

फरवरी
Feb
2024

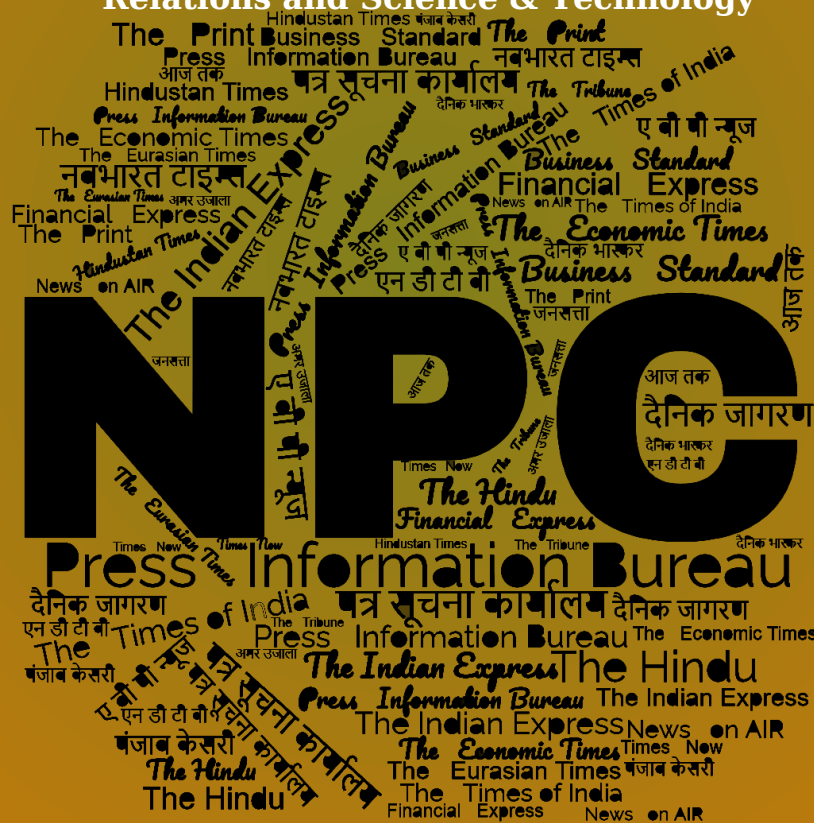
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समाचार पत्रों से चयित अंश Newspapers Clippings

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

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अमरउजाला

Wed, 14 Feb 2024

'तापस ड्रोन' को लेकर भारतीय नौसेना और वायुसेना ने दिखाई रुचि, DRDO के साथ क्षमताओं को लेकर चर्चा

भारतीय नौसेना और भारतीय वायु सेना ने स्वदेशी रूप से डिजाइन और विकसित मध्यम ऊंचाई वाले लंबे सहनशक्ति वाले 'तापस ड्रोन' में खास रुचि दिखाई है। रक्षा अधिकारियों ने कहा कि ड्रोन की क्षमताओं और सेवाओं में इसकी भूमिका के बारे में रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) के साथ चर्चा की गई। इस दौरान ड्रोन की क्षमताओं के विस्तार पर खुलकर चर्चा की गई।

ड्रोन को लेकर अधिकारियों ने कहा कि डीआरडीओ द्वारा दो तापस ड्रोन को अंडमान और निकोबार द्वीप क्षेत्र में परीक्षण के लिए भारतीय नौसेना को सौंपने की भी संभावना है। अधिकारी ने बताया अगर परीक्षण सफल होते हैं, तो 10-12 ड्रोन के ऑर्डर दिए जा सकते हैं। उन्होंने कहा कि भारतीय वायु सेना इस मुद्दे पर आगे का फैसला लेने से पहले अन्य मुद्दों के साथ-साथ ड्रोन के प्रदर्शन को भी देखेगी।

