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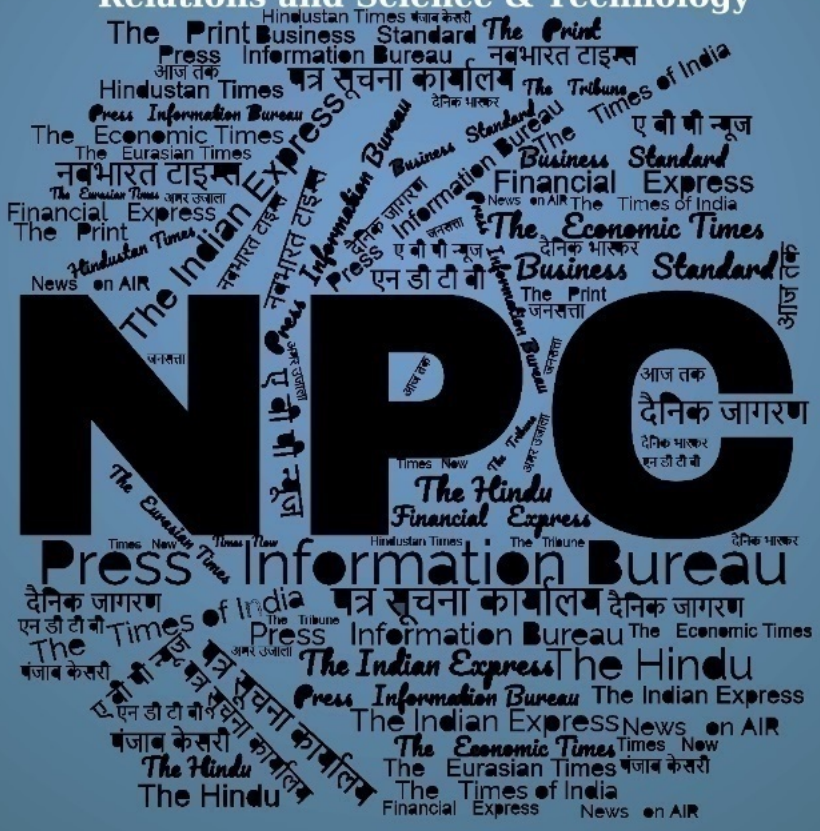
समाचार पत्रों से चयनित अंश
Newspapers Clippings

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

A Daily service to keep DRDO Fraternity abreast with DRDO Technologies, Defence Technologies, Defence Policies, International Relations and Science & Technology



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CONTENTS

DRDO News

DRDO Technology News

जागरण

Thu, 27 Jun 2024

भारत ने 'अभ्यास' का किया सफल परीक्षण, तेजी से उड़ान भरने में सक्षम; रक्षा मंत्री ने **DRDO** को दी बधाई

भारतीय डीआरडीओ ने आज बालेश्वर के चांदीपुर नामक परीक्षण स्थल पर स्थित आइटीआर के परिक्षण स्थल से हाई स्पीड एक्सपेंडेबल एरियल टारगेट (हिट) यानी अभ्यास नामक विमान का सफल परीक्षण किया है।

अभ्यास का उपयोग विभिन्न मिसाइल प्रणालियों के मूल्यांकन हेतु हवाई लक्ष्य के रूप में होता है। टेस्ट में इस विमान की निगरानी टेलिमेटरी रडार एवं इलेक्ट्रो ऑप्टिकल ट्रैकिंग सिस्टम सहित विभिन्न ट्रैकिंग सेंसर की जांच की गई।

मिसाइल का टारगेट बनने वाला विमान का डीआरडीओ ने आज कुल मिलाकर दसवां सफल परीक्षण किया। इसके पहले यह 9 बार सफलतापूर्वक परीक्षण किया जा चुका है। यह वह विमान है, जो मिसाइल टेस्टिंग के दौरान उनका टारगेट बनता है यह बहुत तेजी से उड़ान भरता है। इस पर सटीक निशाना आपकी मिसाइल की क्षमता को प्रदर्शित करता है।

सिंगल बूस्टर की मदद से किया गया परीक्षण

इस बार का परीक्षण सिंगल बूस्टर की मदद से किया गया। रक्षा अनुसंधान और विकास संगठन डीआरडीओ ने ओडिशा के चांदीपुर स्थित इंटीग्रेटेड टेस्ट रेंज आइटीआर से इसे हवा में उड़ाया था।

इसका नाम है, हाई स्पीड एक्सपेंडेबल एरियल टारगेट 'हिट' यानी की अभ्यास। अभ्यास का उपयोग विभिन्न मिसाइल प्रणालियों के मूल्यांकन हेतु हवाई लक्ष्य के रूप में होता है, टेस्ट में इस विमान की निगरानी टेलिमेटरी रडार एवं इलेक्ट्रो ऑप्टिकल ट्रैकिंग सिस्टम सहित विभिन्न ट्रैकिंग सेंसर की जांच की जाती है।

रक्षा मंत्री ने पूरे डीआरडीओ टीम को दी बधाई

अभ्यास नामक इस टारगेट को डीआरडीओ का एयरोनॉटिकल डेवलपमेंट एस्टेब्लिशमेंट बेंगलुरु ने किया है तथा हिंदुस्तान एयरोनॉटिक्स लिमिटेड और लार्सन ऐंड टुब्रो इसे बनाया है। रक्षा सूत्रों की माने तो अभ्यास अब बनाए जाने के लिए तैयार हो चुका है, अब इसका उत्पाद जल्दी ही किया जाएगा।

