

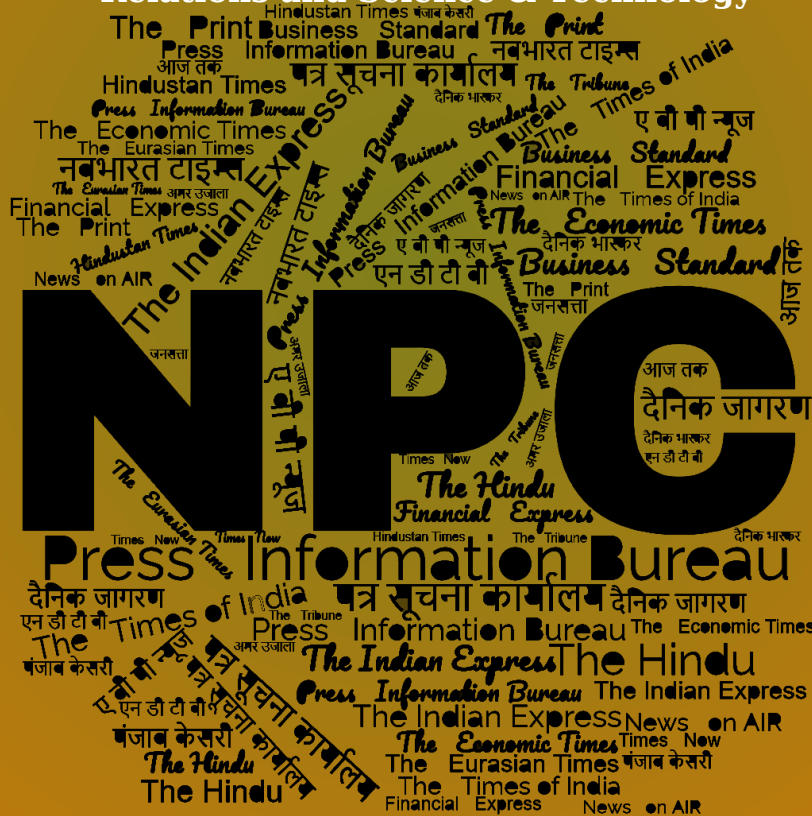
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Fri, 22 Mar 2024

Meet 'Divya Putri' Sheena Rani: Woman behind DRDO's Agni-5 Missile Success – Guess who is her Inspiration

Sheena Rani DRDO: The name "Agni," meaning fire in Sanskrit, has become synonymous with India's growing missile prowess. The recent successful test of the Agni-5 missile, which is equipped with Multiple Independently Targetable Re-entry Vehicle (MIRV) technology, is an important turning point in India's defense capabilities.

And behind the success of the Agni-5 missile stands a remarkable woman - R Sheena Rani, affectionately called 'Divya Putri' (Divine Daughter) for her vital role in developing this state-of-the-art missile system.

Who is Sheena Rani?

Sheena Rani, 57, is a missile expert who oversees the program at the Defence Research Development Organization's (DRDO) Advanced Systems Laboratory (ASL) in Hyderabad. Following the 1999 nuclear testing at Pokhran II, she began her career in missile technology by joining DRDO. Since then, she has contributed significantly to the Agni missile programme, making substantial contributions to all of its iterations, as per Economic Times.

Sheena Rani Life, Education, and Career

Hailing from Thiruvananthapuram, Rani was significantly impacted after her father's passing when she was in Class 10. Her mother, who raised her, became her pillar of support.

"My mother is the real pillar of support in my and my sister's life," said the scientist as quoted by Economic Times. Rani excelled in academics, pursuing engineering at the prestigious College of Engineering Trivandrum (CET). For eight years, she honed her skills at the Vikram Sarabhai Space Centre (VSSC) before a defining moment in 1999. Following India's Pokhran-II nuclear tests, Rani, inspired by the vision of the "Missile Man of India," Dr APJ Abdul Kalam, joined the Defence Research and Development Organisation (DRDO) through lateral entry.

At DRDO's Advanced Systems Laboratory (ASL) in Hyderabad, Rani's expertise in electronics and communications engineering proved invaluable. She became deeply involved in the Agni missile program, particularly focusing on launch control systems. Her dedication and meticulous work ethic earned her the respect of her colleagues. Prime Minister Narendra Modi himself acknowledged the efforts of DRDO scientists, including Rani, when India successfully test-fired the Agni-5 with MIRV (Multiple Independently Re-entry Vehicle) technology, a significant milestone in India's missile development.

Sheena Rani was inspired by Dr APJ Abdul Kalam

Rani finds inspiration in Dr APJ Abdul Kalam, who was also known as the "Missile Man," the former president of India. He had a significant impact on her career choice. She also expresses gratitude to eminent missile scientist Dr Avinash Chander for his guidance and mentoring. Her

husband, P S R S Sastry, who also worked with DRDO on missiles, has supported and encouraged her along her journey, as per ET report.

Sheena Rani and Agni V

Rani's dedication and leadership have played a significant role in the creation of the Agni-5 missile, which is equipped with several nuclear warheads. Her efforts uphold India's borders and raise the nation's stature in the field of foreign defence. The MIRV technology, her greatest accomplishment so far, enables India to deploy multiple warheads on a single missile, significantly enhancing its strategic deterrence capabilities.

