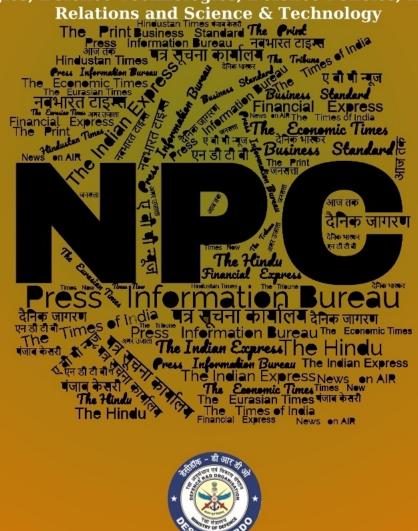
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March 2024

# 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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### **DRDO** Technology News

# अमरउजाला

Thu, 29 Feb 2024

### डीआरडीओ की कम दूरी वाली वायु रक्षा प्रणाली का सफल परीक्षण, रक्षा मंत्री बोले- हमारी ताकत बढ़ेगी

रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने ओडिशा के चांदीपुर से बेहद कम दूरी की वायु रक्षा प्रणाली का सफल परीक्षण किया। यह परीक्षण 28 और 29 फरवरी को किए गए थे। रक्षा मंत्रालय द्वारा दी गई जानकारी के मुताबिक, सभी परीक्षण उड़ानों के दौरान मिशन के उद्देश्यों को पूरा करते हुए लक्ष्यों को मिसाइलों द्वारा रोका और नष्ट कर दिया गया था।

गौरतलब है कि मिसाइल को दोहरी थ्रस्ट सॉलिड मोटर द्वारा संचालित किया जाता है और इसका उद्देश्य कम ऊंचाई वाले हवाई खतरों को बेअसर करना है। रक्षा मंत्री राजनाथ सिंह ने सफल परीक्षणों में शामिल डीआरडीओ, भारतीय सेना को बधाई दी और कहा कि आधुनिक प्रौद्योगिकियों से लैस यह नई मिसाइल सशस्त्र बलों को मजबूती प्रदान करेगी और हमारी ताकत बढ़ेगी।

क्या है खास कम दूरी वाली वायु रक्षा प्रणाली (वीएसएचओआरएडीएस) एक मैन पोर्टेबल एयर डिफेंस सिस्टम (MANPAD) है, जिसे अन्य डीआरडीओ प्रयोगशालाओं और भारतीय उद्योग भागीदारों के सहयोग से आरसीआई द्वारा स्वदेशी रूप से डिजाइन और विकसित किया गया है।

मिसाइल में लघु प्रतिक्रिया नियंत्रण प्रणाली (RCS) और एकीकृत एवियोनिक्स सहित कई नवीन तकनीकों को शामिल किया गया है, जो परीक्षणों के दौरान सफलतापूर्वक साबित हुए।

https://www.amarujala.com/india-news/successful-test-of-drdo-s-short-range-air-defense-systemdefense-minister-said-security-will-be-strengthened-2024-02-29

### THE TIMES OF INDIA

### India successfully tests Indigenous VSHORADS missile system, enhancing air defence capabilities

India conducted two successful tests of its indigenous man-portable air defence missile system, designed to destroy hostile aircraft, drones and helicopters at very short ranges, on Wednesday and Thursday.

DRDO conducted flight tests of the very short-range air defence system (VSHORADS) missiles, which has a range of up to 6-km, from a ground-based portable launcher from the Integrated Test Range, Chandipur, off the Odisha coast.

"These tests were carried out against high-speed unmanned aerial targets under different interception scenarios. During all the test flights, the targets were intercepted and destroyed by the missiles, meeting the mission objectives," an official said.

VSHORADS has been designed and developed by the Research Centre Imarat (RCI) in collaboration with other DRDO laboratories and Indian industry partners.

"VSHORADAS missile incorporates many novel technologies, including miniaturized reaction control systems and integrated avionics which have been successfully proven during the tests," he said. "The missile, propelled by a dual-thrust solid motor, is meant for neutralizing low-altitude aerial threats at short ranges.

The design of the missile including launcher has been highly optimized to ensure easy portability," he added. Congratulating DRDO, Army and the industry involved in the successful development trials, defence minister Rajnath Singh said this new missile equipped with modern technologies will give further technological boost to the armed forces.

