

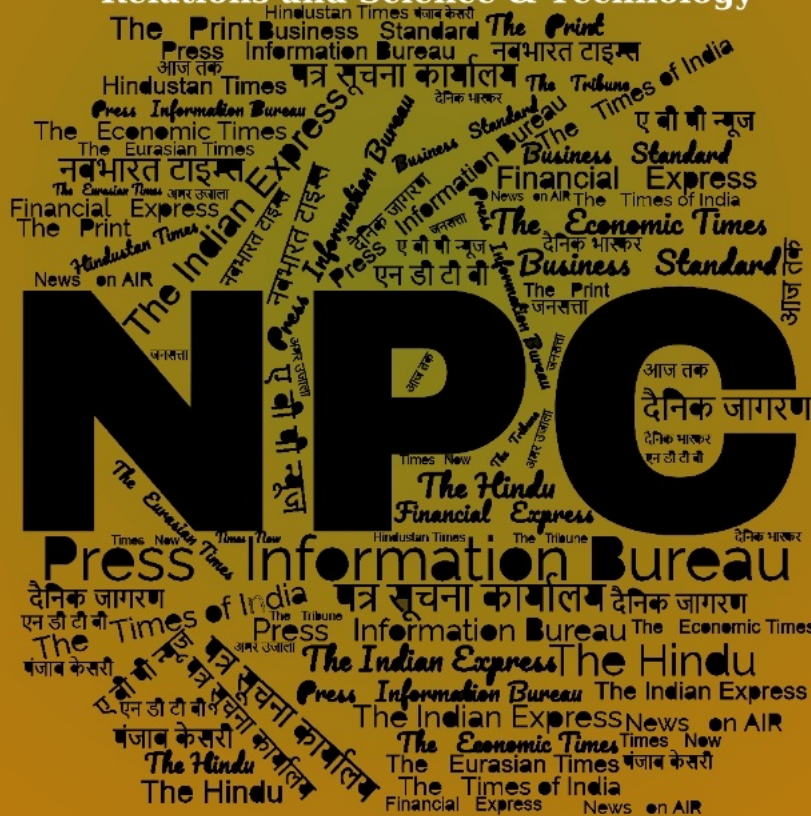
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समाचार पत्रों से चयित अंश Newspapers Clippings

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DRDO News

DRDO Technology News



**Press Information Bureau
Government of India**

Ministry of Defence

Wed, 21 Feb 2024

Aeronautical Development Agency signs MoU with Indian Air Force

Aeronautical Development Agency (ADA) has signed an MoU with the Indian Air Force (IAF) for integration of futuristic Weapons and Sensors for LCA Tejas aircraft. The MoU was signed by Shri Prabhulla Chandran VK, Technology Director (Avionics and Weapon Systems) of ADA and Air Vice Marshal KN Santosh VSM, Commandant, Software Development Institute (SDI) of IAF.

Aeronautical Development Agency (ADA) is a premier organization under the aegis of the Department of Defence R&D with mandate to Design and Develop Tejas-LCA and its Variants.

In present war scenario, there is a continuous need of upgrading the weapons and sensors suite of the aircraft and towards this, ADA has initiated the know-how transfer for integration of weapons and sensors to SDI. This will facilitate the IAF to independently carry out sensors, weapon integration and flight testing to enhance the operational capability of Tejas-LCA fighter.

ADA has successfully developed and type certified Tejas LCA with a credit of more than 10000 sorties of incident free flying. IAF has already formed two squadrons of this fighter aircraft and twin seater aircraft are also being inducted.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2007797>



Press Information Bureau
Government of India

Ministry of Defence

Wed, 21 Feb 2024

Global Community must collectively aspire for Peace in this Age of Democratic & Rules-Based World Order: Raksha Mantri Shri Rajnath Singh at Exercise MILAN in Visakhapatnam

Raksha Mantri Shri Rajnath Singh has called upon the international community to collectively aspire for peace in this age of democratic and rules-based world order, where individual countries proactively collaborate for shared peace & prosperity. He was addressing the formal opening ceremony of the 12th edition of the multi-nation Exercise MILAN in Visakhapatnam on February 21, 2024. Chief of the Naval Staff Admiral R Hari Kumar and a distinguished gathering of Ministers, Ambassadors, Chiefs of Navies and representatives of Maritime Forces from over 50 friendly countries were present on the occasion.