गौरतलब है कि डीआरडीओ ने तापस ड्रोन परियोजना को ठंडे बस्ते में डालने की खबरों को दरकिनार करते हुए कहा कि तापस ड्रोन को ज्यादा विकसित करने के लिए इसे जारी रख रहा है। तापस ड्रोन का रक्षा बलों द्वारा परीक्षण किया गया है और परीक्षण के दौरान वे 28,000 फीट की ऊंचाई तक पहुंचने में कामयाब रहा और 18 घंटे से अधिक समय तक उड़ान भर सका। डीआरडीओ के अधिकारियों ने कहा कि संबंधित प्रयोगशाला ड्रोन में डिजाइन में सुधार और शक्ति बढ़ाने पर काम करेगी ताकि इसे ऊंचाई और सहनशक्ति की सेवा आवश्यकताओं के लिए अधिक उपयुक्त बनाया जा सके, जिसे वह हाल के मूल्यांकन में पूरा करने में सक्षम नहीं था। डॉ. समीर वी कामत के नेतृत्व वाली प्रमुख रक्षा अनुसंधान एजेंसी प्रमुख ड्रोन परियोजनाओं पर काम कर रही है, जिसमें घटक और आर्चर जैसे मानव रहित लड़ाकू हवाई वाहन शामिल हैं।

<https://www.amarujala.com/india-news/indian-navy-and-the-indian-air-force-have-shown-interest-in-indigenously-tapas-drone-2024-02-14>



Wed, 14 Feb 2024

Indian Navy, Air Force Showing Interest in Indigenous Tapas Drones

The Indian Navy and the Indian Air Force have shown interest in the indigenously designed and developed Tapas medium altitude long endurance drone. The Indian Navy and Air Force have held discussions and communicated with the Defence Research and Development Organisation

regarding the capabilities of the drone and the roles it can perform in the services, defence officials told ANI.

The Tapas drone capabilities were discussed in detail during a DRDO interaction with the forces. The Indian Air Force has also written to the DRDO in this regard, they said.

The DRDO is also likely to hand over the two Tapas drones in its inventory to the Indian Navy for trials and testing in the Andaman and Nicobar Island territory, the officials said.

If the trials are successful and meet the roles for which the force wants them, there is a possibility of the Indian Navy placing orders for around 10-12 drones.

The Indian Air Force would also look at the performance of the drones along with other issues before it decides further on the issue, they said.

The DRDO recently rubbished reports about shelving of the Tapas drone project and announced that it is continuing with it to further develop the Tapas drones.

The Tapas drones being developed by the Aeronautical Development Establishment Laboratory have not been able to fully meet the Joint Services Qualitative Requirements of flying at 30,000 feet for over 24 hours at a stretch and have been excluded from the category of mission mode projects.

The Tapas drones have been tested by the defence forces and during the trials, they managed to reach 28,000 feet altitude and could fly for over 18 hours, they said.

DRDO officials said the laboratory concerned would be working on improving designs and increasing the power in the drone to make it more suitable for service requirements of altitude and endurance, which it was not able to meet in the recent evaluations.

The premier defence research agency led by Dr Samir V Kamat has been working on major drone projects, including unmanned combat aerial vehicles like Ghatak and Archer.

<https://www.aninews.in/news/national/general-news/indian-navy-air-force-showing-interest-in-indigenous-tapas-drones20240214200216/>



Wed, 14 Feb 2024

भारतीय सेना ने पोखरण में उन्नत एंटी टैंक मिसाइल नाग का किया परीक्षण, जानें खास बात

भारतीय सेना ने मंगलवार को एंटी-टैंक गाइडेड मिसाइल नाग के उन्नत संस्करण का सफलतापूर्वक परीक्षण किया, जिसमें मिसाइल ने पोखरण फील्ड फायरिंग रेंज में डमी लक्ष्यों को मार गिराया, जहां सेना वर्तमान में युद्ध अभ्यास के हिस्से के रूप में हथियारों का परीक्षण कर रही है।

हथियारों की मारक क्षमता का परीक्षण कर रही भारतीय सेना

सेना के सूत्रों के मुताबिक, इस सैन्य अभ्यास में सेना मिसाइलों और बमों के साथ-साथ कई तोपों, टैंकों और अन्य हथियारों की मारक क्षमता का परीक्षण कर रही है।

NAG Missile: सतह से सतह पर दागी जाने वाली तीसरी पीढ़ी की मिसाइल

परीक्षण की गई एंटी-टैंक गाइडेड मिसाइल नाग का उन्नत संस्करण सतह से सतह पर दागी जाने वाली तीसरी पीढ़ी की मिसाइल है। इसका एक हेलिना संस्करण भी है जिसे हवा से सतह पर दागा जा सकता है और इस हेलीकॉप्टर से दागा जा सकता है। हेलिना की रेंज 10 किमी है।

<https://www.timesnowhindi.com/india/indian-army-tests-improved-anti-tank-missile-nag-in-pokhran-know-its-speciality-article-107680990>

Defence News

Defence Strategic: National/International



Press Information Bureau
Government of India

Ministry of Defence

Wed, 14 Feb 2024

Indian Coast Guard Offshore Patrol Vessel ICGS Varaha Makes a Port Call at Maputo Port, Mozambique as Part of Strategic Overseas Deployment to East Africa

Indian Coast Guard Offshore Patrol Vessel (OPV) ICGS Varaha made a significant port call at Maputo Port, Mozambique on 14 February, 2024 as a part of ongoing strategic overseas deployment to East Africa, marking a pivotal milestone in the ongoing diplomatic maritime engagements.

