

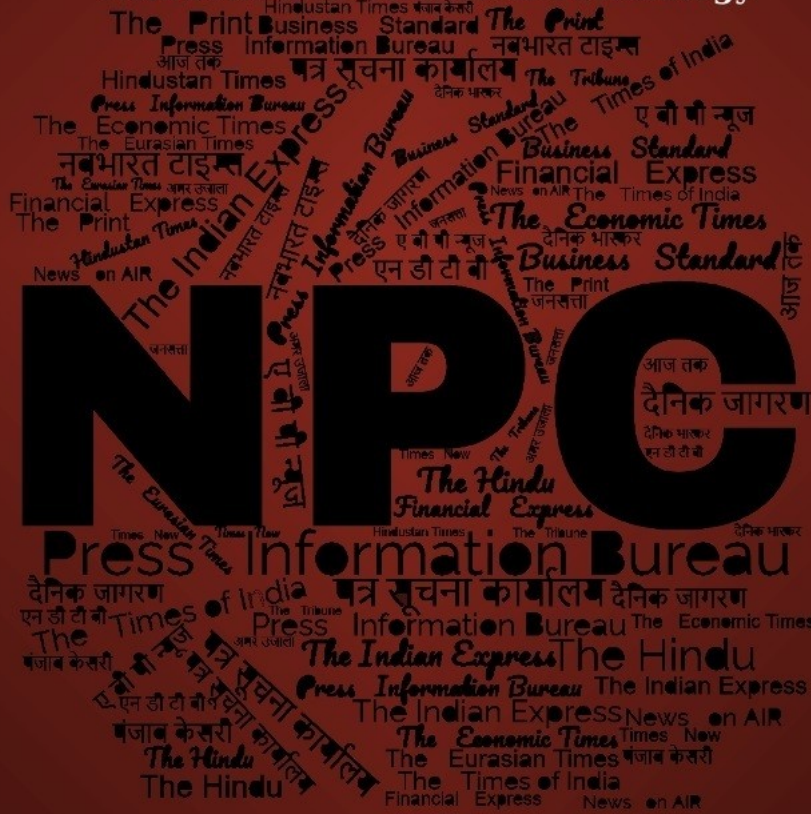
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समाचार पत्रों से चयनित अंश Newspapers Clippings

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

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Mon, 19 Aug 2024

चीन-PAK के टैंकों-बख्तरबंद वाहनों को भस्म कर देगा डीआरडीओ का नया हथियार NAG-Mk2

चीन या पाकिस्तान हिम्मत भी नहीं करेंगे कि जंग के मैदान में वो अपने टैंक्स या आर्मर्ड गाड़ियां निकाल दें. क्योंकि भारत उनकी मौत तैयार कर रहा है. डीआरडीओ (DRDO) भारतीय सेना (Indian Army) के लिए नया, ज्यादा खतरनाक, एडवांस और तेज-तर्रार एंटी-टैंक गाइडेड मिसाइल सिस्टम Nag-Mk2 बनाने जा रहा है.

हाल ही में एक इंटरव्यू के दौरान डीआरडीओ चीफ डॉ. समीर वी. कामत ने इस बात की पुष्टि की. उन्होंने बताया कि Nag-Mk2 अपने पुराने वर्जन से कहीं ज्यादा बेहतर होगा. हल्का, हर मौसम में काम करने वाला, फायर एंड फॉरगेट तकनीक से लैस होगा. इसमें मिसाइल लॉन्च करने के बाद लॉक-ऑन का ऑप्शन होगा. यानी एक बार टारगेट मिसाइल के निशाने पर आ गया तो कहीं भी भाग ले बच नहीं पाएगा.

इन तकनीकों से लैस होने के बाद Nag-Mk2 के वार से बच पाना बेहद मुश्किल हो जाएगा. इसकी रेंज बढ़ाई जा रही है. साथ ही इसके परफॉरमेंस को भी. इस बार इस एंटी-टैंक गाइडेड मिसाइल वॉरफेयर सिस्टम में हेलिना मिसाइल प्रोग्राम को भी शामिल किया जाएगा. साथ ही इसमें जेट वेन कंट्रोल सिस्टम होगा. इससे इसकी न्यूवेरिबिलिटी और सटीकता और बेहतर हो जाएगी. जल्द ही इस वॉरफेयर सिस्टम की टेस्टिंग शुरू होगी.

आइए जानते हैं कि इसके पुराने वर्जन की क्या खासियत थी...

पुराने वर्जन का पूरा नाम नाग मिसाइल कैरियर (NAMICA) था. इसके इस्तेमाल सेना और वायुसेना दोनों करती हैं. एक मिसाइल का वजन 43 किलोग्राम होता है. लंबाई 6.1 फीट होती है. इसकी मिसाइलों में टैंडम-चार्ज हीट यानी बंकर, टैंक, बख्तरबंद वाहनों को उड़ाने वाले 8 किलोग्राम के विस्फोटक लगाए जाते हैं.

इसमें लगने वाली मिसाइलों जैसे- नाग की रेंज 500 मीटर से 4 किलोमीटर है. हेलिना यानी ध्रुवास्त्र की 7 से 10 किलोमीटर है. इसके अलावा संत मिसाइल की 15-20 किलोमीटर है. इसकी मिसाइलें अलग-अलग रेंज की हैं, जो अलग-अलग गति से उड़ान भरती हैं. ये बीच रास्ते में दिशा भी बदल सकती हैं.

<https://www.aajtak.in/defence-news/story/drdo-develops-next-gen-anti-tank-guided-missile-nag-mk-ii-2014694-2024-08-19>



Press Information Bureau
Government of India

Ministry of Defence

Mon, 19 Aug 2024

Senior leadership of Indian Army deliberates on road map for Viksit Bharat@2047

The Indian Army's senior leadership gathered in New Delhi on 19th August 2024 for a crucial discussion chaired by General Upendra Dwivedi, the Chief of the Army Staff (COAS). This marks the first high-level meeting under General Dwivedi's leadership since he assumed the role of COAS on 30th June 2024. The meeting, which will continue through 20th August, is being attended by the General Officer Commanding-in-Chiefs (GOC-in-Cs) of the Indian Army's seven commands.

Today's focus of the discussion was on charting the future course of the Indian Army during the Amrit Kaal, aligning with the Government of India's Vision to make India a developed country, a significant global player and one of the most desirable countries to live in by 2047. The forum provided an opportunity for the Indian Army's top brass to brainstorm on strategic issues and set the direction for the Indian Army's transformation over the next two decades.

The discussions were centred around ongoing transformational initiatives by the Indian Army and its contribution towards achieving the objective of Viksit Bharat@2047. The senior leadership engaged in interactive discussions to define the Army's role in the national vision and articulated the Indian Army's Vision@2047 as:

"To transform into a modern, agile, adaptive, technology-enabled, and self-reliant future-ready force, capable of deterring and winning wars in a multi-domain environment across the spectrum of operations, to protect our national interests in synergy with the other Services."

Key Goals for Decade of Transformation

The Indian Army spearheaded into the decade of Transformation by declaring year 2023 as 'Year of Transformation' and 2024 as 'Year of Technology Absorption' to align its rank and file towards the Transformative initiatives being undertaken.

The senior leadership outlined several broad goals to be pursued in next decade, including: Theaterisation, reorganisation of Army and Command Headquarters, realignment of Command, Corps and Area HQ boundaries. Other discussion agendas included World Class Infrastructure Development, enhancing Multi-Domain and Cross-Domain Operational Capabilities to include land, air, cyber and space.

Conduct of Data-Centric Operations by leveraging technology were deliberated to enhance the existing capabilities. In addition, road map for capability development for upgradation of Mechanised Forces, Artillery, Combat aviation, Air Defence and Infantry was discussed alongwith options for enhancement of logistics, ammunition infrastructure, requirement of new structures to support multi domain operations and framework for expediting automation and networking of systems, processes and functions were discussed.

