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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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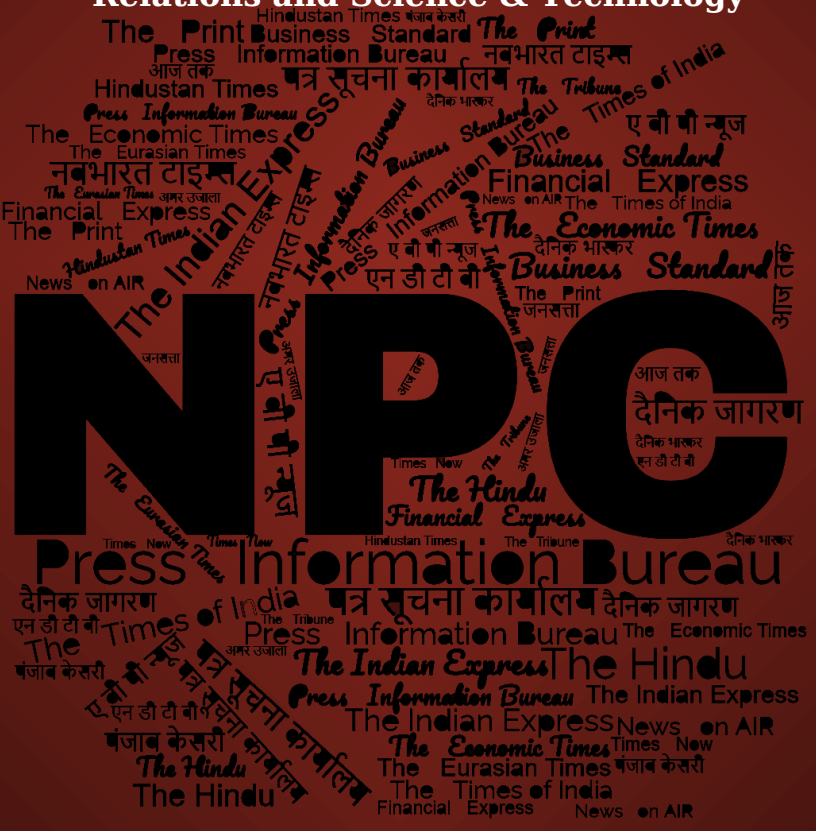

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दैनिक भास्कर

Tue, 01 Aug 2023

ध्रुवास्त्र मिसाइल ने सभी जरूरी टेस्ट पूरे किए:रात में सटीक निशाना लगाती हैं; पाक-चीन सीमा पर जल्द तैनात

सेना की ताकत में जल्द और इजाफा होने वाला है। ध्रुवास्त्र मिसाइल ने सभी जरूरी टेस्ट पास कर लिए हैं। मीडिया रिपोर्ट्स के मुताबिक, इंडियन आर्मी और इंडियन एयरफोर्स ने पिछले साल 24 घंटे में दो सफल परीक्षण किए थे। इस मिसाइल को एडवांस्ड लाइट हेलिकॉप्टर (ALH) से लॉन्च किया गया था।

ध्रुवास्त्र मिसाइल को हेलिना के नाम से भी जाना जाता है। यह एक एंटी-टैंक गाइडेड मिसाइल है। इसे हेलिकॉप्टर और फाइटर जेट्स में लगाया जाएगा। यह रात में भी सटीक निशाना लगाती है। सेना जल्द ही इसे चीन और पाकिस्तान की सीमाओं पर तैनात करेंगी।

मिसाइल की खासियत- दागो और भूल जाओ

ध्रुवास्त्र मिसाइल की खासियत है कि इसे दागो और भूल जाओ। यह अपने टारगेट को ढूंढ कर मारने के लिए जानी जाती है। इसमें इन्फ्रारेड इमेजिंग सीकर लगा हुआ है। यह दुनिया के सबसे आधुनिक एंटी टैंक हथियारों में से एक हैं। इसे DRDO के साइंटिस्ट ने बनाया है।

इस मिसाइल की रेंज 500 मीटर से लेकर 20 किलोमीटर तक है। यह तीसरी पीढ़ी की टैंक रोधी मिसाइल प्रणाली है। यह हर मौसम में हमला कर सकती है। इसका वजन करीब 45 किलोग्राम है। यह 6.1 फीट लंबी है। इसका डायमीटर 7.9 इंच है। इसमें 8 किलो विस्फोटक लगा सकते हैं। यह मिसाइल 828 किलोमीटर प्रति घंटा की रफ्तार से हमला करती है।

500 मिसाइल खरीदेगी भारतीय सेना

रिपोर्ट्स के मुताबिक, भारतीय सेना ने 500 ध्रुवास्त्र मिसाइल खरीदने का ऑर्डर दिया है। इसके साथ ही 40 लॉन्चर का भी आर्डर दिया गया है। भारतीय सेना के पास पहले से ही नाग मिसाइल है, जिसकी मारक क्षमता 5 किमी है। ध्रुवास्त्र को नाग मिसाइल का ही अपटेडेट वर्जन बताया जा रहा है।

https://www.bhaskar.com/national/news/pakistan-china-vs-india-army-drdo-helina-dhruvastra-anti-tank-guided-missile-range-131624679.html

Defence News

Defence Strategic: National/International

THE ECONOMIC TIMES

Tue, 01 Aug 2023

Indian Army Implements Common Uniform for Brigadier and Above Ranks

The Indian Army has implemented a new common uniform regulation for senior officers with Brigadier and above ranks irrespective of the parent cadre and initial appointment, Army officials said. They said the move will reinforce common identity and Indian Army's character as a fair and equitable organisation. The decision was taken after detailed deliberations during the recently-concluded Army Commanders Conference and extensive consultations with all stakeholders.

Officials said that headgear, shoulder rank badges, gorget patches, belt and shoes of senior officers of flag rank (Brigadier and above) will now be common and standardised. The flag-rank officers will now not wear any lanyard. The step has been taken to promote and strengthen common identity and approach in service matters amongst senior leadership beyond the boundaries of regiments, officials said.

