

जुलाई
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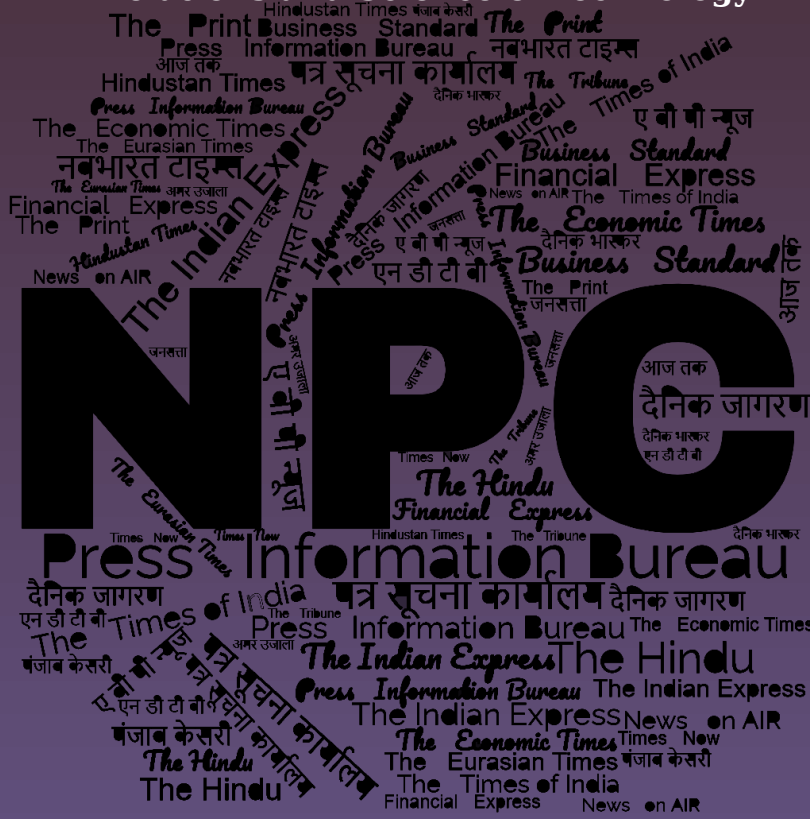
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समाचार पत्रों से चयित अंश Newspapers Clippings

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

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अमरउजाला

Wed, 26 Jul 2023

आत्मनिर्भरता की ओर कदम: भारत तैयार कर रहा एस-400 जैसी रक्षा प्रणाली, दुनिया के चुनिंदा देशों में होगा शामिल

भारत रक्षा क्षेत्र में आत्मनिर्भरता की ओर तेजी से कदम बढ़ा रहा है। इसी कड़ी में भारत सीमा पार से होने वाले हवाई हमलों को रोकने के लिए सतह से हवा में वार करने वाली एस-400 की तरह मिसाइल (एलआर-सैम) रक्षा प्रणाली विकसित करेगा। यह तीन स्तर में काम करेगी और 400 किमी रेंज तक दुश्मन के हवाई हमलों व मिसाइलों को तबाह कर देगी।

2.5 अरब अमेरिकी डॉलर से अधिक की है परियोजना

रक्षा सूत्रों ने बताया कि 250 करोड़ डॉलर (करीब 20,500 करोड़ रुपए) की यह परियोजना रक्षा क्षेत्र में आत्मनिर्भरता बढ़ाने की दिशा में बड़ा कदम है। इस प्रणाली के विकास का प्रस्ताव रक्षा मंत्रालय के पास अप्रिम चरण में है। जल्द ही इस पर सहमति मिल जाएगी। इसमें तीन स्तरों की सुरक्षा का मतलब है कि यह तीन अलग-अलग दूरी पर मौजूद लक्ष्यों को मार गिरा सकती है। इस स्वदेशी तीन स्तरीय एलआर-सैम परियोजना का नेतृत्व वायुसेना कर सकती है, जो रक्षा क्षेत्र के भारतीयकरण के लिए विशेष प्रयास कर रही है।

चीन के पास भी ऐसी प्रणाली, क्षमता कम

पड़ोसी दुश्मन देश चीन ने भी एस-400 प्रणाली हासिल की है और इसे भारत से लगती वास्तविक नियंत्रण रेखा पर तैनात किया है। साथ ही चीन ने घरेलू वायु रक्षा प्रणाली भी विकसित की है, लेकिन यह एस-400 से कहीं कम क्षमता रखती है।

डीआरडीओ ने की विकसित

भारत में सतह से हवा (सैम) में मार करने वाली मिसाइल प्रणाली का विकास पहले ही जारी है। इसके तहत इस्राइल के साथ मध्य दूरी की सतह से हवा में वार करने वाली मिसाइल (एमआर-सैम) प्रणाली का विकास हो रहा है। वहीं भारतीय रक्षा अनुसंधान व विकास संगठन (डीआरडीओ) ने धरती और युद्धपोत दोनों पर तैनात हो सकने वाली वायु रक्षा हथियार प्रणाली विकसित करने में सफलता हासिल की है। डीआरडीओ द्वारा एलआर-सैम परियोजना लेने के बाद नौसेना ने घरेलू एलआर-सैम प्रणाली का नाम एमआर-सैम कर दिया था। थल सेना और वायुसेना ने भी इसे एमआर-सैम नाम दिया।