During its three-day visit, the crew of ICGS Varaha will participate in a series of professional interactions in the field of Marine Pollution Response (MPR), Maritime Search and Rescue (M-SAR) and Maritime Law Enforcement including cross-deck training, call on to various Mozambique Naval and maritime agencies officials, sports fixtures, joint yoga sessions, tabletop exercises and Passage Exercise (PASSEX) with the Mozambique Naval Forces. The visit of ICGS Varaha, an indigenously built Offshore Patrol Vessel to East African countries also aims to showcase Indian shipbuilding industry prowess and capabilities furthering the concept of “Aatmnirbhar Bharat”.

Additionally, the National Cadet Corps (NCC) embarked onboard the ICG ship and will be undertaking a Beach Cleanup drive in coordination with a local youth organization at Maputo towards the Government's initiative “Puneet Sagar Abhiyan” to provide it an international outreach. The collaborative efforts aim to further strengthen the ties between the Indian Coast Guard and their counterparts in Mozambique.

This overseas deployment aligns with the Indian Coast Guard's commitment to fostering bilateral relationships and enhancing international cooperation with Foreign Friendly Countries (FFCs).

Notably, before this visit, ICGS Varaha had made port calls to Mombasa, Kenya, demonstrating a seamless continuation of diplomatic maritime engagements in the African region.

The visit to Maputo holds great significance as it reinforces bilateral relationships with key maritime agencies. These longstanding relationships are integral to ensuring the safety, security, and environmental sustainability of the seas in the region, while also addressing contemporary maritime challenges.

The deployment of ICGS Varaha to East Africa exemplifies India's commitment to fostering warm and cordial relations with African countries. The overarching goal is to promote friendly relations through maritime cooperation, aligning with India's maritime vision encapsulated in "SAGAR – Security and Growth for All in the Region" and the concept of "Global South."

<https://pib.gov.in/PressReleasePage.aspx?PRID=2006124>



Press Information Bureau
Government of India

Ministry of Defence

Wed, 14 Feb 2024

AFMS & IIT Roorkee Join Hands to Foster Research in Improving Combat Medical Support & Patient Care of Serving Personnel

In another milestone towards research in Armed Forces Medical Services, a Memorandum of Understanding was signed on 14 Feb 2024, between Armed Forces Medical Services and Indian Institute of Technology Roorkee. The MoU was signed by Director General (Org & Pers) Lt Gen SK Singh on behalf of Director General Armed Forces Medical Services and Director IIT Roorkee Prof Kamal Kishore Pant.

The MoU aims towards promoting collaborative biomedical research, to aid in improving the combat medical support and patient care of serving personnel. Apart from research, faculty exchange programme, joint academic activities and promotion of start ups in the domain of health care are also under the purview of this MoU.

Under this MoU, Armed Forces Medical Services will be able to utilize the expertise of IIT Roorkee in various fields like, development of novel medical devices, robotics, nanotechnology, artificial intelligence and machine learning.

On this occasion, Lt Gen Daljit Singh, Director General Armed Forces Medical Services, emphasized that this collaboration with a premier institute like IIT Roorkee will take the Armed Forces Medical Services into the future of combat and peacetime medical care. Prof Kamal Kishore Pant highlighted that medical and defence related research projects are a priority of the premiere technology institute and IIT Roorkee is looking forward to fruitful outcomes from this collaboration.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2005998>



**Press Information Bureau
Government of India**

Ministry of Defence

Wed, 14 Feb 2024

Aatmanirbharta in Defence: MoD Signs Contract worth Rs.1,752 Cr with AWEIL for 463 Stabilised Remote Control Guns for Indian Navy & Indian Coast Guard

The Ministry of Defence has signed a contract on February 14, 2024 with Advanced Weapon Equipment India Ltd. (AWEIL), Kanpur for manufacturing & supply of a total of 463 indigenously manufactured 12.7 mm Stabilised Remote Control Guns (SRCG) for the Indian Navy & Indian Coast Guard at a total cost of Rs. 1752.13 crores, with Indigenous Content (IC) of more than 85%.