इसके परीक्षण को देखते हुए देश के रक्षा मंत्री राजनाथ सिंह ने पूरे डीआरडीओ टीम को बधाई दिया है। वहीं, डीआरडीओ के अध्यक्ष डॉक्टर समीर भी कामत ने पूरे डीआरडीओ टीम को बधाई दिया है।

https://www.jagran.com/odisha/bhubaneshwar-india-successfully-tested-abhyas-capable-of-flying-fast-defense-minister-congratulated-drdo-23747922.html

Press Information Bureau
Government of India

Ministry of Defence

Thu, 27 Jun 2024

High Speed Expendable Aerial Target ‘ABHYAS’ successfully completes developmental trials with improved booster configuration

Defence Research and Development Organisation (DRDO) has successfully completed six consecutive developmental trials of High Speed Expendable Aerial Target (HEAT) ‘ABHYAS’ with improved booster configuration from the Integrated Test Range (ITR), Chandipur, Odisha. With this, ABHYAS has successfully completed 10 developmental trials demonstrating the reliability of the system.

The trials were carried out with improved Radar Cross Section, Visual and Infrared augmentation systems. During the trials, various mission objectives covering safe release of booster, launcher clearance, and endurance performance were successfully validated. Two launches were conducted back-to-back within a gap of 30 minutes, demonstrating the ease of operation with minimum logistics. Representatives from the Services witnessed the flight trials.

ABHYAS has been designed by DRDO’s Aeronautical Development Establishment, Bengaluru, and developed through Production Agencies - Hindustan Aeronautics Limited & Larsen & Toubro. It offers a realistic threat scenario for weapon systems practice.

This indigenous system is designed for autonomous flying with the help of an auto pilot, a laptop-based Ground Control System for aircraft integration, pre-flight checks, and autonomous flight. It also has a feature to record data during flight for post-flight analysis. The booster has been designed by Advanced Systems Laboratory and the navigation system by Research Centre Imarat. With identified production agencies, ABHYAS is now ready for production.

Raksha Mantri Shri Rajnath Singh has complimented DRDO, Armed Forces and the Industry for the developmental trials of 'ABHYAS'. The successful tests are noteworthy testimony of synergy between scientists and industry, he said.

Secretary, Department of Defence R&D and Chairman DRDO Dr Samir V Kamat congratulated the teams associated with the successful flight trial and said the system is cost effective with huge export potential.

https://pib.gov.in/PressReleasePage.aspx?PRID=2029196

Defence News

Defence Strategic: National/International

Press Information Bureau
Government of India

Ministry of Defence

Thu, 27 Jun 2024

INS Sunayna Enters Port Victoria Seychelles

INS Sunayna entered Port Victoria, Seychelles on 26 Jun 24 as part of her long range deployment in the South West Indian Ocean Region.

The ship's visit coincides with the celebration of 48th National Day of Seychelles on 29 Jun 24. An Indian Navy marching contingent along with Naval band will participate in the military parade organised as part of the Seychelles National Day celebrations. The deployment of an Indian Naval ship marks sustained participation of an Indian military contingent since 1976 reaffirming bonhomie between the two nations.

During the port call, social interactions, engagements with Seychelles Defence Force, special yoga session, ship open to visitors and community outreach program are scheduled. An aerial demonstration of indigenously built Naval Advance Light Helicopter (ALH) is also planned during the port call.

Deployment of INS Sunayna is in consonance with the vision of SAGAR promoting collaborative efforts to ensure maritime security in the IOR.

https://pib.gov.in/PressReleasePage.aspx?PRID=2029191

Press Information Bureau
Government of India

Ministry of Defence

Thu, 27 Jun 2024

Indian Naval Ship Tabar Reaches Alexandria, Egypt

As part of her ongoing deployment to Africa and Europe, Indian Navy's frontline frigate, INS Tabar, arrived at the historic port city of Alexandria, Egypt for a goodwill visit from 27 to 30 Jun 24.

India and Egypt have enjoyed a rich legacy of cultural relations and economic ties for several centuries. These bonds have continued to grow stronger in modern times and in recent years, bilateral relations between both countries have expanded across various sectors, including defence and maritime cooperation.

The visit of Indian Naval Ship Tabar to Alexandria is intended to reaffirm India's commitment to deepening the bilateral ties with Egypt as also enhancing various aspects of maritime security.

INS Tabar, is a stealth frigate built for the Indian Navy in Russia. The ship is commanded by Captain MR Harish and has a complement of 280 personnel. The ship is equipped with a versatile range of weapons and sensors and is among the earliest stealth frigates of the Indian Navy, the ship is based at Mumbai as part of the Western Fleet under the Western Naval Command.

During the three day stay at Alexandria, the ship's crew will undertake a host of professional interactions with the Egyptian Navy besides social engagements. The two Navies will thereafter consolidate the harbour exercises through a Passage Exercise or PASSEX at sea.

These interactions aim to strengthen the commonalities in procedures followed by the two Navies as also to widen the scope of interoperability between the two Navies that could aid combined operations against common maritime threats.

https://pib.gov.in/PressReleasePage.aspx?PRID=2029177

Press Information Bureau
Government of India

Ministry of Defence

Thu, 27 Jun 2024

Genome Sequencing Lab With Cutting-Edge Next Generation Sequencing Facilities Inaugurated At Armed Forces Medical College, Pune

Director General of Armed Forces Medical Services and Senior Colonel Commandant of the Army Medical Corps Lt Gen Daljit Singh inaugurated the new Genome Sequencing Lab at the Armed Forces Medical College (AFMC) in Pune on June 27, 2024. The new lab is equipped with cutting-edge Next Generation Sequencing (NGS) facilities, featuring advanced “Nextseq 2000” and “Miniseq” analyzers.

