in Surankote and nearby Rajouri district's Thanamandi forest belt for the last five days to neutralise the terrorists behind the dastardly attack that left four soldiers dead.

The Army chief later flew to the 25 Infantry division headquarters in Rajouri and was briefed by the commanders on the ground about the overall security situation, they said.

Mobile Internet services remained suspended in both Poonch and Rajouri districts for the third day on Monday as a precautionary measure to check rumour-mongering and prevent miscreants from creating any law and order problem, the officials said.

The services were suspended early Saturday following the killing of the three civilians. General Officer Commanding-in-chief, Northern Command, Lt Gen Upendra Dwivedi, General Officer Commanding of Jammu-based White Knight Corps, Lt Gen Sandeep Jain, and senior civil and police officers are camping in the twin districts of Rajouri and Poonch to supervise the anti-terrorist operation and maintain law and order.

The Jammu and Kashmir administration on Saturday announced compensation and jobs to the families of the dead civilians and said the medico legal formalities were conducted and legal action in this matter has been initiated by the appropriate authority.

The Army has ordered a thorough internal investigation into the deaths of the three civilians and said it is committed to extending full support and cooperation in the conduct of the investigation.

In a post on X on December 23, the Additional Directorate General of Public Information (ADGPI) of the Indian Army said, "Search operations by the security forces are continuing in the area of operations after the incident of 21 Dec 23. Reports have been received regarding three civilian deaths in the area. The matter is under investigation. Indian Army stands committed to extending full support and cooperation in the conduct of investigations."

https://www.financialexpress.com/business/defence-army-chief-visits-poonch-exhorts-commanders-to-conduct-ops-in-most-professional-manner-3347074/

THE TIMES OF INDIA

Sat, 23 Dec 2023

IAF Chief Inspects 125 Kg Air Bomb Made by Solar

Nagpur-based explosives manufacturer Solar Group has developed an indigenous and universal 125kg air bomb as it eyes the Indian Air Force's (IAF) requirement of 2,000 units of such an ammunition in the coming years. The Chief of Air Staff, Air Chief Marshal VR Chaudhari, visited the Economic Explosives Limited (EEL) - Solar Group's wholly owned subsidiary exclusively dealing defence business - on Friday. Air Chief Marshal Chaudhari was taken around the units which make the Pinaka rockets for the Indian Army and also the air bombs. Company's chairman Satyanarayan Nuwal and other senior officials briefed Air Chief Marshal Chaudhari about the other defence apparatus currently under development & answered his queries.

As the name goes, it can be fitted into IAF aircraft of both NATO and Russian make. Generally, the indigenous supply to the forces are aircraft-specific bombs, said sources. The bombs made by the company are expected to go through user trials in early next year. The final induction would depend on the result of user trials, said sources.

The 125kg bomb will undergo user trials likely in three to four months. The bombs would be fitted to the French Mirage 2000 or even a Sukhoi-30 for adaptation and pit drop trials. Under pit drop trials, the bomb would be dropped from a grounded plane while in the user trials it would actually be dropped from a flying plane. The Solar Group would later bid for IAF's expected requirement of 2,000 bombs.

Apart from being claimed to be the first ever air bomb made by the private sector but has another first in its self-design. In general, the Defence Research and Development Organisation (DRDO) has been the design agency for armaments which are later manufactured by private and public sector industries.

The Solar Group has developed 100% indigenous chaffs - a decoy system that diverts a missile targeted at a ship using microwave reflection - in three variants with hand holding by DRDO. The facility at Nagpur has a capacity to make 10kg chaffs per day and the daily production would soon reach 120kg. The company has already started supplying chaff warheads to the Navy. The firm says indigenization of the system can lead to a saving of about Rs 1,000 crore in foreign currency.

Last week, a blast in the company's commercial unit killed nine workers. However, this has not impacted the defence unit which is located separately. The defence spokesperson at Nagpur clarified that the IAF chief's visit was not linked with the accident and was scheduled earlier.

 $\frac{https://timesofindia.indiatimes.com/city/nagpur/iaf-chief-inspects-125kgair-bomb-made-by-solar/articleshow/106223907.cms$



Fri, 22 Dec 2023

French Price Bids for Indian Navy: 26 Rafale -M and 3 Scorpene Subs

Ahead of the expected visit of the French President Emannuel Macron as Chief Guest for Republic Day, India has received price bids from France for the 26 Rafale – Marine carrier-based fighter jets

for the Indian Navy. Also, the French side have sent price bids for three additional `Scorpene' class submarines for the Indian Navy.