Sharing his insights on the concept of ‘peace’, the Raksha Mantri asserted that the absence of wars and conflicts is the most irreducible minimum element of peace. He spoke of “negative peace” which, he said, often stems from dominance or hegemony, where one power imposes its will upon others. He said such peace, not backed by fairness and justice, is what physicists and economists call “unstable equilibrium”.

Shri Rajnath Singh elaborated on what he called “cold peace” where parties do not kill each other in the open, but do their best to undermine one another. He described cold peace as merely an interval between direct conflicts.

The Raksha Mantri was of the view that the concept of positive peace goes beyond the mere absence of direct military conflict and encompasses broader notions of security, justice, and cooperation. “The positive peace is the shared peace of one and all, with the cooperation of one and all. There is no Indian peace or Australian peace or Japanese peace, rather it is the shared global peace.

This sentiment was also eloquently set forth by our Prime Minister Shri Narendra Modi when he said ‘This is not an era of war. But it is one of dialogue and diplomacy’,” he said.

Shri Rajnath Singh emphasised that the Armed Forces play a dual role - conduct wars as well as maintain peace and good order. “Historically, Navies and Armies were established and maintained with the primary objective of extending political power through military conquests. Our historical experience informs us that the Armed Forces also play a significant role in preserving peace. It is seen in concepts and practices such as deterrence, conflict prevention, peace-keeping, and also in various humanitarian assistance efforts especially during disasters,” he said.

The Raksha Mantri stressed that in this evolution of the nature of the Armed Forces, international military exercises have emerged as crucial mechanisms for fostering friendship, understanding, co-operation, and military interoperability among friendly nations within the framework of a democratic world order. He termed MILAN 2024 as one such attempt to build the much-needed fraternal bonds across the oceans and mountains.

While Shri Rajnath Singh batted for peace and shared goodness, he assured that “we will not shrink from countering any threat that undermines our collective well-being, piracy and trafficking included”. He referred to the recent events in the Western Indian Ocean which have brought to the fore some pressing challenges in the maritime domain, ranging from attacks on the merchant shipping to piracy and hijacking attempts.

“India continues its proactive engagement and has been maintaining a sustained presence in the region to ensure safety and security of all shipping, irrespective of the Flag on the ship and the nationality of the crew. It is our steadfast resolve to be the First Responder and the Preferred Security Partner in the Indian Ocean Region, and for the peace, stability and prosperity of the wider Indo-Pacific,” said the Raksha Mantri. He added that India will continue to play the role of a Vishwa Mitra in forging meaningful partnerships that make the world a truly connected and equitable habitat for the humanity as a whole.

In his address, Chief of the Naval Staff Admiral R Hari Kumar stated that underpinned by Government of India's vision of Security and Growth for All in the Region (SAGAR), MILAN encapsulates and rejuvenates the unrelenting spirit of 'Cohesion, Camaraderie and Collaboration.' From five IOR navies in 1995 to 50 navies across the Indo-Pacific today, MILAN reflects the growing stature and increasing importance of such collective and cooperative endeavours in the maritime domain, he said.

The Chief of the Naval Staff informed that the harbour phase, which is underway, has seen insightful discussions through Subject Matter Expert Exchanges and Table Top Exercises. He stated that while the International Maritime Seminar scheduled over next two days will provide senior commanders a platform to exchange ideas on crucial maritime challenges and opportunities, adding that young officers have been honing their sailing, submarine rescue and damage control skills at training simulators here.

Admiral R Hari Kumar added that the sea phase commencing on February 24 will witness Indian & foreign warships sailing in unison and participating in an array of operational drills pushing the col-

lective boundaries and refining the skills together. “These are not merely naval exercises, but a testament to the collective expertise and strength we bring to the fore as maritime nations,” he added.

On the occasion, the Raksha Mantri also launched NISHAR communication terminal. As communication forms an important link in achieving interoperability, Indian Navy has developed MITRA terminals with Nishar application to connect all friendly partner navies.