एस-400 की दो स्वचालन की आपूर्ति बाकी

सूत्रों के अनुसार इसी एमआर-सैम से आगे अब तीन स्तरीय एलआर-सैम का विकास होगा। इसकी क्षमता रूस की एस-400 वायु रक्षा प्रणाली की श्रेणी की होगी। साथ ही छोटी दूरी के लक्ष्य भी यह भेद सकती है। उल्लेखनीय है कि भारत रूस से पांच एस-400 प्रणालियां खरीद रहा है, जिसके लिए अक्टूबर 2018 में 500 करोड़ डॉलर का समझौता

हुआ था। इसके तीन स्क्वाड्रन भारत आ चुके हैं, जिन्हें चीन व पाकिस्तान से लगती सीमाओं पर तैनात किया गया है। वहीं, दो अन्य स्क्वाड्रन की आपूर्ति कब होगी, यह फिलहाल साफ नहीं है।

<https://www.amarujala.com/india-news/india-developing-its-own-400-km-class-long-range-surface-to-air-missile-air-defence-system-2023-07-26>

THE ECONOMIC TIMES

Wed, 26 Jul 2023

India Developing its Own 400 Km Class Long-Range Surface to Air Missile Air Defence System

In what could be a major boost for self-reliance in the defence sector, India is indigenously developing a three-layered long-range surface-to-air missile (LRSAM) defence system which would be able to strike down enemy aircraft and missiles at around 400 Km ranges.

The proposal for developing a three-layered long-range surface-to-air missile system is at an advanced stage in the Defence Ministry and is expected to be taken up for clearance soon, defence sources told ANI. The over USD 2.5 billion project will help India to be part of an elite group of militaries with indigenous capabilities to shoot down enemy assets in the air from such ranges, they said. The missile system will have three layers of surface-to-air missiles, which would allow it to hit targets at different ranges.

The surface-to-air missile system development work has been taking place as India worked with Israel to develop the medium-range surface-to-air missile system MRSAM which can hit aerial targets at 70 plus kms.

The Indian system, sources said, would be very capable and would certainly be in the class of the S-400 air defence system already acquired from Russia and deployed along the China and Pakistan border. The Defence Research and Development Organisation (DRDO) has made significant success in terms of developing air defence weapons for both ground-based and warship-based systems.

After the LRSAM project was taken up by the DRDO, the Indian Navy changed the name of its indigenous LRSAM system to MRSAM.

The Army and the IAF already had named a similar indigenous system as MRSAM.

The Indian defence forces already have the S-400 air defence systems, which can hit targets at 400 Km maximum distance and also have the capability to take out targets at shorter ranges too.

The system is used by the Chinese military as well, which has deployed it along the Line of Actual Control (LAC) with India. The Chinese also have their indigenous air defence systems but they are less capable than the S-400.

Three squadrons of the S-400 have already arrived in India and operationalised but the delivery schedule of the remaining two units is unclear.

The project lead for the LRSAM project would be the Indian Air Force which is keen on promoting indigenisation in defence hardware.

<https://economictimes.indiatimes.com/news/defence/india-developing-its-own-400-km-class-long-range-surface-to-air-missile-air-defence-system/articleshow/102133177.cms>

India's 'Super Killer' RudraM-II to Boost Forces; can be Fired from French & Russian Jets

In a ground-breaking development, India's DRDO has achieved yet another milestone. DRDO Chief SV Kamat has confirmed the successful testing of the Rudram-II missile. The missile can be fired from both French Mirage-2000 and Russian Sukhoi-30 jets. "Super Killer" Rudram-II is an advanced variant of India's first anti-radiation missile, Rudram. India test-fired its first indigenous Rudram anti-radiation missile in October 2020. Watch this report to learn about the missile's capabilities.

<https://www.hindustantimes.com/videos/world-news/indias-super-killer-rudram-ii-to-boost-forces-can-be-fired-from-french-russian-jets-details-101690357970581.html>

DRDO on Twitter

DRDO  **@DRDO_India**

[#DRDOUpdates](#) | DRDO salutes the valour & bravery of our mighty soldiers who made supreme sacrifices for . We remain committed to providing best-in-class defence systems & technologies for empowering Indian Armed Forces.

[#KargilVijayDiwas2023](#)
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KARGIL
VIJAY DIWAS

12:25 pm · 26 Jul 2023 · **28.2K** Views



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Floral Tributes to the People's President and the Missile Man of India 🇮🇳.
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8:07 am · 27 Jul 2023 · 14.4K Views



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Wed, 26 Jul 2023

Nation Pays Tribute to 1999 Kargil War Heroes on 24th Kargil Vijay Diwas; Raksha Mantri Pays Homage to the Valiant Soldiers at Kargil War Memorial in Dras

India of today rests on the foundation of the sacrifices of our bravehearts: Shri Rajnath Singh

“India is a peace-loving nation, but will not hesitate to retaliate if provoked; Government fully committed to safeguard national interests”

RM urges people to be mentally prepared to defend the country not just indirectly but directly also, if ever the need arises

The Nation paid rich tributes to the brave soldiers of the 1999 Kargil war on the 24th anniversary of India’s historic victory, which is celebrated as ‘Kargil Vijay Diwas’ on 26th July every year. To mark the day, Raksha Mantri Shri Rajnath Singh today visited the Kargil War Memorial at Dras in Ladakh, laid a wreath and paid homage to the valiant soldiers who displayed unparalleled bravery during ‘Operation Vijay’.