The COAS exhorted all stakeholders to promote Atmanirbharta, strive to achieve self-reliance in Indigenisation of equipment, platforms, and weapons, support Indian Defence Industries in not only developing world-class equipment but also facilitate in becoming a leading defence exporter.

Actions to enhance Jointness and Integration in armed forces were also discussed for strengthening of joint service structures and organisations besides the need to establish common military stations and units for logistics, communication, and other essential services. Human Resource Development initiatives aimed at improving the quality and effectiveness of personnel across the ranks were also deliberated upon.

Key Discussions and Initiatives

- Reorganisation of Army Headquarters, Command Headquarters, and other key formations to ensure optimal efficiency and operational readiness.
- Modernisation of all the combat arms, combat support arms and the logistics units.
- Enhancing joint operations and integration between the Army, Navy and Air Force to face the future challenges of warfare.
- Commitment towards indigenisation, supporting the domestic defence industry and facilitating India's position as a leading defence exporter.

Additional Initiatives

The discussions concluded with the ongoing initiatives of Indian Army aligned to the National Vision to include:

- Military Education and Training:** India's leadership in military education was highlighted, with the Centre for United Nations Peacekeeping (CUNPK) being recognised as a Center of excellence.
- Defence Diplomacy:** Increasing number of Defence Wings, enhancing Indian Army's role in United Nations missions and participation in joint exercises with foreign countries.
- Whole of Nation Approach:** The Army's involvement in national initiatives like Gati Shakti was discussed, with significant progress made in identifying and developing dual-use infrastructure.

•**Healthcare and Education:** Indian Army's contributions to healthcare through the ECHS and military hospitals, as well as its role in education and skill development through initiatives like the Kaushalveer scheme, were also highlighted.

•**Youth Empowerment and Sports:** The Army's efforts in empowering the youth through the National Cadet Corps (NCC) and promoting sports through the Mission Olympic for providing world class training to the potential medal winners in Olympics.

The discussions reaffirmed the Indian Army's commitment to evolving into a future-ready force that is not only capable of protecting national interests but also contributing significantly to the vision of Viksit Bharat@2047.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2046687>



Press Information Bureau
Government of India

Ministry of Defence

Mon, 19 Aug 2024

Shaurya Sampravah 1.0 : Indian Army Strengthens Coordination With Veterans In Strategic Vision For Nation- Building

In a forward-looking initiative, the Indian Army convened a formal interaction with senior veteran officers Shaurya Sampravah 1.0, at the Manekshaw Centre in Delhi. This landmark event, spearheaded by General Upendra Dwivedi, Chief of the Army Staff (COAS), represents a major step towards harnessing the rich experience and insights of the veteran community to shape the future of the Indian Army and contribute to the Nation's growth.

General Upendra Dwivedi, in his remarks, welcomed the veterans, expressing profound gratitude for their continued service to the Nation, both in uniform and beyond. He emphasised that this maiden interaction is not just a meeting, but a significant platform of the confluence of ideas and thoughts between the Army's current leadership and its veteran community. By engaging with the large veteran community, the Army seeks to ensure that their invaluable wisdom not only gives a boost to the transformation initiatives of the Indian Army but also encourages veterans to participate in ongoing initiatives of Nation-building and attaining the objectives of Viksit Bharat@2047

General Anil Chauhan, Chief of Defence Staff, while making his remarks, underscored the importance of integrating veterans into the Army's planning and strategy. He noted that their experience is an irreplaceable asset, one that can significantly elevate the effectiveness of the Indian Armed Forces in achieving their long-term objectives. The event also included informal

interactions between veterans and senior leadership, fostering a sense of camaraderie and reinforcing the shared mission of service to the nation.

The central feature of the event was the detailed briefing on the “Decade of Transformation” roadmap. The comprehensive plan outlines the Indian Army’s strategic vision for the next decade, focusing on modernisation, technological innovation, and enhanced operational capabilities. It is a blueprint designed to position the Army as a future-ready force, capable of addressing both traditional and emerging security challenges.

The interaction also featured the following key presentations:

- Indian Army’s ongoing modernisation initiatives were highlighted, with a focus on the absorption of niche technology that is revolutionising inventory and capabilities. This discussion underscored Indian Army’s commitment to staying at the forefront of military innovations.
- Insights were provided into the ongoing refinement of the Indian Army’s systems, processes and functions. The interaction aimed at enhancing overall efficiency and operational and administrative effectiveness.
- “Role of the Indian Army in Viksit Bharat 2047”, were discussed outlining Indian Army’s strategic contributions to Nation building and its vision for the next decade.
- The senior veterans were informed about ongoing initiatives in the domain of human resource management, veterans affairs and the transformational Agnipath Scheme. Indian Army’s unwavering commitment to continuously undertake progressive reforms for the overall betterment of the Nation and the Indian Army was emphasised.

The event was designed to be interactive, with veterans actively participating in discussions and brainstorming sessions. Their feedback and suggestions will play a critical role in refining and advancing the transformation initiatives. This collaborative approach ensures that the collective wisdom of the veteran community is fully utilized in driving the Army’s future success.

General Upendra Dwivedi also highlighted the vital role veterans play in Nation building. He encouraged them to engage actively with ongoing Government of India initiatives, noting that their exemplary service and dedication can continue to inspire and guide future generations.

The Shaurya Sampravah 1.0 also provided veterans with the opportunity to interact with General Officers Commanding-in-Chief of all Army commands. These discussions deepened their understanding of the Army’s current operational landscape and strategic priorities, while also reinforcing the Army’s commitment to their welfare.

Today’s interaction marks a significant milestone in the Indian Army’s journey towards a more inclusive and forward-thinking approach to military leadership. It reflects Indian Army’s dedication to leveraging the strengths of its extended family, ensuring that both serving personnel and veterans are integral to its vision of a modernised, transformed force, fully capable of safeguarding the Nation’s future.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2046676>



**Press Information Bureau
Government of India**

Ministry of Defence

Mon, 19 Aug 2024

**Raksha Mantri & External Affairs Minister to host their
Japanese counterparts for 3rd 2+2 Ministerial Dialogue in
New Delhi**

Raksha Mantri Shri Rajnath Singh and External Affairs Minister Dr S Jaishankar will host Japanese Minister of Defense Mr Kihara Minoru and Minister of Foreign Affairs Ms Yoko Kamikawa for the 3rd India-Japan 2+2 Ministerial Dialogue in New Delhi on August 20, 2024. On the sidelines of the 2+2 dialogue, a bilateral meeting will be held between the Raksha Mantri and his Japanese counterpart.

During the bilateral talks and 2+2 meeting, the Ministers will review the bilateral cooperation and explore new initiatives to further strengthen the engagements between the two countries. They will also exchange views on regional and global issues of mutual interest.

India and Japan share 'Special Strategic and Global Partnership' based on the shared values of democracy, freedom and rule of law. Defence has emerged as one of the most important pillars in this relationship. Strengthened India-Japan defence partnership is vital for ensuring a free, open, inclusive and prosperous Indo-Pacific in the prevailing global environment.

This visit will further deepen defence cooperation and bring greater depth to the Special Strategic and Global Partnership between the two countries. The second India-Japan 2+2 dialogue was held in September 2022 in Japan.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2046631>

The Tribune

Tue, 20 Aug 2024

**India-Japan defence partnership vital to ensure free, open
Indo-Pacific: Govt**

Japanese Foreign Minister Yoko Kamikawa arrived here on Monday to hold the third India-Japan '2+2' dialogue that is expected to review the situation in the Indo-Pacific region and explore ways to expand bilateral strategic ties.

Defence Minister Rajnath Singh and External Affairs Minister S Jaishankar will hold talks with their Japanese counterparts Kihara Minoru and Kamikawa on Tuesday. “Strengthened India-Japan defence partnership is vital for ensuring a free, open, inclusive and prosperous Indo-Pacific in the prevailing global environment,” India's Defence Ministry said.

The two sides are expected to delve into further expanding cooperation in the Indo-Pacific in the face of China’s increasing military muscle-flexing in the region. The first edition of the dialogue was held in India in 2019, while the second one took place in Japan in 2022. Besides the ‘2+2’ dialogue, Singh and Jaishankar will also hold separate bilateral talks on Tuesday.