Brigadier and above officers are those who have already commanded units and battalions and are mostly posted at headquarters or establishments where officers from all arms and services work and function together. A standard uniform will ensure a common identity for all senior-rank officers and reflect the true ethos of the Indian Army, officials said. There is no change in the uniform worn by Colonels and officers below that rank, Army officials said.

https://economictimes.indiatimes.com/news/defence/indian-army-implements-common-uniform-for-brigadier-and-above-ranks/articleshow/102316612.cms

R. REPUBLICWORLD.COM

Tue, 01 Aug 2023

AI Takes to the Skies: Indian Air Force Leverages AI for Smarter Mission Planning

The Indian Air Force (IAF) is embracing cutting-edge immersive technologies, including artificial intelligence (AI) and virtual reality (VR), to bolster operational efficiency and training effectiveness. As part of its commitment to self-reliance and the Atmanirbhar Bharat initiative, the IAF has integrated AI into its machine planning systems and adopted VR simulations for cadet training at various air force stations (AFS) across the country. During the 27th media orientation capsule course at AFS Hakimpet, Telangana, senior IAF officers provided valuable insights into the

successful implementation of these technologies and their impact on pilot training and operational readiness.

At AFS Hakimpet and other air force academies, fighter pilots undergoing stage-2 training seem to be benefitting from hands-on experience with VR headsets. The cadets can virtually experience flying in a simulated environment on the ground, enabling them to gain valuable skills and confidence before taking to the skies in real aircraft. This indigenous VR simulation training has proven to be cost-effective, significantly reducing expenses that would have otherwise been incurred on flying hours using actual aircraft. The VR headsets provide a 360-degree view of the flying experience, enhancing the trainees' situational awareness and decision-making capabilities. The adoption of this technology aligns with India's goal of promoting self-reliance in defence and leveraging home-grown innovations.

Indigenous AI in Machine Planning Systems

The IAF is also making strides in developing indigenous AI-based machine planning systems. Collaborating with defence startups, the IAF is creating modules for machine planning, weapons systems and radar systems using homegrown technology. This move not only enhances operational efficiency but also strengthens India's defence capabilities by reducing dependency on foreign technologies. The integration of AI empowers the IAF with advanced data analytics and decision support tools, streamlining mission planning and execution processes.

The Indian Air Force's adoption of immersive technologies and commitment to indigenous innovation reflects its dedication to staying at the forefront of modern warfare capabilities, say the officials. By integrating AI and VR into training and operations, the IAF aims to achieve higher levels of efficiency, preparedness and success in safeguarding the nation's airspace and responding to humanitarian needs, the officials stressed.

https://www.republicworld.com/india-news/general-news/ai-takes-to-the-skies-indian-air-force-leverages-ai-for-smarter-mission-planning-articleshow.html

THE HINDU

Tue, 01 Aug 2023

In Next Two Decades, India will Make Civilian Aircraft Engines: Former DG of DRDO

Dr. Tessy Thomas, former Director General (aeronautics), DRDO and project director of Agni IV Missile and Agni V Mission, Government of India on Tuesday, August 1, said that India will be in a position to manufacture engines for commercial airliners in the next two decades with scientists working on developing civilian aircraft engines. The National Aerospace Laboratories, Bengaluru is in the process of developing Saras, a 90-seater civilian aircraft in the light transport aircraft category, she stated.

Responding to questions from students after her talk at the 61st Foundation Day at the Regional Institute of Education (RIE), she said the alloys used in designing the structure of the aircraft are not available in the country. Nevertheless, the efforts are on to manufacture engines for commercial airplanes, she said, while replying to questions on why India has not been able to make large aircraft when it has made rapid strides in aerospace engineering.

On the occasion, Dr. Thomas delivered the Sardar Panikkar Memorial Lecture, where she shared her journey in the DRDO and the making of Agni missiles.

After the lecture, Dr. Thomas interacted with the students and spoke about missile technology, while advising them to be determined and hard working for achieving success in their lives. She replied to questions on missiles, their range of travel and so on.

In response to a question from a student, the eminent scientist said the National Education Policy-2020 can transform the education standards of the country with the next generation of students set to be benefitted from the new policy with practical knowledge getting the attention.

Unlike the time when we were in school and college, there has been a sea change in the education system with plenty of opportunities for the students, who have to explore those opportunities to achieve success, she advised.

Describing former president and the 'missile man of India' late Dr. A.P.J. Abdul Kalam as her 'guru', she said patience and hardwork brings achievements while citing her example and how she came up in life. "If you cannot achieve in the first attempt, there is always a second attempt. One has to overcome the gaps and stay ahead."

RIE Principal Y. Sreekanth delivered the presidential address. Film and television actor Malavika Avinash was the guest of honour.

RIE (erstwhile Regional College of Education) was established in 1963 with the objective of qualitative improvement of school education through innovative pre-service and in-service teaching training programmes and to undertake research, development and extension activities in the southern region.

The Sardar Panikkar Memorial lecture series was introduced in 1964 in memory of the valuable services rendered by the late Sardar Panikkar for the development of education in India. As the vice-chancellor of the University of Mysore, he evinced a deep interest in the development of the RIE, Mysuru, a note said.

https://www.thehindu.com/news/national/karnataka/in-next-two-decades-india-will-make-civilian-aircrafts-former-dg-of-drdo/article67146622.ece

FINANCIAL EXPRESS
Read to Lead

Tue, 01 Aug 2023

Indigenous LCA Tejas: Transforming India's Air Power – A Triumph over MiG-21 Era

For decades, the Indian Air Force (IAF) entrusted its air security to the MiG-21 fighter jets, but with time, the limitations and risks associated with these aging jets became evident.

Now, a new era is dawning as the indigenous fighter aircraft Light Combat Aircraft (LCA) `Tejas' takes center stage, replacing the legendary but aging MiG-21. With a rich history spanning 60 years, the MiG-21 served as India's first supersonic fighter jet. However, a staggering number of accidents and lives lost necessitated the pursuit of a more modern and indigenous alternative.

The MiG-21 Legacy

Since its induction into the IAF in 1963, over 900 MiG-21 fighter jets took to the skies, with around 650 of them manufactured in India. Unfortunately, in the span of 60 years, more than 400 MiG-21 aircraft met with accidents, resulting in the loss of over 150 pilots' lives. Despite these

challenges, the IAF continued to fly the upgraded version known as MiG-21 Bison, but the number of crashes remained high.

The MiG-21's Heroic Stand

During the Balakot air-strike in 2019, a remarkable feat was achieved by the MiG-21 Bison when it thwarted a Pakistani air strike. Wing Commander Abhinandan, piloting the MiG-21 Bison, shot down an enemy F-16 jet. Although the MiG-21 faced skepticism from other nations, its valor on that day underscored its significance.