MILAN Village, a rendezvous of culture, tradition and cuisine of nations participating in the Multilateral Naval Exercise MILAN 2024, was also inaugurated by the Raksha Mantri. The vibrant tapestry of cultures promoted by delicacies from Indonesia, Sri Lanka, Myanmar, Bangladesh, and Vietnam along with a wide variety of Indian cuisine delighted everyone. Handlooms, handicrafts, gems, crystals, artefacts and souvenirs from across the world made memorable takeaways for the visitors. The cultural performances and dances by artists also enthralled the visitors.

MILAN Village will remain open from 3 PM to 10 PM from 21st to 23rd February for personnel of Friendly Foreign Countries, defence personnel and their families.

The Maritime Technical Exposition MTEX-24 in association with the Federation of Indian Chambers of Commerce and Industry (FICCI) was inaugurated by Shri Rajnath Singh. MTEX-24 highlights India's push towards self-reliance in the defence sector. It showcases the latest advancements in naval technology viz shipbuilding, communication systems, cybersecurity, and sustainable energy solutions. Featuring presentations, demonstrations and exhibits, the event serves as a platform for forging partnerships and accelerating the development of cutting-edge technologies crucial for maritime defence.

The exposition displays products developed by the Indian industry and has the participation of major players from the Indian defence production viz Bharat Dynamics Ltd, Larsen & Toubro Ltd, Bharat Electronics, Electronics Corporation of India Ltd, and Garden Reach Shipbuilders Ltd. In addition, defence start-ups such as Sagar Defence Engineering Ltd, Daksha Unmanned Systems Ltd, Saif Automation Ltd have displayed their innovative solutions. Further, defence PSUs and Indian Naval organisations such as DRDO, the Indian Naval Incubation Centre for Artificial Intelligence (INICAI), Weapon and Electronic System Engineering Establishment (WESEE) are showcasing their equipment and innovations. An equipment catalogue of the products displayed by various companies was released by Hon'ble Raksha Mantri.

The MTEX-24 is open from 21st to 23rd February from 10:30 AM to 6 PM. This three-day exposition fosters collaboration and knowledge exchange between industry leaders, researchers, and defence professionals thereby driving technological advancements and strengthening professional relations with friendly foreign navies. By facilitating knowledge exchange and promoting self-reliance, MTEX 24 will propel the Indian maritime industry forward, contributing to a more secure and prosperous future.

MILAN is a biennial multilateral naval exercise held under the aegis of the Eastern Naval Command. This edition is the largest and more complex than previous editions, with the participation of Indian ships and 16 foreign warships, one Maritime Patrol Aircraft and delegations from friendly countries. The exercise commenced on February 19, 2024 and will culminate on February 27, 2024 post the sea phase.

‘MILAN’ means 'a meeting of confluence and its motto – ‘Camaraderie Cohesion Collaboration’ symbolises the enduring spirit of international maritime cooperation. The exercise brings together like-minded nations that train and operate jointly towards establishing the regional synergy needed to achieve the shared objective of peace and prosperity, aligned with the Prime Minister's vision of Security & Growth for All in the Region (SAGAR).

<https://pib.gov.in/PressReleasePage.aspx?PRID=2007789>



Press Information Bureau
Government of India

Ministry of Defence

Wed, 21 Feb 2024

Bound by Shared Values and Common Interests, India & The U.S. are Key Stakeholders in Indo-Pacific Region, says Defence Secretary Shri Giridhar Aramane In INDUS-X Summit

Defence Secretary Shri Giridhar Aramane has stressed that navigating the complex dynamics of the Indo-Pacific region, India and the United States are key stakeholders in the region, bound by shared values and common interests. He was speaking at the second edition of INDUS-X Summit on 21st February, 2024 in New Delhi.

“Today, we are witnessing a pivotal moment in the history of the Indo-Pacific region. The Indo-Pacific, with its vast expanse of oceans and strategic waterways, stands as the crossroad of global commerce, geopolitics, and security. In navigating the complex dynamics of this region, India and the United States find themselves as key stakeholders, bound by shared values and common interests,” said Defence Secretary.

Highlighting robust defence partnership between the two countries, rooted in mutual respect and strategic convergence, Shri Giridhar Aramane mentioned Initiatives on Critical and Emerging Technologies (iCET), launched jointly by Prime Minister Modi and President Joe Biden in the year 2022. He said, “A pivotal aspect of our burgeoning relationship is the iCET that aims to establish ‘Innovation Bridges’ across key sectors, including defence, through expos, hackathons, and pitching sessions.”

