September 2022

समाचार पत्रों से चयित अंश
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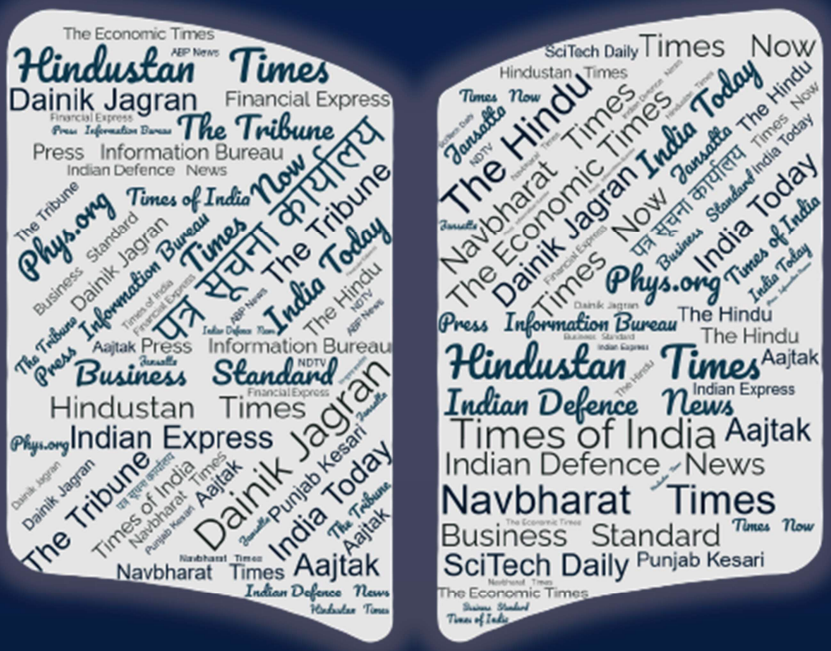

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DRDO News

DRDO Technology News

Hindustan Times

Sun, 18 Sep 2022

LCA Mk-2 Set to have Heavier Payload Capacity, Better Range

The light combat aircraft (LCA) Mk-2, the most advanced warplane set to be built in India, will come with enhanced survivability, better situational awareness for pilots, high payload capacity, improved range, network centric capabilities, integrated avionics, and an ability to quickly switch from one role to another, officials familiar with the matter said on Sunday.

The Cabinet Committee on Security, headed by Prime Minister Narendra Modi, had on August 31 cleared the much-awaited project for the development of LCA Mk-2 that is expected to form an important element of future air combat. The new aircraft, being developed at a cost of around ₹10,000 crore, will have a payload capacity of 6.5 tonne and be able to carry a mix of weapons, including beyond visual range air-to-air missiles, air-to-ground missiles, heavy precision guided weapons and conventional bombs, said one of the officials, asking not to be named.

The 17.5-tonne fighter, to be powered by the higher thrust GE F414-INS6 engine (earlier LCA variants use the F404), will have a maximum speed of 1.8 Mach and service ceiling of 50,000 feet. The other upgrades on the LCA Mk-2 include a superior radar, enhanced fuel capacity, unified electronic warfare suite, indigenous flight control actuators, improved digital flight control computer and better cockpit displays, said a second official familiar with the project.

The new fighter jet will cater to the future requirements for the Indian Air Force (IAF), which has already inducted several of the 40 earlier variants of LCA and ordered 83 improved Mk-1A variants. The Mk-2 fighter will be the most advanced variant of the LCA designed and developed indigenously by the Aeronautical Development Agency (ADA).

The first flight of the LCA Mk-2 fighter could take place in two years, setting the stage for its production and subsequent operational availability by 2028-29 to replace the Mirage 2000s and Jaguars. The LCA Mk-2 will be a further development of the Mk-1A fighter. Last year, the defence ministry awarded a ₹48,000 crore contract to Hindustan Aeronautics Ltd (HAL) for 83 LCA Mk-1A jets for IAF. The first Mk-1A aircraft is expected to be delivered to the air force by March 2024, with the rest slated to join its combat fleet by 2029.

“IAF is grappling with a shortage of fighter squadrons, and LCA Mk-2 will play a key role in plugging capability gaps. At the same time, it is important to ensure that production rate of LCA

Mk-1A is ramped up," Air Marshal Anil Chopra (retd), director general, Centre of Air Power Studies, said when CCS cleared the LCA Mk-2 project. The aircraft will be equipped with advanced avionics with smart large area display, sleek head up display, infrared search and track capability to detect threats at long ranges, missile approach warning systems and countermeasure dispensing systems for self-protection, the officials said.

IAF could order more than 210 LCA Mk-2 fighters in the long term, as previously reported.

Of the 123 LCA variants already ordered, 20 each are in the initial operational clearance (IOC) and the more advanced final operational clearance (FOC) configurations. The remaining 83 LCA Mk-1A fighters will come with additional improvements over FOC aircraft.

The Mk-1A will come with digital radar warning receivers, external self-protection jammer pods, advanced beyond-visual-range missiles, and significantly improved maintainability.