The Rajnath Singh-led defence acquisitions council in January last year had accorded "acceptance of necessity" for procurement of the infrared homing VSHORADS missiles under design and development by DRDO at a cost of Rs 1,920 crore, as was earlier reported by TOI.

In the interim, the armed forces are inducting a limited number of similar Russian systems to plug operational gaps in the continuing military confrontation with China in eastern Ladakh. The Army and IAF have inked some deals under emergency procurement provisions for a limited number of Russian Igla-S MANPADS over the past three years.

The last such contract for 100 Igla-S missiles and 48 launchers was inked by the Army in May last year. While the Army and IAF have the old Igla-1M systems since 1989, the Igla-S is an improved variant with a longer interception range of up to 6-km.

https://timesofindia.indiatimes.com/india/india-successfully-tests-indigenous-vshorads-missilesystem-enhancing-air-defence-capabilities/articleshow/108113999.cms

#### **Defence News**

### **Defence Strategic:** National/International

Press Information Bureau
Government of India

**Ministry of Defence** 

Thu, 29 Feb 2024

#### INSV Tarini Embarks on Historic Double Handed Expedition by Women Officers from Goa to Mauritius

Indian Naval Sailing Vessel Tarini embarked on an expedition from the INS Mandovi, Goa to Port Louis, Mauritius on 28 Feb 24.

This particular expedition conducted under the aegis of Indian Naval Sailing Association (INSA) marks a significant milestone in naval ocean Sailing history as it is the first-ever transoceanic sortie undertaken by Indian women in a double-handed mode.

Lt Cdr Dilna K and Lt Cdr Roopa A have embarked on this historic voyage, showcasing the Nari Shakti in the maritime domain. The expedition onboard INSV Tarini not only highlights the exceptional skill and dedication of the Indian Navy's women personnel but also underscores the nation's commitment to promote gender equality and inclusivity in traditionally male-dominated fields.

Their endeavour serves as a crucial part of their preparation for the upcoming circumnavigation of the globe, scheduled later this year. The officers have been preparing themselves for the last two and half years following a rigorous selection process.

Prior to the present expedition, the officers as part of crew of six, sailed from Goa to Mauritius and back in 2022 followed by an expedition from Goa to Rio De Janeiro via Cape Town and back last year. Thereafter, the officers undertook a sailing expedition from Goa to Port Blair and back in double handed mode.

This would be their last consolidation expedition prior to the circumnavigation planned to commence in Sep this year.

The expedition was flagged off by a distinguished yachtsman, Commander Abhilash Tomy (Retd), KC, NM who has circumnavigated the globe non-stop on sailing boats twice. He has been mentoring the two women officers for last six months. In his address, he expressed his pride in flagging off this monumental expedition. He stated that this expedition symbolizes the spirit of adventure and resilience that defines the Indian Navy and exuded full confidence in the capabilities of the two women officers and wished them fair winds and smooth seas on their historic voyage.

The transoceanic expedition of INSV Tarini signifies a significant step forward in India's maritime endeavours, showcasing the nation's growing prominence in global maritime activities and gender equality on the high seas.

It is a testament to the Indian Navy's commitment to fostering excellence and diversity within its ranks.

The boat is likely to reach Port Louis, Mauritius on 20 Mar 24.

https://pib.gov.in/PressReleasePage.aspx?PRID=2010343



**Ministry of Defence** 

Thu, 29 Feb 2024

### **Keel Laying of Cadet Training Ship**

Keel Laying Ceremony of the first Cadet Training Ship (Yard-18003) was held at M/s L&T Shipyard, Kattupalli, on 29 Feb 24.

The ceremony was presided by R Adm Ravi Kumar Dhingra, Flag Officer Tamil Nadu and Puducherry Area in presence of R Adm G K Harish, AVSM, VSM (Retd), Head Shipbuilding Business, L&T and other Senior officials from Indian Navy and M/s L&T.

The Contract for indigenous design and construction of the three Cadet Training Ships was concluded between MoD and M/s L&T on 07 Mar 23. These Cadet Training Ships will be utilized for training officer cadets at sea after their basic training ashore.