The NGS technology has extensive applications across various healthcare domains, including inherited diseases, oncology, transplant medicine, and reproductive medicine. This advanced technology significantly enhances the capabilities of the AFMS by enabling precise diagnosis of rare genetic disorders, molecular prognostication of malignancies, and facilitating organ transplantation. After the Army Hospital (Research & Referral) in New Delhi, where the NGS facility was launched by DGAFMS earlier this year on 23 January 2024, this is the second such facility in the Armed Forces.

The event witnessed the presence of the Dean and Officiating Commandant of AFMC Pune, the Commandants of Command Hospital Southern Command, the Army Institute of Cardio Thoracic Sciences Pune and the Additional DGAFMS (Medical Research & Health), along with other senior officers from Armed Forces Medical Services (AFMS).

The establishment of the Genome Sequencing Lab at AFMC Pune will not only serve the Armed Forces but also contribute to the broader medical community through ground breaking medical research and improved diagnostics. This facility will foster innovation in medical science, leading to better healthcare outcomes, which is a cornerstone of national development.

https://pib.gov.in/PressReleasePage.aspx?PRID=2029004

THE ECONOMIC TIMES

Thu, 27 Jun 2024

India expands military training for foreign partnerships across Gulf, ASEAN, and Africa

India has intensified its efforts to strengthen defence partnerships with Gulf, ASEAN, and African countries through expanded military training programs. These initiatives cover a spectrum of skills ranging from basic infantry to advanced weapon systems and platforms such as submarines and fighter jets.

A significant aspect of this initiative is India's engagement with Gulf countries like UAE, Saudi Arabia, Oman, Qatar, and Bahrain. Recently, 76 cadets from Saudi Arabia's King Fahad Naval Academy joined India's Southern Naval Command (SNC) in Kochi for a specialized sea training program.

This four-week curriculum includes basic seamanship and simulator-based training aimed at providing practical experience in maritime operations.

Admiral Fahad Abdullah S Al-Ghofaily of the Royal Saudi Naval Forces (RSNF) highlighted the importance of this collaboration during his visit earlier this year, stating, "The sea phase will focus on practical exposure to nuances of life at sea."

India's military outreach also extends to Africa, where it hosts personnel from 26 countries annually. This includes comprehensive courses in Indian Army establishments and pre-commissioning training academies.

"The Army trains approximately 3,100 foreign personnel every year, including about 450 from various African nations," noted a military officer. Specialized training packages in counterinsurgency and jungle warfare are provided at locations like the counterinsurgency and jungle warfare school at Vairengte in Mizoram.

The Indian Navy, meanwhile, accommodates around 300 foreign trainees at any given time, offering training both at its various establishments and on board warships. This initiative underscores India's commitment to deepening military cooperation with ASEAN countries, enhancing regional security partnerships.

These training programs not only bolster the capabilities of foreign military personnel but also strengthen defence ties and contribute to regional stability. India's proactive approach in expanding military training reflects its strategic vision to foster collaborative security efforts across key geopolitical regions.

https://economictimes.indiatimes.com/news/defence/india-expands-military-training-for-foreign-partnerships-across-gulf-asean-and-africa/articleshow/111309532.cms

THE ECONOMIC TIMES

Thu, 27 Jun 2024

Big Boost to Rudra and Prachand helicopters: Adani Defence and Thales Group to manufacture 70mm rockets in India

In a major boost for India's defence sector, Adani Defence & Aerospace has signed an agreement with Thales Group to manufacture 70mm rockets locally. This strategic collaboration aligns with the Indian government's "Make in India" initiative, aiming to enhance self-reliance in defence production.

"Not only is this partnership significant for our commitment to India, but it also allows us to strengthen our partner network worldwide," the Thales Group said in a post on X - earlier known as Twitter. "We congratulate the Adani Group on this partnership. Together, we seek to contribute to the further growth and success of India's defence sector," the Thales Group said.

Enhancing Defence Capabilities

The 70mm rockets produced under this partnership will be used by the HAL Rudra and Prachand helicopters, critical assets in India's military operations. The HAL Rudra, a weaponized version of the Dhruv Advanced Light Helicopter, is equipped with air-to-air and air-to-ground missiles, rockets, and cannons.

The HAL Prachand, known for its high-altitude warfare capabilities, also relies on advanced weaponry systems. Local production of these rockets will ensure a steady supply, enhancing the operational readiness of the Indian Armed Forces.

Expertise and Local Manufacturing

Thales Group, renowned for its cutting-edge technology in aerospace, defence, and security, brings its expertise to the partnership. Adani Defence, a leader in local manufacturing and infrastructure, will leverage its extensive experience. Thales Group expressed its commitment to this partnership, stating, "Not only is this partnership significant for our commitment to India, but it also allows us to strengthen our partner network worldwide."

Adani Defence & Aerospace has also recently signed a landmark agreement with EDGE Group, one of the leading advanced technology and defence groups in the UAE. This agreement aims to establish a global platform, leveraging the defence and aerospace capabilities of both companies. It will focus on developing R&D facilities in India and the UAE and setting up production and maintenance facilities for defence and aerospace solutions.

Economic Impact and Employment

The collaboration with Thales is expected to generate numerous employment opportunities, contributing to the growth of India's defence manufacturing sector.

By reducing dependency on imports and fostering technological advancements, this partnership will bolster India's defence infrastructure and support economic development.