<https://www.tribuneindia.com/news/india/india-japan-defence-partnership-vital-to-ensure-free-open-indo-pacific-govt/>



Press Information Bureau
Government of India

Ministry of Defence

Mon, 19 Aug 2024

Visit by Admiral Aleksandr Alekseyevich Moiseyev, Commander-In-Chief Russian Federation Navy

Admiral Aleksandr Alekseyevich Moiseyev, Commander-in-Chief, Russian Federation Navy is on an official visit to India from 19 to 22 Aug 24. The visit is a testimony to the longstanding relationship between the navies of Russia and India. The visit aims to strengthen bilateral naval relations between India and Russia, as also to explore new avenues for naval cooperation.

Admiral Aleksandr Alekseyevich Moiseyev called on Adm Dinesh K Tripathi, the Chief of the Naval Staff, Indian Navy on 19 Aug 24 at New Delhi and held discussions on collaborative mechanisms and measures to further strengthen Navy to Navy cooperation. He was received with a ceremonial Guard of Honour at the South Block Lawns.

Indian Navy cooperates with Russian Federation Navy on many fronts, which include operational interactions, training, hydrographic cooperation, and exchange of Subject Matter Experts in various fields through the IRIGC M&MTC mechanism between the two countries. Indian Navy has also been interacting with Russian Federation Navy in various multilateral fora viz. IONS (Indian Ocean Naval Symposium), MILAN, IORA (Indian Ocean Rim Association), WPNS (Western Pacific Naval Symposium) and ADMM-Plus (ASEAN Defence Ministers' Meeting-Plus).

The C-in-C, Russian Federation Navy is also scheduled to meet the Chief of Defence Staff, the Defence Secretary, the Vice Chief of the Air Staff, and the National Maritime Security Coordinator of India, as part of his official engagements in New Delhi.

In addition to New Delhi, the C-in-C, Russian Federation Navy, will also visit Mumbai, where he will hold bilateral discussions with the Flag Officer Commanding-in-Chief, Western Naval

Command, as well as visit indigenous warships & submarines; Naval Dockyard; and M/s Mazagon Dock Shipbuilders Limited.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2046733>

THE ECONOMIC TIMES

Mon, 19 Aug 2024

Security in NE a concern, India needs to engage with those in power in Bangladesh: Think tank

Former foreign secretary Harshvardan Shringla has said that India needs to engage with those in power now in Bangladesh, as instability in the neighbouring country has a direct impact on the security scenario of the Northeastern region.

Shringla said this at a programme in which a report on policy options for India in dealing with the current Bangladesh situation was released. The report, to be submitted to the Centre, was prepared by a think tank Society to Harmonise Aspirations for Responsible Engagement (SHARE). The political instability in Bangladesh has direct repercussions both on security and developmental projects in North East India, security and defence experts, who are members of SHARE, said at the event.

"India has to engage with those in power or those behind the powers in Bangladesh as stability in the neighbourhood has a direct import to the security scenario of North East India.

"We have two core concerns - Bangladesh's territory not be used in any manner inimical to its (India's) interests and ensuring the safety of Hindus and other minorities in the neighbouring country," the former ambassador to Bangladesh said.

Shringla also said that the recommendations in this report are prefaced by three key facts -- it remains uncertain who is currently responsible for policy making in Bangladesh, there is palpable anti-India sentiments in the neighbouring country, and finally, economic stability and employment generation there. The report will submitted to the Prime Minister's Office (PMO) and the National Security Advisor for implementation, former Eastern Command GOC-in-C Lt Gen R P Kalita (Retd) said at the event.

Ex-Ladakh Lt Governor R K Mathur said that care has been taken to ensure the recommendations are "implementable and acceptable to all sections and ideologies" as the neighbouring country goes through socio-political upheaval.

"The recommendations are divided into short, medium and long-term so as to ensure a staged approach to policymaking on India's part which is mutually acceptable," the former defence secretary said.

Assam Chief Information Commissioner Bhaskar Jyoti Mahanta, highlighting the recommendations, said dialogue with all stakeholders is in India's core interests, especially with

regard to tackling a possible refugee crisis in the Northeast which has a border of 1885 kms with Bangladesh.

A matter of alarming concern for North East India is the disturbing developments of an armed mob breaking the high-security prison in Bangladesh's Sherpur on August 6 freeing more than 500 inmates while in another jail-break in Gazipur, 209 prisoners escaped, Mahanta said. Those who were freed include senior Ansarul Bangla Team (ABT) and Jamaatul-Mujahideen, Bangladesh (JMB), the former DGP said

"This is an exceptionally alarming situation, especially for Assam and Tripura, where several ABT and JMB modules have been busted with 60 members of these outfits arrested from these states in 2022-23 and more than 30 of them are from Bangladesh," he said.

This should ring alarm bells within India's internal security and law enforcement apparatus, Mahanta, who is also SHARE's General Secretary, pointed out. Connectivity is a key pillar of Indo-Bangla engagements with the vast spectrum of road, rail, inland water or even air connectivity projects that the two nations have embarked upon are a testament in this regard, he added. The report has pointed out that such connectivity exposes Northeast India to potential security concerns as these portals may be misused by anti-India elements to enter the region and wreak havoc.

"The relevance of North East India in the context of Bangladesh remains disproportionately high and we have highlighted the need for a nuanced policy perspective," Mahanta asserted.

Nagaland University Chancellor Samudragupta Kashyap and Cyber security expert Subimal Bhattacharjee moderated the event held on Sunday evening. Bangladesh Prime Minister Hasina, 76, resigned and fled to India on August 5 following a massive protest by students against a controversial quota system in government jobs. Following that, 84-year-old Nobel laureate Muhammad Yunus took oath as the Chief Adviser of the interim government of Bangladesh on August 8.

<https://economictimes.indiatimes.com/news/defence/security-in-ne-a-concern-india-needs-to-engage-with-those-in-power-in-bangladesh-think-tank/articleshow/112626234.cms>

The Tribune

Tue, 20 Aug 2024

Regime change can impact Bangladesh's defence ties with India

-By Maj Gen Ashok K Mehta (Retd)

In a conversation with me after Pakistan's surrender at Bogra in the 1971 Liberation War, Maj Gen Nazir Hussain Shah, General Officer Commanding of the 16 Pakistan Infantry Division, had said prophetically: "Bangladesh will be a disturbed desh."

Nobel laureate Muhammad Yunus, head of the 16-member non-political interim advisory council that has two student leaders, has described Sheikh Hasina's exit as 'the second Liberation'. It has also been referred to as the 'third revolution', a redux of the 2006 Nepalese revolution and 'Arab Spring on steroids', and likened to the 2022 Aragalaya (uprising) in Sri Lanka.

There are conspiracy theories attached to last month's Anti-Discrimination Students Movement. A warning by Bangladeshi filmmaker and philanthropist Chanchal Chowdhury about an impending US-led coup has gone viral on social media. The immediate fallout from Hasina's eviction will be for India, which has historically put all its eggs in the Awami League basket. Faced with a crisis of legitimacy and the backsliding of democracy, Hasina's port of call was New Delhi, which welcomed her with a bit of nervousness. The mayhem that marked the violence and revenge killings was similar to those witnessed during the regime change in Afghanistan in 2021. The army under Gen Waker-Uz-Zaman, praised by the US, carried out a coup, the fifth in 53 years.

During a lecture tour to the Centre for the Study of Genocide and Justice at the Liberation War Museum in Dhaka last November ahead of the January 2024 parliamentary elections, I failed to read the graffiti (read writing) on the wall: 'Hasina go'. And so did India. My driver told me that if a free and fair election were held, the Opposition Bangladesh Nationalist Party (BNP), led by Begum Khaleda Zia, would sweep the polls. This was echoed by an officer of the Indian High Commission in Dhaka and several journalists. Still, India backed Hasina to the hilt. The civil-military relations seemed harmonised, with both sides marking their red lines. During several visits to Bangladesh since 1971, one saw the Awami League focus on two areas: the glorification of the legacy of the Liberation War and strengthening India-Bangladesh relations despite the lurking anti-India sentiment.