The ceremony at Dras also witnessed a gathering of war heroes, Veer Naris and the families of the fallen heroes. Shri Rajnath Singh interacted with them and extended heartfelt gratitude while recalling all those who made the supreme sacrifice in the service of the nation. He assured them that the sacrifices of these bravehearts will never be forgotten.

Addressing the gathering, the Raksha Mantri commended the valour and commitment of the Armed Forces, which have, time and again, helped the country stand tall in times of crisis. India of today rests on the foundation of the sacrifices made by the soldiers, he said. Shri Rajnath Singh described ‘Operation Vijay’ as an episode that displayed India’s grit and determination as it stood its ground in the face of adverse circumstances. He also termed the victory as a launch pad that propelled the nation to achieve heights of success.

“Our greatness is not in never falling, but in getting up every time we fall. Despite the adversary having tactical military advantage during the war, our forces displayed unmatched bravery and skill to push them back and reclaim our land. With the victory, India sent a message to Pakistan and the world that our military will not back down at any cost if the nation’s interests are harmed,” said Shri Rajnath Singh. The Raksha Mantri assured all that the Government is fully committed to safeguarding national interests, no matter the challenge. “No compromise will be made in protecting the sovereignty, unity and integrity of the country. We have given a free hand to the

Armed Forces to eliminate the nation's enemies. India is a peace-loving nation which believes in its centuries-old values and is committed towards international laws, but to safeguard our interests, we will not hesitate in crossing the LoC. Earlier, the nation and the Armed Forces lacked political will, which has now been provided by our Government, led by Prime Minister Shri Narendra Modi. We stand firm with our forces. The people and Parliament have full faith in our soldiers," he said.

Shri Rajnath Singh recalled the heroic deeds of a number of bravehearts of the Kargil war, including Param Vir Chakra (PVC) Awardees Captain Vikram Batra & Captain Manoj Pandey and Vir Chakra (VrC) Awardees Lieutenant Colonel R Vishwanathan, Captain Jintu Gogoi, Captain Vijayant Thapar & Naib Subedar Mangej Singh, who are a source of inspiration for the future generations and will be remembered forever.

The Raksha Mantri made special mention of Flight Lieutenants Gunjan Saxena & Srividya Rajan who showcased exceptional courage during the war and spread the message that Indian women are no less than their male counterparts when it comes to securing the country's borders. He highlighted that all these soldiers belonged to different regions of India, but fought as one to protect the interests of the nation and its people.

Shri Rajnath Singh said that wars are fought & won with not just weapons and bombs; bravery and indomitable spirit will play an equally important role. He said, this will power and sense of national pride is what separates Indian soldiers from the rest, adding that "our forces are imbued with the values of patriotism for the protection of the country, its civilisation and culture."

Citing the example of the Russia-Ukraine conflict, the Raksha Mantri stated that the war, which has been continuing for last more than one year, reflects the unpredictable nature of conflicts in today's times. He added that the war has been prolonged as the people are training and joining their military in fighting for their cause.

Shri Rajnath Singh called upon the people to be ready to participate in wars not only indirectly but directly as well, if ever the need arises. "People should be mentally prepared, so that whenever the nation needs them, they should be ready to help the Armed Forces. Just as every soldier is an Indian; in the same way, every Indian should be ready to play the role of a soldier," he said.

Lieutenant Governor of Ladakh Brigadier (Dr) BD Mishra (Retd), Chief of Defence Staff General Anil Chauhan, Chief of the Army Staff General Manoj Pande, Chief of the Naval Staff Admiral R Hari Kumar, Chief of the Air Staff Air Chief Marshal VR Chaudhari, former Army Chief General VP Malik (Retd), General Officer Commanding-in-Chief of Northern Command Lieutenant General Upendra Dwivedi, General Officer Commanding, 14 Corps Lieutenant General Rashim Bali, Lieutenant General YK Joshi (Retd) and Lieutenant General Amarnath Aul (Retd) attended the ceremony.

The presence of Subedar Major Sanjay Kumar, a true example of courage & determination and recipient of PVC and Havildar Digendra Kumar, Maha Vir Chakra inspired the gathering. Shri Manmohan Pandey, brother of Captain Manoj Pandey, PVC and Shri Vishal Batra, brother of Captain Vikram Batra, PVC also graced the occasion. The event at Dras marked a moment of unity, gratitude, and pride, as the nation came together to acknowledge the heroism that defines the 'Spirit of India'.

In the national capital, Raksha Rajya Mantri Shri Ajay Bhatt, Defence Secretary Shri Giridhar Aramane, Chief of Integrated Defence Staff to the Chairman, Chiefs of Staff Committee (CISC) Lt Gen JP Mathew and the Vice Chiefs of the three Services laid wreaths at the National War Memorial and paid homage to the fallen heroes.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1942744>

India Ready to Cross LoC to Maintain Country's Honour & Dignity: Rajnath Singh

Defence minister Rajnath Singh on Wednesday asserted that India stands prepared to cross the Line of Control (LoC), if necessary, to uphold its honour and dignity.

Addressing an event at the Kargil War Memorial in Ladakh, the defence minister urged the civilians to be ready to participate in wars not only indirectly but directly as well, if ever the need arises.

Citing the example of the Russia-Ukraine war, he said the war has been going on for more than a year because civilians have stepped up and are participating in the war.