Strategic Significance

The partnership is a key milestone in India's journey towards self-reliance in defence production. Adani Defence & Aerospace's commitment to designing, developing, and manufacturing state-of-the-art defence products is complemented by Thales Group's technological innovation.

"We congratulate the Adani Group on this partnership. Together, we seek to contribute to the further growth and success of India's defence sector," stated Thales Group.

https://economictimes.indiatimes.com/news/defence/big-boost-to-rudra-and-prachand-helicopters-adani-defence-and-thales-group-to-manufacture-70mm-rockets-in-india/articleshow/111307479.cms

INDIA TODAY

Thu, 27 Jun 2024

Gurugram based firm designs world's first carbon neutral modular defense system for Indian army

While guarding the frontiers, Indian Army men have been bravely enduring harsh weather conditions in isolated regions for several years. Occasionally, this leads to serious injuries or even death. The 2 Engineer Regiment of the Chinar Corps, Indian Army engaged R+D Studio to design and implement a pilot outpost at 14,000 feet near Razdan Pass, in the northern front of Jammu & Kashmir with the goal of improving the situation.

Sandbags are often used for construction, insulation, and security, as we saw on a site visit to an Out Post. The firm used this as inspiration for designing the 13" x 9" x 6" Silica Composite Hollow Blocks (SCHB) made from 100% recycled material consisting of foundry dust and single-use/ multi-use plastic waste and zero natural materials. The patented hollow blocks also offer an alternate solution towards the "Last Mile" problem which is faced by the Armed forces in remote and inaccessible areas where material must be carried by either mules or porters.

These blocks are made of a proprietary composite material that can withstand 3 times more load as compared to clay bricks, ACC, or CMU Blocks. The hollow blocks are ideal in terms of weight at 7.5Kg per block) and are strong enough to take wear and tear.

The entire building, including the foundation, is built from 1800 interlocking SCHBs that simply click into place with a hammer. The walls are formed of three layers that rise from the earth, thinning to two near the top, and finally to one. The PD's roof is built to withstand a load of 25 feet of snowfall.

The PD (Permanent Defense) is constructed layer by layer, with each layer being installed after the hollow blocks have been completely compacted and filled with earth. The earth keeps the temperature differential between the interior and exterior comfortable.

Additionally, a specialised IRHS Heating plate (Infra-Red Heating System) is placed inside the space to provide heating for this PD to stay warm during winter nights when the temperature drops as low as -20 degrees Celsius. The blocks' ability to withstand enemy fire is another significant benefit. The compacted soil filling layer makes the SCHB wall impenetrable. The blocks of the PD can be recycled again for another purpose after its use is over.

"The world today is in a situation, where innovation in building materials is not just an idea but an obligation."

https://www.indiatoday.in/information/story/worlds-first-carbon-neutral-modular-defense-system-for-indian-army-2559122-2024-06-27

Business Standard

Fri, 28 Jun 2024

India, Russia conduct meeting to further enhance defence cooperation

The third India-Russia Inter-Governmental Commission (IRIGC) Sub-Working Group meeting was held in the national capital to further enhance defence cooperation and joint exercises between the two nations.

The two-day meeting was held on June 26-27, with the Indian Army and Russia's Land Forces participating in it.

The meeting focused on defence cooperation, military training, military education and joint exercises between the two Armies.

"3rd #India #Russia Inter Governmental Commission (IRIGC) Sub Working Group (Land) Meeting between #IndianArmy & #LandForces, Russian Federation was held at #NewDelhi from 26-27 Jun 2024. The Talks focused on defence cooperation, military training, military education & joint exercises between the two Armies," the Indian Army posted on X.

Meanwhile, India and Russia are making arrangements for an upcoming visit by Prime Minister Narendra Modi to Russia, Reuters reported, citing, Russian state news agency RIA.

According to RIA, a diplomatic source indicated that PM Modi's visit may take place in July.

The Kremlin had previously announced in March that Modi had an outstanding invitation to visit Russia, confirming that a meeting between PM Modi and President Vladimir Putin is scheduled to take place, Reuters reported.

If the visit takes place, it will be PM Modi's maiden trip to Russia since 2019, and also the first since the start of the Russian invasion of Ukraine in February 2022.

President Putin last visited New Delhi in 2021 for the annual India-Russia Summit, which hasn't been held in the past two years.

PM Modi last met Putin on the sidelines of the Shanghai Cooperation Organisation (SCO) Summit at Samarkand in Uzbekistan on September 16, 2022, when he called him to follow the path of dialogue and diplomacy to resolve the Ukraine conflict.

In spite of growing strategic and security ties with the US and other key Western players, India has refrained from publicly criticising Russia's invasion of Ukraine. India even ramped up the purchase

of Russian crude despite initial pressure from the US, saying such a move is required to control domestic oil prices.

However, India has time and again advocated for a cessation of hostilities in the Ukraine conflict and a return to the path of dialogue and diplomacy to find a lasting solution.

https://www.business-standard.com/world-news/india-russia-conduct-meeting-to-further-enhance-defence-cooperation-124062800023_1.html

Business Standard

Fri, 28 Jun 2024

Budget 2024: How can India achieve Rs 3 trillion defence production goal?

India's defence capital acquisition budget needs to grow 25 per cent year-on-year over the next five years, starting with the Union Budget for FY 2024-25 (FY25), compared to the current nine per cent rate of growth, for the country to achieve the ambitious annual defence production target of Rs 3 trillion by FY29, sources in the defence industry said on Wednesday.