LCA Mk-2 is expected to fill the gap between Mk-1A and the indigenous fifth-generation fighter programme - the advanced medium combat aircraft (AMCA) – which is also being pursued. There is a possibility of equipping AMCA with directed energy weapons, superior anti-missile systems, and teaming it with unmanned systems.

The LCA Mk-2 project will provide a significant boost to the Aatmanirbhar Bharat (self-reliant India) campaign, one of the government's foremost priorities, the officials said.

A new import ban imposed by the government on hundreds of military subsystems and components last month brought India's quest for indigenisation into sharper focus, set goals for the local defence manufacturing industry, and turned the spotlight on the journey so far and the long road ahead for attaining meaningful self-reliance. The main steps taken to inject momentum into the self-reliance drive include bringing out a series of positive indigenisation lists (six have been published so far to ban the import of major weapons, platforms, subsystems and components), creating a separate budget for buying locally made military hardware, and earmarking research and development budget for the private industry and start-ups.

https://www.hindustantimes.com/india-news/lca-mk-2-set-to-have-heavier-payload-capacity-better-range-101663525099790.html

प्रभात खबर

Sat, 17 Sep 2022

आईआईटी बीएचयू विकसित करेगा आधुनिक सुरक्षा तकनीक, डीआरडीओ ने दी मंजूरी

आईआईटी बीएचयू के खाते में एक नई उपलब्धि दर्ज हुई है. यह संस्थान देश की जरूरत के मुताबिक शीघ्र भावी रक्षा व सुरक्षा तकनीक तैयार करेगा. रक्षा मंत्रालय ने संस्थान में डीआरडीओ इंडस्ट्री एकेडेमिया सेंटर ऑफ एक्सीलेंस स्थापित करने को मंजूरी दी है. रक्षा

अनुसंधान और विकास विभाग (डीडीआरएंडडी) के सचिव तथा संस्थान के निदेशक जल्द संबंधित मसौदे पर हस्ताक्षर करेंगे.

प्रधानमंत्री नरेंद्र मोदी के 'आत्मनिर्भर भारत' के स्वप्न के अनुकूल यह केंद्र होगा. आरंभिक तौर पर यह केंद्र पाउडर मेटलर्जी, हाई पावर माइक्रोवेव सोर्स और डिवाइस पर शोध को गति देगा. यह क्षेत्र सीधे तौर पर भारत की तीनों सेनाओं के अस्त्रों, प्रक्षेपास्त्रों, मशीन, इंजन, राडार व अन्य सुरक्षा उपकरणों के उन्नयन से जुड़े हैं. यह केंद्र भारतीय सेनाओं के लिए इन उपकरणों को विदेश से मंगाने की बजाय देश में ही बनाने का का रास्ता खोलेगा. डीआरडीओ सेना के लिए उपकरण विकसित करने वाला जानामाना संस्थान है और आईआईटी बीएचयू इसके काम में आने वाली तकनीकी समस्याओं के समाधान की दिशा में सहयोग करेगा. पिछले कई महीनों में डीआरडीओ और आईआईटी बीएचयू के बीच इस केंद्र की स्थापना के लिए कई बैठकें भी हुईं.

आईआईटी बीएचयू के निदेशक प्रो. प्रमोद कुमार जैन ने कहा कि इस केंद्र का उद्देश्य देश के लिए घरेलू सुरक्षा तकनीक मुहैया कराना व इनके आयात पर निर्भरता को कम करना है. यह केंद्र डीआरडीओ के विज्ञानियों और संस्थान के प्राध्यापकों के बीच सहयोग में महत्वपूर्ण साबित होगा. उन्होंने कहा कि आईआईटी बीएचयू के सभी विभागों को इस केंद्र की सभी सुविधाएं मिलेंगी. अन्य संस्थान भी चाहें तो इस केंद्र से जुड़ सकते हैं. आईआईटी बीएचयू के डीन (रिसर्च ऐंड डेवलपमेंट) प्रो. विकास कुमार दुबे ने उम्मीद जताई है कि बहुत से स्टार्टअप और कंपनियां भी इस केंद्र से जुड़ने की इच्छा जताएंगी.

https://www.prabhatkhabar.com/state/up/iit-bhu-will-develop-modern-security-technology-drdo-approved-nrj

DRDO on Twitter

Fri, 16 Sep 2022

DRDO ✓
@DRDO_India

#DRDOUpdates | DRDO and US Department of Defence officials reviewed the ongoing and futuristic Defence R&D activities and decided on a roadmap for future bilateral cooperation
@DefenceMinIndia
@SpokespersonMoD

DoD CTO ✓ @DoDCTO · Sep 16

The @DeptofDefense is working with @DRDO_India to advance defense R&D cooperation. The Joint Technical Group's Co-Chairs Terry Emmert and Dr. Chandrika Kaushik met in New Delhi last week and discussed how to strengthen our bilateral collaboration

Defence News

Defence Strategic : National/International

Press Information Bureau
Government of India

Ministry of Defence

Fri, 16 Sep 2022 12:45PM

'Aatmanirbhar Bharat Abhiyan' is Making India One of the Strongest Countries in the World, says Raksha Mantri Shri Rajnath Singh at an Event in New Delhi

"'Aatmanirbharta' does not mean isolation; It is our resolve to give hope & relief to the world"

Prime Minister Shri Narendra Modi has transformed India's image to an assertor & provider from a silent observer: RM

Prime Minister Shri Narendra Modi's vision of 'Aatmanirbhar Bharat' is making India one of the strongest and most respected countries in the world. This was stated by Raksha Mantri Shri Rajnath Singh at an event in New Delhi on September 16, 2022. He asserted that the Government is leaving no stone unturned to realise the dream of a 'New India' which is not dependent on any country to fulfill its needs, especially those related to security.