"No compromise will be made in protecting the sovereignty, unity and integrity of the country. We have given a free hand to the armed forces to eliminate the nation's enemies. India is a peace-loving nation which believes in its centuries-old values and is committed towards international laws, but to safeguard our interests, we will not hesitate in crossing the LoC," he said.

"We can go to any extreme to maintain the honour and dignity of the country...if that includes crossing the LoC, we are ready to do that. If we are provoked and if the need arises, we will cross the LoC," Singh added.

Referring to the Russia-Ukraine war, the defence minister pointed out that the war which has been continuing for more than one year, reflects the unpredictable nature of conflicts in today's times.

"People should be mentally prepared, so that whenever the nation needs them, they should be ready to help the armed forces. Just as every soldier is an Indian, in the same way, every Indian should be ready to play the role of a soldier," he said.

Earlier on Wednesday, Singh laid a wreath and saluted the jawans who lost their lives during the 1999 Kargil conflict at the war memorial in Drass. After the wreath-laying ceremony, he interacted with veterans, 'veer naris', gallantry award recipients and locals and conveyed his gratitude.

The defence minister also called upon the Army to work towards ensuring that the contribution of these unsung heroes does not go unnoticed.

<https://timesofindia.indiatimes.com/india/india-ready-to-cross-loc-to-maintain-countrys-honour-dignity-rajnath-singh/articleshow/102145207.cms>



Press Information Bureau
Government of India

Ministry of Defence

Wed, 26 Jul 2023

8th India-Australia Defence Policy Talks Held in Canberra

The 8th India-Australia Defence Policy Talks (DPT) was held at Canberra in Australia on 24-25 July 2023. The Defence policy talks were co-chaired by Special Secretary in Ministry of Defence

Smt. Nivedita Shukla Verma, and Acting Deputy Secretary in Department of Defence, Australia Mr Steven Moore.

During the Defence Policy talks, both sides reviewed the bilateral defence cooperation between the two countries and explored new initiatives to further strengthen and deepen bilateral defence engagements. The discussions also focused on identifying ways to strengthen partnership in co-development and co-production of defence equipment. Both sides reaffirmed their commitment to fully implement the Comprehensive Strategic Partnership based on mutual trust and understanding, common interests and shared values of democracy and rule of law. The Indian side highlighted the potential of the Indian defence industry with capacity and capability to cooperate with Australian Armed forces in its shipbuilding and maintenance plans.

India – Australia share a Comprehensive Strategic Partnership since June 2020 and defence is a key pillar of this partnership. India and Australia’s partnership is based on a shared vision of a free, open, inclusive and prosperous Indo-Pacific region. The two democracies have a common interest in peace and prosperity of the entire region.

The two countries have 2+2 mechanism at the Ministerial level. The 8th DPT reviewed the outcomes of maiden 2+2 conducted in September 2021. Both sides agreed for early finalization of hydrography agreement. The two sides also exchanged views on geo-political situation, regional and global issues of shared interest.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1942826>

THE ECONOMIC TIMES

Wed, 26 Jul 2023

India, UK Hold First Defence & Military Tech Cooperation Workshop

Senior government officials, sectoral experts and industry representatives came together in London for a first-of-its-kind discussion to explore synergies between India and the UK in the defence and military technology sector and work as a catalyst to enhance bilateral cooperation in the sphere.

The UK-India Defence and Military Technology Cooperation workshop, organised by the London-based think tank International Institute for Strategic Studies (IISS) in partnership with India's Bharat Shakti defence platform on Tuesday, explored collaborative defence research and industrial production partnerships between the two countries.

It covered topics such as the 'Evolving strategic context of UK-India defence relations', 'Perspectives on India's Atmanirbhar programme and the UK's defence technology partnerships' and boosting military and manufacturing partnerships against the backdrop of the India-UK 2030 Roadmap's focus on 'Defence and Security' as a key pillar of bilateral ties.

"This is very much part of what we are trying to achieve in the relationship, to move the strategic and defence pillar forward," said Indian High Commissioner to the UK Vikram Doraiswami, who delivered the opening remarks at the workshop. "It is eminently doable and within our reach. The presence of so many distinguished folks suggests that there is a forward-leaning approach of His Majesty's government, and I can assure you it is fully reciprocated. We do want to develop this pillar further," he said during a post-event reception at India House in London. A new, ambitious strategic collaborative partnership on research, innovation, technology and industry to develop

transformational defence and security capabilities was flagged within the India-UK 2030 Roadmap, signed by Prime Minister Narendra Modi and his British counterpart, Boris Johnson, in May 2021.

Last week, a Defence Command Paper noted that the UK sought to "deepen industrial partnerships, move capability collaboration to new levels, and explore shared export opportunities", to build on the UK-India 2030 Roadmap. "Yet, collaborative defence research and industrial production partnerships between the two countries remain, I believe, underwhelming; especially at a time when India is fast undertaking such ventures with the US and France. Clearly, much more could and needed to be done," said Rahul Roy-Chaudhury, Senior Fellow for South and Central Asia at IISS, who led the new initiative.

"The single most important objective of the workshop is to serve as a catalyst for change in the India-UK defence relationship by building mutual trust and identifying key opportunities for defence research collaboration and defence industrial partnerships," he said.