According to the industry, at the very least, the capital acquisition budget will have to grow at a 20 per cent compound annual growth rate (CAGR), which will only be enough to meet the FY29 target if India's defence exports also witness substantial growth.

After assuming charge as the Union defence minister for a second consecutive term on June 13, Rajnath Singh said that the Ministry of Defence's (MoD's) objective would be to increase defence exports in the coming years. "Defence exports had touched a record Rs 21,083 crore in 2023-24 (FY24). It was historic. Our target will be to export over Rs 50,000 crore worth of defence equipment by FY29," Singh said, reiterating the ambitious target announced by him earlier this year.

In February, Singh had said that India's annual defence production was expected to touch Rs 3 trillion by FY29, while exports of military hardware could reach Rs 50,000 crore.

Ahead of the FY25 Union Budget, private sector companies accounted for a larger share of defence production in FY24 than has been seen in at least eight years. Department of Defence Production data shows that private companies accounted for Rs 16,411 crore, or a 22 per cent share, of the total FY24 defence production of Rs 74,739 crore. While FY24's private sector defence production was lower than the Rs 21,083 crore seen in FY23, the sector's share at the time was 19 per cent. The increased share in FY24 is a result of private sector defence production falling less than the overall numbers.

India's defence production in FY24 was Rs 74,739 crore, compared to Rs 1.09 trillion in the previous year. In fact, India's total defence production exceeded Rs 1 trillion for the first time during FY23.

Against this backdrop, the industry will be on the lookout for any measures taken in the FY25 Union Budget.

"Increased budgetary allocation for capital acquisition is necessary, along with taking the overall defence budget allocation closer to 2 per cent of gross domestic product (GDP)," says Jayant Patil, Member of Executive Committee of Management, Larsen & Toubro (L&T), and Advisor Defence and Smart Technologies to L&T CMD.

"The other requirements are increased allocation to indigenous acquisition, operationalisation of the FY23 announcement of 25 per cent allocation of the MoD's research and development (R&D) funds for R&D in industry and academia, and the creation of special dollar fund to support defence exports through Defence Export Councils," adds Patil.

The situation in India's neighbourhood could also inform allocation.

"Given the ongoing military challenges along its international borders, it's crucial for India to have a budget that supports a comprehensive defence indigenisation plan and promotes investments in modernising our defence sector," says Bharat Gite, Managing Director (MD) and Chief Executive Officer (CEO) of Taural India, a company that supplies the defence sector with essential high-strength and lightweight aluminium-casted components.

"To bolster national security and achieve the goal of becoming a 'Viksit Bharat' by 2047, it's imperative to prioritise capital expenditure in key infrastructure, upgrade weapons and defence systems, and encourage innovation and advanced tech-based research and development for the armed forces," adds Gite.

Budgetary focus on specific technologies, which require costly and time-consuming research but can prove to be core building blocks for future defence systems, can also benefit the industry.

"The government should consider providing higher R&D budget incentives for niche technologies, which would be a major boost for India's defence ecosystem," says Rajinder Singh Bhatia, President of the Society of Indian Defence Manufacturers and Chairman (Defence Business) at Kalyani Group.

In the interim Union Budget presented in February, the government allocated just over Rs 6.21 trillion to the MoD. While this was a 4.72 per cent increase over the FY24 Budget's defence allocation, it was a marginal fall compared to the revised allocation for the same year. Moreover, as a percentage of government expenditure, the allocation for defence stood at just 13 per cent, in what security experts have described as a multi-year trend of falling allocations.

Moreover, as a percentage of GDP, the interim Union Budget's defence allocation remained firmly below two per cent. Under the capital allocation head, which caters for military modernisation, defence was allocated Rs 1.72 trillion, which amounted to 27.67 per cent of the total defence budget. Meanwhile, security experts point out that a modern military in other parts of the world usually spends about 50 per cent or more of its total defence budget on the capital account.

https://www.business-standard.com/budget/news/budget-2024-how-can-india-achieve-rs-3-trillion-defence-production-goal-124062601310_1.html

THE NEW INDIAN EXPRESS

Fri, 28 Jun 2024

Policy switch to make full fighter jets in India

Not content with piecemeal Make in India initiatives in its defence procurement, the Union government has made a policy switch to buy as many as 114 Multi-Role Fighter Aircraft (MRFA) only from a vendor who is ready to set up a manufactuting unit in India for the entire aircraft.

It also wants transfer of technology and full production in India in a joint venture with a local partner. A new global tender incorporating these conditions is likely to be floated soon. The radical

shift in policy is expected to delay the MRFA acquisition further. India has 31 squadrons of fighter jets as against the sanctioned strength of 42.

A large number of parts of fighter aircraft purchased earlier are already being manufactured in India under the offset obligations. This is the first time that the government will be insisting on manufacturing complete aircraft in India with technology transfer. Approximately valued at $20 billion, the MRCA is said to be one of the world's biggest defence deals in recent times.

Among the aircraft in the race to bag the contract are Dassault's Rafale, Boeing's Super Hornet F/A-18, SAAB's Gripen, Lockheed Martin's F-21, Russian MiG-35 and the Eurofighter Typhoon. Sources said French company Dassault, makers of Rafale, which has been the frontrunner to bag the contract, is not keen to transfer technology for production in India. The Indian government has already bought 36 Rafale jets for the Indian Air Force and is likely to go ahead with its decision to purchase 26 Rafale Marine to replace the ageing MiG-29s being used on INS Vikrant and INS Vikramaditya.

The Union government has been encouraged by its success in getting US company GE Aerospace Defence and Systems to produce fighter jet engines in India in collaboration with the state-owned Hindustan Aeronautics Ltd.