<https://www.etnownews.com/success-stories/meet-divya-putri-sheena-rani-woman-behind-drdo-agni-5-missile-success-guess-who-is-her-inspiration-article-108714784>

Defence News

Defence Strategic: National/International



**Press Information Bureau
Government of India**

Ministry of Defence

Sun, 24 Mar 2024

Raksha Mantri Shri Rajnath Singh Celebrates Holi with Soldiers in Leh

**Commends their valour, determination & sacrifice for protecting the nation in harsh terrain
& inclement weather**

**RM urges Armed Forces to establish a new tradition of starting the celebrations of festivals
with the soldiers a day before**

**“Such celebrations with the country’s protectors should become an integral part of our
culture”**

**Change in RM’s scheduled visit to world’s highest battlefield Siachen due to adverse weather
conditions; He extends Holi greetings to soldiers posted there over phone; Tells them that he
will soon visit Siachen & interact with them**

Raksha Mantri Shri Rajnath Singh celebrated the festival of colours Holi with soldiers in Leh on March 24, 2024. He was accompanied by Chief of the Army Staff General Manoj Pande and General Officer Commanding, Fire and Fury Corps Lt Gen Rashim Bali.

Addressing the soldiers, the Raksha Mantri commended their valour, determination and sacrifice as they serve in harsh terrain & inclement weather conditions to protect the motherland. The positive commitment of the soldiers posted in high altitudes is much stronger than minus temperatures, he

said. He termed Ladakh as India's capital of valour & bravery, just as Delhi is the national capital, Mumbai is the financial capital and Bengaluru is the technology capital.

“The entire country feels safe as our brave soldiers are protecting the borders. We are progressing and leading a happy life as our vigilant soldiers stand ready at the borders. Every citizen is proud of the Armed Forces as they live far away from their families so that we celebrate Holi and other festivals with our families peacefully. The nation will forever be indebted to our soldiers, and their courage and sacrifices will keep inspiring the future generations,” Shri Rajnath Singh said.

The Raksha Mantri asserted that he decided to celebrate Holi with the soldiers a day before, as he believes that the festivals should first be celebrated by and with the protectors of the country. He urged the Chiefs of the three Services to establish a new tradition of beginning the celebrations of the festivals with the soldiers a day before. “Such celebrations with soldiers on the snowy peaks of Kargil, in the scorching plains of Rajasthan and in the submarines located in the deep seas should become an integral part of our culture,” he said.

On the occasion, Shri Rajnath Singh also laid a wreath at the War Memorial, Leh as a mark of solemn tribute to the bravehearts who have made the supreme sacrifice in the service of the nation.

Later, the Raksha Mantri spoke with the soldiers posted in the world's highest battlefield Siachen over phone and extended the Holi greetings. He told them that he will soon visit Siachen and interact with them. Shri Rajnath Singh was scheduled to visit Siachen and celebrate Holi with the troops there. However, due to adverse weather conditions, there was a change in the programme and he celebrated the festival of colours with the soldiers in Leh.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2016269>



Press Information Bureau
Government of India

Ministry of Defence

Tue, 26 Mar 2024

As Part of Overseas Deployment to ASEAN Countries, ICG Ship Samudra Paheredar Arrives at Manila Bay, Philippines

Indian Coast Guard ship Samudra Paheredar, a specialized Pollution Control Vessel, arrived at Manila Bay, Philippines on 25 March 2024 on a three-day visit. The visit of specialized Pollution Control Vessels is part of a broader initiative aimed at demonstration of ICG Marine Pollution Response capabilities and shared concern & resolve towards Marine Pollution in the ASEAN region, besides bolstering bilateral cooperation with the Philippine Coast Guard (PCG). The ICG ship is on an overseas deployment to ASEAN countries namely the Philippines, Vietnam, and Brunei from 25 March to 12 April 2024. The deployment is the third in a row by the Indian Coast Guard to ASEAN countries. Earlier in the year 2023, ICG Pollution Control Vessels visited Cambodia, Malaysia, Singapore, Thailand, and Indonesia as part of the initiative.

During this deployment, the ship is scheduled to make port calls in Manila (Philippines), Ho Chi Minh (Vietnam), and Muara (Brunei). The ship is equipped with specialized marine pollution control equipment and a Chetak Helicopter in Pollution Response configuration, designed to contain, and recover spilled oil and augment the operation. The demonstration at visiting ports includes Pollution Response training and a practical display of various equipment.

Additionally, the ship has also embarked 25 National Cadet Corps (NCC) cadets to participate in the Government's initiative "Puneet Sagar Abhiyan," and provide it an international outreach in coordination with partner nations. As part of an overseas exchange program, the NCC cadets, in coordination with ICG ship crew, Partner agencies personnel, Indian Embassy/ Mission staff, and local youth organizations will undertake beach cleanup and similar activities during the port call of the ship.

This visit holds significant importance in strengthening bilateral relationships with key maritime agencies, including the Philippine Coast Guard, Vietnam Coast Guard, and Brunei Maritime agencies. ICG has a Memorandum of Understanding (MOU) towards Enhanced Maritime Cooperation and Maritime Safety and Security with the Coast Guards of the Philippines and Vietnam. These relationships have evolved over the years to ensure the safety, security, and marine environment concerns in the region. The visit's agenda includes professional exchanges, cross-deck visits, joint exercises, as well as official and social engagements including visits to capacity-building facilities.