"This is to take place through a more sophisticated understanding of the evolving convergences in their respective foreign and security policies; identifying mutual defence capabilities and limitations along with national technological priorities; seeking to overcome challenges to building collaborative defence industrial partnerships; and ensuring a continuous process of high-level informal 'track 1.5' engagement between both countries," he added.

The workshop, held within this closed-door track 1.5 format, attracted high-level participation, including a drop-in by UK National Security Adviser (NSA) Sir Tim Barrow. It is expected to become a regular feature in the bilateral calendar, with the next edition planned for New Delhi early next year and a third follow-up in London. The key players at the workshop included Ambassador P.S. Raghavan, Chairman of the National Security Advisory Board (NSAB), Government of India; Matthew Collins, UK's Deputy NSA (Intelligence, Defence and Security); Dr Ajay Kumar, India's former Defence Secretary and Defence Production Secretary; Shimon Fhima, Director, Strategic Programmes, and David Williams, Permanent Secretary, at the UK's Ministry of Defence (MoD).

Other experts joining the workshop sessions included Dr G. Satheesh Reddy, former Scientific Advisor to India's Defence Minister and former chairman, Defence Research and Development Organisation (DRDO); Conrad Banks, Chief Engineer, Defence Future Programmes, Rolls-Royce plc; Nitin Gokhale, Founder and Editor-in-Chief, Bharat Shakti; Ashok Atluri, Chairman and Managing Director, Zen Technologies Limited; and Richard McCallum, CEO, UK India Business Council (UKIBC).

<https://economictimes.indiatimes.com/news/defence/india-uk-hold-first-defence-military-tech-cooperation-workshop/articleshow/102145846.cms>



Wed, 26 Jul 2023

The Battlefield of the Future: Decoding the Power of Internet of Military Things

By Girish Linganna

The digital revolution has become the latest battleground, prompting a significant shift in the dynamics of military strategy and warfare. This new battlefield is being shaped by the innovative

and transformative Internet of Military Things (IoMT), a cutting-edge integration of cyber operations and machine intelligence. Emerging as a game-changer in defence strategy, IoMT has the potential to redefine military operations, offering a surge in combat efficiency and effectiveness. This interconnected network of devices, technologies, and the internet promises to usher in an era of enhanced decision-making, secure real-time data sharing, and increased automation. However, with this digital advancement comes the critical need to navigate ethical implications and potential challenges. This article aims to decode the complexities of IoMT and its impact on the future of warfare, while also providing a perspective on how countries like India are harnessing its potential to fortify national security.

Tapping into a Digital Revolution

In an era where technology is reshaping the dynamics of power and control, the Internet of Military Things (IoMT) emerges as a game-changer in the field of defence and warfare. It orchestrates a harmonious confluence of cyber operations and machine intelligence, offering immense potential to revolutionize military operations. This novel technology knits an interconnected network of devices and technologies powered by the internet, propelling a surge in combat efficiency and effectiveness.

The Alpha of IoMT: Redefining the Cyber Battleground

The IoMT unravels a world of networked military operations, thereby accelerating decision-making processes, enhancing real-time data sharing, and driving automation. The fusion of cyber operations and machine intelligence is the bedrock of this advanced technology. By integrating cutting-edge cyber strategies and secure communication protocols, the IoMT safeguards the sanctity and availability of pivotal information, offering an impregnable fortress against potential breaches.

Cyber Innovations: Securing the Digital Frontier

To fully comprehend the impact of IoMT, one must delve into the realm of cyber operations and their advancements. The introduction of sophisticated cyber warfare techniques has significantly escalated the prowess of military forces, enabling them to execute complex strategies with precision. Moreover, advanced communication protocols offer a secure framework for transferring sensitive information, thereby ensuring its integrity and confidentiality. In essence, these advancements have paved the way for a robust cybersecurity infrastructure that forms the cornerstone of IoMT.

Machine Intelligence: The New Vanguard of Military Operations

At the heart of the IoMT lies machine intelligence, a potent tool that enhances the speed, accuracy, and efficiency of military operations. AI algorithms and machine learning technologies enable predictive analysis and intelligent automation, catapulting the military's decision-making capabilities to new heights. The convergence of these technologies empowers military commanders with timely and actionable intelligence, marking a significant leap in warfare tactics.

Applications of IoMT: The Art of Digital Warfare

IoMT's applications range from bolstering battlefield awareness to optimizing logistics and fortifying cyber defenses. Through the integration of surveillance systems, drones, and sensors, the IoMT paints a comprehensive picture of the battlefield environment, facilitating strategic planning and decision-making. The technology also significantly improves supply chain processes by harnessing data-driven insights to manage inventory and streamline resource allocation.

Furthermore, IoMT's application extends to reinforcing military networks against cyber threats. This is achieved through the deployment of advanced intrusion detection systems and encryption mechanisms that ensure a rapid response to incidents and proactive threat hunting. Lastly, IoMT

fosters the development and deployment of autonomous systems and robotics, enabling precision in reconnaissance, surveillance, and combat operations.

Navigating the Ethical Minefield: Challenges and Considerations

Despite its profound advantages, IoMT's emergence raises a host of ethical issues and challenges. Concerns surrounding privacy and data security, alongside the risk of autonomous systems being manipulated by malicious entities, necessitate the establishment of comprehensive ethical frameworks. This is coupled with the need for robust international norms and legal regulations to ensure responsible deployment of IoMT technologies.