As per the deal signed during Prime Minister Narendra Modi's last visit to the US, GE will transfer 80% technology of its F414 jet engines that will power the Mk2 version of India's indigenously-developed Light Combat Aircraft. The government has increased the FDI sectoral limit in defence to 74% to make the country a defence manufacturing hub.

https://www.newindianexpress.com/nation/2024/Jun/28/policy-switch-to-make-full-fighter-jets-in-india

THE ECONOMIC TIMES

Thu, 27 Jun 2024

Reforms in armed forces should be continuous to maintain supremacy during wars: President Murmu

Nearly 70 per cent of the total procurement of defence forces was sourced from domestic firms last year, President Droupadi Murmu said on Thursday, outlining the government's focus to boost production of critical military hardware within India.

In an address to a joint sitting of Parliament, Murmu said modernisation of the armed forces is essential for a strong India and that reforms in the military should be a continuous process to ensure that it maintains "supremacy" during wars.

Listing steps to boost domestic defence production, she said the reforms undertaken in the sector have resulted in India now manufacturing defence equipment worth more than Rs one lakh crore. The president said the BrahMos missile deal with the Philippines has strengthened India's standing in the defence export sector.

"Modernisation of our armed forces is essential for a strong India. Reforms in our armed forces should be a continuous process so that our forces maintain their supremacy during wars," she said.

"Guided by this, my Government has introduced many reforms in the defence sector in the last 10 years. Reforms like CDS (Chief of Defence Staff) have given new strength to our defence forces," she said. Murmu also highlighted the government's focus on boosting domestic defence industries

and how it is working on developing two defence corridors -- one in Uttar Pradesh and the other in Tamil Nadu.

"It is a matter of joy for all of us that last year nearly 70 per cent of the total procurement of the defence forces has been sourced from Indian manufacturers only," she said. "Our defence forces have decided not to import over 500 defence items. All these arms and defence related equipment are being procured only from Indian companies," Murmu noted.

The president also talked about India's rising defence exports. "In the last decade, our defence exports have increased more than 18 times to the level of Rs 21,000 crore," she said. "The BrahMos Missile defence deal with the Philippines has strengthened India's standing in defence export sector," Murmu said. Two weeks back, Defence Minister Rajnath Singh said the government will work assiduously to increase the defence exports to Rs 50,000 crore by 2028- 29 from current Rs 21,083 crore.

Under a 2022 deal, India is supplying three batteries of the missiles, their launchers and related equipment to the Philippines. In April, India delivered the first batch of the missile to the Philippines. The president mentioned various steps initiated by the government to make the defence sector self-reliant. "The defence sector has greatly benefitted from the reforms in ordnance factories.

More than 40 ordnance factories have been restructured into seven defence sector enterprises, resulting in improvement of their capacity and efficiency," she said. "It is due to such reforms that India is now manufacturing defence equipment worth more than Rs one lakh crore," she added. The value of defence production in 2022-23 crossed the figure of Rs one lakh crore for the first time, according to the defence ministry.

The president said the government has always given priority to the needs of the personnel in the armed forces. "That is why after four decades, One Rank One Pension has been implemented. Under this, Rs 1,20,000 crore have been disbursed till date," she said. "In the honour of our martyrs, the government has also established the National War Memorial at one end of Kartavya Path," Murmu said. "These efforts are not only salutations from a grateful nation for its brave soldiers but also a source of constant inspiration for the ideal of Nation First," she said.

https://economictimes.indiatimes.com/news/defence/reforms-in-armed-forces-should-be-continuous-to-maintain-supremacy-during-wars-murmu/articleshow/111311261.cms

THE ECONOMIC TIMES

Thu, 27 Jun 2024

Seoul, Tokyo, Washington start new joint military drills

South Korea, the United States and Japan kicked off major new military exercises on Thursday, Seoul's Joint Chiefs of Staff said, as the allies seek to counter growing threats from Pyongyang.

The drills, dubbed "Freedom Edge", will focus on ballistic missile and air defences, anti-submarine warfare and defensive cyber training, among other areas, the JCS said in a statement.

The three countries' leaders held a summit last year and agreed to conduct drills every year to demonstrate unity in the face of North Korea's nuclear threats and China's rising regional influence.

Similar combined military exercises in the past have infuriated Pyongyang, which sees them as rehearsals for an invasion. The drills, which are set to wrap up Saturday, will involve the nuclear-

powered aircraft carrier USS Theodore Roosevelt, Japan's guided-missile destroyer JS Atago, and Seoul's KF-16 fighter jet, among other assets.

Ahead of the drills, South Korean President Yoon Suk Yeol visited the USS Theodore Roosevelt, after it arrived in the southern port of Busan on the weekend. The United States is one of only two countries with aircraft carriers that use nuclear energy for propulsion, enabling them to operate for extended periods without needing to refuel.

The ship's arrival prompted an angry response from North Korea, which said it was opening "all possibilities of demonstrating (our) overwhelming and new deterrent force." Thursday's announcement from Seoul came hours after North Korea claimed to have successfully tested its multiple-warhead missile capability.

https://economictimes.indiatimes.com/news/defence/seoul-tokyo-washington-start-new-joint-military-drills/articleshow/111305289.cms

The EurAsian Times

Thu, 27 Jun 2024

US Marines 'Project Power' Near China With New Amphibious Combat Vehicle; Hold 1st Ship-To-Shore Ops

The US Marine Corps executed its first overseas ship-to-shore operations with the new Amphibious Combat Vehicles (ACVs) on June 24, 2024, at the White Beach Naval Facility in Okinawa, Japan.