The battle between the two Begums (and the proxy war between their sons Sajeed Wazed and Tarique Rahman) was clearly manifest in their love-hate approach towards India. During the BNP's rule, the India connect with the Liberation War diminished. And when the Awami League regained power, especially in the last 15 years, emphasis was laid on reviving the cult of Sheikh Mujibur Rahman and the war. Therefore, the image of a student defacing Mujib's statue in Dhaka and the public hangings of Awami League workers illustrate the vicious cycle. India's Eastern Command, which oversaw the 1971 war, commemorates the Liberation War with Mukti Jodhas from Bangladesh every year in December. And Dhaka reciprocates with warmth through a lavish felicitation of Indian veterans of the conflict. That ritual was sanctified by the construction of a war memorial for India's 1,670-odd martyrs (similar to the one for the Indian Peace-Keeping Force in Colombo) at Ashuganj. It was to be inaugurated later this year by PM Narendra Modi and Hasina. Scholarships, medical schemes and myriad welfare facilities have been introduced for the dependants of Mukti Bahini personnel, and free medical treatment has been made available for members of the Bangladeshi armed forces.

The rise in military-to-military relations is a stellar achievement, given that the Bangladeshi military used to wargame scenarios with India as an enemy until recently. Almost everyone, other than the military and the beneficiary families, seems to have forgotten about the Liberation War. Enhanced defence cooperation between the two nations is marked by the \$500-million line of credit extended by India.

There are tri-service interactions with institutionalised staff and training-level dialogue. Visits by military leaders are common. Gen Zaman was to visit India later this month. Last year, personnel of the Bangladesh Air Force had visited Dimapur, where it was christened in 1971. Bangladesh was also supposed to take part in the Tarang Shakti multi-national air exercise with the Indian Air Force this month. Joint exercises and sea patrols are rising. Service chiefs presiding over passing-out parades in each other's military academies is a regular feature. Non-kinetic military equipment has been sold, as the armed forces division responsible for modernising Bangladesh's military has categorised defence acquisitions under A, B and C groups. While India still falls in the C category, China — the mainstay of military hardware — comes under A. How much of the enhanced defence ties will survive the regime change is crucial for India.

Anti-India sentiment, a familiar refrain in the neighbourhood, has become a metaphor for New Delhi's unflinching support to Hasina. Some Indian leaders have repeatedly called for the implementation of the Citizenship Amendment Act/National Register of Citizens and described Bangladeshis as 'insects' and 'infiltrators'. The China Media Group, along with Pakistan's ISI, is encouraging the banned Jamaat-e-Islami and its student wing, Islami Chhatra Shibir, to fuel anti-India sentiments.

Bangladesh shares its border with five Indian states. The turmoil along the India-Myanmar border, coupled with simmering unrest in Manipur, can wreck India's Act East and Neighbourhood First policies if an unfriendly regime returns to Dhaka. The threat from China to the Siliguri corridor will also reappear. The BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) will also be destabilised as a regional grouping. Consequently, the role of the Army will be the key to maintaining India's strategic interests and ensuring stable and friendly relations with Bangladesh, given the love and labour that have gone into building them. India must send the right feelers to the keepers of the keys in Dhaka. A great deal is at stake for New Delhi, which took its eyes off the neighbourhood.

<https://www.tribuneindia.com/news/comment/regime-change-can-impact-bangladeshs-defence-ties-with-india/>

THE ECONOMIC TIMES

Mon, 19 Aug 2024

EU & India convene expert level meet to discuss combating exploitation of online spaces by extremists

The European Union (EU), in collaboration with organising partner Global Counter-Terrorism Council (GCTC) and with Ministry of External Affairs as a strategic partner, will be hosting a crucial regional conference on August 21-22, to discuss the current and emerging threats in online radicalisation and find ways to jointly counter the exploitation of online spaces by extremist and terrorist actors.

The two-day EU-India Track 1.5 Conference in New Delhi brings together experts, policymakers, academia and law enforcement officials from South Asia (India, Bangladesh, Maldives and Sri Lanka) and Europe, who are at the forefront of the fight against digital extremism.

The conference aims to enhance counter-terrorism dialogues and partnerships in the region, consistent with the EU's Indo-Pacific Strategy, which foresees a deeper and stronger engagement with partners which share common goals and face common challenges.

Expected outcomes include exploring strategies to address the complex challenges posed by the intersection of technology and terrorism, while identifying possible areas of collaboration between the EU, India and the wider region to counter violent extremism in the digital sphere, according to sources.

The event is part of a series of ongoing counterterrorism engagement between the EU and India, building on recent activities in the country held under the EU project Enhancing Security Cooperation In and With Asia (ESIWA), which have previously included topics such as combating drone terrorism, cybersecurity, misinformation and disinformation, and women peace and security.

On the Indian side, the conference will bring together senior officials and experts in security and strategic studies from institutions such as the Ministry of External Affairs, Ministry of Defence, Army and the police.

From Europe a diverse group of top security practitioners from European Union institutions, EU Member States (Austria, Italy, Croatia, Estonia, Spain, Germany, Ireland, Netherlands, France and Romania), and key agencies such as European Border & Coast Guard Agency (Frontex) and European Counter Terrorism Centre (Europol) will come together to engage in peer-to-peer exchange.

Hervé Delphin, Ambassador of the European Union to India, said, "Terrorism knows no boundaries and has found with online digital activities a new field of propagation. Sharing knowledge, experience and expertise among friends and partners is vital to keep track and counter online radicalisation while ensuring the right balance between security measures and citizens' fundamental rights. As two of the world's largest democracies and global security actors, we are happy to host this key conference alongside India, with whom we have a strong ongoing counter-terrorism dialogue and cooperation."

"The EU has been at the forefront of regulating social media companies and internet providers with a strong focus on human rights. We are happy to share our experiences, regulatory frameworks, and enforcement mechanisms. Through collaborating with India and countries in the region, we can enhance our collective capacity to combat transnational terrorist networks, share best practices in intelligence gathering and analysis, and develop effective strategies to counter terrorism and prevent violent extremism," Delphin added.

KD Dewal, Joint Secretary (Counter Terrorism), Ministry of External Affairs, said, "India has a zero-tolerance policy towards terrorism and stands ready to engage as a collaborative partner in addressing pressing terrorism challenges, especially given its experiences with cross-border terrorism and extremism. It is important to summon the political will to unhesitatingly combat

terrorism, not permit terrorism to be justified or terrorists to be glorified. We must not countenance double standards in countering terrorism.”

Further he stated, “The recently held meeting of India-EU Joint Working Group on Counter Terrorism was an opportunity to continue and enhance cooperation on this important element of the EU-India Strategic Partnership. The EU and India strongly condemned terrorism in all its forms and manifestations and emphasised the need for strengthening international cooperation in dealing with counterterrorism challenges. In this context, they agreed that cooperation in multilateral fora such as the UN and Global Counterterrorism Forum (GCTF) remains crucial.”

The European Union's proactive measures in combating these threats will be a focal point of discussion. The EU's Terrorist Content Online (TCO) Regulation implemented in April 2021, the Digital Services Act (DSA) of February 2024, and the recently established EU platform on illicit content online (PERCI) by Europol, will be highlighted as key steps in regulating online spaces to curb the spread of terrorist content.

<https://economictimes.indiatimes.com/news/defence/eu-india-convene-expert-level-meet-to-discuss-combating-exploitation-of-online-spaces-by-extremists/articleshow/112627235.cms>



Mon, 19 Aug 2024

Nepali Foreign Minister's India visit ignites hopes of Gorkha recruitment resolution

Nepal's External Affairs Minister Arzu Rana Deuba's five-day visit to India has reignited the issue of Gorkha recruitment. The Indian Army continues to face a severe shortage of Nepali Gorkhas in the traditional Gorkha battalions. Bilateral talks between the foreign ministers of India and Nepal in Delhi have raised hopes of resolving the stalled Gorkha recruitment.