About ICGS Samudra Paheredar:

ICGS Samudra Paheredar, stationed on the East Coast of India in Vishakhapatnam, Andhra Pradesh, is under the Command of Deputy Inspector General Sudhir Ravindran. Over the years, Samudra Paheredar has successfully undertaken various Coast Guard operations, including Pollution Response, IMBL/EEZ surveillance, counter-transnational crimes, and Maritime Search and Rescue (SAR).

<https://pib.gov.in/PressReleasePage.aspx?PRID=2016346>



Press Information Bureau
Government of India

Ministry of Defence

Sat, 23 Mar 2024

Indian Navy's Ongoing Maritime Security Operations ('OP SANKALP') 14 Dec 23 to 23 Mar 24

Indian Navy has responded to the manifestation of Israel – Hamas conflict in the maritime domain by re-orienting and significantly enhancing the scope of its ongoing maritime security operations since mid-Dec 23. The navy undertook proactive actions during the hijacking of Malta Flagged Bulk Carrier MV Ruen on 14 Dec 23. Today, 23 Mar 2024, marks the completion of 100 days of the ongoing maritime security operations under the aegis of 'Op Sankalp'. During this time, the Indian Navy has responded to 18 incidents and has played a pivotal role as the 'First Responder' and 'Preferred Security Partner' in the Indian Ocean Region. The significance of IN's contributions has been further underscored with the culmination of actions against the hijacking of MV Ruen.

Since the last 100 days, the naval ships, aircraft and Special Forces have demonstrated an unflinching resolve to 'secure the seas' and protect the maritime community from various non-traditional threats present in the region. Based on the threat assessment in the region, the Indian Navy is conducting maritime security operations in three areas of operations viz Gulf of Aden and adjoining areas, Arabian Sea and off the East Coast of Somalia. The arduous efforts of IN since Dec 23 involved deployment of over 5000 personnel at sea, over 450 ship days (with over 21 ships

deployed) and 900 hours of flying by the maritime surveillance aircraft to address threats in the maritime domain.

With the emergence of piracy in 2008, the Indian Ocean Region has witnessed steady increase in the presence of warships from regional and extra regional navies, operating independently or under the ambit of various multi-national constructs. In the present security scenario, the Indian Navy has taken the 'lead' in responding to security situations arising out of a myriad of threats in the region. With over 110 lives saved (including 45 Indian seafarers), 15 lakh tons of critical commodities escorted (such as fertilisers, crude oil and finished products), nearly 1000 boarding operations undertaken, more than 3000 kgs of narcotics seized and over 450 MVs assured of IN's presence, the ongoing maritime security operations have truly reflected Indian Navy's capability in playing a vital role as a strong and a responsible Navy in the IOR.

In the ongoing endeavour since Dec 2023, Information Fusion Centre – Indian Ocean Region (IFC-IOR) of the Indian Navy at Gurugram, has played a transformative role as a principal hub for enabling information exchange in IOR. In addition, coordinated missions with IAF and national agencies during this period has also highlighted the synergy and interoperability of the Services.

The calibrated response, ingenuity and unflinching resolve displayed by the Indian Navy during the progress of ongoing maritime security operations under the aegis of 'Op Sankalp' has garnered international acclaim by virtue of the effects generated in safeguarding India's maritime interests, countering maritime threats, thwarting the resurgence of piracy and significantly denting narcotics trade in the IOR. The response of IN to various security situations has once again proved that 'Safety of Life at Sea' remains an overarching principle irrespective of the nationality of seafarers.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2016201>



Press Information Bureau
Government of India

Ministry of Defence

Sat, 23 Mar 2024

Visit of the Chief of the Naval Staff

To Eastern Naval Command, Visakhapatnam

Adm R Hari Kumar, Chief of the Naval Staff, and Mrs. Kala Hari Kumar, President of the Naval Welfare and Wellness Association (NWWA) embarked on a significant three-day visit to the Eastern Naval Command, Visakhapatnam on 21 – 23 Mar 24.

Throughout the visit, Adm R Hari Kumar engaged with various activities in the Eastern Naval Command, Visakhapatnam. These engagements included the CNS day at sea, where he reviewed naval operations at sea while interacting with officers and sailors onboard ships and aircraft of the Eastern Naval Command. In addition, as part of his farewell visit, the CNS interacted with naval officers and sailors of the ENC in a candid, free and frank discussions at Samudrika Auditorium through a unique event "Connect with CNS" to understand challenges/ issues at the grassroots level. Prior to that, the CNS also interacted with Defence Civilian personnel at Meghadri Auditorium, Naval Dockyard on 21 Mar 24.

During this visit, the CNS inaugurated the 492-men accommodation block named 'Veeram', constructed for Defence Security Corps (DSC) personnel at Naushakti Nagar, Visakhapatnam, on March 21, 2024.

CNS also awarded on the spot Unit Citation to INS Sumitra for her successful conduct of Anti-Piracy Operations in the Central Arabian Sea, apprehending 11 Somali Pirates and rescuing 17 Iranian and 19 Pakistani nationals from hijacked Fishing Vessels Iman and Al Naeemi. The operations were swiftly undertaken by the ship using its integral fire power, indigenous ALH helicopter and Indian Navy's special Ops team.