The SRCG will enhance the capability of Indian Navy and Indian Coast Guard to accurately engage small targets that pose a threat to ships in an asymmetric environment, both by day and night.

This acquisition will provide further boost to the vision of "Aatmanirbharta in Defence". This contract will also open up a large avenue in defence manufacturing for over 125 Indian Vendors and DPSUs for over a period of 5 years.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2005851>

THE ECONOMIC TIMES

Wed, 14 Feb 2024

Defence Ministry Procurement through GeM Portal Crosses Rs 1 Lakh Crore

Procurement of goods and services by the Ministry of Defence (MoD) through public buying platform GeM has crossed Rs 1 lakh crore, with about half of it coming in the current financial year. The Government e-Market (GeM) portal was launched on August 9, 2016, for online purchases of goods and services by all central government ministries and departments.

"From procurement of general store items like eggs to missile systems and critical defence acquisitions, GeM has helped MoD execute more than 5.47 lakh orders. Of this, transactions worth around Rs 45,800 crore have been awarded in the current financial year," a commerce ministry statement said on Wednesday.

It said the defence ministry is the "first" central government entity to cross this figure, exemplifying its resolute commitment towards optimising public spending in the Defence sector," GeM Chief Executive Officer P K Singh said.

He added that around 50.7 per cent of the total orders, amounting to Rs 60,593 crore, have been awarded to Micro and Small Enterprises (MSEs) by the Defence ministry entities, including defence-related public sector enterprises.

"Since its (GeM) inception, the ministry has been an early adopter of GeM... The ministry has made an astounding accomplishment by surpassing the Rs 1 lakh crore mark in terms of total order value transacted through the GeM portal," he said.

Furthermore, the engagement of Defence PSUs on the GeM platform has not only facilitated procurement but has also facilitated sales.

Since its launch in 2016, the procurement through GeM has scaled up at a faster pace.

The procurement of goods and services from the government portal GeM will cross Rs 4 lakh crore by the end of this fiscal due to higher buying activities by various ministries and departments.

So far this fiscal, the procurement has crossed Rs 3 lakh crore.

GeM has over 63,000 government buyer organisations and over 62 lakh sellers and service providers offering a wide range of products and services.

Currently, government departments, ministries, public sector units, state governments, and central armed police forces are allowed to carry out transactions through this portal.

The portal provides a wide range of products from office stationery to vehicles.

Automobiles, computers, and office furniture are some of the major product categories.

Services, including transportation, logistics, waste management, webcasting, and analytical, are listed on the portal.

South Korea's KONEPS is the largest such platform in the world. Currently, GeM stands at the third position after KONEPS and Singapore's GeBIZ.

<https://economictimes.indiatimes.com/news/defence/defence-ministry-procurement-through-gem-portal-crosses-rs-1-lakh-crore/articleshow/107695066.cms>

THE TIMES OF INDIA

Thu, 15 Feb 2024

IAF's Full Rehearsal for 'Vayu Shakti'

The Indian Air Force on Wednesday conducted a full day-and-night rehearsal for Vayu Shakti 2024 exercise in Chandhan area at Pokhran field firing range in Jaisalmer. The Vayu Shakti 2024 demonstration and exercise will be held on February 17 at the Pokhran range.

As part of the rehearsal, IAF used its fighter planes, helicopters, bombs, missiles and other war equipment and weapons to hit dummy targets. The special feature of this full rehearsal was Rafale fighter plane and Prachand helicopter taking part. There were tremors in the entire range when the Rafale plane passed 1,300 kmph speed with supersonic boom.

In the full rehearsal, a total of 121 aircraft including Sukhoi, Mirage, Jaguar, fighter helicopters and cargo planes took part.

The chief guests at the full rehearsal were deputy air chief marshal A P Singh, Southern Western Command chief air marshal Narmadeshwar Tiwari, and vice air marshal Manish Khanna. Many senior officers of the Army, IAF, Navy and BSF, as well as hundreds of defence personnel and other eminent persons, witnessed the firing capabilities of the air force.