The acquisition of the Rafale (M) fighters for the Indian Navy is being processed through the Intergovernmental Agreement (IGA) just as the fighters for the Indian Air Force were procured. And as reported previously by Financial Express Online, during the visit of Prime Minister Narendra Modi to France earlier this year, a follow -on order for three `Scorpene' class submarines were mentioned in the joint statement. The French Naval Group and Mumbai based Mazagon Dockyard Shipbuilders Limited (MDL) who have already built `Scorpene' class submarines under Project 75 for the Indian Navy, will work on the follow-on of three more submarines of the similar class.

Reports in the public domain indicate that the Ministry of Defence has already set up a committee which is expected to work on the benchmark price for the submarine deal.

Rafale M for the Navy

Earlier this week, France has submitted a Letter of Acceptance in response to India's Request for 26 fighter jets for the two aircraft carriers of the Indian Navy. In the letter the pricing for the 26 fighters as well other details have been shared.

Mumbai based MDL earlier this month has given its commercial offer for the follow-on order for three `Scorpene' class submarines. After the internal benchmarking is complete the commercial bid submitted by MDL will be opened.

Procurement Process for Rafale-M

Following the receipt of the bid, the process of getting 26 fighter jets for the Indian Navy has already started. However, there is no clarity if a costing committee will be set up.

It has been reported previously that after taking into consideration all the relevant aspects, the terms of purchase as well as price will be negotiated between the Indian and French governments. The MoD has said previously that this will also include the "comparative procurement price of similar aircraft by other countries."

Background

Ahead of the PM's visit to Paris, the Defence Acquisition Council, headed by Defence Minister Rajnath Singh, had approved the necessity of acquiring 26 Rafale-M fighters and three additional Scorpene-class submarines from France.

As reported previously, the Rafale deal comprises 22 single-seater Rafale-M fighters and four twin-seater Rafale trainers.

These 26 jets aim to bridge the numerical gap until the indigenous Twin Engine Deck-Based Fighter, still in development, becomes operational. The Navy presently operates two aircraft carriers: the INS Vikramaditya from Russia and the indigenously built INS Vikrant commissioned in September 2022.

As previously reported, both contracts are expected to be concluded by the end of 2024, with submarine deliveries likely commencing in 2031.

Follow-on order of Scorpene Class Subs

Distinguishing features in the new submarines include their integrated combat system (ICS), which will now be indigenous, featuring solutions from Bharat Electronics Limited in collaboration with French suppliers. This ICS constitutes a substantial part of the overall deal value.

The new Scorpene submarines are expected to replace their existing 1,250KW MAN diesel engines with Rolls Royce MTU 4000 series engines, assembled in India through a partnership with Garden Reach Shipbuilders & Engineers Limited, Kolkata.

A Defence Ministry statement mentioned that the additional submarines will have higher indigenous content and will be equipped with an air independent propulsion (AIP) system.

This AIP, which has been developed by the Defence Research and Development Organisation (DRDO), will help to enhance the endurance of the subs.

Indian Navy's six Scorpene Class Subs are operational

Regarding existing submarines, India had procured six Scorpene-class submarines from the Naval Group in a deal signed in October 2005. They were manufactured by MDL through technology transfer. The Navy plans to install DRDO-developed AIP modules during refits of existing Scorpenes, starting with INS Kalvari, likely by the end of next year.

To support this initiative, the Naval Group is currently assisting the DRDO in qualifying indigenous suppliers of liquid oxygen tanks and involving integrating the AIP safely, cutting the submarine, and joining it with the new AIP section.

https://www.financialexpress.com/business/defence-french-price-bids-for-indian-navy-26-rafale-m-and-3-scorpene-subs-3345250/



Fri, 22 Dec 2023

IAF Tapping into Self-reliance for Repair, Overhaul of Russian-origin Aircraft

The ongoing Russia-Ukraine war has hit the repair and overhaul (ROH) of critical equipment in the Indian Air Force's Russian-origin aircraft, including aero-engines and avionics, and self-reliance plans are being pursued to address the situation, the defence ministry said in a comprehensive end-of-year review published on Friday, highlighting the key developments in the sector during 2023.