As part of the visit, the CNS presided over the Annual General Meeting (AGM) of NGIF/INBA and the Navy Foundation. These meetings provided valuable opportunities for fruitful discussions and collaborative efforts aimed at enhancing the welfare and motivation of the naval personnel.

The CNS, as President Navy Foundation, also presided over the 31st AGM and GCM for Navy Foundation at Visakhapatnam on 21 Mar 24. The event was coordinated by Naval Headquarters/DESA. Officers from NHQ, HQENC and PCDA attended and interacted with veterans. PCDA (P) Prayagraj addressed concerns on e-PPOs and SPARSH. The pension advisory desk provided consultation and support to all personnel. During the event, the Chief of the Naval Staff re-assured the gathering that all concerns of the veterans' community would be addressed expeditiously. In sidelines to the CNS visit, an event – Samanvay, a formal deliberation between office-bearers/ reps of Navy Foundation (NF) Chapters and Veteran Sailors Forum (VSF) Charters, was held on 22 Mar 24 at Swarnajyoti Conference Hall, Visakhapatnam under the Chairmanship of CPS.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2016174>



Press Information Bureau
Government of India

Ministry of Defence

Fri, 22 Mar 2024

Chief of Air Staff Air Chief Marshal VR Chaudhari Addresses 79th Staff Course at Defence Services Staff College, Wellington

CAS underscores transition of IAF into a contemporary & future ready Aerospace Force

Chief of the Air Staff Air Chief Marshal VR Chaudhari, visited, Defence Services Staff College, Wellington on 22 March 2024. The CAS 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 CAS in his address to the officers covered the challenges confronting the Indian Air Force, its capability development plan & jointmanship. He spelt out the Transition of IAF into a contemporary and future ready Aerospace Force. He reiterated the vision as spelt out in the IAF doctrine, which envisages an agile and adaptive Air Force to provide decisive aerospace power in pursuit of national interests. The dominant role played by IAF during evacuation of Indian diaspora from Conflict Zones and during disaster relief operations was highlighted by the CAS. He also highlighted the significant air power lessons derived from existing conflicts such as Russia - Ukraine War and Israel - Hamas conflict.

The CAS was also briefed on the ongoing training activities and the impetus to jointmanship at DSSC, which was well appreciated.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2016062>

‘Need System for Faster Troop Acclimatisation’

With the country’s mountainous northern borders continuing to be restive, the Indian Air Force (IAF) is seeking a system for accelerated acclimatisation for its personnel being deployed in high-altitude areas.

In the 11th edition of the Innovations for Defence Excellence (IDeX), issued by the Ministry of Defence on March 21, the IAF has asked the industry to develop a system for accelerated/complete acclimatisation, prior to induction into high-altitude areas, using nitrogen enriched atmosphere.

“Given the current security situation at the northern border, this would greatly enhance the capability of the security forces for rapid deployment,” the IDeX document states. “If the technology is successful, it would be a game changer for combat effectiveness of the Indian security forces, providing a definite military edge over the adversary,” the document adds.

At present, induction to high altitude entails multiple stops at various altitudes for acclimatisation, totalling 14 days. “This delays troop induction and may make a significant difference to the response to a security threat. Pre-acclimatisation will improve the response of Indian security forces,” it states.

Two units would be installed, with one at the Adampur Air Force Station in Punjab for operations and the other at No.1 Aeromedical Training Centre in Hindon for research.

<https://www.tribuneindia.com/news/india/need-system-for-faster-troop-acclimatisation-603381>



Indian Navy Hosts Six-day Joint Defence Exercise ‘Tiger Triumph’ in Kakinada

Indian Navy is all set to host the six-day ‘Tiger Triumph’ — a bilateral tri-service Humanitarian Assistance and Disaster Relief (HADR) amphibious exercise — on the Kakinada coast from March 26 (Tuesday).

Around 800 defence personnel from India and the United States will participate in the naval enclave. Kakinada Superintendent of Police (SP) S. Satish Kumar and the defence personnel, on Monday, reviewed the arrangements for the exercise and diversion of the vehicular movements between Kakinada city and Uppada. Mr. Kumar has appealed to the public to cooperate for the smooth conduct of the event.

<https://www.thehindu.com/news/national/andhra-pradesh/indian-navy-hosts-six-day-joint-defence-exercise-tiger-triumph-in-kakinada/article67991227.ece>

Doubts Shroud Delivery of First LCA Mk-1A Jet to IAF

A question mark hangs over the delivery of the first light combat aircraft (LCA) Mk-1A jet to the Indian Air Force by state-run plane maker Hindustan Aeronautics Limited by the approaching deadline of March 31 as it is yet to make its maiden flight and some key certifications are still not done, officials aware of the matter said on Sunday.

IAF ordered 83 Mk-1A fighters for ₹48,000 crore in February 2021, and plans to buy 97 more Mk-1As at a cost of around ₹ 67,000 crore.

“HAL is trying its level best to carry out the first flight as early as possible. But there are some software iterations that need to get cleared. Sticking to the March 31 deadline seems a bit difficult right now, though efforts are still on,” said one of the officials cited above, asking not to be named.