Indian-made fighter planes and helicopters fired surface-to-air Akash missiles during the rehearsal. C130 Hercules choppers air-dropped commandos, Chinook helicopter carried an M777 Howitzer

gun, and a Jaguar aircraft flew very low to take photos which were later presented to the chief guests.

The IAF also demonstrated its ability to track airplanes intruding into Indian air borders and shot them down.

<https://timesofindia.indiatimes.com/city/jaipur/iafs-full-rehearsal-for-vayu-shakti-in-jaisalmer-highlights-of-the-exercise/articleshow/107706882.cms>



Thu, 15 Feb 2024

Multipurpose Octocopter: Army Havildar Honoured for Designing Innovative Drone

An Indian Army Havildar has been awarded the Vishisht Seva Medal by President Droupadi Murmu for designing an innovative drone called 'Multipurpose Octocopter', which can not only undertake surveillance operations but can also be used for other tasks like dropping munitions, aerial engagement of targets and logistics operations.

Havildar Varinder Singh was honoured by President Murmu on January 25, the eve of Republic Day. The 'Multipurpose Octocopter', designed by Havildar Singh, can undertake surveillance operations by providing live-camera feed to the operator. It can be used to drop essential supplies to forward posts, including in high-altitude areas. The octocopter has been equipped with a platform for firing assault rifles and dropping grenades onto enemy targets.

The innovative drone, therefore, has the potential to become a force multiplier in operational areas and situations where last-mile connectivity for the delivery of operational logistics is a challenge.

It would also be particularly useful for the delivery of essential supplies to troops deployed at remote posts in high-altitude areas and mountainous terrain.

The 'Multipurpose Octocopter' will assist the Indian Army during operations by enabling surveillance and enemy engagements from a remote platform.

Trials of this in-house developed cutting-edge drone have already been successfully carried out in the plains and high-altitude areas.

<https://www.indiatoday.in/india/story/army-havildar-multipurpose-octocopter-drone-honoured-president-murmu-operations-2502307-2024-02-15>



Wed, 14 Feb 2024

India to Build Naval Bases in Agatti and Minicoy Islands

After Prime Minister Narendra Modi's visit to Lakshadweep, India has decided to firmly extend its naval footprint by establishing naval bases in Agatti and Minicoy Islands along with air bases in order to secure the vital sea lands of communication.

The Lakshadweep and Minicoy Islands sits on the nine degree channel through which billions of dollars worth of commercial trade passes through while enroute to South-East Asia and North Asia. Minicoy Islands is a mere 524 kilometers from Maldives.

India will be making a major maritime security statement when Defence Minister Rajnath Singh on board INS Vikramaditya and INS Vikrant carrier task forces which includes nearly 15 warships will travel to Minicoy Islands with naval brass to inaugurate a naval base INS Jatayu on March 4-5.

The Indian Navy plans for hold the first phase of Combined Commanders Conference on board Indian aircraft carriers with the two armadas travelling from Goa to Karwar to Minicoy Islands to Kochi. The second phase of commanders conference will be held on March 6-7.

It is understood that the Modi government has decided to build new airstrip at Minicoy Islands and upgrade the air strip at Agatti islands with plans to station naval assets at INS Jatayu. This decision dovetails into Modi government's strategy to use its islands territories to project power in the Indo-Pacific in support of maritime security of the region.

While India is already developing its force capability in Andamans and Nicobar Islands with new facilities at Campbell Bay in Great Nicobar, the move to upgrade the Lakshadweep and Minicoy Islands will not only protect commercial shipping but also lead to infrastructure upgrade and tourism in the island territories.

The geographical location of Lakshadweep and Minicoy Islands and the Andamans and Nicobar Islands is such that India can safeguard the maritime trade routes while countering the challenge of rapidly expanding Chinese Navy and their supplicants in the Indian Ocean.

The main commercial shipping route from Suez Canal or Persian Gulf to South East Asia and beyond goes through the nine degree channel (between Lakshadweep and Minicoy) and the ten degree channel (between Andamans and Nicobar Islands). India dominates even the trade route via Sunda and Lombok Straits of Indonesia.

The carrier task forces of INS Vikramaditya and INS Vikrant while enroute to Minicoy Islands will be a sight to behold as they will be accompanied by destroyers, frigates and submarines. Such level of force projection has never been seen in the past and will make the adversary and its supplicants think twice before playing mischief in the Indian Ocean region.