A Paradigm Shift in Warfare: The Indian Perspective

India's recognition of the potential of IoMT is testament to its commitment to integrating machine intelligence and cyber operations into its defense strategies. By leveraging machine learning algorithms to detect anomalies, the country has the potential to enhance its cybersecurity posture significantly. Moreover, the integration of AI in offensive cyber operations equips India to effectively respond to potential threats, thereby fortifying its national security.

The integration of IoMT is indeed reshaping the landscape of modern warfare, offering unparalleled operational efficiency, situational awareness, and cyber resilience. As this technology continues to evolve, we must grapple with its ethical implications and potential challenges, guiding its growth towards ensuring national security and peace in an increasingly interconnected world.

As we close this exploration into the realm of the Internet of Military Things (IoMT), it's clear that this digital revolution represents a fundamental paradigm shift in warfare and defence strategies. The harnessing of cyber operations and machine intelligence offers an unprecedented advantage in terms of combat efficiency and effectiveness. Countries like India are already demonstrating the potential of this interconnected network, thereby fortifying their national security. However, with this transformative technology comes an array of ethical implications and potential challenges.

As IoMT continues to evolve and permeate military operations globally, it is incumbent on us to navigate this ethical landscape responsibly, ensuring a balanced approach to its deployment. With careful management and thoughtful regulation, IoMT can become a powerful tool in safeguarding national security while contributing to peace in our increasingly interconnected world. This journey into the future of the battlefield has only just begun, and the full potential of the IoMT awaits to be fully unlocked.

<https://www.financialexpress.com/business/defence-the-battlefield-of-the-future-decoding-the-power-of-internet-of-military-things-3188300/>



Wed, 26 Jul 2023

The Nomadic Exercise-23 and its Magnitude in Indo-Mongolian Defence Cooperation

By Kashif Anwar

As the geographical location of a region, area, territory or nation in global politics is vital, its strategic location can't be sidelined from a strategic perspective. Over the ages, such an aspect has been followed by mankind, which continues to dominate in today's conflict and geopolitics.

Whether such a nation is landlocked or located at a remote distance, it can't remain away from the ongoing battle for global supremacy and great power politics. Today, one such region is Central Asia; with Russia's position in the region remains strong, growing involvement from China and the West has further dwindled Russian influence. Despite such developments, India maintained a healthy relationship with nations in the region, and its bilateral relationship with Mongolia is historically evident and well-established.

As India became the first nation outside the Soviet bloc to establish diplomatic ties with Mongolia in 1955 and to enhance cooperation, both nations later signed the Treaty of Friendly Relations and Cooperation in 1994. During India's PM Narendra Modi's visit to Mongolia in 2015, he stated defence is an important element of bilateral engagement with Mongolia, which resulted in the upgradation of India and Mongolia ties to a strategic partnership. India and Mongolia are working to tap the benefits and opportunities the relationship provides. The Nomadic Elephant-23, a joint military exercise, is an important example and notable milestone in Indo-Mongolian bilateral relationship to deepen defence cooperation in the coming years.

The Nomadic Exercise-23

Military exercise, cooperation and alignment of strategic interest are part of a country's policy to proceed further and strengthen its bilateral ties with other nations. On July 17, Mongolia and India began the 15th edition of the Nomadic Elephant exercise- started in 2004 – at Ulaanbaatar, Mongolia, which will continue till July 31, 2023. The annual training event, with the last edition held in India in October 2019, the exercise focuses on building positive military relationships, exchanging best military practices, developing interoperability and establishing bonhomie and friendship between both armies. The Nomadic exercise has become a part of both governments to improve the relationship and cooperation between both governments.

The Nomadic exercise-23 focuses on counter-terrorism operations in the mountainous region under the United Nations (UN) mandate, enhancing both armies' skills and capabilities. The choice of using Jammu Kashmir Light Infantry Regiment for the exercise shows India's intent to enhance and strengthen its armed forces' anti-terrorism operation capabilities and capacities in the Jammu and Kashmir region. On the other hand, as terrorism and separatist movements have become an issue in Mongolia, such exercise will allow Mongolia to gain from India's knowledge and experience in countering such issues. During the exercise, both armed forces will engage in endurance training, reflex firing, room intervention, small team tactics and rock craft training allowing soldiers to learn from each other's operational experience.

In this regard, the below statement by high-ranking armed personnel is worth noting to understand the exercise's relevance.

Lt Col JS Sodhi (Retd), Indian Army:

The military exercise "Nomadic Elephant" between India and Mongolia from July 17-31, 2023 in Ulaanbaatar, is important for the peace and security of Asia as the two strong militaries of Asia seek to strengthen the military relations and share best military practises to ensure peace and stability in the region. The exercise's primary focus is counter-terrorism as terrorism is one global issue which is affecting every nation of the world directly or indirectly since it is resulting in deaths of numerous persons apart from destroying billions of dollars' worth of property. By conducting such a military exercise in China's backyard, India is sending a strong and stern message to China, apart from a powerful and proper message to the world of India's growing prowess in the economic and military fields as more and more foreign nations want to conduct military exercises with India to learn from the immense experience of the Indian Armed Forces, which Statista has ranked as the 4th most powerful military in the world in its report published on January 14, 2023.