These ships will also extend training facility to cadets from friendly foreign countries. This is yet another significant milestone in Indian Navy's pursuit towards indigenous shipbuilding and is in consonance with Government of India's vision of 'Aatmanirbhar Bharat' and 'Make in India' initiatives.

https://pib.gov.in/PressReleasePage.aspx?PRID=2010359

## THE ECONOMIC TIMES

Fri, 01 Mar 2024

#### New Navy Base in Lakshadweep Islands likely to be commissioned by Rajnath Singh; Operations to start next week

The Navy is set to commission a new base in the Lakshadweep islands next week, with plans to make it a major military hub in the region that will be upgraded to operate fighter aircraft in future as well. INS Jatayu, to come up in Minicoy, will be commissioned with the two aircraft carriers of the Indian Navy set to be present for the ceremony. Sources said that the base will be commissioned by Defence Minister Rajnath Singh. A new squadron of the MH 60R 'Romeo' Naval helicopters is also likely to be raised on the occasion.

As part of the larger plans to secure the Indian Ocean Region, the Navy and Coast Guard have drawn up ambitious plans to increase presence in the Lakshadweep islands, in line with the military presence in Andaman and Nicobar Islands.

INS Jatayu will be the counterpart of INS Baaz, the frontline naval base in the Andamans that will be capable of handling all classes of fighter jets and aircraft. As reported earlier, plans to construct a new airfield at Minicoy in the Lakshadweep islands have gained momentum in recent weeks.

The plan is to have a new airfield that will be capable of handling all types of military aircraft as well as commercial airliners that will give a fillip to tourism in the island chain. Plans are also in place to extend the only existing airfield on the islands at Agatti. The government has been working to unlock the potential of the Andaman and Lakshadweep islands for the past several years.

In May last year, ET reported that India completed an exhaustive survey of the Andaman Exclusive Economic Zone (EEZ) after the Modi government aligned all stakeholders, including defence and space agencies, to release 99% of the areas prohibited for oil exploration and production due to security concerns.

https://economictimes.indiatimes.com/news/defence/new-navy-base-in-lakshadweep-islandslikely-to-be-commissioned-by-rajnath-singh-operations-to-start-nextweek/articleshow/108117303.cms?from=mdr

## THE ECONOMIC TIMES

Thu, 29 Feb 2024

#### Sikkim: Indian Army conducts Anti Tank Guided Missile field firing test at Teesta Range

The annual Eastern Command Anti Tank Guided Missile (ATGM) field firing was conducted at Teesta Field Firing Range in West Bengal from February 20 to February 28, a defence official said.

According to the defence release, more than 1500 personnel from various units of the Infantry and Mechanised Infantry Battalion participated in the command-level training exercise. The firing was conducted under the aegis of the Trishakti Corps and more than 260 missiles were fired to achieve the target of One Missile and Tank

According to the release by the defence, firing was conducted keeping in view the tactical scenarios on the battlefield in which tanks have played a major role. The ATGM detachments fired from various modes that they might have to adopt based on the tactical situation.

These included firing from various vehicles, including the recently inducted indigenous light strike vehicle, and firing by ground-based detachments. Engagement of targets by detachments inserted by helicopters was also practiced, the release added. Further, the release said, the firing was witnessed by the GOC, Trishakti Corps.

He applauded the troops for their professional excellence and operational readiness and exhorted them to gain excellence in this important weapon.

https://economictimes.indiatimes.com/news/defence/sikkim-indian-army-conducts-anti-tank-guided-missile-field-firing-test-at-teesta-range/articleshow/108101634.cms

# THE ECONOMIC TIMES

Thu, 29 Feb 2024

#### Indian Navy to commission new base, INS Jatayu, in Lakshadweep next week

In a move towards strengthening its position in the Indian Ocean Region, the Indian Navy is going to commission a new base, INS Jatayu, in the Minicoy Islands of Lakshadweep.

The Indian Navy is also going to hold its commanders' conference on board the twin aircraft carriers, including INS Vikramaditya and INS Vikrant, where they will be undertaking high-tempo operations like taking off from one carrier and landing at the other, along with participation from other warships and submarines in the carrier battle groups, defence officials told ANI.

The Indian Navy is also going to formally commission the multirole helicopter MH-60 Romeo at Kochi in the next week, they said.

The force would also see the buildings of its naval war college in Goa and facilities in Karwar inaugurated around March 4, the officials said. Sharing details of the base being put together at Minicoy Islands, the officials said it is being commissioned with a small component of officers and men but would be expanded in future.