LCA Tejas: A Triumph over Adversity

The LCA Tejas, a product of collaboration between Defence Research and Development Organisation (DRDO) and state-owned Hindustan Aeronautics Limited (HAL), has now taken up the mantle of safeguarding India's airspace. With two squadrons stationed at Sulur air base, namely Flying-Daggers and Flying-Bullets, this homegrown fighter jet is proving its mettle. To augment security along Jammu-Kashmir and its LoC, a new detachment of Tejas has been deployed at Awantipora air base.

Strategic Deployment of LCA Tejas

Air Marshal PM Sinha recently visited Awantipura Forward Air Base to assess Tejas' operational readiness and praised its capabilities. This strategic deployment mirrors the use of MiG-29 fighters in Ladakh following the Galwan Valley clash. Tejas is poised to be a stalwart guardian of India's borders.

Embracing the Future

India currently has 40 LCA Tejas fighter jets in two squadrons, and with a deal for 83 advanced LCA Mark-1A aircraft with HAL in place, the IAF anticipates receiving the first Mark-1A fighter jet next year. As the old MiG-21 squadrons are phased out by 2025, Tejas will step in to fill the void, reinforcing India's commitment to self-reliance and indigenization in defense.

The era of MiG-21 has reached its twilight, and the dawn of LCA Tejas promises a brighter and safer future for India's aerial defense. With its successful operational deployments and cutting-edge technology, Tejas is ready to take on regional adversaries, proving its mettle against both China and Pakistan.

This remarkable achievement stands as a testament to India's growing capabilities in the aerospace sector and reinforces the nation's commitment to building a secure and self-reliant defense apparatus.

https://www.financialexpress.com/business/defence-indigenous-lca-tejas-transforming-indias-air-power-a-triumph-over-mig-21-era-3195511/

THE NEW INDIAN EXPRESS

Wed, 02 Aug 2023

India's First Defence UAV Testing Centre to be in Kancheepuram

The country's first-ever testing centre for Unmanned Aerial Vehicle (UAV) under the Defence Testing Infrastructure Scheme (DTIS) will be established on five acres of land at Vallam Vadagal in Kancheepuram district.

The Rs 50 crore facility was granted approval by the Ministry of Defence after a bid was submitted by Keltron-led consortium in collaboration with Tamil Nadu Industrial Development Corporation (TIDCO). The establishment of the UAV testing centre in Tamil Nadu Defence Industrial Corridor marks a historic milestone for the state and the entire nation, said official sources.

“The UAV testing centre stands as a testament to India’s commitment to fostering cutting-edge technologies. It will serve as a beacon of progress, attracting investments, spurring job opportunities, and elevating India’s status as a hub for drone technology research and development,” the official source said.

The establishment of UAV testing centre comes at a time when the drone industry is witnessing unprecedented growth. With a projected annual growth rate of 22% and an estimated market value of Rs 28,000 crore by 2025, drones have become crucial tools in various fields.

It is learnt that Tamil Nadu Industrial Development Corporation (TIDCO), as the government agency part of the UAV Testing Centre, has played a crucial role in supporting and facilitating the realisation of this transformative project.

With a consortium led by Keltron, and supported by expert partners SenseImage, STIC, and Avishka Retailers, the Centre is poised to foster indigenous innovation and research in the drone sector.

The integrated testing complex at Vallam Vadagal also targets electromagnetic compatibility or electromagnetic interference (EMI/EMC) testing apart from electronics optics, electronic warfare and RF antenna.This testing is a critical step in the design and manufacturing processes of electronic devices. With the presence of many electronics manufacturing and design-focused industries, sources said Tamil Nadu has huge potential for the EMI/EMC and communication testing labs.

The DTIS, initiated by the Ministry of Defence, aims to bolster indigenous capabilities and self-reliance in the defence sector.

The approval to establish the UAV Testing Centre showcases the government’s commitment to supporting domestic research, development, and manufacturing of drones, thus reducing dependence on foreign testing facilities and bolstering India’s position as a global player in UAV technology, added sources.

https://www.newindianexpress.com/states/tamil-nadu/2023/aug/02/indias-first-defence-uav-testing-centre-to-be-in-kancheepuram-2601062.html

THE ECONOMIC TIMES

Tue, 01 Aug 2023

Indian Navy Chief Discusses Bilateral Defence Cooperation with Oman's Minister Mohammed Al-Nu'amani

Indian Navy Chief, Admiral R Hari Kumar during his three-day visit to Oman, discussed issues regarding bilateral defence cooperation with Gen Sultan bin Mohammed Al-Nu'amani, Minister of Royal Office The Spokesperson of the Indian Navy took to his Twitter and said, "Adm R Hari Kumar #CNS called on H.E. Gen Sultan bin Mohammed Al Nu'amani, Minister of Royal Office (MRO), discussed issues related to bilateral defence cooperation & thanked him for the assistance provided to the #IndianNavy ships calling ports in Oman. - #BridgesofFriendship" Adm R Hari

Kumar #CNS called on H.E. Gen Sultan bin Mohammed Al Nu'amani, Minister of Royal Office (MRO), discussed issues related to bilateral defence cooperation & thanked him for the assistance provided to the #IndianNavy ships calling ports in Oman.- #BridgesofFriendship pic.twitter.com/TW9NuKrN35 - SpokespersonNavy (@indiannavy) August 1, 2023.

The Ministry of Royal Office acknowledged India's progress in the field of defence manufacturing. "MRO also appreciated the progress made by #India in the field of Defence Manufacturing and agreed that Oman could benefit from this progress," another tweet by the Spokesperson of the Indian Navy said.

Indian Navy Chief is on a three-day visit to Oman with the aim of consolidating existing bilateral defence relations and high-level discussions with the military leadership of Oman. He will hold bilateral discussions with his Oman counterpart Rear Admiral Saif bin Nasser bin Mohsen Al-Rahbi, Commander of the Royal Navy of Oman (RNO) and with Major General Matar bin Salim bin Rashid Al Balushi, Commander of the Royal Army of Oman, Ministry of Defence said in a press release.

He will also be visiting key defence and training installations in Oman.

The Naval Chief arrived in Muscat on Sunday and was welcomed by Rear Admiral Saif bin Nassir bin Mohsin Al-Rahbi, Commander, Royal Navy of Oman and India's Ambassador to Oman Amit Narang.

Coinciding with a visit to the Chief of Naval Staff, the indigenous guided missile destroyer INS Vishakhapatnam arrived at Port Sultan Qaboos in Muscat. Various naval cooperation events with Oman Royal Navy are planned with Maritime Partnership Exercise culminating on August 3.

The indigenously built destroyer INS Visakhapatnam entered Oman on Sunday to enhance the maritime partnership between Indian Navy and Royal Oman Navy, informed Indian Navy officials.