Aim and timing of the exercise

Mongolia is encircled by two authoritative countries, China and Russia, and sits in a strategic position. The democratic structure of India and Mongolia has allowed them to cooperate on the issues of mutual interest like cross-border terrorism to climate change to energy security etc. In 2011, to give a boost, during Pratibha Patel's visit to Mongolia, both nations signed a defence cooperation agreement which gave a fillip to Indo-Mongolian defence relationship showcasing India's interest in extending collaboration with Mongolia in the defence sector. As a result, it began the Khaan conquest, a week-long exercise organised by Mongolia, and since then, India has been an active participant in the exercise.

Being democratic countries and having a long historical connection, the exercise reflects strong Indo-Mongolian bilateral ties who share a strategic partnership and view defence as a key pillar in their strategic partnership. India and Mongolia's Joint Working Group (JWG) reviewed the progress made in Indo-Mongolian defence cooperation initiative and identified measures to enhance scope of existing areas of cooperation, which reflects in statements from respective governments.

In Indo-Mongolian defence cooperation, as India assistance to Mongolia spread from providing special defence training and defence equipment to the Mongolian Armed Forces to having border patrolling cooperation to organise annual the JWG, Khaan Quest and Nomadic Exercise to establish training centres and CSTC. Ongoing Nomadic exercise is a culmination of understanding and strengthening of Indo-Mongolian bilateral ties and defence cooperation.

Is China on the radar?

The timing of such an exercise isn't coincident as it coincides with the Russia-China joint air and sea drills in the Sea of Japan. Growing defence cooperation and partnership between Russia and China has become visible after the Russia-Ukraine conflict, becoming a concern for the West. The relationship between India and China has been on a swing in the last few years; the strive China made in South Asia using its diplomatic, military and economic power has alarmed India. With India getting closer to the US, it cautioned China and pushed them to expand its presence across the Line of Actual Control (LAC) with frequent visits by its naval and spying vessels in the IOR in recent years.

The Nomadic Exercise-23 shouldn't be viewed just as a coincidence as it coincides with Russia-China military exercise. Such developments highlight nations are aligning their shared interests at a time when the global order is under pressure due to growing great power rivalry. Considering China's actions and developments in the Aksai Chin region, Tibet and the Galwan Valley have alarmed the Indian government. To address it India is working strategically with Mongolia to ensure its strategic interest in the Line of Actual Control (LAC) and Central Asian region are secure while ensuring their shared interest to have peace and stability in the region is protected.

Meanwhile, as Mongolia is considered a bulwark against Chinese presence in the Inner Asian region, expansion and strengthening of defence and military cooperation between India and Mongolia will remain limited as Mongolia is tied to China. China is a major player in the Mongolian economy and has invested heavily in critical sectors like mines and refineries under its Belt and Road Initiative. India is aware that expecting much from Mongolia to checkmate and counter China together is a distant dream due to Chinese interference in Mongolia. Thus, India is walking cautiously to improve its defence relationship with Mongolia. Despite this, it didn't stop India and Mongolia from expanding cooperation and strengthening their bilateral ties. Dialogue, cooperation and interaction with Mongolia is vital to India's outreach to Central and Southeast Asia under its Act East Policy, Mongolia's semi-counter response to keep an eye on China's Growing ambition will provide India's leverage against China in the coming times.

Conclusion

China's strong presence in Mongolia continues to expand, and its push to expand its dominance in the Central Asian region is a reality seen from the inaugural China-Central Asia 2023 summit held in Xi'an, Shaanxi Province, China, recently. Such development happened despite Russia's strong presence in the coming times; India has to walk a fine line to ensure its interest in Central Asia is secured and protected. Mongolia is considered a gateway to Central Asia and provides a window of opportunities to keep a watchful eye on Chinese actions. India is working to expand its cooperation with Mongolia in trade, education, information technology, culture, energy, diplomacy, education and defence cooperation. Although Mongolia is economically inter-linked with China, the Mongolians are concerned about the alleged attempt by China to introduce Hans and doing similar things as they did in Tibet and Xinjiang region.

With Mongolia looking to diversify its external engagement and move away from its traditional partner like China, in such a situation, its relationship with India seems a viable option for Mongolia. As stated by India's Defence Minister, Rajnath Singh given the significance of Mongolia in the current security environment in the Central Asian region, there is a need for further upgrade Indo-Mongolian relationship and move beyond current strategic partnership. With strategic engagement on the security, defence and foreign policy front is growing between India and Mongolia, there is a necessity to formulate an effective strategy.

<https://www.financialexpress.com/business/defence-the-nomadic-exercise-23-and-its-magnitude-in-indo-mongolian-defence-cooperation-3188195/>

ThePrint

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North Korea's Kim Jong Un Meets Russia's Defence Minister Sergei Shoigu, Reports KCNA

North Korean leader Kim Jong Un met with Russia's defence minister Sergei Shoigu on Wednesday, state media KCNA reported on Thursday.

The meeting would deepen the ties between the two countries, the report said.

Kim gave Shoigu a tour of a defence expo featuring Pyongyang's banned ballistic missiles as both sides pledged to boost ties.

Shoigu handed Kim a letter from Russian President Vladimir Putin, the report said. Kim in turn thanked Putin for sending a military delegation led by Shoigu, adding the meeting deepened the "strategic and traditional" relations between North Korea and Russia.

The Russian delegation and a Chinese delegation including Chinese Communist Party Politburo member Li Hongzhong arrived in North Korea this week for the 70th anniversary of the end of the Korean War celebrated in North Korea as "Victory Day."