He talked about the Defence Innovation Bridge, a significant outcome of iCET, serving as a catalyst for collaboration between US and Indian startups in the defence sector.

Defence Secretary mentioned that the introduction of Joint IMPACT Challenges was a distinctive initiative aimed at collaboratively advancing defence and aerospace co-development and co-production initiatives. “The incorporation of start-ups actively involved in pioneering solutions introduces a fresh dimension to the breadth and potency of this partnership,” he said.

On the bilateral partnership in the aerospace and defence sectors, Shri Giridhar Aramane said, “Our bilateral relationship is flourishing, with India increasingly turning to the United States for cutting-edge equipment and technology. The United States, in turn, sees India as a key partner in its Indo-Pacific strategy, leveraging India’s growing defence capabilities.” He also talked about the multi-lateral engagements where both the countries are stakeholders.

Defence Secretary underscored the success stories of India’s defence production, ranging from shipbuilding, including aircraft carriers, to the development of advanced weaponry such as Tejas multi-role fighter aircraft, and attack and utility combat helicopters that has got the attention of international buyers across the globe.

Shri Giridhar Aramane called upon the India-US industry representatives and other stakeholders present in the Summit to further deepen the strategic bilateral partnership and harness the full potential of the cooperation. “By leveraging our respective strengths and capabilities, India and the United States can play a pivotal role in shaping the geopolitical landscape of the Indo-Pacific, promoting peace, stability, and prosperity in the region,” he said.

The Defence Secretary participated in the Capstone session of the INDUS-X Summit where he was joined by INDOPACOM Commander Admiral John C Aquilino, Amb. Atul Keshap, President, USIBC with the session being moderated by Mr. Rexon Ryu, President, The Asia Group.

The second edition of INDUS-X Summit was jointly organised by Innovations for Defence Excellence (iDEX), Ministry of Defence, India and US Department of Defense (DoD) on 20-21 February, 2024 in New Delhi. The event was jointly coordinated by US-India Business Council (USIBC) and Society of India Defense Manufacturers (SIDM). The Summit emphasised the crucial role of technological innovation in defence within the broader context of the U.S.-India Strategic Partnership.

The pioneering INDUS-X Summit 2024 planned for two-days was designed to foster collective progress for defence industries across borders, particularly to align the technological capabilities for startups and MSMEs, and also to engage in discussions, bilateral dialogues on various pertinent objectives under the realms of INDUS-X and propose relevant outcome & way ahead to take the INDUS-X initiative forward.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2007765>

The Tribune

Wed, 21 Feb 2024

India, Greece discuss Defence Co-Production

India and Greece agreed to infuse new energy in the bilateral relationship by working towards pacts on co-production of military hardware and mobility and migration during talks between Prime Minister Narendra Modi and his visiting Greek counterpart Kyriakos Mitsotakis here on Monday.

Speaking on the India-Middle East-Europe Economic Corridor (IMEC) in which the Greek port of Piraeus will play a crucial role, PM Modi said, “Greece can also become an important partner in this initiative.”

Launched on the margins of the G20 summit in India last year, IMEC is positioning itself as an initiative by like-minded nations to gain strategic influence against the Chinese Belt and Road Initiative (BRI).

In his press statement, PM Modi said the two leaders had a detailed discussion on how to further strengthen cooperation in the fight against terrorism on which both two sides have common concerns and priorities.

<https://www.tribuneindia.com/news/india/india-greece-discuss-defence-co-production-593186>



Wed, 21 Feb 2024

‘Extremely pressing challenges’: Rajnath Singh Flags Hijackings, Attacks in Arabian Sea

Defence minister Rajnath Singh Wednesday said that the events of the last few months in the western Indian Ocean have brought to fore some “extremely pressing challenges” in the maritime domain, adding that India has maintained a sustained presence in the region to ensure safety of all shipping.

He was speaking at the opening ceremony of the 12th edition of multilateral naval exercise MILAN-24 in Visakhapatnam and was referring to the series of drone and missile attacks on merchant ships and piracy and hijacking attempts on them in the Arabian Sea since December last year. Around 50 countries are participating in the mega naval exercise.