"This would also give us a strong foothold in the area to keep an eye on the military and commercial activities of adversaries in the area, as this is around 50 miles from the islands of the Maldives," an official said. The base would be similar to the INS Baaz created in the Andamans and would have similar capabilities in the Arabian Sea. The Indian Navy would also be inducting four of its MH-60 Romeo multirole choppers acquired from the US under a government-to-government deal. The Indian Navy is also going to demonstrate for the first time the twin carrier operations in the areas near Lakshadweep.

This would be the first time, after the induction of INS Vikrant, that the Navy would be carrying out the operations of the two aircraft carriers together. The two carriers were also present in the exercise Milin in Vishakhapatnam to showcase India's capability to manufacture aircraft carriers for global militaries.

https://economictimes.indiatimes.com/news/defence/indian-navy-to-commission-new-base-ins-jatayu-in-lakshadweep-next-week/articleshow/108115413.cms

# THE ECONOMIC TIMES

Thu, 29 Feb 2024

#### Indian Navy to bolster anti-submarine warfare capabilities with MH 60R helicopter induction

The coast of Kochi is all set to witness the pinnacle of airborne supremacy of the Indian Navy next week when it inducts the aerial marvel, the MH 60R helicopter into its fleet, bolstering the Anti-Submarine Warfare (ASW) capabilities.

Defence Minister Rajnath Singh will commission the newly inducted MH 60R Seahawk multi-role helicopter at the INS Garuda here on March 6, Navy officials said. The squadron will be commissioned in the Indian Navy as INAS 334, under the Command of Captain M Abhisheik Ram.

The Indian government signed a deal with the United States of America in February 2020, to acquire 24 fourth-generation MH 60R helicopters. Six of them have been delivered to the Indian Navy so far.

Speaking to PTI, Ram said the induction of these helicopters into the Indian Navy will bring about a significant surge in its maritime prowess and capabilities.

Detailing the capabilities of the new chopper, he said that apart from the ASW, it is designed for anti-surface warfare, search and rescue operations during the day and night, medical evacuation and vertical replenishment, among others. "With this MH 60R, we have filled a major gap in our anti-submarine warfare capability.

The anti-submarine capability and the sustenance of the chopper will change the way we are doing our surveillance and it will give us a larger surveillance bubble," Ram said. He added that the newly inducted choppers have been integrated with almost all the ships under the Indian Navy and ready for operational deployments.

The MH 60R is also capable of firing torpedoes, missiles and advanced precision kill weapon system rockets.

The self-protection suite on the helicopter comprises Chaff and Infrared Flares, which can be deployed automatically upon detection of a threat, Lieutenant Commandant Aneesh Ayarotil, one of the trained pilots of MH 60R said.

This is the only chopper in the Indian Navy with a self-defence capability from incoming gunfire or missiles. "We can deploy flares against the incoming heat-seeking missiles, while chaffs that contain high radar-reflecting materials can be deployed to confuse the radar-homing missiles," Ayarotil told PTI.

Ayarotil, who was earlier a Chetak pilot, said the MH 60R is one of the most advanced choppers and the systems are pilot-friendly. "We can engage autopilot to hover and reduce the workload of the pilots," he added.

The first five batches of pilots and observers, who handle the detection and weapon systems and make the necessary tactical and navigational decisions, were trained in the US. Ram said the rest of the training was held at INS Garuda in Kochi where a simulator is also coming up.

"This training here is more realistic because when you embark on an Indian ship, we are giving them a realistic sense of tactics. Because most of the training in the US was on the simulator and they do not let us expose ourselves much. Here we are actually doing exercises with submarines, ships, aircraft so the training becomes realistic," he said.

The new chopper can be used for rescue operations, especially in night search and rescue missions, as it has night vision goggles and forward-looking infrared facilities. The choppers have been integrated with the INS Vikrant and the Navy considers it as a milestone.

The advanced weapons, sensors and the avionics suite onboard have been tested rigorously for the past eight to nine months. The chopper can also exchange information in real time through advanced data link systems with Indian as well as platforms from friendly foreign countries making it completely interoperable. Currently, all six delivered Seahawks are in Kochi.