The groups are the first such prominent public visitors to North Korea since the start of the pandemic, and arrive as Pyongyang looks to deepen its ties with Beijing and Moscow, finding common ground in their rivalries with Washington. Kim led Shoigu on a tour of a defence exhibition being held to mark the war anniversary displaying newly developed weapons and military equipment, KCNA said.

"Kim Jong Un shared with Sergei Shoigu comments on the worldwide trend of weaponry development and its strategy," KCNA said.

Photographs published by KCNA showed Kim and his guests touring a large exhibition hall displaying some of the North's ballistic missiles lying on multi-axle transporter launchers. Another image showed what analysts said appeared to be a new drone. North Korea is banned from developing weapons that use ballistic missile technology by United Nations Security Council resolutions, backed in previous years by the council's permanent members including Russia and China.

“(Kim) expressed his views on the issues of mutual concern in the struggle to safeguard the sovereignty, development and interests of the two countries from the high-handed and arbitrary practices of the imperialists and to realize international justice and peace,” it said.

“He repeatedly expressed belief that the Russian army and people would achieve big successes in the struggle for building a powerful country,” it said.

While KCNA did not directly mention the war in Ukraine, North Korea's defence minister Kang Sun Nam said Pyongyang fully supported Russia's “battle for justice” and to protect its sovereignty, the report said.

Shoigu praised the North Korean military as the “most powerful” in the world during a banquet in Pyongyang, KCNA reported.

North Korea has backed the Kremlin over its war with Ukraine and has shipped weapons including infantry rockets and missiles in support of Russia's war, the White House has said.

North Korea denies it has conducted arms transactions with Russia.

Separately Kim hosted China's Li Hongzhong who handed Kim a personal letter from Chinese President Xi Jinping, KCNA said.

<https://theprint.in/world/north-koreas-kim-jong-un-meets-russias-defence-minister-kcna/1687847/>

Science & Technology News

The Indian EXPRESS

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NASA Briefly Lost Contact with International Space Station After Power Outage

A brief power outage at NASA's Mission Control in Houston meant that the space agency lost contact with the International Space Station on Tuesday. During the outage, flight controllers were able to talk to the crew through Russian Space Agency Roscosmos's channels.

“A power issue in Mission Control Houston resulted in the loss of command, telemetry, and voice from the ground to the International Space Station,” said the American space agency in a blog post. The outage was short-lived as the mission control team transitioned to back-up hardware for telemetry, commanding and audio.

Neither the astronauts nor the space station itself were ever in danger, according to Joel Montalbano, program manager for the space station.

“It wasn't an issue on board. That was purely a ground problem. At no time was the crew or the vehicle in any danger. We knew this work was going on, and in preparation for that we have the

backup command and control system that we would use if we have to close the centre for weather emergency, especially important during the hurricane season,” he said to The Guardian.

The space agency maintains a backup control centre a little distance away from Houston to use in case the main centre needs to be evacuated due to a disaster or other circumstances. But during the Tuesday power outage, flight controllers continued to stay at Mission Control.

This was the first time the space agency had to turn on its backup systems, according to The Independent. While switching to backup took about 90 minutes, the astronauts on the space station were notified about 20 minutes after the outage through Russian communication systems.

<https://indianexpress.com/article/technology/science/nasa-international-space-station-communications-8861788/>

THE TIMES OF INDIA

Wed, 26 Jul 2023

NASA’s Suborbital Flights to Change the Future of Travel; Soon, Travel to any Corner of the Earth in Just 2 Hours!

How about travelling to any corner of the Earth in just 2 hours! Unbelievable, right? Well, the National Aeronautics and Space Administration, NASA, is planning to launch Suborbital Flights that will be capable of transporting you anywhere on the Earth in 2 hours.

As per the latest news reports, NASA disclosed the X-59 spacecraft, which has a top speed of almost 1,500 km per hour. It plans to launch X-59 'Son of Concorde', whereas the X-59 will be smaller and slower than Concorde.

This new launch claims to reduce travel time from New York to London by around 3 hours and 30 minutes. As per the recent research published by Britain's Civil Aviation Authority (CAA), a flight from London to Sydney, which currently takes 22 hours, could likely be reduced to just two hours.

X-59 represents the 'Quiet Supersonic Technology,' aiming to generate a 'sonic thump' in lieu of the disruptive sonic boom produced when breaking the sound barrier. The suborbital flights bear similarities to the rockets utilised by Jeff Bezos' Blue Origin and Richard Branson's Virgin Galactic jet program. Operating at an impressive speed of 3500 miles, which is equivalent to 5632 km per hour, these flights present remarkable time-saving prospects.

Further, as stated by NASA, when an aircraft surpasses the speed of sound, shockwaves are generated and propagate away from the aircraft. Usually, these shockwaves combine, leading to disruptive sonic booms, which can be heard for miles on both sides of the aircraft's flight path. The X-59, however, has been specifically designed to prevent these shockwaves from merging, resulting in a more subdued sonic thump instead of the loud sonic boom commonly produced by other supersonic aircraft.

If reports are to go by, a single-seated X-59 will be about 100 ft long, with a wingspan of just 29.5 ft and a height of 14 ft, like for example, a trip from New York to London can be completed in less than an hour.

<https://timesofindia.indiatimes.com/travel/travel-news/nasas-suborbital-flights-to-change-the-future-of-travel-soon-travel-to-any-corner-of-the-earth-in-just-2-hours/articleshow/102108230.cms>

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