Elaborating on a number of steps taken by Ministry of Defence to achieve 'Aatmanirbharta' in defence, Shri Rajnath Singh said, the issuance of three positive indigenisation lists of 310 items as well as encouraging the private sector to become a part of the nation's growth story is testament to the Government's unwavering commitment to provide the Armed Forces with indigenously developed state-of-the-art weapons/platforms and equip them to deal with all future challenges. He added that the domestic industry has the capacity and capability to manufacture the latest defence platforms in water, land, sky & space in the next few years and the Government is making all efforts to provide them with the necessary environment.

Throwing light on the progress achieved due to the Government's efforts, the Raksha Mantri said, defence exports, which were once Rs 1,900 crore, have now crossed Rs 13,000 crore. He exuded confidence of achieving the target of Rs 1.75 lakh crore of defence production by 2025, which includes export of Rs 35,000 crore. He made special mention of the country's first indigenous aircraft carrier INS Vikrant, with 76% indigenous content, which was commissioned

by the Prime Minister on September 02, 2022 in Kochi. He termed it as an important milestone in India's path to achieve self-reliance.

Shri Rajnath Singh, however, made it clear that 'Aatmanirbharta' does not mean isolation. He defined it as India's resolve to give hope and relief to the whole world. "Today, the world has realised that manufacturing hub should not be in any one country. In the changed circumstances, big MNCs are exploring new options to decentralise its manufacturing. India not only fulfils that quest, but also gives hope that this manufacturing shift has the potential to provide a new lift to the entire global economy. India is the centre of global optimism. We have an ocean of opportunities, plethora of options and a feeling of openness. 'Aatmanirbhar Bharat' opens new doors with an open mind. Our aim is to safeguard national interests and, at the same time, help our friendly countries to achieve their goals. The vision is clear - 'Make in India, Make for the World'," he said.

The Raksha Mantri remembered former Prime Minister late Atal Bihari Vajpayee, under whose leadership India started to become a strong economy once again after independence, adding that the present government is taking forward his vision of 'Nation First'. "It was under the leadership of Atal ji that the country came back on the growth trajectory. He focused on infrastructure development & welfare of the poor; controlled inflation and brought the growth rate of the economy to beyond 8 per cent. Now, under the leadership of our current Prime Minister Shri Narendra Modi, India has become the world's 5th largest economy. In the last eight years, procedural as well as structural reforms have been undertaken. Outdated laws have been replaced and a conducive environment has been created for investment in the country. Along with 'Ease of Doing Business', our focus is on enhancing the 'Ease of Living' in the country, under which basic facilities are being provided to every citizen," he said.

Shri Rajnath Singh lauded the timely and bold decisions taken by Prime Minister Shri Narendra Modi which, he said, have transformed India's image in the world from a silent observer to an assertor and provider. "During the COVID-19 pandemic, we carried out the largest ever vaccination drive. We not only protected our citizens, but extended help to other countries. COVID vaccines, medicines and other essential items were supplied to about 100 countries. During the initial phase of the Russia-Ukraine conflict, our Prime Minister spoke with Presidents of US, Russia & Ukraine and through 'Operation Ganga' we managed to rescue around 22,500 Indian nationals from the war zone. It reflected India's diplomacy, credibility and the quality of the leadership," he said.

The Raksha Mantri termed unity and patriotism among the people as one of the main reasons behind the fast-paced development being witnessed in the country. He appealed to the people to keep the nation at the centre of their hearts and minds while working in their respective fields, describing it as the only way to take the country to greater heights.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=1859762

Press Information Bureau
Government of India

Ministry of Defence

Fri, 16 Sep 2022 05;58PM

Online Portal Facilitating Raksha Mantri's Awards for Excellence in Defence and Aerospace Sector 2021-22 Launched by MoD

Last date of filing online applications is September, 29, 2022

Ministry of Defence has launched an online portal for filing applications for Raksha Mantri's Awards for Excellence in Defence and Aerospace Sector 2021-22 today. The objective of Raksha Mantri's Awards, managed by Directorate General of Quality Assurance (DGQA) under Department of Defence Production (DDP) is to give further boost to Government's 'Make in India' initiative, for achieving self-reliance in Defence manufacturing and reward excellence in the fields of Indigenization, Innovation and Exports by the Indian Defence Industries (both Private as well as DPSUs/PSUs).

This initiative will facilitate widening of Industrial base in the Defence and Aerospace sector, identify 'hidden gems' from Private Industries especially from the MSME/Start-Up segments and promote them as role models for others.