LCA Mk-1A is an advanced variant of the LCA Mk-1, which has already been inducted by IAF. The Mk-1A will come with digital radar warning receivers, external self-protection jammer pods, superior radar, advanced beyond-visual-range (BVR) air-to-air missiles and significantly improved maintainability.

“The Mk-1A is a totally new aircraft with new systems, software and weapons. Some key certifications are going on right now, with different agencies involved including the Aeronautical Development Agency, Centre for Military Airworthiness and Certification, and foreign OEMs (original equipment manufacturers). All this must fall in place before the first aircraft can be delivered,” said a second official, who also asked not to be named.

The aircraft is in good shape, he said. The delivery of the 83 jets already ordered is expected to be completed by 2028.

LCA is set to emerge as the cornerstone of IAF’s combat power in the coming decade and beyond. IAF, the world’s fourth largest air force, is expected to operate around 350 LCAs (Mk-1, Mk-1A and Mk-2 versions), with a third of those already ordered, some inducted, and the rest figuring prominently on the air force’s modernisation roadmap and expected to be contracted in the coming years.

In October 2023, HAL handed over the first trainer version of LCA Mk-1 to IAF chief Air Chief Marshal VR Chaudhari in Bengaluru, with the twin seater set to fill a key training role and double as a fighter if needed.

The aircraft was part of an earlier order for 40 Mk-1 jets in the initial operational clearance (IOC) and the more advanced final operational clearance (FOC) configurations --- the first variants of LCA. Of the 40 Mk-1s, IAF inducted 32 single seater jets and raised two LCA squadrons. The remaining eight aircraft are trainers and all of them will be delivered to IAF soon.

One of the 32 LCA Mk-1s inducted crashed near Jaisalmer on March 12, minutes after taking part in a tri-services exercise that sought to demonstrate the strides India has made towards self-reliance in the defence manufacturing sector. That was the first LCA crash.

The aircraft had flown during the tri-services Bharat Shakti exercise at the Pokhran firing range near Jaisalmer along with another LCA jet before it went down. Prime Minister Narendra Modi witnessed the integrated tri-services ‘live fire and manoeuvre’ exercise, which sought to display how the Indian military plans to leverage its indigenous capabilities for dominating the battlefield and crushing any threat to the country’s security.

In November 2023, Modi flew in the LCA in Bengaluru and described the experience as “incredibly enriching” while also heaping praise on the country’s indigenous military capabilities. His sortie in an LCA Mk-1 fighter jet was seen as a significant endorsement of the LCA programme, and turned the spotlight on the locally produced fighter jet that IAF is looking at inducting in big numbers and India is also seeking to export.

The newer variants, Mk-1A and Mk-2, will come with significantly improved features and technologies over the current Mk-1 aircraft. IAF will deploy some LCAs at forward air bases in the western sector to bolster its combat readiness against Pakistan and fill the gap left by the gradual phasing out of the Soviet-era MiG-21 fighter jets.

Timely delivery is a top priority for IAF, which is grappling with a shortage of fighter squadrons.

IAF’s leadership firmly backs the LCA programme. In a review last year, Chaudhari described the fighter aircraft as the flag-bearer of IAF’s efforts towards the indigenisation of its combat fleet.

IAF could order more than 100 Mk-2s, and the aircraft will be ready for production in five years. The world’s leading aircraft engine maker GE Aerospace and HAL signed a memorandum of understanding in Washington in June 2023 to produce F-414 engines in the country for LCA Mk-2, during Prime Minister Narendra Modi’s first state visit to the US.

F-414 has evolved from the F-404 engine that powers the existing LCA variants.

The production of the engines in India will result in the new fighter jet having an indigenous content of around 75% compared to 55%-60% in LCA Mk-1A and 50% in the existing Mk-1 variant.

The LCA project was sanctioned in 1983 as a replacement for MiG-21s. IAF raised its first LCA squadron in Sulur with two aircraft in July 2016. While the existing Mk-1 and Mk-1A variants will replace MiG-21 fighters, the Mk-2 aircraft is planned as a replacement for the air force’s MiG-29s, Mirage-2000s and Jaguar fighters that will start retiring in the coming decade.

The LCA Mk-2 fighter will be equipped with the more powerful GE-414 engine, better avionics and electronics, and will be capable of carrying a higher weapons payload. It will have improved range, enhanced survivability, better situational awareness for pilots, network centric capabilities, and the ability to quickly switch from one role to another.

The 17.5-tonne Mk-2 fighter will have a maximum speed of 1.8 Mach, compared to the 13.5-tonne Mk-1A that has a top speed of 1.6 Mach. The new aircraft will come with a payload capacity of 6.5 tonne (compared to 3.5 tonne for the Mk-1A) and it will carry a mix of weapons including BVR air-to-air missiles, air-to-ground missiles, heavy precision guided weapons and conventional bombs.

The other features of the LCA Mk-2 include enhanced fuel capacity, unified electronic warfare suite, indigenous flight control actuators, improved digital flight control computer, better cockpit displays, infrared search and track capability to detect threats at long ranges, missile approach warning systems and countermeasure dispensing systems for self-protection.