“India continues its proactive engagement and has been maintaining a sustained presence in the Region to ensure safety and security of all shipping, irrespective of the Flag on the ship and the nationality of the crew,” he said.

“It is our steadfast resolve to be the First Responder and the Preferred Security Partner in the Indian Ocean Region, and for the peace, stability and prosperity of the wider Indo-Pacific,” the defence minister added.

The defence minister stated that even as there is optimism about the shared goodness of our human race, India is also alive to the dangers lurking in shadows.

“We prefer peace, and will do the utmost for its sake, but we will not shrink from countering any threat that undermines our collective well-being, piracy and trafficking included,” he said.

He said India will continue to play the role of a Vishwamitra—or a friend of the world, in forging meaningful partnerships that make the planet a connected and equitable habitat for humanity as a whole.

The defence minister said that the historical evolution of the role of Armed Forces when examined, reflects a transition from being tools of warfare and conquest only, to instruments of dominance by certain powers, and then evolving into military blocs.

He said today the Armed Forces of like-minded civilized countries have mostly become instruments for promotion of shared peace and prosperity.

He said in this evolution of the nature of Armed Forces, international military exercises have emerged as crucial mechanisms for fostering friendship, understanding, cooperation, and military interoperability among friendly nations within the framework of a democratic world order.

MILAN 2024, he added, is one such attempt to build the much-needed fraternal bonds across the oceans and mountains.

Speaking about MILAN-24, he said it would have been unimaginable in the past, as recent as 50-60 years ago, for navies from over 50 nations to convene in one location for purposes other than conflict.

“This remarkable progress reflects the evolving nature of humanity, which has made the navies of almost 50 nations to assemble here to understand each other, to learn from each other and more than that, to cooperate with each other,” he said.

Addressing the gathering, Navy Chief Admiral R Hari Kumar said that from five IOR navies in 1995 to 50 navies across the Indo-Pacific today, MILAN reflects the growing stature and increasing importance of such collective and cooperative endeavours in the maritime domain.

He said MILAN 2024 has been carefully curated to provide an all-encompassing experience to our participants.

“While the International Maritime Seminar scheduled over the next two days will provide senior commanders a platform to exchange ideas on crucial maritime challenges and opportunities, our young officers have been honing their sailing, submarine rescue and damage control skills at training simulators here,” he said.

He said a MILAN Technical Exposition or MTEX has also been organised as part of the event to provide you a glimpse of India’s promising indigenous industry powered by the vibrant Start Up ecosystem and MSMEs.

Talking about the sea phase of the exercise beginning on February 24, where warships from various countries will participate in an array of operational drills, he said those are not merely naval exercises, but a testament to the collective expertise and strength we bring to the fore as maritime nations.

<https://indianexpress.com/article/india/rajnath-flags-hijackings-attacks-in-arabian-sea-9173999/>

Maldives visit of Chinese Survey Ship could Trigger Indian Ocean Security Concerns

A Chinese research ship is set to arrive in the Maldives on Thursday, global ship-tracking data showed, just three months after a similar vessel visited the Indian Ocean and sparked New Delhi's security concerns.

The visit follows January comments by a U.S. think tank that China's navy could "leverage the insights gained from these missions" for deployment of naval forces, a claim Beijing calls part of a concocted image-smearing "China threat" narrative.

Xiang Yang Hong 03, owned by a research institute that reports to China's natural resources ministry, is due to make a port call at Male, data from MarineTraffic showed, more than a month after leaving its southeastern home port of Xiamen.

The civilian ship spent more than three weeks surveying waters just outside the exclusive economic zones of India, the Maldives and Sri Lanka, the shiptracking data showed.

China's foreign ministry has said research by the vessel was "exclusively" for peaceful purposes to benefit scientific understanding.

In recent years, India has voiced concern about the presence of China's research vessels in the Indian Ocean, even if they do not belong to the military.

An Indian security official has previously said the vessels were "dual-use", meaning the data they gather can be used for both civilian and military purposes. Xiang Yang Hong 03 has visited the Indian Ocean multiple times.

It sailed through the Sunda Strait in Indonesia in 2021, alarming Indonesian authorities, who said it had switched off its tracking system three times. Chinese research vessels have also stopped in nearby Sri Lanka.