"The Russia-Ukraine conflict has resulted in the inability to send major aggregates like aeroengines, critical avionics and specialist weapons abroad for ROH. To mitigate the situation, 44 shortlisted projects pertaining to Russian fighters, transport aircraft and helicopters are being progressed through Other Capital Procurement Procedure (OCPP)," the year-end review said.

OCPP deals with enhancing the utility of the military's existing assets through ROH under the Defence Acquisition Procedure (DAP) 2020.

The shortlisted projects are being pursued through OCPP under several categories, including life extension, development and execution of ROH technologies for airframes, electro-mechanical rotables, avionics and electronic warfare systems, repair and refurbishment of Russian engines and avionics, and replacement of avionic aggregates, the ministry said in the review.

IAF operates several Russian/Soviet-origin platforms, including the Sukhoi-30s, MiG-29s, MiG-21s, Il-76 heavy-lifters, AN-32 transport planes and Mi-17 helicopters.

"A comprehensive self-reliance plan to engage the defence industrial corridors in Uttar Pradesh and Tamil Nadu has been chalked out. The industry has been appraised in detail on the indigenisation requirements of IAF," it said.

The developments highlighted in the review include steps taken to boost self-reliance, modernisation of the armed forces, record defence production, rise in exports, key acquisitions and contracts, border infrastructure push and the focus on Nari Shakti in the three services.

Calling 2023 a landmark year "as giant strides were made towards creating a strong, secure, self-reliant India", the ministry said the record defence exports, an all-time high production, and increase in the number of items in the positive indigenisation lists were a "testament to the government's unwavering commitment to make India a global manufacturing hub."

"Efforts to achieve 'Aatmanirbharta' in defence and the modernisation of the armed forces surged ahead with renewed thrust, with the country witnessing record defence exports and all-time high defence production. Strengthening border Infrastructure, utilising Nari Shakti and ensuring exservicemen welfare has been at the core of the functioning of MoD...and these have moved forward with unprecedented pace and vigour."

Pursuing an ambitious agenda for achieving self-reliance in the defence manufacturing sector, the ministry in April slapped an import ban on 98 weapons and systems, including futuristic infantry combat vehicles, shipborne unmanned aerial systems, medium-range precision kill systems, a variety of ammunition, radars, sensors, and equipment for fighter jets, maritime surveillance planes, warships, helicopters and tanks.

The fifth positive indigenisation list, released by Union defence minister Rajnath Singh in April, took the number of defence items placed under an import ban during the last three years to 509.

"All these items will be procured from indigenous sources as per provisions in DAP 2020 in staggered timeline," the review said.

In May, India announced that the value of defence production in the country had crossed Rs.1 lakh crore for the first time on the back of key reforms to spur growth in the sector. The value of defence production by state-run companies and the private sector has almost doubled over the past five years which saw the government take a raft of measures to cut the country's dependence on military imports and strengthen its position as an exporter of weapons and systems.

The government is continuously working with defence industries and their associations to remove the challenges faced by them and promote defence production in the country, the review noted.

"A number of policy reforms have been taken to achieve the objective of ease of doing business, including the integration of MSMEs and start-ups into the supply chain. Due to these policies, industries, including MSMEs and start-ups, are forthcoming in defence design, development and manufacturing, and there is almost a 200% increase in the number of defence licenses issued to the industries in the last seven to eight years," it said.

India produces a raft of weapons and systems, including the light combat aircraft (LCA) Tejas, different types of helicopters, warships, tanks, artillery guns, warships, missiles, rockets and a variety of military vehicles. India is eyeing a turnover of ₹1.75 lakh crore in defence manufacturing by 2024-25.

India has sharpened its focus on the defence manufacturing sector during the last five to six years and has taken several measures to achieve self-reliance. These include banning the import of a range of weapons, systems and parts, creating a separate budget for buying locally made military hardware, increasing foreign direct investment from 49% to 74% and improving ease of doing business.

On defence exports, the review said that defence exports reached an all-time high of almost Rs.16,000 crore in FY 2022-23 "through consistent policy initiatives and tremendous contribution" of the defence industry. This is a notable tenfold increase since 2016-17 when the figure stood at a mere Rs.1,521 crore.

India is currently exporting military hardware to around 85 countries. The country's defence exports cover missile systems, artillery guns, rockets, armoured vehicles, mine-protected vehicles, radars, surveillance systems, ammunition, and body armour. The review pointed out that there is a growing global demand for LCA Tejas, light combat helicopters, aircraft carriers, and maintenance, repair, and overhaul of weapons and platforms.