<https://www.hindustantimes.com/india-news/doubts-shroud-delivery-of-first-lca-mk-1a-jet-to-iaf-101711307896401.html>

The Tribune

Sun, 24 Mar 2024

Navy Repaired Merchant Vessel Midsea, Escorted it to Oman Port

On March 16, when the Indian Navy freed a crew of 17 on board a hijacked merchant vessel, MV Ruen, from pirates, it had a task at hand. The 35 pirates captured during the operation were brought to Mumbai yesterday aboard INS Kolkata.

The key decision was what to do with the crew and the merchant vessel. At first, the 17 of the crew were duly shifted to Indian Naval ships. The Navy then sent in its specialists to sanitised the ship and ensure it had no arms, ammunition or contraband.

It also had to assess seaworthiness and carry out some essential repairs with the help of a naval technical team to ready the merchant ship for further voyage.

M/s Navibulgar, the shipping company that owned the vessel, requested that the captain and crew be reinstated on MV Ruen. The crew was again shifted mid-sea from INS Kolkata to MV Ruen.

MV Ruen then proceeded under own power to the next port of Salalah in Oman. The destination was decided by the company. Indian Navy warship INS Subhadra escorted the merchant vessel to ensure its security against another possible pirate attack.

INS Kolkata, in an operation lasting over 40 hours that commenced in the early hours of March 15, intercepted MV Ruen in the Arabian Sea based on inputs that the ship was being used as a 'Mother Ship' for undertaking piracy attacks and hijacking vessels.

INS Kolkata directed the pirate ship to stop for investigation in accordance with international law, especially the United Nations Conventions on the Laws of the Sea. The pirate ship refused to comply and instead opened fire. INS Subhadra joined INS Kolkata in the rescue operation. Further, the Navy undertook long range deployment and airdropped Marine Commandos over the sea in vicinity of the pirate ship using a C-17 aircraft in coordination with the Indian Air Force.

<https://www.tribuneindia.com/news/india/navy-repaired-merchant-vessel-midsea-escorted-it-to-oman-port-604068>

The Tribune

Mon, 25 Mar 2024

India Sends Latest Sub to Port Overlooking Sea Route to China

A Kalvari-class submarine has made its inaugural visit to Campbell Bay, the southernmost port of India in the Nicobar group of islands.

Describing the visit, the Eastern Command of the Indian Navy said today, "This marks the first ever visit by a submarine of this class to this strategic port, amplifying Indian Navy's reach far away from the mainland." The location of the base at Campbell Bay and its adjoining airfield INS Baaz makes its important. Both overlook the Strait of Malacca, the sea route connecting Indian

Ocean with the South China Sea and used by China. Campbell Bay is just 145 km north of Indonesia and overlooks the 'Six Degree Shipping Channel' between Great Nicobar and the Indonesian island of Sumatra.

India, in March 2022, landed a special operations plane, C-130J, at INS Baaz. The plane can land and take off from short runways. The runway at INS Baaz is being expanded to operate the maritime surveillance planes like Boeing P-8I and even drones.

<https://www.tribuneindia.com/news/india/india-sends-latest-sub-to-port-overlooking-sea-route-to-china-604053>

The Tribune

Mon, 25 Mar 2024

IAF's Heavy-lift Helicopter Chinook to have Underslung Disaster Relief Platform

The IAF's Chinook heavy-lift helicopters will be equipped with a specially designed humanitarian assistance and disaster relief platform that will be carried in the underslung mode for evacuating people, ferry relief teams and equipment, and undertake fire-fighting operations.

The Ministry of Defence has reached out to the industry through its Innovation in Defence Excellence (IDeX) scheme to develop a lightweight modular underslung platform for mass casualty evacuation with seating capability of minimum of 30 that can be underslung to rescue a large number of casualties.

The platform will also have a module with rapid water suction, storage and dispensation capability for carrying out firefighting operations from aircraft. Besides dealing with calamities in built up areas, this could also be used to combat forest fires.

The platform, slung under the helicopter with a cable of requisite length, would be positioned close to the ground and enable quick evacuation from buildings, flood hit areas, hilly terrain and other disaster affected areas where a helicopter may not be able to land, Air Force sources said. The other option in such a situation is to individually winch up casualties, which is time consuming and also difficult if a person is injured.

The platform, according to the IDeX document, will have multiple safety features to ensure protection of rescued persons, individual restraints or seat belts, technology to preserve human life like ballistic parachute, communication system with the helicopter crew and ground teams, good visibility to enable carriage of rescue assistance teams, rapid ingress and egress design and stability in flight to prevent any swing.

The IAF had inducted the US-made Boeing CH-47F(I) Chinook tandem-rotor multi mission helicopter in March 2019 with the Chandigarh-based No.126 Helicopter Unit. A total of 15 Chinooks were procured, with half the fleet operating with No.124 Helicopter Unit based at Mohanbari in Assam.

Chinooks have a payload capacity of up to 55 persons, 24 stretchers or 12,000 kg cargo. These are deployed regularly for air maintenance missions to the Himalayan frontier in the northern as well as the eastern theatres, ferrying in troops, artillery guns, equipment and road construction machinery, as well as disaster relief operations.