In 2022, Yuan Wang 5, a military vessel capable of tracking rocket and missile launches, arrived in Colombo, alarming India.

The last time a Chinese research vessel docked in Sri Lanka was in October 2023, reviving India's concerns. But in January, the island nation imposed a year-long moratorium on foreign research ships, effectively denying China a port of call.

Xiang Yang Hong 03's arrival follows a January visit to China by Maldivian President Mohamed Muizzu that upgraded ties, with Beijing offering 920 million yuan (\$128 million) in "free aid".

The Maldives has said the vessel would do no research in its waters, stopping only for personnel rotation and replenishment of supplies.

<https://economictimes.indiatimes.com/news/defence/maldives-visit-of-chinese-survey-ship-could-trigger-indian-ocean-security-concerns/articleshow/107900814.cms?from=mdr>

India, China hold 21st round of Military Talks, focus on Full Disengagement at remaining areas along LAC

Indian and China held the 21st round military talks earlier this week emphasising that a complete disengagement in the remaining areas along the Line of Actual Control (LAC) in eastern Ladakh is essential for restoring normalcy along the borders.

In a statement released Wednesday, the Ministry of External Affairs said the latest discussions on Monday at the Chushul-Moldo border meeting point built on the previous rounds.

It said the discussions sought complete disengagement in the remaining areas along the LAC in eastern Ladakh as an essential basis for restoration of peace and tranquillity in the India-China border areas.

Stating that the talks were held in a friendly and cordial atmosphere, the MEA said that the two sides shared their perspectives on disengaging from the remaining friction points along the LAC.

It added that both sides have agreed to maintain communication on the way ahead through the relevant military and diplomatic mechanisms.

“They also committed to maintain peace and tranquillity on the ground in the border areas in the interim,” it added.

The remaining friction points along the LAC in eastern Ladakh primarily include legacy ones such as Depsang Plains and Demchok. As per sources, this round of talks has been in the offing since the last few weeks.

As per sources, both sides also discussed the continuing and improving the various confidence building measures by having regular talks and interactions at all levels.

“Given that there was a substantial reduction of troops in the Ladakh region during the winters, it was discussed that any buildup of troops during the summers should be limited,” a source said.

The sources added both sides also spoke about limiting the construction of infrastructure close to the LAC.

“No concrete decision, either on further increasing troop levels in Ladakh over the next few months or limiting construction activities, was arrived at,” the source quoted above added.

There is also a possibility of another round of military talks taking place soon, preferably before the summers set in ahead of any fresh troop deployment, the sources added.

The issues were discussed even during the last few rounds of military talks between the two sides including the 20th round of talks held in October last year. There has, however, been no forward movement on this front. Local Indian military commanders on ground have also been holding various agenda-based meetings since then with their Chinese counterparts.

The last formal disengagement along the LAC took place in September 2022, when both sides pulled back troops to disengage from Patrolling Point-15 in the Gogra-Hot Springs area of Eastern Ladakh, marking a step forward in the military standoff between the two sides which began in May 2020.

Friction points such as Galwan Valley, north and south banks of Pangong Tso and the Gogra-Hot Springs area have seen some amount of resolution since the beginning of the current military standoff between India and China in 2020 with the creation of buffer zones along the LAC.

Around 50,000-60,000 troops have been deployed on both sides of the India-China border since 2020, even as there was some troop reduction in the last few months because of the winters.

An overall de-escalation of the troops is only expected after resolution of the legacy issues of Depsang Plains and Demchok.

<https://indianexpress.com/article/india/india-china-21st-round-military-talks-lac-9172867/>

THE ECONOMIC TIMES

Thu, 22 Feb 2024

Indian Navy gets Rs 19,000 cr Mega BrahMos Boost

The Indian Navy is all set to get a mega firepower boost. The Cabinet Committee on Security has approved the acquisition of over 200 BrahMos extended-range supersonic cruise missiles for deployment on Indian Navy warships, reports said on February 22 quoting top government sources.

The supersonic cruise missiles can be fired from submarines, ships, aircraft, or land platforms, which makes them a highly versatile weapon.