There has not been a single Nepali Gorkha recruited into the Indian Army since 2020, when recruitment rallies were halted due to Covid-19. After recruitment drives resumed post-Covid, the Indian government announced the Agnipath scheme in June 2022.

Nepal did not agree to the short-term service for Gorkhas in the Indian Army under the Agnipath scheme, leading to a deadlock in recruitment. This has created a significant shortage of Gorkha soldiers in the traditional ethnic Gorkha battalions of the Indian Army.

According to official sources, the Indian Army is still facing a shortfall of over 15,000 soldiers in its seven Gorkha Regiments, which comprise 39 Battalions with a total strength of around 32,000 Gorkha soldiers.

Attempts have been made by the Indian side to convince Nepal to participate in recruitment under the Agnipath scheme, but the roadblock remains. Gorkha recruitment into the Indian Army from Nepal has been completely stopped for the last four years.

The bilateral meeting between Nepal's Foreign Minister Arzu Rana Deuba and India's External Affairs Minister S Jaishankar has once again brought this issue to the forefront. As the Foreign Minister of Nepal is on a five-day visit to India, a breakthrough over Gorkha recruitment into the Indian Army is awaited.

200-Year-Old History

The history of the Gorkha Regiment in India is 200 years old. After independence, the Gorkha battalions played a crucial role in all the wars fought by India. Particularly, the Gorkhas from Nepal are considered the most brave and fearless, which is why they have always held a special place in the Indian Army.

However, the lack of recruitment due to the Agnipath scheme has not only affected the Indian Army but also deepened the crisis within the Gorkha battalions, which are known by their name.

Gorkhas In The Armies Of Three Countries

From Galwan in Ladakh to Jammu and Kashmir, the Gorkha battalions have a strong presence.

The Gorkha battalion is the only regiment in the world that is an integral part of the armies of three countries. Despite the shortage, the majority of Gorkha soldiers still serve in the Indian Army, followed by the British Army and the Nepalese Army.

This regiment in the Indian Army includes both Nepali Gorkhas and Indian Gorkhas. However, a challenge for the Indian Army is the significant decline in the number of Nepali Gorkhas over the past three years.

Challenges Faced By The Indian Army

According to Indian Army officials, before independence, about 90 per cent of the soldiers in the Gorkha Regiment were from Nepal, and 10 per cent were Indian Gorkhas.

Over time, this ratio was adjusted to 80:20 and later to 60:40, meaning 60 per cent Nepali domicile Gorkhas and 40 per cent Indian domicile Gorkhas.

In recent years, the Indian Army has faced difficulties in recruiting Nepali Gorkhas, and there has also been a decline in the recruitment of Indian domicile Gorkhas.

In response, the Indian Army has recently started recruiting youth from Garhwal and Kumaon into this regiment. This is the first time that non-Gorkha youth from other regions have been included in the Gorkha Regiment.

10 Regiments At The Time Of Independence

At the time of independence, there were a total of 10 Gorkha regiments established by the British. After independence, when the army was divided, the British retained four regiments (2, 6, 7, and 10), and India received six regiments (1, 3, 4, 5, 8, and 9).

After 1947, the Indian Army established another Gorkha regiment, known as the 11th Gorkha Regiment. One of the four regiments that went to the British was later disbanded.

<https://www.indiatoday.in/india/story/nepali-foreign-minister-arzu-rana-deuba-india-visit-gorkha-recruitment-indian-army-2584812-2024-08-19>

Business Standard

Mon, 19 Aug 2024

US firm behind delay in LCA Tejas Mk1A deliveries to IAF: Here's how

Despite concern over delays in the delivery of LCA Tejas Mk1A aircraft, Hindustan Aeronautics Ltd (HAL) is reportedly expected to receive a new order from the Indian Air Force (IAF) for an additional 97 jets of the same type.

According to a recent Financial Express report, the contract for additional LCA Tejas Mk1As, estimated to be worth Rs 67,000 crore, could be finalised by the end of the year. If awarded, this contract would be the second major order for the LCA Mk1As, following the Rs 48,000 crore contract for 83 jets signed in February 2021.

The LCA Mk1A, which is an advanced variant of the LCA Mk1 and made its maiden flight in March 2024, is a key element in the IAF's modernisation efforts.

However, this report comes amid growing concerns over the public sector aerospace and defence company's ability to meet delivery timelines for the LCA Mk1A jets already on order.

What's the update on LCA Mk1A's delivery to IAF?

According to a separate Financial Express report, the IAF has expressed dissatisfaction with the current pace of the LCA Mk1A programme. The first aircraft from the existing order was initially scheduled for delivery by March 31, 2024, but HAL has faced repeated delays, now projecting delivery for November 2024.

These delays have reportedly raised concerns within the IAF about potential risks to its combat readiness, prompting officials to urge HAL to expedite the programme.

How has HAL prepared for delivering LCA Mk1A jets?

HAL has reportedly assured the IAF that it will deliver 16 LCA Mk1A jets during the financial year 2024-25 (FY25) and complete the delivery of all 83 by FY29.

HAL has also established a new production line in Nashik to meet the increased demand for the aircraft. This new facility is expected to boost production from the current 16 jets per year to 24.

Why is the LCA Mk1A facing delays?

Despite these efforts by HAL, challenges remain, particularly regarding the supply of F404 engines from US-based GE Aerospace. The delivery of these engines, which will power the LCA Mk-1A jets, has been reportedly delayed by approximately 10 months due to supply chain issues.

According to a separate Business Today report from last week, market analysts have also expressed some concern over delays in the delivery of the Tejas Mk1A jets. These analysts have also cited supply chain issues at GE Aerospace as the main reason for this. However, they remain optimistic about HAL's stock prospects despite these concerns.

According to the report, HAL's management expects the delivery of Tejas Mk1A jets to commence in the September quarter of FY25. Citing a Nomura India report, the news report said that with regard to the delivery of the Tejas Mk1A aircraft, supply chain disruptions at GE Aerospace have caused delays in the delivery of the F404 engine.

The report said that while GE initially planned to deliver 16 engines annually starting in FY23, as of August 2024, none had been supplied.

This delay, according to the report, has postponed HAL's delivery of the LCA Mk1A. As a result, Nomura India had previously reduced its LCA Mk1A delivery estimates from 14 to 10 jets in FY25.

Meanwhile, Elara Securities recently said that it had slightly reduced its estimate for the number of Tejas Mk1A deliveries in FY25 from 14 to 11. Additionally, the certification of new systems for the LCA Mk1A is still reportedly pending, further complicating the aircraft's delivery schedule.

How can HAL fix LCA Tejas Mk1A delays?

In its Q1FY25 conference call, the management of Astra Microwave Products, a private Indian firm that builds sensor and defence electronics components, had highlighted that despite the delay in supply of GE F404 engines, there might not be significant delays in the delivery of the 83 Tejas Mk 1A jets by HAL.

According to Astra, HAL has an alternative engine replacement and could still meet the contractual timeline, albeit with minor delays for some aircraft in FY25.

What is the LCA Tejas Mk1A?

The LCA Mk1A will have updated avionics, an active electronically scanned array radar, and an updated electronic warfare suite. An even more advanced version, the LCA Tejas Mark-2, is also under development.

While the IAF has already inducted 35 of the 40 LCA Mk1s ordered earlier, the new Mk1A variant represents a significant advancement in the capabilities of India's indigenous fighter aircraft programme.

https://www.business-standard.com/external-affairs-defence-security/news/us-firm-behind-delay-in-lca-tejas-mk1a-deliveries-to-iaf-here-s-how-124081900652_1.html

Dual-use goods: US alerts Indian companies on export of defence tech to Russia

US government officials are sensitising Indian companies and exporters to deter them from supplying Russia with items and technology that could end up being used in Russian missiles and other defence equipment, which would attract Western sanctions, a government official said on condition of anonymity.