Chinooks have also been tasked with special operations and other logistical missions across the country. In addition, they have been called upon to assist other government agencies, the most recent being the test flight of Indian Space Research Organisation's Pushpak Reusable Launch Vehicle, where a Chinook was used to drop the craft from an altitude of 4,500 meters.

For evacuation operations

The IAF's Chinook heavy-lift helicopters will have a specially designed platform that will be carried in the underslung mode for evacuating people, ferrying relief teams and equipment, and undertaking fire-fighting operations.

<https://www.tribuneindia.com/news/india/iafs-heavy-lift-helicopter-chinook-to-have-underslung-disaster-relief-platform-604063>

ThePrint

Fri, 22 Mar 2024

As India Gets Ready to Test-fire another Ballistic Missile, 4th Chinese Spy Ship Heads to Indian Ocean

With India planning to test at least one more nuclear ballistic missile in the next two weeks, a new Chinese spy ship has started its movement into the Indian Ocean Region.

Once the Yuan Wang 03, a ship that has the ability to track satellites and ballistic missiles, enters the waters around India, it will be the fourth such vessel here.

The Chinese have already deployed the Xiang Yang Hong 01 and Xiang Yang Hong 02, oceanographic survey and research ships along with Da Yang Hao, a marine resource survey vessel.

These ships had entered the Indian Ocean in wake of India issuing a Notice to the Airmen, commonly known as NOTAM, earlier this month.

While India was originally supposed to test-fire two nuclear-capable ballistic missiles — the K4 submarine-launched ballistic missile and the land-based Agni-V — between 11 and 16 March, only the former was done.

Now India has issued a fresh NOTAM for 3 and 4 April over the Bay of Bengal. The NOTAM is for 1,600 kilometers which indicate that India is planning the launch of Agni Prime, the next generation nuclear-capable ballistic missile in India's nuclear arsenal.

Sources in the defence and security establishment said the Indian Navy was closely monitoring the movement of all ships in the Indian Ocean Region (IOR).

Asked if they are aware that three Chinese spy ships are in the IOR and one more was on its way, a source said, "We track all vessels in the IOR including underwater".

The Chinese activity comes even as Pakistan has also acquired a satellite and missing tracking ship from China, as reported by ThePrint earlier.

This is not the first time a Chinese vessel was seen entering the IOR just before a planned missile test by India. In November 2022, the Yuan Wang 06, a Chinese research vessel capable of tracking missile tests, entered the IOR days before a planned missile test. In December that year, India issued a NOTAM over the Bay of Bengal, and this saw a Chinese research vessel, the Yuan Wang 05, make a U-turn on its course and head back to the IOR, as reported by ThePrint.

The Chinese ships are also suspected to be operating underwater gliders in the Indian Ocean to map the sea bed.

The information gathered by such exercises include currents, bathymetry, salinity of the water among others, which are critical for submarine warfare.

Such data is civilian-defence agnostic, which means that the information can be used for both civilian and defence purposes.

Citing an internal document prepared by the defence establishment, ThePrint had reported in 2020 the fears India had about what the Chinese were up to in Sri Lankan waters under the garb of carrying out research.

<https://theprint.in/defence/as-india-gets-ready-to-test-fire-another-ballistic-missile-4th-chinese-spy-ship-heads-to-indian-ocean/2011643/>



Sat, 23 Mar 2024

Chinese Coast Guard Ships Attempt to Block Philippine Vessels Carrying Scientists in South China Sea

Chinese coast guard ships backed by a military helicopter attempted unsuccessfully to block two Philippine government vessels carrying scientists from reaching two sandbars in the disputed South China Sea, Philippine officials said Friday.

Chinese coast guard personnel blew the horn on one of their ships for half an hour and repeatedly transmitted radio warnings during the confrontation Thursday, but the Filipino scientists managed to complete their four-hour marine and biodiversity research at the barren sandbars called Sandy Cay, the officials said.

The Chinese coast guard gave a different account of the faceoff. A spokesperson, Gan Yu, said in a statement that its law enforcement officers “boarded” the sandbars, which Beijing calls Tiexian Reef, and dealt with what it called “illegal activities” by 34 Philippine personnel who “ignored China’s warnings and dissuasion.”

“That’s another lie coming from the Chinese coast guard,” Philippine coast guard Commodore Jay Tarriela said at a news conference on Friday. “For four hours, our marine scientists were able to continue their research.”

Journalists who were invited to join the research mission witnessed the incident, Tarriela said.

It was the latest flareup in increasingly tense territorial disputes that are seen as a potential Asian flashpoint that might bring China and the United States into a conflict if they degenerate into a major armed confrontation.

China, the Philippines, Vietnam, Malaysia, Taiwan and Brunei have overlapping territorial claims that have erupted from time to time into brief confrontations in the South China Sea.

Hostilities between China and the Philippines, however, have worsened since last year, resulting in minor collisions at sea and injuries to a few Filipino crewmen, sparking a war of words.

Washington has no territorial claims in the strategic waterway but has questioned China’s claim to virtually the entire seaway. The United States has repeatedly warned that it’s obligated to defend

the Philippines, its oldest treaty ally in Asia, if Filipino forces, ships and aircraft come under an armed attack.

During the Chinese coast guard's maneuvers, one of its ships crossed the bow of the Philippine fisheries vessel BRP Datu Sanday at a distance of 100 meters (328 feet), Tarriela said. At least 13 suspected Chinese militia vessels tried to help form a blockade, he said.