The Rs 19,000-crore mega deal was cleared yesterday. The formal contract will be signed by the BrahMos Aerospace and Ministry of Defence in March first week, news agency ANI reported.

The Indian Navy deploys the BrahMos as a primary weapon system for antiship operations. The Navy has been regularly firing the weapon in its test attacks.

The business of BrahMos

The export of the BrahMos missile to the Philippines, the first global customer of this missile, is set to begin soon.

Besides the Philippines, many other countries in the Southeast Asian region have also showed major interest in the missile system. According to various reports, these countries are looking at the possibility of deploying the BrahMos in multiple ways.

It may be noted here that Modi has set a \$5-billion target for BrahMos sale to other countries. As of now, the Brahmos Aerospace, which is headed by Atul Rane, is working towards meeting that export target. The BrahMos team is trying to meet the target by 2025.

The export deal with the Philippines is worth \$375 million.

The BrahMos backstory

The BrahMos Aerospace is a joint venture between India and Russia. The missile, however, has been significantly indigenised. More parts of the weapons system are being indigenised. In many test-firings, BrahMos missiles with a high level of local content have been used. Currently, the missile is being equipped with an indigenous seeker.

Indian Army plans to get war ready against China India's defence industry expects that the success of BrahMos with partner nations will open many more doors for India to sell other successful weapon systems such as the Akash, ATAGS howitzers, etc, among others.

Work is currently on to further improve the hardware quality of the BrahMos to match global competition.

More and more Indian weapon systems have been showcased in foreign countries in the recent past. A few PSUs have also set up sales & support offices in countries where prospective markets seem to exist.

<https://economictimes.indiatimes.com/news/defence/indian-navy-gets-rs-19000-cr-mega-brahmos-boost/articleshow/107900429.cms>

The Tribune

Wed, 21 Feb 2024

India: US was big help during LAC Stand-Off with China, Future Support must too

In what could be the first official acknowledgement on the nature of the India-US collaboration to tackle China along the Line of Actual Control (LAC) during the ongoing military stand-off, Indian Defence Secretary Giridhar Aramane today said “intelligence sharing and situational awareness” were key areas, adding that India hoped the US would “support” it in future too.

Speaking at an event, he referred to the India-US relations saying: “One thing which aided us (during the LAC stand-off) was the intelligence, the situational awareness which the US equipment and the US government helped us with; so that is the single-most important area”.

“We are standing there — along the LAC — against a bully in a very determined fashion,” Aramane said, adding that “we expect that our friend, the US, will be there with us in case we need support, it is a must for us”. “Apart from that, a strong resolve that we support each other in the face of a common threat is going to be of critical importance to us,” he said.

He said intelligence and support by way of equipment would be of great help to the country. Aramane was speaking at the second edition of the INDUS-X summit here today, which was jointly organised by Innovations for Defence Excellence, Ministry of Defence, and the US Department of

Defence. The event was jointly coordinated by the US-India Business Council (USIBC) and the Society of India Defence Manufacturers.

Aramane was asked by his fellow panellist, "Sometimes it takes a crisis for barriers to break down. We saw that happen in a few areas during the recent crisis between India and China. What should India ask for from the US (in future)?" The Defence Secretary replied, "Yes, that is the realm of possibility and we continue to discuss the challenge we face from our northern neighbours. The possibility that we may face a similar situation that we faced in 2020 is keeping us active all the time." The Defence Secretary participated in a session where he was joined by US "IndoPacom" Commander Admiral John C Aquilino and president, USIBC, Atul Keshap.

Earlier, Aramane said the Indo-Pacific region "stands at the crossroads of global commerce, geopolitics and security". India is increasingly turning to the US for cutting-edge technology.

<https://www.tribuneindia.com/news/india/india-us-was-big-help-during-lac-stand-off-future-support-must-too-593158>

THE TIMES OF INDIA

Thu, 22 Feb 2024

UK's N-Deterrent Missile System Misfires during Test, Again: Report

Britain's Trident nuclear-deterrent system misfired during a test last month, sending a missile crashing into the ocean off the Florida coast near the submarine that launched it, Sun newspaper reported on Wednesday. The ministry of defence confirmed that an "anomaly" had occurred during the test but said Britain's "nuclear deterrent remains safe, secure and effective".