India is in talks with Egypt and Argentina for the possible sale of LCA to their air forces.

Setting aside a budget for India-made weapons and systems is one of the key measures to boost self-reliance. Around Rs.1 lakh crore was earmarked for domestic procurement in this year's defence budget, compared to Rs.84,598 crore, Rs.70,221 crore and Rs.51,000 crore in the three previous years.

The review also touched upon the ongoing border row with China in eastern Ladakh.

"As part of diplomatic and military efforts concerning the ongoing standoff along the Line of Actual Control, 20 rounds of corps commander-level meetings and 14 related Working Mechanism for Consultation and Coordination (WMCC) meetings have been held. Both sides have agreed to maintain the momentum of dialogue and negotiations through the relevant military and diplomatic mechanisms. Indian Army has exercised the established border mechanisms to maintain peace and tranquillity along LAC in all sectors."

On force restructuring, the review added that efforts towards jointness and integration, preceding theaterisation, were being made with renewed impetus.

In August, the Parliament passed a bill to empower the government to notify the setting up of interservices organisations, including joint services commands, and bestow powers on heads of such organisations to act against personnel from any of the three services to ensure discipline and effective discharge of duties.

The Inter-Services Organisations (Command, Control and Discipline) Bill, 2023, was passed by both houses amid a renewed push for theaterisation, a long-awaited military reform for the best use of the military's resources to fight future wars.

https://www.hindustantimes.com/india-news/iaf-tapping-into-self-reliance-for-repair-overhaul-of-russian-origin-aircraft-101703250126997.html



Sat, 23 Dec 2023

Japan's Defence Spending to Increase more than 16 % Next Year under Record Military Budget

Japan's defence spending will increase more than 16 percent next year under a record military budget. The budget adopted by the Cabinet on 22nd Dec 2023, Friday also will further fortify the military with F-35 stealth combat jets and other American weapons as Japanese troops increasingly work with allies and take on more offensive roles. The 56 billion dollar defence budget for the 2024 fiscal year that begins in March marks the second year of a five-year military build-up

programme. This is a new security strategy under Prime Minister Fumio Kishida's government adopted a year ago.

The defence budget is part of a 794 billion dollar national budget plan that needs approval by the parliament. In another step underscoring a shift away from the country's self-defense-only principle, Japan partially lifted its ban on lethal weapons exports on 22nd Dec 2023, Friday by allowing shipments of weapons and components made in Japan under foreign licenses to the licensing nations. The move is the first major revision of the arms export ban since it was initially eased in 2014. Japan quickly approved the first shipment authorized by the step, agreeing to send to the United States surface-to-air Patriot guided missiles produced in Japan under a U.S. license. U.S. Ambassador to Japan Rahm Emanuel said in a statement that the scope, scale, and speed of Japan's security reforms have been unprecedented.

https://newsonair.gov.in/News?title=Japan%E2%80%99s-defence-spending-to-increase-more-than-16-%25-next-year-under-record-military-budget&id=473836

Science & Technology News



Ministry of Science & Technology

Mon, 25 Dec 2023

Milli-second Burst Detected by AstroSat in New High Magnetic Field Neutron star can Help Understand such Stellar Entities

AstroSat, India's first multi-wavelength space-based observatory, has detected bright sub-second X-ray bursts from a new and unique neutron star with ultrahigh magnetic field (magnetar), which can help understand the intriguing extreme astrophysical conditions of magnetars.

Magnetars are neutron stars having an ultrahigh magnetic field that are much stronger than the terrestrial magnetic field. Simply put, the magnetic field of a magnetar is over one quadrillion time stronger than the magnetic field of Earth. What powers the emission of high-energy electromagnetic radiation in them is the decay of magnetic fields in these objects. Besides, magnetars display strong temporal variability, typically including a slow rotation, a rapid spindown, bright but short bursts going on upto months-long outbursts.

One such magnetar was called SGR J1830-0645, was discovered in October 2020 by NASA's Swift spacecraft. It is relatively young (about 24,000 years) and isolated neutron star.

Motivated to study the magnetar and explore its characteristics in broad-band X-ray energies with AstroSat, scientists from the Raman Research Institute (RRI) and University of Delhi performed the timing and spectral analysis of this magnetar using two instruments onboard AstroSat --- the Large Area X-Ray Proportional Counter (LAXPC) and Soft X-Ray telescope (SXT).