The Indian Navy and Royal Oman Navy are working together to address security challenges in the region and the warship is part of the Western Naval Command Fleet, the officials added.

https://economictimes.indiatimes.com/news/defence/indian-navy-chief-discusses-bilateral-defence-cooperation-with-omans-minister-mohammed-al-nuamani/articleshow/102319731.cms?from=mdr

FINANCIAL EXPRESS
Read to Lead

Wed,0 2 Aug 2023

Transforming the Maritime Domain: GSL and IISc Bengaluru Join Forces for AI-Powered Advancements

Goa Shipyard Limited (GSL) and the Foundation for Science Innovation and Development (FSID) at the Indian Institute of Science, Bengaluru, have recently signed an important Memorandum of Understanding (MoU) to revolutionize the shipbuilding and defence sectors through cutting-edge Artificial Intelligence (AI) technologies.

This transformative partnership is set to enhance productivity, safety, and defence readiness while also strengthening indigenous defence manufacturing capabilities.

The collaboration brings together the expertise of GSL, a renowned leader in the shipbuilding and defence industry, and IISc Bengaluru, known for pioneering advanced technological solutions. By

harnessing the power of AI, this alliance seeks to tackle crucial challenges and drive innovation in the maritime domain.

The primary goals of the GSL-IISc collaboration are to elevate productivity, implement state-of-the-art safety measures, enhance defence preparedness, and boost indigenous defence manufacturing capabilities through AI advancements. By leveraging AI-driven automation and optimization, the partners aim to streamline shipbuilding processes, shorten construction timelines, and enhance overall productivity.

The use of AI-powered predictive analytics and real-time monitoring systems will ensure safer working conditions, reduce accidents, and safeguard personnel and assets. Additionally, the development of advanced AI technologies will provide increased situational awareness, empowering naval forces to remain vigilant and responsive during defence operations.

The partnership also aims to foster self-reliance in defence manufacturing through localized AI development, thus significantly contributing to the nation's strategic autonomy.

This joint effort represents a shared vision to drive progress, promote sustainability, and pave the way for a more secure and technologically advanced future in the maritime domain.

The signing ceremony was attended by P Ravindran, General Manager (Production) from Goa Shipyard Limited, and Prof B Gurumoorthy, Director FSID, who represented the Indian Institute of Science, Bengaluru. This strategic alliance marks a significant milestone in the maritime industry, holding the potential for far-reaching impacts on national security and economic growth.

By combining their expertise, GSL and IISc, Bengaluru, are committed to setting new industry benchmarks and leading the way in AI-powered advancements for shipbuilding and defence sectors. This collaboration exemplifies the dedication to innovation and progress, making strides towards a more secure and prosperous future.

https://www.financialexpress.com/business/defence-transforming-the-maritime-domain-gsl-and-iisc-bengaluru-join-forces-for-ai-powered-advancements-3196161/

news nine

Wed, 02 Aug 2023

IAF to Receive C-295: Know How it's Going to Boost Air Defence

Amid the ongoing cold war between India and China, the defence ministry of India has centred its focus on strengthening the Indian defence system, with huge investments in fighter jets as well as other military support gear. Taking a step ahead, the defence ministry has decided to acquire its first military transport aircraft, the C-295. The aircraft are expected to be added to the fleet in September this year. This will be the first of 16 C-295, which will be built by Airbus, the European conglomerate, in Seville, Spain. The 16 aircraft lifter will be handed over to India in fly-away condition. While another 40 will be developed in India at upcoming factory in Vadodara, which will start in 2026. India purchased 56 C-295 in September 2021.

How C-295 made its way to India

With an aim to replace the fleet of the Avro Hawker Siddeley HS748, a twin-engine turboprop military transport and freighter of British origin, India inked a deal in September to acquire 56 C-295 aircraft. Since the 1960s, the Avro Hawker Siddeley HS748 has been serving the Indian Air Force.

How is it going to boost the Indian defence force?

The Airbus C-295 is a new-generation tactical airlifter that has been designed and developed by Airbus, the giant avionics company. Available in light and medium segments, the Airbus C-295 is robust and reliable.

It is capable of performing various activities under different circumstances and even in harsh weather conditions. The aircraft is certified to perform during the day as well as at night in all weather conditions, from extremely hot to extremely cold temperatures, from desert to maritime environments.

The C295 is ideal for any kind of humanitarian mission for the benefit of society as it is capable of low-level flight and short take-off. Additionally, it can land at short airstrips. The aircraft can remain in the air for as long as eleven hours.

For any kind of surveillance and monitoring, the aircraft is fitted with Airbus Defence and Space's unique Fully Integrated Tactical System (FITS).

The aircraft is capable of transporting more payload over larger distances in hot and high conditions, because of its winglets. This feature also increases safety margins in mountainous regions and saves fuel by up to four per cent.

The aircraft is available in multiple variants, including an Intelligence Surveillance and Reconnaissance version, a water bomber, and Air-to-air refueling among others.

https://www.news9live.com/knowledge/iaf-to-receive-c-295-know-how-its-going-to-boost-air-defence-2234318

FINANCIAL EXPRESS
Read to Lead

Tue, 01 Aug 2023

India's Strategic Shift: Amplifying Global Defence Reach with South America as the New Frontier

For the first time, at the forthcoming two day ninth edition of India-LAC Conclave in New Delhi from August 3-4, a session on defence and security industry collaboration has been scheduled.

On day two of the conclave August 4, 2023, during the session on "Forging Security and Defence Industry Collaboration" Captain Gerald Richard Gouveia, National Security Advisor, Cooperative Republic of Guyana is the main guest. The session which is expected to be moderated by Neeraj Gupta, Managing Director, MKU, Chairman, SIDM – International Committee will have Anurag Bajpai, Joint Secretary (DIP) Ministry of Defence, Vikas Khita, Vice President & Head, Corporate Office (Delhi), L&T Defence, Larsen & Toubro Limited & Chief Executive – L&T Power Development Ltd., and Amb Deepak Bhojwani, Former Ambassador to Cuba, Venezuela & Colombo as other speakers.

For the first time, the session will explore possibilities of joint ventures, co-development of weapons systems and also explore the prospects of enhancing Indian defence exports to the region.

Why defence exports to LAC Region?

India is strategically escalating its defence exports to South America, marking a strategic shift from being a dominant player in the Asian defence market to eyeing the international stage. This manoeuvre comes amid heightened opportunities for defence exports in South America and the rising interest of several countries in India's robust defence systems.