It has also participated in the recently held multinational MILAN exercise on the eastern seaboard of India.

https://economictimes.indiatimes.com/news/defence/indian-navy-to-bolster-anti-submarinewarfare-capabilities-with-mh-60r-helicopter-induction/articleshow/108110155.cms

## THE ECONOMIC TIMES

Fri, 01 Mar 2024

#### India, US NSAs explore ICET meet before Lok Sabha polls

India and the US are planning to hold a meeting between their national security advisers ahead of the Lok Sabha polls to review the Initiative for Critical and Emerging Technology (iCET). US NSA Jake Sullivan, who was earlier scheduled to visit India for the Raisina Dialogue and meet his counterpart Ajit Doval on the sidelines for the iCET review, had to postpone his trip to handle the volatile situation in West Asia.

Both sides are now exploring dates for Sullivan's visit to hold a review meeting of the iCET, ET has learnt. ET has also learnt that the Quad members are exploring the possibility of organising a physical summit in India at the end of this year following the US elections. It is India's turn to host the Quad Summit this year and it had proposed to host it in January.

However, US President Joe Biden's schedule did not permit to participate either as the chief guest on Republic Day or for the Quad Summit

The four sides - Australia, Japan, the US and India - are now exploring if the Quad Summit could be organised in the weeks after the presidential polls. Last Saturday, addressing a 'Quad Think Tank Forum' session on the sidelines of the Raisina Dialogue, external affairs minister S Jaishankar stated that the coming together of India, the US, Australia and Japan as part of the Quad serves to illustrate the growth of a multipolar order and advance a post-Cold War thinking against "spheres of influence".

It also expresses the democratising of global space and a collaborative, not unilateral, approach, and "is a statement that in this day and age, others cannot have a veto on our choices", Jaishankar said. Last December, deputy NSAs from the US and India held a review of the iCET and agreed to broaden the scope of the initiative to biotechnology, critical minerals and rare earth processing technologies, digital connectivity and digital public infrastructure, and advanced materials. Jona-than Finer,

US' principal deputy NSA, had held consultations with Vikram Misri, India's deputy NSA, and affirmed the importance of easing regulations to facilitate high-tech collaborations and transfer of technology.

The two deputy NSAs at that meeting took stock of the progress made in building technology value chains under the iCET and expressed satisfaction with ongoing collaborations in diverse domains, including semiconductors, quantum, artificial intelligence and high-performance computing, defence innovation, space and advanced telecommunications through interactions between the respective governments, industry, academia and other stakeholders, officials said.

Their discussions had served to highlight the immense potential to tap synergies between the domestic initiatives and boost the competitiveness of industry in both countries.

https://economictimes.indiatimes.com/news/defence/india-us-nsas-explore-icet-meet-before-loksabha-polls/articleshow/108117477.cms

## The Indian EXPRESS

Thu, 29 Feb 2024

#### Agaléga airstrip inagurated: Mauritius, Maldives, and India

Earlier this week, the first team of Indian "technical personnel" reached the Maldives to take charge of one of the three aviation platforms stationed in the country. They will replace Indian military personnel whose first batch is required to leave the islands by March 10.

On Thursday, Prime Minister <u>Narendra Modi</u> and Prime Minister Pravind Jugnauth of Mauritius jointly inaugurated an airstrip and a jetty that India has built on Agaléga, a two-island Mauritian dependency 1,100 km to the north of Port Louis and 2,500 km southwest of Malé.

As Indian Ocean outposts, Mauritius and the Maldives have great strategic significance for India. New <u>Delhi</u>'s maritime security and strategic imperatives in the Indian Ocean are linked to the presence and increased activities of China in the region.

#### The Maldives case

Soon after coming to power in November 2023, Mohamed Muizzu, the pro-China President of the Maldives, requested India to withdraw its military personnel from his country. Muizzu had defeated the incumbent Ibrahim Mohamed Solih in the presidential election on the "India Out" plank.

Late on Monday, the Maldives defence ministry said the first team of Indian civilians had arrived, and would take charge of the operation of a helicopter in Addu, the country's southernmost atoll. The two countries had agreed on February 2 that India would pull out 80-odd military personnel stationed in the Maldives between March 10 and May 10.

The Indian Ministry of External Affairs had said that the two helicopters and a Dornier aircraft in the Maldives would be operated by "competent Indian technical personnel" who would replace the "present personnel".