Applications for Raksha Mantri's Awards under various categories will be accepted only through the online Portal (https://rmawards.ddpmod.gov.in) and the processing of applications for the Awards will also be done online. Last date of filing online applications is September, 29, 2022. RM Award Cell of DGQA will be managing the portal and the helpline facility (email:- rmawardsmod-dgqa[at]gov[dot]in; Tele:- 011-24196951).

The awards for the year 2021-22 will be presented during DEFEXPO-22, scheduled to be held in Gandhinagar, Gujarat from 18 to 22 October 2022.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=1859881

ThePrint

Sun, 18 Sep 2022

IAF's 'Project Cheetah' for Weaponising Israeli Drones to be Awarded to Indian Firms Under Make in India Route

With all major import deals being either put on hold or scrapped by the Narendra Modi government, the Indian Air Force is now planning to go ahead with its Project Cheetah under the Make in India route where Indian defence manufacturers would arm the Israeli Heron drones with strike capabilities.

Under the ambitious Project Cheetah, the Indian Air Force wants to upgrade its existing fleet of Israeli-origin Heron unmanned aerial vehicles with better communication facilities and missiles which can target enemy positions from long range.

As per plans, the project was to be completed with Israeli weapon manufacturers. "Now, the IAF is planning to go ahead with the upgrade of its drones by involving Indian defence firms under Make in India in defence," government sources told ANI. The IAF is the main lead in the project under which the Israeli drones in the Navy and the Army are also planned to be upgraded with strike capabilities and better surveillance and reconnaissance pods.

The three services for a long time have depended upon IAF Israeli-made Searcher II and Heron UAVs for reconnaissance and snooping purposes.

With the upgrade in snooping capabilities, the forces on the ground would also be able to get pinpoint intelligence about hideouts in areas where men have to be involved in operations.

The upgrades would also enable the ground stations to operate these aircraft from far-off distances and control them through a satellite communication system.

The surveillance capabilities of the UAVs planned to be upgraded would be similar to the ones that have been acquired by the Indian Army and IAF under the emergency acquisition powers granted to the forces by the government in wake of the ongoing military stand-off.

https://theprint.in/india/iafs-project-cheetah-for-weaponising-israeli-drones-to-be-awarded-to-indian-firms-under-make-in-india-route/1133618/

Hindustan Times

Sun, 18 Sep 2022

Army Eyes Quick Procurement of Military Hardware from Local Firms

From guns to missiles and drones to specialist vehicles, the army is looking at buying military hardware from the domestic defence industry through the emergency procurement route to boost its operational readiness, officials familiar with the matter said on Sunday.

The army can make such purchases by invoking its emergency financial powers to buy equipment worth ₹300 crore provided it can be inducted within a year to meet urgent requirements, said one of the officials cited above.

The equipment army is looking at acquiring includes guns, missiles, drones, counter-drone systems, loitering munition, communication and optical systems, specialist vehicles and engineering equipment. "The process will be based on compressed timelines, wherein the procurement window will be open to Indian Industry for six months, and the industry would be expected to deliver equipment within one year of signing the contract. Procurement cases will be based on open tender enquiry," the Indian Army said on Twitter.

It added that this was in keeping with its commitment to fight future wars with Indigenous solutions. The government has taken several steps to promote self-reliance in the defence sector

in recent years, including banning the import of major weapons, platforms, sub-systems and components, creating a separate budget for buying military hardware from the local industry and earmarking research and development budget for the private industry and start-ups.

The latest push by the army for emergency procurement comes at a time when India and China have been locked in a lingering border standoff in the Ladakh sector since May 2020. Despite four rounds of disengagement from Galwan Valley, Pangong Tso, Gogra (PP-17A) and Hot Springs (PP-15), the two armies still have around 60,000 troops each and advanced weaponry deployed in the Ladakh theatre.

Even after 16 rounds of military talks held so far, problems at Depsang in the Daulet Beg Oldi sector and Charding Nullah Junction (CNJ) in the Demchok sector are still on the negotiating table.

https://www.hindustantimes.com/india-news/army-eyes-quick-procurement-of-military-hardware-from-local-firms-101663525580213.html

R. REPUBLICWORLD.COM

Fri, 16 Sep 2022

US to Transfer Key Defence Tech to India; Rajnath Singh Reveals at Republic Bharat Summit

Union Defence Minister Rajnath Singh on Thursday made a big announcement during his keynote address at the Republic Bharat Summit claiming that US Defence Secretary Lloyd Austin has agreed to the transfer of key technology to India. However, it cannot be revealed right now. He further said that Prime Minister Narendra Modi wants India to be self-reliant in order to fulfil its own needs rather than relying on other countries. "Now there are several countries who want to invest in India's defence sector", added Rajnath Singh.

"PM Modi made it clear in 2014 that India does not have to depend on other countries to meet its needs, because it is not in the interest of the country. We have to become Aatmanirbhar. You will be happy to know that other countries across the world have expressed their willingness to invest in India's defence sector," said Raksha Mantri.

"Rajnath Singh further added, "As Raksha Mantri I can justify how Aatmanirbhar Bharat will be a game-changer for us. Just a few days ago, I spoke to the US Defence Secretary Minister Lloyd Austin, he has given permission to transfer a big technology to India and said if it has to be manufactured, we will do it in India. However, I can't reveal it right now".