<https://www.hindustantimes.com/india-news/india-to-build-naval-bases-in-agatti-and-minicoy-islands-101707884042309.html>



Thu, 15 Feb 2024

Navy's MILAN Event: Geopolitical Scenario, Maritime Threats will be Focus this Year, Says Vice Admiral Sobti

As many as 51 countries, 11 heads of maritime agencies, and warships and an aircraft from 15 countries will participate in the Indian Navy's mega multi-national exercise MILAN scheduled this month, Deputy Chief of Naval Staff Vice Admiral Tarun Sobti said on Wednesday.

Addressing the media, ahead of the nine-day exercise in Visakhapatnam, he said the spate of missile and drone attacks on merchant ships spilling over from the Red Sea has been a matter of great concern globally as they not only affect insurances but also have an economic impact with the rerouting of merchant ships.

The 51 countries include new participants such as Canada, Spain, Germany, Italy, Iraq and Yemen in the exercise, which comes in the backdrop of a new set of security challenges in the Gulf of Aden, including a series of drone and missile attacks on merchant ships in the recent months.

The Navy has also carried out a series of anti-piracy operations in the Arabian Sea in recent weeks. In the 12th edition of MILAN, the 51 participating countries will be sending their operational units and delegations. As per the Navy, 15 ships and one Maritime Patrol Aircraft from friendly foreign countries, including Bangladesh, Sri Lanka, Russia, US, Iran, Myanmar, Malaysia and France, will participate in the sea exercise. From the Indian Navy, nearly 20 ships, including aircraft carriers Vikrant and Vikramaditya, and nearly 50 aircraft will participate in the exercise.

Highlights of the Harbour Phase from February 19 to 23 include international city parade, international maritime seminar, maritime tech expo, MILAN village, subject matter expert exchange and table top exercise. During the Sea Phase from February 24-27, participating navies will hold advanced air defence, anti-submarine and anti-surface warfare drills. Gunnery shoots on aerial and surface targets, manoeuvres and underway replenishment would be conducted.

Vice Admiral Sobti said international maritime seminar will remain the focus area in which various invited people will share their thoughts on various subjects. He said it is important to exercise together at sea, learn how to operate with each other in large numbers and large groups, and learn how to communicate with each other at sea.

He said: “The current geopolitical situation and the maritime challenges, including asymmetric threats, will be among the main topics of consideration this year. This will be taken up in discussion as well as in tabletop exercises that we will have with the participating navies.”

<https://indianexpress.com/article/india/navys-milan-event-geopolitical-scenario-maritime-threats-will-be-focus-this-year-says-vice-admiral-sobti-9162206/>



Thu, 15 Feb 2024

China Moves its Nationals into its Vacant ‘Defence Villages’ along LAC

Chinese nationals have started occupying several of their model “Xiaokang” border defence villages across India’s north-eastern borders which the country has been building along the Line of Actual Control (LAC) since 2019, The Indian Express has learnt.

Senior officials familiar with the matter said the Chinese, in the last few months, have started occupying a couple of these villages built on its side of the LAC across from Lohit Valley and the Tawang sector of Arunachal Pradesh.

China has been constructing 628 such “well-off villages” along India’s borders with the Tibet Autonomous Region, including along Ladakh and Arunachal Pradesh for over five years now.

While the exact nature of these villages is unclear, the dwellings are understood to be “dual-use infrastructure” — for both civil and military purposes — and seen as a Chinese assertion of its territorial claims along the LAC. They have thus remained a concern for the military.

So far, the double-storey, large and spacious buildings constructed as part of these villages along the LAC were unoccupied. In the last few months Chinese nationals have been moving in — it’s not known if the occupants are civilians or military personnel.

Sources said the Chinese are building infrastructure all along the LAC bordering the northeast, even as the LAC remains far off from most inhabited areas or areas of importance except for Tawang and the Siliguri Corridor.

“They (the Chinese) have built sufficient infrastructure along the LAC at Tawang, but they are not stopping at that. Even in other areas such as Siang valley of Arunachal Pradesh, we have been seeing rapid development of Chinese infrastructure,” an official said. The official added that the Chinese have consistently improved their existing infrastructure including improving their connectivity through passes, constructing roads and bridges and their model villages. China has also been constructing infrastructure, including border villages, in Bhutanese territory.

In the last three to four years, India has also stepped up work on its border infrastructure — this includes improving forward connectivity, constructing alternate routes to the LAC as well as connecting them.