#### The Mauritius case

Following Prime Minister Modi's visit to Mauritius in March 2015, India signed a Memorandum of Understanding for the "improvement in sea and air transportation facilities" at Agaléga island.

The MoU, signed in the Mauritian capital Port Louis in the presence of Modi and then Prime Minister of Mauritius Anerood Jugnauth, provided for "setting up and upgradation of infrastructure for improving sea and air connectivity at the Outer Island of Mauritius which will go a long way in ameliorating the condition of the inhabitants of this remote island...[and] enhance the capabilities of the Mauritian Defence Forces in safeguarding their interests in the Outer Island".

At the inauguration of the new airstrip and jetty on Thursday, Prime Minister Jugnauth recalled that several attempts to upgrade the airstrip on the 70-sq-km island since 2003 had not been successful. He said that India was committed to assisting his country, and "deplored" the "India-bashing campaign" by "ill-minded persons in and outside Mauritius".

"The March 2015 MoU (to upgrade the airstrip and the Set James jetty) reflected India's commitment to continually assist Mauritius in meeting its development goals satisfying the principles of mutual benefit...," Prime Minister Jugnauth said.

"There has never been any agenda for Mauritius to relinquish its sovereignty over the Agalega islands, as some ill minded persons in and outside Mauritius attempted to make believe. Likewise, there has never been any agenda to transform Agalega to a military base... I wish to forcefully deplore, condemn India-bashing campaign, some people in Mauritius have commented," he said.

The presence of India would lead to more effective monitoring of Mauritius' vast 2.3 million sq km Exclusive Economic Zone, and equip it to better counter piracy, terrorism, narcotics and human trafficking, and illegal and unregulated fishing, Prime Minister Jugnauth said.

#### China in Indian Ocean

China sees great value in having a powerful presence in the Indian Ocean region. "Nine of China's top 10 crude oil suppliers transit the Indian Ocean... [which] is also the primary theatre of transit for China for engagements with Africa, Middle East, island nations, and littorals across the vast ocean,"

Darshana M Baruah, a maritime security analyst at the Carnegie Endowment for International Peace, said in a testimony to the House Foreign Affairs Committee of the United States Congress in April 2023.

Baruah said the Indian Ocean is "also the main trading route between China and Europe", and "as history will tell us, the flag follows trade". There was little doubt that China's interest in the Indian Ocean would only grow," she said.

Baruah noted that "China is the only nation with an embassy in each of the six islands in the Indian Ocean — Sri Lanka, Maldives, Mauritius, Seychelles, Madagascar, and Comoros", and "none of the traditional players — the United States, the UK, India, or France have embassies on all six". Beijing had gone beyond diplomatic and trade partnerships in the region, and had begun to maintain a consistent military presence as well, she said.

In 2017, China opened its first overseas military facility in the Indian Ocean in Djibouti on the Horn of Africa. Analysts believe that it is only a matter of time before a second Chinese military facility comes up in the Indian Ocean — whether in Pakistan, Myanmar, or the western Indian Ocean.

#### View from New Delhi

India sees the urgency and importance of working with the governments of all these island nations. The domestic politics of these nations often impact their behaviour and policies abroad — and India will have to manage its diplomatic relationships well while continuously pursuing its strategic interests in the region.

The Jugnauth government in Mauritius has so far been able to manage the domestic criticism of India's presence better than the Solih government was able to do in the Maldives.

New Delhi will be keenly watching the situation in Malé. The former Maldives Foreign Minister Abdulla Shahid, who has recently been elected president of the opposition Maldivian Democratic Party, said on Saturday that President Muizzu's claims about "thousands of Indian military personnel" were "just another in a string of lies", and that "there are no armed foreign soldiers stationed in the country".

https://indianexpress.com/article/explained/agalega-airstrip-inagurated-mauritius-maldives-andindia-9189103/

### THE TIMES OF INDIA

#### Iran launches 'Pars 1' Satellite into Orbit from Russia

Iran successfully launched the "Pars-I" remote sensing and imaging satellite into orbit from Russia, as reported by state media on Thursday. The live broadcast of the launch, facilitated by the Russian Soyuz2.1b launcher, was aired on Iranian state television.

The official IRNA news agency disclosed that the satellite took off from Russia's Vostochny launch base, located approximately 8,000 kilometers (5,000 miles) east of Moscow.