Defence Minister further said, "As Defence Ministers, there are 310 items that we have listed down, that will be Made In India till 2025 and won't be imported at any cost. In the Public sector undertaking, there are more than 3,500 items that are going to be Indianised. These are not small numbers and many more major policy decisions have been made which will be beneficial for Aatmanirbhar Bharat. We want to make India a platform not only for Make in India but invite other nations in the behest of Make for World."

Hailing the 'self-reliant India' motto, Defence Minister Rajnath Singh stressed, "Aatmanirbhar Bharat can provide hope for the entire world. The world's manufacturing hub can not be just one country. Now MNCs are looking to move to countries like India."

Rajnath Singh lauds success on economic front

Speaking about India's economy, Rajnath Singh said, "Working on the Nation First policy, India can become a developed nation. When we got Independence, India was poor. We can't deny this reality. It was poor. That's why it took time for it to move on the path of development. In 1950, the Indian economy was the 6th economy in the world. In 1960, we slipped to the 8th spot. In 1970, we slipped to the 9th spot. In 1980, it exited the list of top 10 economies". He hailed the fact that India has surpassed the UK and is one of the top 5 economies in the world today.

https://www.republicworld.com/india-news/general-news/us-to-transfer-key-defence-tech-to-india-rajnath-singh-reveals-at-republic-bharat-summit-articleshow.html

हिन्दुस्तान

Sun, 18 Sep 2022

तकनीक

हल्के लड़ाकू हेलीकॉप्टर (एलसीएच) का पहला बेड़ा भारतीय वायुसेना का हिस्सा बनने के लिए तैयार है। जोधपुर एयरबेस में रक्षा मंत्री राजनाथ सिंह की मौजूदगी में तीन अक्तूबर को 10 एलसीएच वायुसेना में शामिल हो जाएंगे। बेस पर हेलीकॉप्टरों की प्रशिक्षण उड़ानें शुरू हो गई हैं।

रॉकेट-मिसाइल से लैस स्वदेशी हेलीकॉप्टर का बेड़ा तैयार

इसी साल मिली थी मंजूरी

'मेक इन इंडिया' के तहत बने ये हेलीकॉप्टर न सिर्फ हवाई युद्ध में सक्षम हैं, बल्कि धीमी गति से चलने वाले विमानों, ड्रोनों और बख्तरबंद गाड़ियों को तबाह करने का मादा भी रखते हैं। हिंदुस्तान एयरोनॉटिक्स लिमिटेड ने इनका निर्माण किया है। कैबिनेट समिति ने मार्च में वायु और थल सेना को 15 एलसीएच की खरीद को मंजूरी दी थी। इनमें से पांच हेलीकॉप्टर थल सेना के लिए भी तैयार किए जा रहे हैं। खरीद के लिए सरकार ने 3,887 करोड़ रुपये जारी किए थे। ये स्वदेशी रूप से डिजाइन, विकसित और निर्मित अत्याधुनिक लड़ाकू हेलीकॉप्टर हैं। ये पुराने रूसी एमआई-25 और एमआई-35 की जगह ले सकते हैं।

इन हथियारों से लैस

गन
20 एमएम कैलिबर गन | 800 राउंड फायर

रॉकेट
70 एमएम के 12 कैलिबर रॉकेट | 08 किमी फायरिंग रेंज

मिसाइल
6.5 किमी फायरिंग रेंज | हवा से हवा में मार करने वाली चार मिसाइल

यह है खासियत
1. ट्विन शक्ति इंजन
2. अत्याधुनिक हथियारों से लैस

550 किमी तक लगातार उड़ने में सक्षम | 268 किमी प्रतिघंटे की रफ्तार, 2,250 किग्रा वजन | 16400 किमी प्रतिघंटे की रफ्तार

हिन्दुस्तान

Sun, 18 Sep 2022

वर्चुअल फेंसिंग सेंसर से हो सकेगी बॉर्डर की निगरानी

■ अनिकेत यादव

प्रयागराज। सीमा की सुरक्षा एक बड़ी चुनौती है। भारत जैसे देश में जहां सीमाओं पर दुर्गम पहाड़ी क्षेत्र, हिमगिरि और हजारों किलोमीटर में फैला समुद्री तट हो तो दुश्मनों और घुसपैठियों पर नजर रखना आसान नहीं है, लेकिन देश के वैज्ञानिकों ने एक ऐसी तकनीक विकसित की है, जिसकी मदद से दुर्गम सीमा क्षेत्रों में पैनी नजर रखी जा सकेगी।

ट्रिपलआईटी के वैज्ञानिकों ने अन्य तकनीकी संस्थानों के विशेषज्ञों के साथ मिलकर एक ऐसा अनूठा वर्चुअल फेंसिंग सेंसर तैयार किया है जो कि फाइबर ऑप्टिक केबल का उपयोग करके बनाया गया है, जिसकी मदद से सीमा पर होने वाली हर हलचल की आसानी से जानकारी मिल जाएगी।