This follows reports of sanctions on Bengaluru-based Si2 Microsystems in November last year for its alleged role in supplying dual-use technology to Russia.

Electronic components, machine tools, drones, and software for drones are some of the dual-use items that can be used for both civil and military applications and are included in the sanctions list imposed by the West in the backdrop of the Ukraine war.

“They (US government officials) are leading consultation and sensitisation meetings with the industry to make Indian companies more aware of the importance of not exporting specific types of products, such as chemicals, aeronautic parts, and components that can be used in missile systems and other defence equipment,” the official said.

Moreover, a US Treasury official had also warned India’s banks that financial institutions that do business with Russia’s military industrial base risk losing access to the US financial system, Reuters had reported in July this year. “We know that the Russian military relies on importing sensitive goods, like machine tools and microelectronics, and it looks to foreign financial institutions to facilitate these transactions,” Deputy Treasury Secretary Wally Adeyemo said in the letter to the Indian Banks’ Association, as per the Reuters report.

Also, US Treasury Secretary Janet Yellen in June this year had expressed concerns over Chinese exports of dual-use goods. By placing over 300 companies on an export blacklist, the US said that China is the top supplier of machine tools, microelectronics, and nitrocellulose, which are critical for manufacturing munitions and rocket propellants, as well as other dual-use items that Russia is using to bolster its defence capabilities.

The Ministry of Commerce and Industry in January 2024 had said that the government is working to liberalise export norms for certain products with dual-use applications. However, the official clarified that the items identified by the US are not Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) items, which require licensing for trade. Dual-use goods are categorised under the SCOMET list in India. “There are many items that the US is scrutinising. They are not SCOMET items, but the US believes they are entering the (Russian) defence manufacturing system. The two or three firms identified by the US do not export SCOMET items,” the official clarified. India’s exports of machines, auto parts, steel and aluminium products, internal combustion (IC) engines, pumps, and other items to Russia are on the rise.

Official data from the ministry showed that India's total exports to Russia in 2023 surged by 40 per cent to exceed \$4 billion, largely driven by engineering goods, which nearly doubled to \$1.32 billion in 2023 from \$680 million in 2022. Significant gains were also seen in the drugs and pharmaceutical category, as well as in organic and inorganic chemicals.

This increase in exports comes as Russia has ramped up its defence investments. In July, the World Bank reported that economic activity in Russia was influenced by a significant increase in military-related activity in 2023. Russia's military spending grew by 24 per cent in 2023 to an estimated \$109 billion, as per Stockholm International Peace Research Institute (SIPRI) states.

“After the initial recessionary impact of sanctions in 2022, the (Russian) economy returned to growth in 2023, supported by fiscal stimulus, including military spending and credit expansion, and by successfully mitigating the impact of the sanctions. Restrictions on trade and financing from the G7 countries and the EU resulted in trade diversion to China, India, Türkiye, Central Asia, and the South Caucasus, as well as investment in new infrastructure and logistics,” the World Bank noted. A query emailed to the Ministry of External Affairs on Monday evening remained unanswered till press time.

<https://indianexpress.com/article/business/economy/dual-use-goods-us-alerts-indian-companies-on-export-of-defence-tech-to-russia-9522738/>



Mon, 19 Aug 2024

Defence Minister Rajnath Singh to begin strategically crucial United States visit on Aug 21

India's Defence Minister Rajnath Singh is set to embark on a five-day visit to the United States starting August 21 as New Delhi and Washington D.C. enter the final stages of approving a critical deal for MQ-9B unmanned aerial vehicles (UAVs).

The visit points to the growing defence partnership between the two countries amid New Delhi's strategic interest in improving its military capabilities.

During his visit, Singh is expected to hold high-level meetings, including a key discussion with his US counterpart, Lloyd Austin. These talks are expected to finalise the much-anticipated deal involving 31 MQ-9B drones for India. The United States has reportedly completed its internal formalities for the agreement.

Last month, India's Defence Acquisition Council approved amendments related to the indigenous equipment and other critical aspects of the UAV deal. The move continues to reflect New Delhi's push for greater self-reliance in defence manufacturing while deepening its ties with global defence partners.

In addition to the UAV deal, the Defence Minister's agenda includes discussions on another major agreement with the US, concerning the GE-414 jet engines. These engines are intended to power India's next-generation fighter aircraft, in yet another sign of growing defence ties between the two countries.

Singh's visit will also involve meetings with representatives from the US defence industry. These discussions are expected to pave the way for future collaborations and investments in the defence sector.

Beyond his defence-related engagements, Rajnath Singh will also interact with the Indian diaspora in the United States.

The Defence Minister's visit is scheduled to conclude on August 26.

<https://www.wionews.com/india-news/defence-minister-rajnath-singh-to-begin-strategically-crucial-united-states-visit-on-aug-21-751292>

#SWARAJYA

Mon, 19 Aug 2024

India To Upgrade MiG-29 Fighter Jets With Israeli Rampage Missiles, Taking Its Ground Attack Capabilities Up A Notch

The Indian Air Force (IAF) is considering upgrading its MiG-29 UPG fighter jets with new avionics and control systems, including new stand-off ground attack weapons like the Israeli Rampage missile.

According to *The Tribune*, initially, 24 MiG-29 UPGs will be upgraded to carry Israeli Rampage missiles, called High-Speed Low Drag (HSLD) Mk-II in IAF service. These missiles have a range of more than 180 kilometres.

This will require the installation of additional hardware and software on the jets.

This includes designing and integrating new bomb racks, installing additional cables and rigs under the wing's outer pylons, and developing the associated software.

The Rampage is essentially an EXTRA rocket developed by Israel Aerospace Industries (IAI), originally designed to be fired from ground-based multi-launch rocket systems (MLRS) and modified for launch from fighter jets with a strike range of 180 kilometres.

It uses an INS/GPS kit to locate its targets.

Since this missile is derived from ground-launched rockets, it is easier to manufacture and cheaper to procure compared to cruise and ballistic missiles.

Moreover, these missiles, with their large stand-off range of 180 kilometres, provide protection to the launching fighter jet from enemy anti-aircraft fire. They have the ability to penetrate dense air

defence networks and destroy heavily defended, deeply buried, and heavily fortified targets and bunkers.

Due to their high manoeuvrability, very high terminal velocity of Mach 1 or more (1 Mach equals the speed of sound), and quasi-ballistic trajectory, these missiles are extremely difficult to intercept.

The Indian Navy already uses Rampage missiles on its MiG-29K aircraft carrier-capable jets. The IAF also uses these missiles on its Sukhoi Su-30 MKI and Jaguar fighter bombers.

Another similar Israeli missile, ROCKS, designed and developed by the Israeli company Rafael, is also being used by the IAF's Su-30 MKI jets.

ROCKS, also known as Crystal Maze 2 in IAF service, is an air-launched ballistic missile (ALBM) with a range of more than 250 kilometres.

Just like Rampage, ROCKS is a ground-launched ballistic missile modified for launch by fighter jets. The IAF plans to induct this missile in large quantities and begin large-scale manufacturing of the ALBM in India.

This missile was successfully used by Israel to penetrate the Iranian air defense shield and destroy the S-300 30N6E target engagement radar. Ironically, the Russian-made S-300 air defence system was itself designed to defend against missiles like Rampage and ROCKS.

Apart from this, IAF is also mulling to undertake a mid life extension programme on its entire MiG-29 fleet to enhance their service life from 40 years to 50 years. This will allow these jets to be operational even after 2025.

<https://swarajyamag.com/defence/india-to-upgrade-mig-29-fighter-jets-with-israeli-rampage-missiles-taking-its-ground-attack-capabilities-up-a-notch>



Mon, 19 Aug 2024

Snipers at Joint Exercise Mitra Shakti: A Tactical Advantage in Modern Warfare

Sniper rifles have emerged as a crucial component of modern warfare, offering a combination of precision and psychological impact that can significantly influence the outcome of military operations. This was evident in the recent Joint Exercise Mitra Shakti, where Indian and Sri Lankan forces effectively employed sniper units during urban combat simulations.