Issa Zareppur, Iran's telecommunications minister, emphasized that "Pars-I" was fully domestically developed within Iran. He highlighted that Iran has executed a total of twelve satellite launches in the past two years. Iran had previously announced the simultaneous launch of three satellites into orbit in January, closely following the deployment of a research satellite by its Revolutionary Guards.

Despite western countries cautioning against such launches due to concerns about dual-use technology for ballistic missiles, Iran asserted that its satellite and rocket programs are solely for civil and defense purposes. In August 2022, Russia had controversially launched Iran's remote-sensing Khayyam satellite into orbit from Kazakhstan.

This move sparked debates over potential increased surveillance capabilities for military targets, particularly in the context of Russia's conflict in Ukraine. Moscow has been actively cultivating alliances with nations such as Iran, which has faced accusations of providing armed drones to support Moscow's offensive in Ukraine.

The United States, in response to Iran's alleged backing of Russia's invasion of Ukraine, has announced plans to impose new sanctions on Tehran this month. Tehran has consistently denied these allegations.

https://timesofindia.indiatimes.com/world/middle-east/iran-successfully-launches-pars-i-satelliteinto-orbit-from-russia/articleshow/108100892.cms



Thu, 29 Feb 2024

#### Russia's Vladimir Putin says West creating 'real' risk of Nuclear War

Russia's Vladimir Putin delivered his annual state of nation address on Thursday, accusing Western countries of creating the conditions for a global nuclear conflict that would "destroy civilization". His statement came as the war between Russia and Ukraine entered its third year on February 24.

The West is creating 'real' risk of nuclear war, Putin was quoted by news agency AFP as saying. The Russian President also warned that Moscow's "strategic nuclear forces are in a state of full readiness for use"

"...the consequences for the potential interventionists (in Ukraine war) will be much more tragic...They (West) should finally understand — and I just told them — that we too have weapons that can destroy targets on their territories," Putin was quoted by the Moscow Times as saying on Thursday.

"Russia won't let anyone interfere in its internal affairs," Putin added.

Taking a another potshots at the West, Putin said the West claims that Russia is supposedly going to attack Europe. "...And you and I understand that they are talking nonsense," he said, adding that at the "same time they themselves are choosing targets for striking our territory."

"(Western nations) must realise that we also have weapons that can hit targets on their territory. All this really threatens a conflict with the use of nuclear weapons and the destruction of civilisation. Don't they get that?!" said Putin.

Putin, who was speaking ahead of a March 15-17 presidential election when he is certain to be reelected for another six-year term, lauded what he said was Russia's vastly modernised nuclear arsenal, the largest in the world

As per Russian news agency TASS, Putin said Russia is ready for dialogue with the US on strategic stability. He, however, rejected the possibility of "strategic stability talks" with the US "in isolation from issues of Russia's national security".

"The West is trying to drag Russia into a new arms race, thereby repeating the 1980s trick. The US is hypocritical in trying to defeat Russia and offering talks on strategic stability at the same time," Putin said. He suggested Western politicians recall the fate of those, like Nazi Germany's Adolf Hitler and France's Napoleon Bonaparte who unsuccessfully invaded his country in the past.

"But now the consequences will be far more tragic," said Putin. "They think it (war) is a cartoon," he was quoted by Reuters as saying.

President Vladimir Putin further emphasised that Russia's economy would soon be among the world's four largest in terms of purchasing power parity.

Boasting vast natural resources, Russia's gross domestic product (GDP) rebounded sharply last year from a slump in 2022, but the growth relies heavily on state-funded arms and ammunition production for the war in Ukraine, Reuters reported.

https://www.livemint.com/news/world/russias-vladimir-putin-says-west-creating-real-risk-ofnuclear-war-rusiaa-ukraine-conflict-update-11709201047402.html

### **Science & Technology News**



Ministry of Science & Technology

Thu, 29 Feb 2024

#### Eco-Friendly wound dressing developed by Indian scientists using Banana Fibres

An eco-friendly wound dressing material made using banana fibers presents a sustainable solution for wound care.

India, the world's largest banana-farming country, has an abundance of banana pseudo stems, discarded after harvest.

In a pioneering effort, scientists at the Institute of Advanced Study in Science and Technology (IASST), an autonomous institute under the Department of Science and Technology, have transformed banana pseudo stems, often considered agricultural waste, into an eco-friendly wound dressing material.