यह अदृश्य दीवार सेंसर अमेरिका के नेशनल साइंस फाउंडेशन (एनएसएफ) तथा भारत के सूचना प्रौद्योगिकी विभाग (डीओआईटी) के अहम प्रोजेक्ट के तहत तैयार किया गया है। इसके लिए एनएसएफ ने 2.1 करोड व डीओआईटी ने 1.6 करोड़ की ग्रांट दी थी। इस सेंसर का सफल परीक्षण मध्य प्रदेश के पन्ना नेशनल पार्क में किया जा चुका है।

ट्रिपलआईटी के प्रो. वृजेंद्र सिंह ने बताया कि जमीन के नीचे खुदाई कर फाइबर ऑप्टिक सेंसर को लगाने पर वह सुरक्षित रहेगा। इसे बाउंड्री पर भी लगाया जा सकता है। जंगल और वन्य जीवों के संरक्षण के लिए भी इस तकनीक की मदद ली जा सकती है। साथ ही सेना के लिए भी मददगार है।

हर गतिविधि पर नजर

सेंसर के जरिए न सिर्फ वन्य जीवों की आवाज बल्कि शिकारियों की हरकतों पर भी पैनी नजर रखी जा सकेगी। साथ ही वन क्षेत्र में किसी भी असामान्य हलचल या गतिविधि की त्वरित सूचना वायरलेस सेंसर के माध्यम से इंटरनेट के जरिए कंट्रोल रूम को मिल जाएगी। इस तकनीक का इस्तेमाल सीमा सुरक्षा में करने के लिए केंद्र को पत्र लिखा जाएगा।

THE ECONOMIC TIMES

Sun, 18 Sep 2022

Quality Lens Likely on Bullet-Resistant Vests, Firefighters' Clothing

At least 30 technical textiles such as protective clothing worn by firefighters and industrial workers exposed to heat, bullet resistant jackets, and pouches for ammunition and grenades, are likely to come under the government's quality scanner. The textiles ministry is working on quality standards for geotextiles and protective fabrics to check cheap and substandard imports. "Work is going on to issue quality control orders (QCOs) for these two sets of technical textiles to bring them under mandatory BIS (Bureau of Indian Standards) certification. The aim is to ensure human safety and optimal quality of these products," said an official, who did not wish to be identified.

Geotextiles are used for filtration, drainage, pavement structures, hard armour systems and soil retaining structures. These QCOs are being developed to ensure availability of quality products to consumers, improve the quality standards of products manufactured under the Aatmanirbhar Bharat Abhiyan and also check cheap imports that can endanger consumer health.

"Since India is becoming part of the global value chain due to its various foreign trade agreements, there is a need to build global standards and also look at the benefits of possible alignment of national and International standards," said a textile industry representative, who did not wish to be identified. India has already rolled out a ₹10,683 crore production-linked incentive scheme for textiles and apparel to enable the industry to achieve size and scale and become competitive. The government is also keen to reduce imports and encourage creation of domestic capacity in the technical textiles segment.

The BIS is working to develop QCOs for 107 technical textiles, including agrotextiles, medical textiles, protective textiles and geotextiles, to address the health and safety concerns around influx of cheaper and sub-standard textile imports.

https://economictimes.indiatimes.com/industry/cons-products/garments-/-textiles/quality-lens-likely-on-bullet-resistant-vests-firefighters-clothing/articleshow/94287922.cms

THE TIMES OF INDIA

Mon, 19 Sep 2022

Army Activates Satellite-Based Internet Service on World's Highest Battlefield Siachen Glacier

The Indian Army on Sunday activated satellite-based internet service on the world's highest battlefield on Siachen Glacier. "Satellite-based internet service has been activated on the Siachen Glacier at 19,061 feet, the world's highest battlefield, by the Siachen Signallers," said the Fire and Fury Corps of the Indian Army. The Fire and Fury Corps or XIV Corps looks after military

deployment along Kargil-Leh, secures the frontiers with China and Pakistan, and guards the Siachen Glacier.

Bharat Broadband Network Limited (BBNL), a government of India undertaking that is providing the net connectivity to the Army at Siachen, is the same agency that is responsible for the implementation of BharatNet Project. The BBNL's plan is to provide satellite-based internet to around 7,000 gram panchayats and other remote areas where fibre-based internet connectivity is not possible. As per reports, about 4,000 gram panchayats have already been commissioned across the country. The 7,000 sites will be covered by four satellite gateways with two high throughput (HTS) satellites under the central government project.

Also, there are a few private companies that are providing different satellite-based internet services to the Indian Army in sensitive places in border areas like in eastern Ladakh. Hughes Communications India, which has tied up with Isro for using the Indian space agency's Gsat-11 and Gsat-29 satellites and recently announced the commercial launch of India's first high-throughput satellite (HTS) broadband service, is providing sat-based connectivity to the Indian Army along the China border, including in the Galwan region.

The Indian Army is also going to get its own dedicated communication satellite in near future. Defence minister Rajnath Singh has already cleared the acceptance of necessity for procurement of Gsat-7B satellite that will enhance operational preparedness of the ground force and boost its communication capabilities.