In an attempt to rival China's advancements, several Indian defence companies have begun eyeing the South American region, focusing particularly on Argentina, Brazil, and Chile. These countries are increasingly investing in modernisation and expansion of their military infrastructure, as they grapple with issues such as transnational organised crime and drug trafficking.

Financial Express Online has reported earlier that Argentina is keen to buy helicopters as well as fighter jets from India. In a recently concluded visit by Argentinian Defence Minister Jorge Taiana, a Letter of Intent (LoI) was signed for the acquisition of Light and Medium Utility Helicopters for the armed forces of the South American nation.

The region's high demand for modern protective equipment and defence solutions offers a potentially lucrative market for Indian companies to showcase their expertise. From artillery systems, protected vehicles, electronic warfare and naval combat management systems, to military communication C4I solutions, small arms, and night vision devices, Indian firms have a broad range of military equipment to offer.

A case in point is Chile, which expressed its interest in the Indo-Russian BrahMos Missiles for their ship and shore-based platforms, mobile autonomous launchers for coastal defence batteries, and ship-based weapons complex for submarines and frigates. Argentina too is investing in strengthening its defence capabilities by setting its sights on the BrahMos air-launched missile system. This level of interest from these nations underlines the growing demand for India's advanced defence solutions in the region.

However, the defence collaborations are not just limited to sales. India is also set to offer specialised training for officers and the possibility of cross-deputation of instructors at respective training establishments in these countries. Indian companies are actively looking for opportunities to collaborate in areas of mutual interest, such as co-development and co-production, marking a significant step in fostering deeper bilateral relations.

India's engagement with South America's defence sector is not an isolated event but is in line with its target of achieving US$5 billion in defence exports by 2025. Participation in South America's foremost defence and security shows, like LAAD 2023 in Brazil, is also indicative of India's strategy to place itself at the forefront of the global defence sector.

India's Defence Research Development Organisation (DRDO) recently showcased a wide array of its ready-to-export systems at the India Pavilion in Brazil. These systems included the LCA-Tejas, an indigenous light combat aircraft; the Akash missile, a medium-range mobile surface-to-air missile defence system; and the Astra missile, an all-weather beyond-visual-range air-to-air missile.

India's expanding footprint in the region's defence market is a testament to its growing competence and global appeal in the sector. With robust defence systems like the BrahMos missile and numerous other advanced technologies, India is all set to reinforce its position as a significant global defence exporter and collaborator, thus potentially altering the dynamics of the international defence trade.

https://www.financialexpress.com/business/defence-indias-strategic-shift-amplifying-global-defence-reach-with-south-america-as-the-new-frontier-3195618/

REPUBLICWORLD.COM

Tue, 01 Aug 2023

US to Help Australia Develop Guided Missiles, Rockets by 2025 'to Counter China'

The United States will help Australia manufacture guided missiles and rockets and will expand the regional ally's military-industrial base within two years in an effort to counter China, the *Associated Press* reported. In an official announcement, the US government noted it will ramp up defense cooperation with Australia to snub China's growing influence in the Indo-Pacific and its military assertiveness.

The two countries will strengthen cooperation on the guided weapon production. In March, the US announced a trilateral partnership 'AUKUS' with Australia, which involved Britain providing the ally nation with a fleet of eight US-powered nuclear-capable submarines.

'Pursuing several mutually beneficial initiatives'

Speaking with reporters in Brisbane, US Defense Secretary Lloyd Austin said that Washington will help Australia in producing guided multiple-launch rocket systems by 2025. He made the announcement alongside US Secretary of State Antony Blinken as they were both in Queensland state to attend the annual Australia-US Ministerial (AUSMIN) dialogue with their Australian government. Commenting on the bilateral development, Australian Defence Minister Richard Marles said: "We are really pleased with the steps that we are taking in respect of establishing a guided weapons and explosive ordnance enterprise in this country."

The latter expressed hope that missile manufacturing might begin in Australia within two years with the help of the United States. There "would be an increased tempo of visits from American nuclear-powered submarines to our waters" as part of the bilateral engagement," the Australian Defence Minister Marles stressed. "All of us have felt that the alliance has never been in better shape than it is right now," Marles, Australia's Deputy Prime Minister and Defense Minister, said.

Austin, meanwhile noted that the plan would "help the US sharpen our technological edge and strengthen our defence industrial base". Australian Foreign Minister Penny Wong said that the US is a "vital ally."

She stressed that Washington is Australia's "closest global partner; our closest strategic partner." Wong added that the recent meetings with their American counterparts were mainly about "operationalizing the alliance in order to ensure peace, stability, and order."

https://www.republicworld.com/world-news/rest-of-the-world-news/us-to-help-australia-develop-guided-missiles-rockets-by-2025-to-counter-china-articleshow.html

THE ECONOMIC TIMES

Tue, 01 Aug 2023

Russia Accuses Ukraine of Drone Attack on Moscow, Hitting a Tower for the 2nd Time in 3 Days

Russian authorities early on Tuesday accused Kyiv of yet another attack on Moscow and its surroundings with drones, one of which hit a building in the capital that was damaged by a drone

just days ago in a similar attack early on Sunday. Russian officials have claimed that the intensified attacks on the capital region reflect failures in Ukraine's counteroffensive, while Ukrainian President Volodymyr Zelenskyy said over the weekend that "the war is gradually coming back to Russian territory", but stopped short of taking responsibility of the attacks.

The repeated drone strikes underscore Moscow's vulnerability as Russia's war in Ukraine drags into its 18th month.

The Russian Defence Ministry said in the early hours of Tuesday that it it shot down two Ukrainian drones outside Moscow and jammed another, sending it crashing into a skyscraper in the Moscow City business district and damaging the building's facade.

Moscow Mayor Sergei Sobyanin said the drone crashed into the same building that was damaged in a similar attack early on Sunday.

IQ-Quarter, located 7.2 kilometres (4.5 miles) from the Kremlin, contains the offices of several government agencies, including, reportedly, the headquarters of Russia's Ministry for Economic Development. Sobyanin said the Tuesday attack didn't result in any casualties.

It wasn't clear why the same building was hit twice in a row. In both incidents, the Russian military said the drones that hit the skyscraper were jammed before crashing.

Zelenskyy's advisor Mykhailo Podolyak tweeted that Moscow "is rapidly getting used to a full-fledged war, which, in turn, will soon finally move to the territory of the authors of the war' to collect all their debts", without confirming or denying Kyiv's involvement in the attack.