With defence secretary Grant Shapps on board the HMS Vanguard to witness the test, Sun said, the first-stage boosters on the missile - equipped with dummy warheads - failed to ignite.

The result marked the second successive test failure of a Trident missile after one was reported to have veered off course in 2016, an embarrassing outcome for a country that once boasted the largest and most powerful naval force in the world.

"It left the submarine but it just went plop, right next to them," Sun quoted an unspecified source as saying. In a statement, Shapps said, "There are no implications for the reliability of the wider Trident missile systems and stockpiles," he said. "Nor are there any implications for our ability to fire our nuclear weapons, should the circumstances arise." He gave no further details, citing national security.

The govt could face questions over the failure at a time of heightened global tensions. Earlier this month, one of the UK's two flagship aircraft carriers, the HMS Queen Elizabeth, had to be withdrawn from the largest Nato drill since the Cold War over a propeller issue.

<https://timesofindia.indiatimes.com/world/uk/uks-n-deterrent-missile-system-misfires-during-test-again-report/articleshow/107894171.cms>

Cryogenic Engine for Human Spaceflight Mission, Gaganyaan, tested Successfully: ISRO

The Indian Space Research Organisation (ISRO) on Wednesday said that the performance of the key cryogenic engine to be used on board the LVM3 launch vehicles for India's Gaganyaan missions, has been qualified and now certified for missions that will transport humans into space.

Gaganyaan is India's proposed first human flight mission that envisions sending a three-membered crew into an orbit of 400km for a period of three days and bringing them back to Earth. The first unmanned Gaganyaan – 1 mission is scheduled sometime in mid-2024. ISRO's heavy lift launcher, the LVM has been identified as the launch vehicle to be used during the Gaganyaan missions. Comprising solid, liquid and a cryogenic stage, these systems can be configured to ferry humans into space.

The seventh in the series of vacuum tests performed on the CE20 cryogenic engine, which powers the space vehicle during the cryogenic stage of its lift-off, was performed on February 14 at the space agency's High Altitude Test Facility in Mahendragiri in Tamil Nadu. "ISRO has accomplished a major milestone in human-rating of CE20 of the LVM3 vehicle for Gaganyaan missions," the ISRO shared on its 'X' handle on Wednesday.

Previously, the CE20 was subjected to 39 hot firing tests under varying operating conditions that lasted for 8,810 seconds (2 hours 26 minutes), whereas the minimum standard time for human rating is 6,350 seconds (1hr 45 minutes).

ISRO further said that even the flight engine, identified for the first Gaganyaan mission, has completed the acceptance tests. Powering the upper stages of the LVM3, the flight engine boasts of a thrust capacity of 19-22 tonnes with an impulse of 442.5 seconds. The development of a human-rate launch vehicle is part of the several tests and technology development efforts required for the proposed human-space flight mission.

Other technological developments such as development of life support systems to provide an earth-like environment to crew in space, crew emergency escape provision, evolving crew management aspects for training, recovery and rehabilitation of crew are planned. Besides, precursor missions are being planned which will demonstrate the technology preparedness levels before the actual manned Gaganyaan mission.

<https://indianexpress.com/article/technology/science/isro-ce-20-cryogenic-engine-gaganyaan-mission-9172764/>

The Tribune

Wed, 21 Feb 2024

Reliance to launch ChatGPT rival next month

An artificial intelligence (AI) tool (Hanooman) can make its debut next month. It was unveiled in December last year as part of a partnership between Mukesh Ambani's Reliance Industries and eight Indian Institutes of Technology (IITs) with hand holding by the Central Government.

Announced by Reliance Group scion Akash Ambani, Hanooman is among a clutch of artificial intelligence tools being developed in the country to compete with Chat GPT. Once launched, Hanooman will have as its competitors Sarvam, Krutrim etc. Akash said the group had been working on this AI tool for the past eight years. BharatGPT though will be unique. Backed by Reliance's deep pockets, it will not be dependent on the whims of venture capitalists like Sarvam and Krutrim.

To steal a march over ChatGPT, Hanooman, or BharatGPT as it was called earlier, will be a multi-language AI model handling coding, content writing and even mathematics questions.

<https://www.tribuneindia.com/news/india/reliance-to-launch-chatgpt-rival-next-month-593184>