The event also marked the first trip for the Marines stationed in Okinawa aboard the new amphibious vehicles. The service said that Marines and sailors from the 15th Marine Expeditionary Unit (MEU) reached White Beach Naval Facility, partly traversing on the newly deployed ACVs.

The soldiers of the 15th MEU embarked on the amphibious dock landing ship USS Harpers Ferry (LSD 49) and arrived at White Beach on June 18 for a port visit and to conduct essential sustainment training. During the ship-to-shore operation, personnel boarded the ACVs before they emerged from the well deck of the Harpers Ferry.

Boats from the 3rd Expeditionary Operations Training Group then maneuvered alongside the ACVs to transfer personnel to a pier, simulating safety egress procedures.

After transferring all personnel, the ACV Platoon navigated through the boat basin to come ashore at White Beach, where they conducted maintenance. US Marine Corps Lt. Col. Nick Freeman, commanding officer of BLT 1/5, 15th MEU said, "This was fairly standard training for us, but I'm proud it also represented the first overseas ship-to-shore employment of ACVs."

"We'll continue to train at other locations in the months ahead, using a deliberate approach, capturing useful data and lessons learned, and ultimately sharpening our understanding of how to best employ the ACV in its intended environment – embarked with our forward-deployed ARG/MEUs," Freeman added.

Before the ship-to-shore movement, the Marines showcased the ACVs on the Harpers Ferry to other Marine units and members of the Japan Self-Defense Force.

The 15th MEU is part of Task Force 76, the expeditionary warfare arm of the U.S. 7th Fleet headquartered at Yokosuka Naval Base, Japan. Rear Adm. Chris Stone, commander of Task Force

76 and Expeditionary Strike Group 7 commended the ACVs as a “force multiplier” that significantly enhances operational flexibility and response capabilities in maritime environments.

The ACVs’ first operational deployment was in May during the Balikatan exercise in the Philippines. In those drills, the 15th MEU utilized the ACVs for live-fire exercises at a waterborne range in Oyster Bay, Palawan.

The ACV platoon launched from the USS Harpers Ferry organized into assault sections and engaged multiple shore-based targets using their Remote Weapons Systems with Mark 19 40 mm grenade machine guns.

New Marine Corps amphibious vehicle

The US Marine Corps is transitioning to the new Amphibious Combat Vehicle (ACV) replacing the aging and problematic amphibious assault vehicle. This shift follows a tragic mishap in 2020 that claimed the lives of eight Marines and a Navy corpsman on the West Coast.

BAE Systems, based in York, Pennsylvania, led the development of the ACV. In June 2019, the company received a $67 million contract. Subsequently, the company secured a $184 million contract for the vehicle’s full production.

Despite these advances, the ACV has encountered its own set of challenges. The vehicle’s repeated rollovers during training exercises have presented a significant challenge for the Marine Corps.

In October 2022, an ACV rollover occurred without resulting in fatalities, leading the Corps to restrict the vehicle’s operations. Earlier that same year, in July, two ACVs became disabled off the coast of Camp Pendleton, California, though no injuries were reported.

Tragically, a Marine from the 15th Marine Expeditionary Unit (MEU) lost his life in December 2023 during a training accident at Camp Pendleton when an ACV rolled over.

The Marine Corps has identified insufficient training on the ACV’s operational differences from its predecessor as the root cause of these incidents. Unlike the older vehicle, the ACV features wheels instead of tracks, a flatter hull, and a smaller size, among other design changes.

There are also concerns regarding the ACV’s wheeled design, which experts argue does not provide a speed advantage over the Cold War-era tracked Assault Amphibious Vehicle in water. The Marine Corps aims to address this with a “Phase 2” ACV that will potentially meet these performance requirements.

Nevertheless, the eight-wheeled ACV is designed to significantly enhance the Marine Corps’ capability to transport troops to shore. These vehicles are deployed from ships and can navigate through surf close to shore during assaults and landings.

The deployment of the ACV is a critical step in modernizing the Marine Corps’ capabilities in the Pacific theater. The region is a strategic focus as the Marines prepare for the possibility of a large-scale conflict with China, where amphibious operations will play a crucial role.

https://www.eurasiantimes.com/onducts-first-overseas-operations-with/

The Indian EXPRESS

Thu, 27 Jun 2024

China calls on scientists of all nations to study lunar samples, but notes obstacle with the US

China's space officials said Thursday they welcomed scientists from around the world to apply to study the lunar rock samples that the Chang'e 6 probe brought back to Earth in a historic mission, but noted there were limits to that cooperation, specifically with the United States.

Officials said at a televised news conference in Beijing meant to introduce the mission's achievements that any cooperation with the US would be hinged on removing an American law that bans direct bilateral cooperation with NASA.

"The source of the obstacle in US-China aerospace cooperation is still in the Wolf Amendment," said Bian Zhigang, vice chair of the China National Space Administration. "If the US truly wants to hope to began regular aerospace cooperation, I think they should take the appropriate measures to remove the obstacle." The Wolf Amendment was enacted in 2011 and prevents direct US-Chinese bilateral cooperation except in cases where the FBI can certify that there is no national security risk to sharing information with the Chinese side in the course of work.

Still, China could cooperate with scientists of other countries. It worked with the European Space Agency, France, Italy and Pakistan in the Chang'e 6 mission.

"China welcomes scientists from all countries to apply according to the processes and share in the benefits," said Liu Yunfeng, director of the international cooperation office of the China National Space Administration.