Under the Vibrant Villages programmes, India plans to develop 663 border villages into modern villages with all amenities in the first phase. Of them, at least 17 such villages along the borders with China in Ladakh, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh, have been selected for development as a pilot project under the programme.

In Arunachal Pradesh, villages in the eastern part of the state and in the Tawang region have been identified such as Zemithang, Taksing, Chayang Tajo, Tuting and Kibithu.

Also, in Arunachal Pradesh, three major highways are at different stages of construction: the Trans-Arunachal Highway; the Frontier Highway; and the East-West Industrial Corridor Highway. There are plans to improve connectivity to Tawang with the construction of at least two alternate axes — in addition to the existing one connecting Guwahati and Tawang.

Earlier, in Arunachal Pradesh’s Dibang valley, there were roads just till a little ahead of Anini, but now roads are being constructed at all sides of the valley.

“Work is underway to improve connectivity to the passes, establish laterals for inter-valley connectivity and on construction of helipads and advanced landing grounds at various locations in the state,” another official said.

“However, while work is in progress, construction will take time since this is difficult terrain marked by unpredictable weather,” the official added.

<https://indianexpress.com/article/india/china-moves-its-nationals-into-its-vacant-defence-villages-along-lac-9162217/>

Science & Technology News

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Thu, 15 Feb 2024

ISRO to Launch Weather Sat on Feb 17

In a boost for India’s meteorological services, Isro will launch INSAT-3DS, which will enhance meteorological observations and help in better weather forecasting and disaster warning, from the

Sriharikota spaceport at 5.30pm on Feb 17, reports Surendra Singh. The satellite will be launched on board a Geosynchronous Satellite Launch Vehicle F14 (GSLV F14).

Fully funded by the ministry of earth sciences (MoES), the INSAT-3DS satellite is a follow-on mission of a third-generation meteorological satellite to be placed in the geostationary orbit. Isro stated that Indian industries have significantly contributed to the making of the satellite.

<https://timesofindia.indiatimes.com/city/delhi/isro-to-launch-weather-sat-on-feb-17/articleshow/107705577.cms>



Wed, 14 Feb 2024

XPoSat Gives a Peak into First Light, Ready to Study Pulsars and Black Holes: ISRO

The Indian Space Research Organisation (ISRO) has confirmed the healthy functioning of its two payloads onboard X-ray Polarimetry Satellite (XPoSat). With this, the Indian scientists can now gear up for studying pulsars, black holes, and other bright astronomical sources using X-ray measurements. With an estimated mission of five years, Isro launched XPoSat — India’s first space mission to study bright X-ray celestial objects — on January 1. The satellite has been operating in low earth orbit at an approximate altitude of 650 km. XPoSat comprises two payloads – the Indian X-ray Polarimeter (POLIX) and X-ray Spectroscopy and Timing (XPECT) built by Raman Research Institute and ISRO’s UR Rao Satellite Centre, respectively.

ISRO added POLIX, the world’s first instrument to operate in the medium energy band 8-30 kilo electron Volt (keV), was activated in two stages around January 10. Thereafter, this primary payload commenced scientific measurements of Crab nebula, the intended source. This is a supermassive remnant of a star and has been an object of great scientific interest.

“The initial scan observations were conducted around the Crab pulsar. It is a pulsating star residing at the centre of the Crab nebula and spins approximately 30 times/second,” the space agency said.

The vital X-ray measurements using POLIX were taken during January 15 to 18. This is a first-of-its-kind pulse profile obtained from a celestial source from the medium energy band. The pulse profile showcases the time window (67 milliseconds in total) of X-rays scattered by the Beryllium scatterer inside POLIX. The plot also illustrates the timing on non-pulsed emissions from pulsar wind nebulae surrounding the Crab pulsar.

On the commencement of actual scientific measurements, an Isro scientist working on the mission said, “XPoSat is currently undergoing its performance verification phase. It could last for about three months after which the real science measurements would begin.”

Normally, post the launch of a mission, the payloads are tested for its health and extensive calibration exercises are undertaken. However, in the case of XPoSat, with no previous data ever obtained from missions in the medium energy band, no calibration can be performed. Thereby data and measurements obtained using XPoSat will be laying a bedrock foundation to the field of X-ray polarimetry used for studying pulsars and extremely bright celestial objects. Whereas XPECT, which is a spectroscopy instrument, is now ready for scientific operations which will begin soon.

<https://indianexpress.com/article/cities/bangalore/xposat-first-light-study-pulsars-black-holes-isro-9160755/>