The Russian military also said that Kyiv's forces tried to attack two of its war ships in the Black Sea overnight, using maritime drones. Three drones targeted two patrol vessels, Sergei Kotov and Vasily Bykov, 340 kilometers southwest of the Russian-controlled city of Sevastopol on the annexed Crimean peninsula, the Defence Ministry reported. All three drones were destroyed, the report said.

The attacks on Moscow and Crimea, which Russia illegally annexed from Ukraine in 2014, follow a deadly Russian missile strike on Kryvyi Rih, a city in central Ukraine and Zelenskyy's hometown. Monday's strike partially destroyed a residential building and killed at least six people, wounding dozens more.

https://economictimes.indiatimes.com/news/defence/russia-accuses-ukraine-of-drone-attack-on-moscow-hitting-a-tower-for-the-2nd-time-in-3-days/articleshow/102306722.cms

JANES

Tue, 01 Aug 2023

North Korea Unveils Two New UAVs

North Korea has unveiled two new unmanned aerial vehicles (UAVs), which outwardly appear to resemble US-origin UAVs.

The aircraft were shown on 26 April during the visit of Russian Minister of Defence Sergei Shoigu and North Korean leader Kim Jong-un to the Weapons and Equipment Exhibition 2023 at the Armed Forces Hall in Pyongyang. The aircraft resemble the General Atomics Aeronautical Systems (GA-ASI) MQ-9 Reaper and the Northrop Grumman RQ-4 Global Hawk.

According to the state-owned television, the larger of the two aircraft had been designated as a reconnaissance aircraft and the smaller Reaper-like UAV has been described as a multirole UAV.

Both models of UAVs carried the inscription‘조선인민군공군' (Korean People's Air Force: KPAF) on the sides of the fuselage. The two aircraft also had serial numbers painted on the sides – potentially indicating the aircraft are in service.

Images on placards accompanying the aircraft at the exhibition also appear to show the aircraft in flight testing. In these images, the reconnaissance UAV can be seen flying, with the tall buildings of Pyongyang in the background. In another image that Janes assessed, Kim can be seen standing next to the multirole UAV at an undisclosed airbase.

https://www.janes.com/defence-news/news-detail/north-korea-unveils-two-new-uavs

THE ECONOMIC TIMES

Tue, 01 Aug 2023

China's Xi Calls for Combat Readiness as PLA Marks Founding Anniversary

After months of intensified and increasingly ambitious drills to project power, Chinese President Xi Jinping, speaking ahead of Tuesday's 96th anniversary of the People's Liberation Army (PLA), told China's armed forces to speed up modernisation.

In his address, Xi said the military must broaden its combat capability and readiness, the official Xinhua news agency reported.

"We need to push for new equipment and new forces to accelerate forming combat capabilities and integrate into the combat system," Xi told the Peoples Liberation Army Air Force's western theatre command during a visit last Wednesday, Xinhua reported on Sunday.

Marking the anniversary on Tuesday, an editorial in the official PLA Daily newspaper said the military had "enhanced its ability to carry out diversified military tasks in a wider space".

China has flaunted its military might this year, ramping up military manoeuvres and drills, signalling that its third and most advanced aircraft carrier will soon start sea trials, and tightening its military relationship with Russia.

Some analysts say that the moves reflect China's perception of increased external threats from the United States and its allies, and that Beijing is flexing its military muscle to send political messages.

"The reason is simple: the world is not peaceful and the external environment that China faces continues to deteriorate," said Chinese military analyst Song Zhongping, noting the increasing intensity and frequency of Chinese drills.

The U.S. is also expanding regional deployments and tightening ties with longstanding allies and newer friends - sparking calls from Chinese officials that Washington should steer clear of China's coasts if dialogue between the two militaries is to resume.

Drew Thompson, visiting senior research fellow at National University of Singapore's Lee Kuan Yew School of Public Policy, told Reuters that China's drills represent more of a political message than a military one.

"Everything the PLA (People's Liberation of Army) does is inherently political," Thompson said. "When the Chinese military conducts an exercise, it is showing force - it is bestowing or sending a message to other countries," he said.

Long-range capabilities

Starting with the military drill in the Taiwan strait after Taiwanese president Tsai Ing-wen's meeting with U.S. House of Representatives Speaker Kevin McCarthy in April, China has conducted at least a dozen exercises and patrols from the Sea of Japan to the Western Pacific.

At sea, China is readying its aircraft carriers to extend and assert its power beyond its home waters. Although they remain in training mode, Beijing has deployed the Shandong farther into the Pacific than previous sailings.

Regional military attaches and analysts will be scrutinising the expected sea trial of the more advanced Fujian carrier for signs of technological and operational progress.

State broadcaster CCTV said in June that the sea trial would start "soon" but no date has been fixed.

In the sky, China is fortifying its long-range abilities.

Videos posted online showed China's J-20 stealth jet fighter taking off with domestically produced WS-15 engines, the South China Morning Post reported in early July, while another report said the new engine will put U.S. military bases in South Korea, Japan, and Guam within the range of J-20.

China has worked for decades to build its high-performance jet engines that can compete with Western and Russian models, but the capabilities of the WS-15 are not publicly known.

The refuelling variant of its long-range Y-20 cargo aircraft was also displayed in a formation with jet fighters at a recent air show.

"It delivered a positive signal that Chinese air forces can conduct distant sea training and its systematic and long-distance combat capabilities are getting stronger and stronger," state media cited Shi Yunjia, a J-20 pilot, as saying last week.

https://economictimes.indiatimes.com/news/defence/chinas-xi-calls-for-combat-readiness-as-pla-marks-founding-anniversary/articleshow/102316240.cms

Tue, 01 Aug 2023

China Replaces Leadership of Nuclear Missile Force in Major Military Shake-Up: Report

China has appointed a new leadership for its Rocket Force, the army unit responsible for overseeing the nation's nuclear arsenal. This announcement came in the wake of media reports indicating a corruption investigation involving its former chief, reported news agency AFP.

State media Xinhua in a brief article reported that the navy's former deputy commander, Wang Houbin, has been promoted to the rank of general and named as the new commander of the People’s Liberation Army Rocket Force, according to AFP.

His predecessor, Li Yuchao, has not been seen in public for weeks and the Xinhua article gave no explanation for his removal.

Citing military sources, the South China Morning Post reported that the Central Military Commission's anti-corruption unit is currently investigating the force's former commander Li Yuchao, as well as his current and former deputies Zhang Zhenzhong and Liu Guangbin.