Meanwhile, little information about the global first achieved Tuesday was announced. Chinese officials declined to reveal how many samples they actually gathered or any preliminary findings.

"I'm afraid this matter will not be revealed until tomorrow, so I hope everyone can wait patiently for another day," Chang'e 6 chief designer Hu Hao said at the news conference.

On Monday, Chinese scientists said that they anticipate the returned samples will include 2.5 million-year-old volcanic rock and other material that scientists hope will answer questions about geographic differences on the moon's two sides. The mission had aimed to gather two kilograms (more than four pounds) of material.

The near side of the moon is what is seen from Earth, and the far side faces outer space. The far side is also known to have mountains and impact craters and is much more difficult to reach.

The probe's journey to the far side of the moon was historic in that it was the first time a probe had successfully taken off and brought back samples from the far side directly. Previous samples thought to be from the far side of the moon are from meteorites found on Earth.

The probe had landed in the moon's South Pole-Aitken Basin, an impact crater created more than 4 billion years ago. The samples scientists are expecting will likely come from different layers of the basin, which will bear traces of the different geological events across its long chronology, such as when the moon was younger and had an active inside that could produce volcanic rock.

Officials did announce some future plans, with a planned Chang'e 7 probe to explore resources on the moon's South Pole. Further down the line, they have planned Tianwen-3 for around 2030 to carry out a Mars sample return mission and a Tianwen-4 Jupiter exploration mission.

https://indianexpress.com/article/technology/science/china-scientists-all-nations-study-lunar-samples-notes-obstacle-us-9418777/

ThePrint

Thu, 27 Jun 2024

Joint mission with NASA, Gaganyaan tests, broadband satellite — ISRO's busy schedule for rest of 2024

From satellite launches to tests for India's first manned mission to the Moon, the Indian Space Research Organisation (ISRO) has a packed calendar for the second half of the year.

Speaking on the sidelines of the third Annual India Space Congress in Delhi Wednesday, ISRO chief S. Somanath said, "The rest of 2024 is going to be hectic. We have three tests for Gaganyaan this year, as well as the launch of the NISAR. We will try to pack everything in the next few months."

Detailing the launch calendar for the rest of the year, Somanath said that the GSAT-N2, formerly known as GSAT-20, is set to be launched on board SpaceX's Falcon-9 launcher around August. GSAT-N2 aims to provide a low-cost Ka-Ka band (a range of the electromagnetic spectrum) high-throughput satellite to enhance broadband services and in-flight connectivity across the country.

The space agency is also preparing to launch India's partnership mission with the US's National Aeronautics and Space Administration (NASA), NISAR (NASA-ISRO Synthetic Aperture Radar), which is likely to take at least two months. Somanath said Wednesday that a part of the satellite — a deployable antenna — had to be sent back to NASA's Jet Propulsion Laboratory for minor modifications.

The mission was initially due for launch in March this year but was delayed because of the error spotted in the antenna.

"A part of the satellite, the deployable antenna, is a US-company-supplied item. They have to make some corrections. It is likely to come back by 10 July. Once the antenna comes back, it will have to be integrated with the satellite and go through the test programme," said Somanath.

Three tests for India's first human spaceflight mission, Gaganyaan, are also lined up this year.

This year, the space agency will undertake a test flight, a pad abort test and an unmanned mission in preparation for Gaganyaan. The three-day mission, likely to take place in 2025, will see three astronaut designates launched into a low-Earth orbit of 400 km and brought back safely to Earth.

Somanath confirmed that the space agency is also ready to take the leap towards India's next lunar mission, which aims to bring back samples from the Moon. The Space Docking Experiment or Spadex is an essential segment of the upcoming Chandrayaan-4 mission. ISRO will be launching two spacecraft — Chaser and Target — to engage in a complex and autonomous docking experiment in-orbit.

The aim of this demonstration will be to showcase ISRO's capabilities in space navigation and robotics.

“We are hoping to launch Spadex by December,” he said.

Long-term plans

India is also working on a long-term plan under its ‘Vision 2047’, which has laid down a detailed plan for the country’s space programme for the next 25 years.

Somanath said the focus of the programme is to set up the Bharatiya Antariksh Station — India’s very own space station — expected to come up by 2035. The space agency aims to launch the first module, a basic version of the station, by 2028.

The space station will be placed in a low Earth orbit, designed to accommodate two to four astronauts in space. At present, only the US, China and Russia have sent space stations into orbit. India will become the fourth country with an independent station in space.

Somanath said the space station, with its docking facilities, will enable ISRO to carry out more complicated interplanetary space missions, including lunar missions where samples can be brought back to Earth for experiments.

Speaking to ThePrint, a senior ISRO scientist explained that the Chandrayaan-4 mission will depend greatly on making pit stops at the docking facilities during the course of the mission.

“The mission will be undertaken in parts, and during the course of the spacecraft’s travel, it will have to use the docking facilities of the space station. The primary design for the space station is ready, and undergoing some assessments and reviews,” the scientist said, requesting anonymity.

Apart from these high-priority projects, the space agency is also working on big-ticket missions including the Venus Mission — unofficially called Shukrayaan — and the Mars Orbiter Mission-2.

Officials working on the Venus Mission confirmed to ThePrint that the mission has received the required approvals from the government.

“Our priority over the next two years is going to be on the space station and the lunar return missions. Work on the Venus and Mars missions will progress parallelly but that is not our priority at the moment,” Somanath said.

https://theprint.in/science/joint-mission-with-nasa-gaganyaan-tests-broadband-satellite-isros-busy-schedule-for-rest-of-2024/2149585/