The Role of Snipers in Modern Warfare

A sniper is a highly trained marksman who specializes in shooting targets from long distances, often concealed to avoid detection. “Armed with specialized rifles, snipers play a dual role on the battlefield: they eliminate high-value targets with precision and create psychological fear among

enemy forces. This fear can disrupt enemy movements and lower morale, making it easier for ground forces to advance. The sniper’s ability to engage targets from a distance, often in complex environments like urban settings, makes them invaluable in modern military strategy,” explained sources in the defence and security establishment.

During Exercise Mitra Shakti, the role of snipers was highlighted as both Indian and Sri Lankan contingents deployed their sniper units in a simulated urban combat scenario. The snipers took up positions on dominating heights, using their vantage points to scan the area and create a sniper grid. This strategy effectively cleared the pathway for attacking columns, demonstrating the vital role of snipers in facilitating ground operations in built-up areas.

India and Sri Lanka’s Sniper Capabilities

India and Sri Lanka brought different sniper rifles to the exercise, each reflecting their unique military strategies and procurement histories. The Indian contingent deployed the 8.68 mm Sako sniper rifle, manufactured in Finland, and the 7.62 mm Dragunov sniper rifle from Russia. The Sako rifle is known for its high precision and effective range, while the Dragunov, a semi-automatic rifle, is favoured for its reliability and ease of use in various conditions.

Sri Lanka, on the other hand, employed the 7.62 mm Accuracy International Arctic Warfare (AIAW) rifle, made in the UK. The AIAW is renowned for its accuracy and durability, particularly in harsh weather conditions, making it a preferred choice for long-range engagements.

Global Comparisons: Sniper Technology in Other Armies

When comparing these rifles to those used by other military forces, it is clear that snipers are universally recognized as a force multiplier. China, for instance, uses the QBU-88 sniper rifle, which is designed for shorter ranges but provides semi-automatic capability, similar to the Dragunov. The United States military employs a variety of sniper systems, including the M2010 Enhanced Sniper Rifle, which offers greater range and stopping power, suited for diverse combat environments.

<https://www.financialexpress.com/business/defence/snipers-at-joint-exercise-mitra-shakti-a-tactical-advantage-in-modern-warfare/3586419/>



Mon, 19 Aug 2024

As Deep As Alaska — China’s New AI-Based EW System Can Detect U.S. Military Radars In Pacific – Scientists

Taking big strides in electronic intelligence, the Chinese AI-based EW system has reportedly been able to find the radar signals emanating from military radars deployed by the US in the South China Sea, Guam, the Marshall Islands, and the Aleutian Islands near Alaska.

Electronic Warfare has been China's Achilles Heel, but it is fast closing the capability gap and transforming the balance of power in the South China Sea. China may have improved its EW capabilities quickly by investing in new technologies and placing them in a more extensive kill web consisting of kinetic and non-kinetic elements.

The South China Morning Post claimed that scientists involved in the investigation say the characteristics of these electromagnetic signals suggest the existence of "tactical coordination" among military radars deployed in these areas across the Pacific Ocean. China and the US have been engaged in electronic confrontation "every day" around the globe. In May 2024, a research team led by Zhou Changlin of the Strategic Support Forces Information Engineering University published their findings in a peer-reviewed paper in the Journal of Terahertz Science and Electronic Information Technology, highlighting the coordination between the US military radars.

Military radars generate copious signal data that is large in volume and high in complexity. Traditional analysis methods have not been able to keep up with the growth in data, prompting the Chinese military intelligence to deploy AI to mine the data.

China's new class of EW equipment can rapidly detect, decode, and suppress enemy signals. China's rebranding of the PLA Strategic Support Force (PLA-SSF) into the PLA-Information Support Force (PLA-ISF) highlights China's strategic shift towards technology-driven "intelligentized warfare." Electronic Warfare is also a key component of China's Multi-Domain Precision Warfare (MDPW) concept, which leverages AI and big data to identify and exploit weaknesses in US operational systems.

In the latest EW intelligence gathered by the AI-based EW system, Chinese Scientists say the characteristics of these electromagnetic signals suggest that the US military radars deployed in areas across the Pacific Ocean were working in tandem.

The South China Morning Post said that this is the first time the People's Liberation Army has publicly shown its ability to gather electronic warfare intelligence around the globe "based on specific targets and actual reconnaissance data," according to the researchers.

The operational range of China's naval and air forces has seen an upward tick, and it has expanded from the South China Sea to Alaska and the US territory of Guam – a key spot on the "second island chain" under Washington's strategy to contain China. China's cutting-edge EW capabilities are tilting the balance of power in the South China Sea. In July, the South China Morning Post (SCMP) reported on China's enhanced EW capabilities by shedding light on a December 2023 incident between a US EA-18 Growler carrier-based EW aircraft and China's Type 055 cruiser Nanchang in the contested South China Sea.

The US has also been working towards gaining an upper hand in electronic warfare. In October 2023, Washington managed to keep Beijing out of the Western Pacific region by securing a deal with the Marshall Islands in Oceania. The months of negotiations led to the renewal of a strategic pact granting the US military access to its land, air, and sea in exchange for two decades of economic help.

The Marshall Islands, in the central Pacific, are home to the US military's most powerful space surveillance radar.

China's Burgeoning EW Capabilities

EW data analysis is handicapped by hardware limits. The real-time analysis bandwidth of traditional spectrum monitoring systems is generally restricted to a range of 40-160 MHz. Signals outside this range are monitored through sampling, but there is a chance of missing something important. The Chinese scientists have extended the frequency range for real-time monitoring into the high-frequency zone, which covers the frequency range used by amateur radio enthusiasts and even Elon Musk's Starlink satellites.

In other words, if the US military decides to switch to civilian frequencies, the Chinese military can monitor it. This will impact the wireless communications between US military units. To attain this broader capability, Chinese scientists have developed new signal-processing chips. The previous chips could not handle large amounts of data, and the data also needed simultaneous analysis to glean high-value information.

To expedite the process, the Chinese scientists introduced artificial intelligence (AI) into the most critical data analysis process. The integration of in-house chips and AI has enabled the Chinese military to achieve unprecedented information perception capabilities at a lower cost. Even in the face of enemy jamming, they can still find the enemy's weaknesses from strong background noise and effectively counter them.

Project lead scientist Yang Kai, a professor from the School of Information and Electronics at the Beijing Institute of Technology, and his team published a peer-reviewed paper in the Chinese academic journal Radio Communications Technology on January 17, enumerating the technology that can change the way wars will be fought in the South China Sea.

According to the researchers, the Chinese military will be able to use this technology to detect and lock on enemy signals at unprecedented speeds, decode the physical parameters of these signals almost instantly, and effectively suppress them—all while ensuring the smooth flow of their communications. In the paper, Yang wrote that the new breed of electromagnetic spectrum monitoring gear is “small in size, high in performance, and low in power consumption.”

<https://www.eurasiantimes.com/as-deep-as-alaska-chinas-new-ai-based/>



Mon, 19 Aug 2024

China's First Drone Carrier: A Strategic Game-Changer in the Indo-Pacific

China has marked a significant milestone in naval warfare by constructing the world's first drone carrier, a move that underscores its expanding capabilities in modern warfare and raises concerns across the Indo-Pacific region. This technological leap, centered on the Yulan-class Landing

Helicopter Assault (LHA) ship, signifies China's intent to bolster its amphibious operations, potentially aimed at Taiwan and the South China Sea.

Unveiling the Type 076: A Leap in Naval Warfare

The Yulan-class LHA, currently under construction at the Changxing Island Shipbuilding Base, is equipped with a catapult system akin to the Electromagnetic Aircraft Launch System (EMALS) used in the US Navy's Ford-class carriers. This system is traditionally reserved for aircraft carriers, enabling the rapid deployment of fighter jets and helicopters with Vertical/Short Takeoff and Landing (V/STOL) capabilities, such as the F-35B. However, China's integration of this technology into an amphibious assault ship suggests an innovative approach to enhancing air support during amphibious operations without relying on traditional aircraft carriers.