According to South China Morning Post, President Xi Jinping had last week urged the military to step up its efforts to tackle corruption along with its modernisation drive during a speech at an air force base in Sichuan ahead of the PLA's anniversary on Tuesday.

"We need to push forward the party's strict discipline and anti-corruption efforts to a deeper level," Xi had said, South China Morning Post reported citing state broadcaster CCTV.

Xinhua's article on Monday also referred to Xu Xisheng as the Rocket Force's new political commissar. Xu had previously served with the Southern Theatre Command Air Force and was also promoted to general.

It did not mention when the two men had taken up their new roles. The lack of detailed information about such changes is not unusual in China.

The government had last week announced that it was replacing Qin Gang as foreign minister after he had not been seen in public for a month.

The Rocket Force is a relatively new unit of the People's Liberation Army. Its creation was announced in January 2016 after a major reshuffle of China's military structure.

It oversees China's arsenal of strategic missiles, both conventional and nuclear, and can both deter and strike, according to the government.

https://news.abplive.com/news/world/china-replaces-leadership-of-nuclear-missile-force-in-major-military-shake-up-report-1619908

Science & Technology News

Press Information Bureau
Government of India

Ministry of Science & Technology

Tue, 01 Aug 2023

Union Minister Dr Jitendra Singh Launches India's First Indigenously Developed, Affordable, Lightweight, Ultrafast, High Field (1.5 Tesla), Next Generation Magnetic Resonance Imaging (MRI) Scanner in New Delhi

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today launched India's first Indigenously developed, Affordable, lightweight, Ultrafast, High Field (1.5 Tesla), Next Generation Magnetic Resonance Imaging (MRI) Scanner in New Delhi.

Dr Jitendra Singh said, as an indigenous MRI scanner is made available, the cost of MRI scanning is expected to reduce considerably for the common man thus allowing a wider access to the otherwise highly priced MRI scans. He said, additionally, the capital investment of procurement of MRI scanners from the international market will be substantially reduced which in turn will save a lot of foreign exchange, the twin mission objectives of Prime Minister Narendra Modi and the overall objective of Atmanirbharta in cutting edge diagnostic and therapeutic manufacturing in India. The Minister said, in coming years, there will be "Make in India-Made for the World".

Dr Jitendra Singh said that it is indeed a milestone achievement for National Biopharma Mission (NBM), Biotechnology Industry Research Assistance Council (BIRAC) and Department of Biotechnology (DBT) as we unveil the first indigenously developed state-of-the-art MRI Scanner under Public-Private Partnership mode.

Dr Jitendra Singh informed that Under the National Biopharma Mission, Voxelgrids Innovations Pvt Ltd has developed compact, lightweight, next generation MRI Scanner to solve the unmet need of the country.

The Minister underlined that out of Rs 17 Crore spent for developing the world class MRI, Rs 12 Crore was provided by DBT through BIRAC.

Dr Jitendra Singh said, this combination of next generation hardware with software has enabled to successfully introduce a highly disruptive product in the diagnostic imaging space, as this is the first Indian company to receive commercial sale and manufacture license from CDSCO, Govt of India.

Dr Jitendra Singh pointed out that 70% of the world's population has zero access to Magnetic Resonance Imaging (MRI) diagnostic modality. On comparing other imaging modalities such as CT, X-ray and Ultrasound, access to MRI scanners is typically a factor of 3 less. The reason is prohibitively high capital costs which is a problem in developing counties like India. Current estimates in India indicate that the total installed base of MRI is 4800, which is 3X lower than CT, which is possibly due to high cost and import dependency of this product.

Dr Jitendra Singh informed that currently there is an annual demand of less than 350 machines, but added that with the awareness increasing and also because of the several initiatives of the Government to improve healthcare access and inclusiveness, including the flagship Ayushman Bharat initiative, the annual demand is expected to more than double by 2030 (Globaldata Inc.).

The Minister said, India will address many of these problems by making available the first indigenously developed MRI Scanner which is affordable compared to the already available machines. He said, it also offers a prospect of sharing this success with other nations in global south to help them to have access to an affordable and dependable medical imaging solutions.

Dr Jitendra Singh also informed the gathering that after the passage of the National Research Foundation (NRF) Bill, a brainchild of PM Modi in Parliament, it will forge collaborations among the industry, academia, and government departments and research institutions, and create an interface mechanism for participation and contribution of industries and State governments in addition to the scientific and line ministries. It will focus on creating a policy framework and putting in place regulatory processes that can encourage collaboration and increased spending by the industry on R&D, he added.

Dr Jitendra Singh said, we must acknowledge and thank our able leadership under the guidance of Prime Minister for steering the country in this direction of progress and international recognition, and the role played by national initiatives such as Make in India, Skill India, Start-up India and

Digital India in achieving this success. He said, India is moving fast from being a mere consumer of technology to an innovator.

In his address, Secretary, DBT, Dr Rajesh Gokhale said that Department of Biotechnology (DBT) through its various programs has made enormous efforts in strengthening the biopharma sector with attention to devices and diagnostics ecosystem India. The National Biopharma Mission (NBM), of the Department of Biotechnology (DBT), implemented by BIRAC is playing a pivotal role in accelerating India's technological and product development capabilities in vaccines, biotherapeutics including biosimilars, medical devices and diagnostics, he added.

https://pib.gov.in/PressReleasePage.aspx?PRID=1944717

THE HINDU

Tue, 01 Aug 2023

ISRO Successfully Conducts Trans Lunar Injection of Chandrayaan-3

The Indian Space Research Organisation (ISRO) on August 1 performed the TransLunar Injection (TLI) to slingshot Chandrayaan-3 towards the moon.

The TLI was performed successfully from ISRO Telemetry, Tracking and Command Network (ISTRAC) in Bengaluru.

"Chandrayaan-3 completes its orbits around the Earth and heads towards the Moon.

A successful perigee-firing performed at ISTRAC, ISRO has injected the spacecraft into the translunar orbit," the space agency said.

The TLI was planned for August 1 between 12 midnight and 1 am IST.

The Chandrayaan-3 is expected to reach the lunar orbit on August 5 and the spacecraft's liquid engine will be fired again to insert the spacecraft into a lunar orbit.

"The Lunar-Orbit Insertion (LOI) is planned for Aug 5, 2023," ISRO added.

After this there will be four orbit maneuvers to make the spacecraft enter into its final orbit at a distance of about 100 km from the Moon's surface.

The Chandrayaan-3 consists of an Lander module (LM), Propulsion module (PM) and a Rover.