Led by Prof. Devasish Chowdhury and Prof. (Retd) Rajlakshmi Devi, the research team, including Mridusmita Barman, a research scholar in the IASST-Deakin University Joint PhD programme, have ingeniously combined the banana fibres with biopolymers like chitosan and guar gum to create a multifunctional patch with excellent mechanical strength and antioxidant properties.

Taking it a step further, the researchers loaded the patch with an extract from the *Vitex negundo L*. plant, demonstrating the capabilities of plant extract-loaded banana fibre-biopolymer composite patch *in vitro* drug release and as antibacterial agents.

All the materials used in creating this innovative dressing material are natural and locally available, making the manufacturing process simple, cost-effective, and non-toxic.

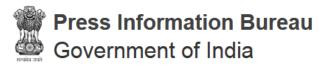
The wound dressing material presents a sustainable solution for wound care and suggests additional uses for the abundant banana plant, which may benefit farmers and minimize environmental impact.

"This investigation opens the door to a new era in wound healing, offering a low-cost, reliable, and environmentally friendly alternative that holds significant potential in biomedical research," says Prof. Chowdhury.

The banana fiber-biopolymer composite dressing could revolutionize wound care with its broad applications and positive impact on health and the environment. Elsevier recently published this work in the International Journal of Biological Macromolecules.

The groundbreaking research has recently been published in the International Journal of Biological Macromolecules by Elsevier, further highlighting its significance in the scientific community.

https://pib.gov.in/PressReleasePage.aspx?PRID=2010159



#### Ministry of Science & Technology

Thu, 29 Feb 2024

# EV Experts underline need for Synergy between Industry and Academia

Experts across different areas connected to Electric Vehicles (EV) sector highlighted the need for synergy between the industry and academia to facilitate innovation and sustainable solutions in the EV, at a workshop organised on the sidelines of the National Science Day Celebrations.

Dr V K Saraswat, Member Niti Aayog emphasised on the importance of strengthening the public EV infrastructure across the Nation. "The guidelines and standards involve installation of EV charging stations in which the oil companies can play a key role. Success of EV mobility will need innovations, technologies, public private partnership, and policy decision. EVs can go a long way to help us make India's net zero target a reality and help in development of new business," he said at the workshop organised to get directions for initiating a new program to support, research and innovations in e-Mobility.

Professor Abhay Karandikar, Secretary Department of Science and Technology said that DST has led pioneering efforts in comprehensively analysing the pathways to decarbonise road transportation sector. A massive exercise was undertaken through wide ranging consultations with 100+ stakeholders in preparation of a report on Electric Vehicles. The report focusses on Battery Tech, Power Electronics and Charging infrastructure.

Prof. Karandikar added that the key challenges like transportation of raw materials, design efficiency, price point and lifespan, need attention.

"The synergy between industry and academia is crucial in overcoming obstacles, facilitating innovation, and bringing sustainable solutions in the EV sector. This collaborative effort can lead to advancements that benefit both stakeholders and pave the way for a more efficient and widespread adoption of electric vehicles," he pointed out.

A report on EV Evolution: Catalysing Technology Led Ecosystem for Bharat e-Mobility was released by Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh during National Science Day Celebration at Vigyan Bhavan on 28 February 2024. Dr. Akhilesh Gupta, Senior Adviser, DST emphasised that the report focuses on identifying solutions, developing infrastructure, and transforming the entire EV ecosystem.

Dr. Anita Gupta, Head, Climate, Energy and Sustainable Technology (CEST) Division, DST, said that electric vehicles (EVs) is a significant contributor to both economic growth and environmental sustainability. She emphasized the need for concerted efforts from academia, startups, and stake-holders to drive this transition effectively.

Prof. BG Fernandes from IIT Bombay briefed about the report on EV Evolution: Catalysing Technology Led Ecosystem for Bharat e-Mobility and said that DST has carried out extensive consultation at various levels to create the report and it has proposed specific recommendations for translation of R&D.

The full day workshop 'Evolution Catalysing Technology-Led Ecosystem for e-Mobility' on the sidelines of the National Science Day Celebrations was organised at Vigyan Bhavan with a view to get directions for initiating a new and exclusive program to support, research and innovations in e-Mobility in the country.

https://pib.gov.in/PressReleasePage.aspx?PRID=2010123

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