Till now, the Army is dependent on Gsat-7A, a dedicated communication satellite of the Indian Air Force, and other Isro satellites, to fulfil its strategic and communication requirements. But with the upcoming new state-of-the-art technology, the Army will get its own eye in the sky to secure its borders.

BBNL, which is providing the net connectivity to the Army in Siachen, is the agency responsible for the implementation of BharatNet Project. The current BBNL plan is to provide satellite-based internet to around 7,000-gram panchayats and other remote areas where fibre-based net connectivity is not possible. BharatNet will have to acquire four satellite gateways with two high-powered satellites to cover all the 7,000 panchayats.

There are a few private companies that are providing satellite-based internet connectivity to the Indian Army in sensitive places along the border like in eastern Ladakh. Hughes Communications India, which has tied up with Isro and recently announced the commercial launch of India's first high-throughput satellite broadband service, is providing sat-based connectivity to the Army along the China border, including in the Galwan region. Soon, the Army will get a dedicated communication satellite. Defence minister Rajnath Singh has already given his nod to the Acceptance of Necessity for GSAT-7B satellite that will enhance operational preparedness of the armed forces and boost its communication capabilities. Till now, the Army is dependent on GSAT-7A, a dedicated communication satellite of the IAF and other satellites, but with the new technology, the Army will get its own eye in the sky.

https://timesofindia.indiatimes.com/india/army-activates-satellite-based-internet-service-on-worlds-highest-battlefield-siachen-glacier/articleshow/94288927.cms

THE HINDU

Sat, 17 Sep 2022

Now, Cochin Shipyard to Install Missile Systems on INS Vikrant

With the indigenous aircraft carrier INS Vikrant now joining the Navy, its builder, the Cochin Shipyard Limited (CSL) has to complete the installation of the Long Range Surface to Air Missile (LR-SAM) system, and the MF-STAR (multi-functional digital active electronically scanned array) radar, according to senior shipyard officials. The Navy has stated that aviation trials are likely to begin by November.

"For us, the most important is the LR-SAM and MF-STAR installation and commissioning," Madhu S. Nair, Chairman and Managing Director, CSL, told The Hindu. "As the Navy would now take over and start operationalising the aviation complex, we would be backing it up."

Essentially, most of the installation has been completed. "When the flights start coming in, various tuning happen. Whatever is needed the shipyard would be backing it up," he explained. "Certain other integrations would also be happening and that would also be done by the shipyard."

"We need 45-60 days to complete their installation and the ship needs to be brought into the dry dock," Mr. Nair elaborated on the timelines. The ship also has a guarantee period which is typically one year but can go back or forth depending on the operational requirements of the Navy, Mr. Nair added. Large parts of the aviation complex have been procured from Russia, another shipyard official said.

LR-SAM is a joint development by Defence Research and Development Organisation (DRDO) and Israel Aerospace Industries (IAI) of Israel, and is manufactured by Bharat Dynamics Limited. MF-STAR is manufactured by the IAI and is also in service on other frontline warships of the Indian Navy.

INS Vikrant, which was commissioned into the Navy on September 2, has undergone five sets of sea trials since August 2021, which both the shipyard and Navy officials said were extremely successful. However, the aviation trials are to be carried out post-commissioning.

Explaining this, the Vice Chief of Naval Staff, Vice Admiral S.N. Ghormade said that since the full crew was not there before commissioning, all trials could be done. "After commissioning, when the complete crew is there, all systems are in place, only then aircraft landing trials happen, which is also a practice in advanced nations which build carriers," he stated.

Designed by the Directorate of Naval Design and constructed by CSL, INS Vikrant, with a displacement of 42,800 tonnes, is powered by four General Electric engines and can carry an air wing of 30 helicopters, fighters, and unmanned aerial vehicles. The keel was laid in 2009 and was launched into water in 2013. The ship uses an aircraft-operation mode known as Short Take Off But Arrested Recovery (STOBAR) for which it is equipped with a ski-jump for launching aircraft, and a set of three 'arrester wires' for their recovery onboard.

Initially, the carrier would be operating the existing Mig-29Ks in service, while a decision on the procurement of an advanced fighter, between the Boeing F/A-18 E/F Super Hornet and the Dassault Aviation Rafale, is expected in the next few months.

In the long term, a twin engine deck-based fighter, currently on the drawing board, is being developed by the DRDO.

https://www.thehindu.com/news/national/cochin-shipyard-to-install-surface-to-air-missile-systems-main-radar-on-ins-vikrant-next/article65903193.ece

IDN INDIAN DEFENCE NEWS
Global Defence, Aerospace & Security

Sun, 18 Sep 2022

Sukhoi Su-30s to be Equipped with X-Guard Fibre Optic Towed Decoy System

IAF's Sukhoi Su-30MKI is set to get X-Guard Fibre optic super sonic decoy system. This system helps to evade Air to Air, Surface to Air Missiles as per media reports.

What Are Towed-Decoys

First, let us understand the term "Decoy". Decoy means a thing that intends to attract someone by deceiving them. So basically Decoys on fighter aircraft work in a way, that they will attract the incoming threat and deceive it towards themselves. And here the term "towed" means "to pull someone/something behind one object. So, basically towed decoys are such that they are pulled along with the aircraft and that decoy will be part of the EW suits of aircraft.