The PM and LM separation would happen on August 17. A series of deboost manoeuvres is also scheduled to take place before the power descent phase for the soft landing on the moon. The lander is expected to touch down on the moon surface on August 23 at 5.47 p.m.

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https://www.thehindu.com/sci-tech/science/isro-successfully-conducts-translunar-injection-of-chandrayaan-3/article67143826.ece

The Indian EXPRESS

Tue, 01 Aug 2023

What is Akira, a Ransomware CERT-In has Flagged

Earlier this month, the central government's Computer Emergency Response Team (CERT-In) issued an advisory flagging the emergence of a new ransomware called Akira. The Gurgaon police have also raised an alert about Akira.

Ransomware is essentially a kind of malware — a software used to gain unauthorised access to systems to steal data. This data can then be used by cyber criminals to demand a ransom.

Akira targets computer systems that run on Windows and Linux operating systems and is known to spread laterally across networks. According to the advisory issued by the government, Akira steals personal data, encrypts it, and later extorts money from the victims. In case a user refuses to pay, the ransomware actors threaten to release their data on the dark web.

What is Akira?

Akira is a new family of ransomware that was used for cyber attacks in the US and Canada in March this year. This is different from the Akira ransomware that was flagged by Microsoft Defender Antivirus in 2017. In the US, the ransomware was reported to actively target several organisations and expose their sensitive data.

Akira uses a double-extortion technique to exfiltrate and encrypt data to increase the chances of extracting money from its victims. It was first flagged in April, and a majority of its victims are from the US. The reason you are hearing about Akira right now is because of the number of organisations that it has impacted in the US and the latest advisory from the government.

Based on a report on arcticwolf.com on July 26, the Akira leak site has compromised at least 63 organisations since its inception. As many as 80 per cent of the victims are small to medium-scale businesses.

How is Akira different from other ransomware?

Their routine includes exfiltrating data from hacked networks, then triggering encryption and posting a ransom demand. Reportedly, once the gang is convinced that it has stolen enough data to extort money from the victim, they deploy Akira's payload.

They Delete Windows Shadow Volume copies (a technology by Microsoft Windows that creates backup copies) from the devices using a PowerShell command: essential text-based instructions used to perform tasks, and manage systems, files, and settings. After using the PowerShell command, the ransomware proceeds to encrypt a wide range of data file types and adds '.akira' extension to them.

What does Akira want?

Companies that do not have secure backups to restore files may find themselves in a soup. As per reports, Akira drops a ransom note in each folder where it has encrypted the files. The ransom note tells the victim that they need to enter a negotiation to restore their data.

"Dealing with us you will save A LOT due to we are not interested in ruining you financially. We will study in depth your finance, bank & income statements, your savings, investments etc. and present our reasonable demand to you. If you have an active cyber insurance, let us know and we will guide you how to properly use it. Also, dragging out the negotiation process will lead to failing

of a deal," reads a purported akira_readme file or ransom note that has been circulating on the internet.

Akira also offers a security report upon payment, in which the hackers claim to reveal the weaknesses that allowed them to steal the data. "The security report or the exclusive first-hand information that you will receive upon reaching an agreement is of great value, since NO full audit of your network will show you the vulnerabilities that we've managed to detect and use in order to get into, identify backup solutions and upload your data," read the note.

What's with the '80s aesthetics?

According to reports, the leak site of Akira seems straight out of the retro era. The site is distinctive in its use of old-school neon green against a black backdrop theme. Interestingly, there are no toggle buttons on the site and users (or victims) are expected to type in commands rather than navigate through drop-down menus or radio buttons seen on usual websites.

Some of the reports suggest that the Akira ransomware homepage also has a 'news' command that gives access to the list of as many as 16 victim organisations that were targeted by the group as of May. The information stolen from each organisation is summarised and listed corresponding to the company names on the page.

What is the impact of Akira?

The ransomware can lead to the loss of valuable data. In the case of organisations, an attack by Akira can lead to a loss of reputation and integrity. Besides, sensitive information is likely to be lost, misused, or sold on the dark web. It effectively disrupts the operations of any organisation whose network it targets. Moreover, Akira can cause massive financial losses. A news report cited that the ransom amount could go up to a whopping $200,000.

How to safeguard yourself from Akira?

To combat Akira, companies need to upgrade their cybersecurity practices. They should conduct regular backup practices and secure backups offline or even on a separate network. Experts advise turning on automatic software updates on computers, laptops, smartphones, and other connected devices. Users should refrain from opening suspicious links, and email attachments without checking their authenticity.

If someone is indeed attacked, the immediate countermeasures include: detaching infected devices on the same network, disconnecting all external storage devices, and one should also inspect system logs for suspicious activities.

https://indianexpress.com/article/explained/explained-sci-tech/what-is-akira-a-ransomware-cert-in-has-flagged-8871731/

Hindustan Times

Tue, 01 Aug 2023

NASA's Voyager 2 Signals 'Good Health' after Brief Blackout

NASA's distant Voyager 2 probe has signaled it is in "good health" after mission control mistakenly cut contact for several days, the US space agency said in its latest update. Launched in 1977 as a beacon from humanity to the wider Universe, it is currently more than 12.3 billion miles (19.9 billion kilometers) from our planet, exploring interstellar space along with its twin, Voyager 1.

A series of planned commands sent to Voyager 2 on July 21 "inadvertently caused the antenna to point two degrees away from Earth," NASA's Jet Propulsion Laboratory (JPL) said in a recent update.

This left it unable to transmit data or receive commands to its mission control -- a situation that was not expected to be resolved until it conducted an automated re-orientation maneuver on October 15.

But late Monday, NASA's Sun & Space account posted on social media that contact had been re-established. "The Deep Space Network has picked up a carrier signal from @NASAVoyager 2, letting us know that the spacecraft is in good health," the agency said.

The Deep Space Network is NASA's international array of giant radio antennas.

While JPL built and operates Voyager spacecraft, the missions are part of the NASA Heliophysics System Observatory. Voyager 2 left the protective magnetic bubble provided by the Sun, called the heliosphere, in December 2018, and is currently traveling through the space between the stars.

Before leaving our solar system, it became the first and so far only spacecraft to have visited the outer planets Uranus and Neptune.

Voyager 1 was humanity's first spacecraft to enter the interstellar medium, in 2012, and is currently almost 15 billion miles from Earth. Both Voyager spacecraft carry "Golden Records" -- 12-inch, gold plated copper disks intended to convey the story of our world to extraterrestrials.

https://www.hindustantimes.com/science/nasas-voyager-2-signals-good-health-after-brief-blackout-101690905714169.html