The construction of the Type 076 ship, equipped with advanced drone technology, positions China to conduct more sophisticated and coordinated military operations in contested regions like Taiwan. The ship's potential to launch UAVs for reconnaissance, electronic warfare, and even direct strikes increases the flexibility and reach of China's naval power.

The Strategic Implications for Taiwan and the South China Sea

China's decision to develop this drone carrier is likely driven by its strategic interests in Taiwan and the South China Sea. Amphibious operations, supported by advanced aerial capabilities, would be critical in any potential attempt by China to assert control over Taiwan. The Type 076's ability to deploy drones could provide a significant advantage in gathering intelligence, disrupting enemy defences, and supporting amphibious landings, all of which are crucial in a large-scale island assault.

Furthermore, China's actions in the South China Sea, particularly its ongoing disputes with the Philippines over territorial claims, underscore the importance of this new capability. The Type 076 could enhance China's ability to project power and enforce its claims in these contested waters, particularly around areas like the Second Thomas Shoal, where tensions have been high. The deployment of such a vessel in the region could significantly alter the balance of power, giving China a versatile tool to maintain its presence and respond to perceived threats.

Comparisons with Other Nations' Capabilities

While China's development of a drone carrier is groundbreaking, other countries are also advancing their naval capabilities, albeit in different ways. The United States, for instance, has long been a leader in naval aviation and drone technology. However, its use of drones has primarily been focused on traditional aircraft carriers rather than dedicated drone carriers. The US Navy's MQ-25 Stingray, a carrier-based aerial refuelling drone, represents the closest parallel, but it is still fundamentally different from the concept of an LHA-based drone carrier.

Similarly, other nations like the United Kingdom and France have advanced aircraft carriers, but these are not equipped with dedicated drone launch capabilities to the same extent as China's Type 076. Japan and South Korea, both key players in the Indo-Pacific, have been expanding their naval forces, but their focus remains on conventional platforms rather than integrating drones into amphibious operations.

The Impact on the Indo-Pacific Balance of Power

The introduction of the Type 076 drone carrier has significant implications for the balance of power in the Indo-Pacific region. China's ability to project power across the region is greatly enhanced by this new capability, which could serve as a force multiplier in any future conflict. The deployment of such a vessel in the South China Sea or near Taiwan would signal a clear intent to assert Chinese dominance in these critical areas.

For other nations in the Indo-Pacific, particularly those with competing claims in the South China Sea or strong ties with Taiwan, this development is likely to prompt a re-evaluation of their own military strategies. Countries like Japan, Australia, and India may need to consider accelerating their own naval modernization programs or enhancing their strategic partnerships to counterbalance China's growing capabilities.

Bottomline

China's construction of the world's first drone carrier marks a significant advancement in naval warfare, one that could reshape the strategic landscape of the Indo-Pacific. As China continues to innovate and expand its military capabilities, the rest of the world will be closely watching how this new technology is integrated into its broader strategic objectives. The Type 076 ship not only reflects China's growing military prowess but also raises critical questions about the future of security and stability in the region.

<https://www.financialexpress.com/business/defence-chinas-first-drone-carrier-a-strategic-game-changer-in-the-indo-pacific-3586344/>

Science & Technology News

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ISRO's latest satellite testing UV dosimeter to enhance astronaut safety

Among the three new payloads on Isro's latest satellite, the EOS-08, launched aboard the Small Satellite Launch Vehicle on Aug 16, is the UV dosimeter, which stands out for its crucial role in the upcoming Gaganyaan missions.

The payload being tested on the microsatellite will be used in Gaganyaan missions in the future. Two such instruments will be placed outside and inside the crew module.

According to Isro, it will monitor UV irradiance at the viewport of the crew module in Gaganyaan missions and serve as a high-dose alarm sensor for gamma radiation.

“The UV dosimeter is designed to measure the amount of ultraviolet radiation incident on it, serving as a vital warning sensor for astronauts both inside and outside the spacecraft. This innovative device will be strategically mounted to monitor UV exposure levels, providing real-time data on the quantity of UV radiation reaching the astronauts,” M Sankaran, director, UR Rao Satellite Centre (URSC), told TOI.

He said it is similar to the badges worn by x-ray technicians to monitor their radiation exposure. The UV dosimeter will perform a comparable function for UV radiation in space. The technology is critical as exposure to UV radiation can be extremely harmful to human tissues and potentially carcinogenic.

According to MA Sumesh and SP Karanth from Laboratory for Electro-Optics Systems, the URSC lab that has developed the dosimeter, the device is a three-channel device and offers real-time monitoring of UV-A, UV-B, and UV-C radiation.

The other two payloads on EOS-08 are: Electro Optical Infrared (EOIR) payload and Global Navigation Satellite System-Reflectometry (GNSS-R) payload. EOIR is designed to capture images in the midwave infrared and long-wave infrared bands for applications such as satellite-based surveillance, disaster monitoring, environmental monitoring, fire detection, volcanic activity observation, and industrial and power plant disaster monitoring.

“GNSS-R demonstrates the capability of using GNSS-R-based remote sensing for applications such as ocean surface wind analysis, soil moisture assessment, cryosphere studies over Himalayan region, flood detection, and inland waterbody detection,” Isro said.

<https://timesofindia.indiatimes.com/city/bengaluru/isros-eos-08-satellite-testing-uv-dosimeter-for-astronaut-safety/articleshow/112637195.cms>



Tue, 20 Aug 2024

Express view on SSLV launch: India's space

Small satellite launch vehicle could help open up the space economy. Conversations must begin on a regulatory mechanism

On August 16, a 120-tonne rocket, about five times smaller than India's largest satellite launch vehicle, took off from ISRO's Satish Dhawan Centre in Sriharikota, heralding a major milestone in the country's space research. The Small Satellite Launch Vehicle (SSLV) can carry payloads weighing up to 500 kg. These space capsules had to earlier wait for months, even years, to hitch a ride on vehicles designed for large satellites. But in the past decade, the miniaturisation of satellites has enabled the entry of universities, corporates and even individual innovators in a field once dominated by large enterprises and state institutions such as ISRO and NASA. The SSLV can prove to be a game changer for these micro and nano space stations. The launch vehicle can be assembled

in less than a week by a much smaller team. With ISRO planning to transfer technology to private players, the country's space sector is poised for a significant expansion.

The utility of small satellites is increasingly expanding in a variety of sectors, including weather forecasting, communications, defence, urban planning and disaster management. They are also crucial enablers in the growing Internet of Things. There is near unanimity that the market for space tech is set to increase in the next five years. US and EU companies are currently the biggest players, while China, Australia and Russia are beginning to expand their footprint. China plans to launch more than 13,000 satellites by 2030 to establish a network supporting high-speed 6G communications. India currently is a relatively smaller participant — its current share in the space economy is about 2 per cent. With the SSLV and related endeavours, the government aims at a four-fold scale-up in the country's stakes by 2033. In the past two years, start-ups such as those by the Hyderabad-based Skyroot and the Chennai-based Agnikul have ticked several boxes, including working closely with ISRO. Agnikul, for instance, has built its own launch pad inside the Sriharikota range with ISRO's help. The IIT-Madras incubated company is working on a launch vehicle to carry payloads smaller than ISRO's SSLV and it has ambitious plans to launch one rocket every week.

India's space policy, introduced in April last year, recognised the country's need to transition from the ISRO-dominated ecosystem. At the same time, the policy took care to underline the premier agency's enabling role in expanding the country's footprint in the space economy. ISRO's work remains crucial to diverse social objectives of the government — education, healthcare, agriculture, climate-change mitigation and environment protection. Space tech is also critical to the country's security objectives. The challenge now is to frame a regulatory mechanism that complements ISRO's work, enables manufacturers of small satellites and rockets to unlock their potential while also making sure that the country's welfare imperatives are not crowded out. The SSLV's launch should be a prelude to conversations on such a mechanism.

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