"One of the key findings was the detection of 67 short sub-second X-ray bursts, with an average duration of 33 milliseconds. Of these bursts, the brightest one lasted for about 90 milliseconds", said Dr. Rahul Sharma, the paper's lead author and a post-doctoral fellow at RRI, an autonomous institute funded by the Department of Science and Technology.

The study, published in the Monthly Notices of the Royal Astronomical Society, concluded that SGR J1830–0645 is a unique magnetar that showcased emission line in its spectra.

The presence of emission lines and its potential origin -- either due to fluorescence of iron, proton cyclotron line feature or an instrumental effect -- remains a subject of consideration, the study noted.

"The energy-dependence in SGR J1830-0645 was different from what was observed in several other magnetars. Here, there were two thermal blackbody emission components originating from surface of neutron star (radius of 0.65 and 2.45 km). This research, thus, contributes to our understanding of magnetars and their extreme astrophysical conditions," said Dr. Sharma.

"We noticed that the pulsed component of the overall X-ray emission showed significant variation with energy. It increased for energies up to about 5 kiloelectron Volt (keV) and showed a steep drop thereafter. This trend is different from that observed in several other magnetars," said co-author Prof. Chetana Jain from Hansraj College, University of Delhi.

The research team now plans to expand their study to understand the origin of these highly energetic emissions and decipher whether they are astrophysical or instrumental in nature.

Publication link -

https://academic.oup.com/mnras/article/526/4/4877/7325939

AstroSat observation of the magnetar SGR J1830–0645 during its first detected X-ray outburst

Rahul Sharma, Chetana Jain, Biswajit Paul, T R Seshadri

Monthly Notices of the Royal Astronomical Society, Volume 526, Issue 4, December 2023, Pages 4877–4884

https://pib.gov.in/PressReleasePage.aspx?PRID=1990198

THE TIMES OF INDIA

Sat, 23 Dec 2023

Pilerne-based Kineco Kaman Delivers Key Component for ISRO's Human Space Mission

In a major milestone for the Gaganyaan programme, Kineco Kaman supplied the first orbiter module adaptor assembly (OMA) that will be used by the Indian Space Research Organisation (Isro) for India's first human space flight mission. In mid-2022, the Pilerne-based firm bagged the contract to supply three composites-intensive crew OMA to the Vikram Sarabhai Space Centre (VSSC), a division of Isro.

The OMA is a 4m-diameter conical structure made of carbon fibre-reinforced plastic that is integrated with the crew escape module and equipment bay shroud.

Chief minister Pramod Sawant lauded the development and the company's contribution to space and lunar exploration. "We are vocal for local and also local for global. This is a proud moment for the state," Sawant said.

ISRO officials, who were present at Kineco Kaman's manufacturing facility said that a major milestone for the Gaganyaan programme has been met. Director-VSSC S Unnikrishnan Nair was virtually present for the event. The completion of the OMA also marks the successful collaboration between Isro-VSSC and Kineco Kaman Composites. Kineco Kaman was picked based on its track record and consistent performance on space programmes like the supply of Dual Helix Antennas for the Indian Regional Navigational Satellite programme (IRNSS) and EBS Assembly for the LVM3-M2/OneWeb India and Chandrayaan-3 missions.

"Our technicians and engineers worked tirelessly with the VSSC scientists to meet the stringent quality parameters and demanding delivery timelines. We are thankful to the VSSC team for their continued support and partnership. We will continue to partner with Isro-VSSC to make India self-reliant in future space explorations," said Shekhar Sardessai, founder of Kineco Group and chairman and managing director of Kineco Kaman.

Kineco Kaman manufactures advanced composite parts and assemblies for aerospace and defence customers, including global firms in the US, Europe and Israel. Kineco Kaman has supplied components to BAE Systems and is also a major supplier of composite parts and assemblies to Hindustan Aeronautics Limited.

The company said that the completion and supply of the OMA signifies a turning point in the nation's technological journey. In 2022, Kineco Kaman became India's first private company to successfully supply another critical component, the equipment bay shroud assembly for the GSLV Mk-III.

https://timesofindia.indiatimes.com/city/goa/pilerne-based-kineco-kaman-delivers-key-component-for-isros-human-space-mission/articleshow/106220954.cms