Two of the three small sandbars where the Filipino scientists carried out a survey are located between Philippine-occupied Thitu island and Subi, a disputed reef that China transformed into an island base with a military-grade runway, seaports and a number of buildings with communications facilities.

In 2017, Chinese officials accused the Philippine military of attempting to build a structure on one of the sandbars, and deployed Chinese coast guard and suspected militia ships to keep watch on Sandy Cay.

<https://www.thehindu.com/news/international/chinese-coast-guard-ships-attempt-to-block-philippine-vessels-carrying-scientists-in-south-china-sea/article67980882.ece>

Science & Technology News

THE TIMES OF INDIA

Mon, 25 Mar 2024

ISRO Gets US Aviation Award for Chandrayaan-3 Mission

Isro has received US's Aviation Week Laureates Award for its achievements in the Chandrayaan-3 mission, which made India the first country to land on Moon's south pole on Aug 23 last year. In another accolade for the space agency, International Astronomical Union (IAU) working group for planetary system nomenclature has approved the name 'Station Shiv Shakti' for the landing site of Chandrayaan-3's lander. The approval was given on March 19.

Deputy ambassador at the Indian embassy in the US, Sripriya Ranganathan accepted the award on Isro's behalf. The Indian embassy later posted on X: "...The award noted Chandrayaan-3's landing at the lunar South Pole, its confirmation of the presence of water there, as well as the presence of sulfur nearby — all at a cost of \$75 million!" The gazetteer of planetary nomenclature, on IAU's recognition of the name 'Station Shiv Shakti', stated, "Compound word from Indian mythology that depicts the masculine ('Shiva') and feminine ('Shakti') duality of nature; Landing site of Chandrayaan-3's Vikram lander."

Soon after Chandrayaan-3's Vikram lander landed on the Moon's south pole on Aug 23 last year, PM Modi had on Aug 26, 2023 named the landing site 'Shiv Shakti'.

According to Gazetteer, planetary nomenclature, like terrestrial nomenclature, is used to uniquely identify a feature on the surface of a planet or satellite so it can be easily located, described, and discussed.

<https://timesofindia.indiatimes.com/city/delhi/isro-gets-us-aviation-award-for-chandrayaan-3-mission/articleshow/108756850.cms>

IAU Approves ‘Statio Shiv Shakti’ as Name for Chandrayaan-3 Landing Site

The International Astronomical Union (IAU) working group for Planetary System Nomenclature has approved the name ‘Statio Shiv Shakti’ for the landing site of Chandrayaan-3’s Vikram lander. The approval was given on March 19, 2024.

According to the Gazetteer of Planetary Nomenclature, planetary nomenclature, like terrestrial nomenclature, is used to uniquely identify a feature on the surface of a planet or satellite so that it can be easily located, described, and discussed.

“This gazetteer contains detailed information about all names of topographic and albedo features on planets and satellites (and some planetary ring and ring-gap systems) that the IAU has named and approved from its founding in 1919 through the present time,” it states.

The IAU is the internationally recognised authority for assigning names to planetary surface features. It follows some rules and conventions to do so.

For example, Rule 4 states: “Solar system nomenclature should be international in its choice of names. Recommendations submitted to the IAU national committees will be considered, but final selection of the names is the responsibility of the International Astronomical Union. Where appropriate, the [working group] strongly supports an equitable selection of names from ethnic groups, countries, and gender on each map; however, a higher percentage of names from the country planning a landing is allowed on landing site maps.”

Name announced by PM Modi

The Astrogeology Science Centre of the U.S. Geological Survey maintains the Gazetteer of Planetary Nomenclature on behalf of the IAU with funding from the National Aeronautics and Space Administration (NASA).

On August 26, 2023 Prime Minister Narendra Modi announced that the point where the moon lander of Chandrayaan-3 touched down will be called ‘Shiv Shakti’.

“The point where the moon lander of Chandrayaan-3 landed will now be known as Shiv Shakti. In Shiv, there is resolution for the welfare of humanity and Shakti gives us strength to fulfil those resolutions. This Shiv Shakti point of the moon also gives a sense of connection with Himalaya to Kanyakumari,” Mr. Modi while announcing the name.

IAU’s Rule 9 states: “No names having political, military or religious significance may be used, except for names of political figures prior to the 19th century.” The citation for the name in the Gazetteer reads: “Compound word from Indian mythology that depicts the masculine (“Shiva”) and feminine (“Shakti”) duality of nature; Landing site of Chandrayaan-3’s Vikram lander”.

Mr. Modi had earlier named the point at which the lander of the Chandrayaan-2 mission had crashed in September 2019 “Tiranga point”. Former President A.P.J. Abdul Kalam suggested the name “Jawahar Point” for where the Chandrayaan-1 moon impact probe landed in November 2008.

The International Astronomical Union (IAU) working group for Planetary System Nomenclature has approved the name ‘Statio Shiv Shakti’ for the landing site of Chandrayaan-3’s Vikram lander.

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<https://www.thehindu.com/sci-tech/science/iau-approves-statio-shiv-shakti-as-name-for-chandrayaan-3s-landing-site/article67986944.ece>