This countermeasure basically for the RF-guided missiles i.e. Radar Guided missiles. It works together with the aircraft's electronic warfare system to provide radar jamming. In addition, it can also be used in a backup mode as a signal repeater, which allows it to lure incoming missiles away from their actual target.

Capabilities of Towed Decoys

Normal EW suits cannot protect from Missiles equipped with Monopulse Radar and LORO (Lobe-On-Receive-Only) Radars. These decoys are specially made for the same that can decoy and jam other radars along with especially these two. It can be used multiple times and also can be retracted. Also, it is not on the hardpoint, it added by additional pylon on the wings. It can fly along with aircraft up to a speed of 1.6 Mach and can withstand the forces and acceleration of 9G. Due to this, it can also be easily used when the jet is cruising at supersonic speed. The connection is basically with optic fibre so the power supply is always high.

Advanced Tech-Security Upgrade

This technology for the Su-30s would be very helpful against incoming missiles of China and Pakistan. As of now it even seems to beat the PL-15 missiles. And after saving itself, Su-30MKIs can now take down enemy JF-17 or J-20 using its current set of BVR missiles. It can also target enemy radar and electro-optical systems using precision-guided ammunition and anti-radiation missile. Since the system is linked to the aircraft's defensive avionics and EW system through a fibre-optic cable. It operates over a wide frequency range, to counter various types of radars and

missiles. The decoy is retrievable and can be deployed several times during a mission. The fibre-optic connection to the aircraft allows accurate jamming.

http://www.indiandefensenews.in/2022/09/sukhoi-su-30s-to-be-equipped-with-x.html

ThePrint

Mon, 19 Sep 2022

Indian Start-Up Begins Prototype Development of Aero Engine for Cruise Missiles

In good news for the Indian defence sector, a private start-up is inching closer to developing an indigenous engine to power cruise missiles and larger unmanned aerial vehicles (UAVs), that could stop the country's dependence on foreign firms.

The Hyderabad-headquartered Paninian India Private Limited, has completed the "conceptual validation" of its 4.5 KN Turbojet Engine and the prototype development has started.

"We are not doing reverse engineering but we are creating an entire family of aero engines that will be able to power everything from cruise missiles to large UAVs," Paninian founder Raghu Adla told ThePrint.

The engine is further being developed into a new family in the range of 3-12 kilonewtons (kN) thrust, along with Artificial Intelligence (AI) augmented digital twin companions.

AI augmented Digital Twins are meant for legacy engine performance modelling and prognostics for supporting mission performance and life extension efforts for aircraft like Jaguar, Sukhoi and Mirage 2000 of the Indian Air Force.

"This can now serve as a tool to study the extension of engines and greatly assist the IAF and CEMILAC [Centre for Military Airworthiness & Certification] in their study of performance degradation," Adla, a first generation entrepreneur, said.

Such Digital Twins — required for cutting-edge prognostics, engine health and performance monitoring — have been conceived entirely from scratch in the country by Indian engineers, he said, adding that India can carry out life extension of engines locally and accurately without resorting to foreign assistance.

While Paninin has started setting up an actual test bed for its engine, the plan ahead is for the individual parts of the engine to undergo 2,000 hours of testing at the National Aerospace Laboratory. Adla decided to work on the project following the 2019 Balakot strike and the subsequent skirmish between the Indian and Pakistani air forces.

For the start-up, he hired Gantayata Gouda, a former senior scientist and programme director in DRDO, along with others who have worked in propulsion and structural engineering with leading global engine manufacturers like General Electrics and Rolls Royce. Adla emphasised on the need for the public sector to support such start up efforts by providing grants and access to laboratories for clearing the difficulties faced in bringing out an Indian origin jet engine.

He added that Paninian is seeking potential collaborations from both public and private players to help scale the effort further to successfully take this to the end users in the shortest time possible.

This innovation could go a long way in the "Make in India" programme to make the country "Atma Nirbhar" in the strategic field of aero engines, he said.

Incidentally, the Defence Research and Development Organisation (DRDO) has been working on an aero engine in the 4.5kN category, which industry sources say is a reverse engineering of the Russian NPO Saturn 36 MT engine which is used by India.

Industry experts, however, said the effort by the DRDO is not scalable or cannot be modularised to create a family of engines.

https://theprint.in/defence/indian-start-up-begins-prototype-development-of-aero-engine-for-cruise-missiles/1133641

INDIA TODAY

Fri, 16 Sep 2022

IAF Planning to Lease Airborne Early Warning Aircraft to Plug Capability Gaps

Amid delays in the procurement of airborne early warning systems, the Indian Air Force (IAF) is planning to lease such aircraft to bridge its capability gap. The IAF has five airborne warning aircraft, three Israeli-origin Phalcon airborne early warning and control systems and two homegrown Netra AEW&C planes.

"The adversaries, including China and Pakistan, have several such aircraft. Pakistan alone has 12 of these planes acquired from Sweden and China. The Chinese Air Force has a large number of similar planes and can cover their borders with India conveniently," government sources told India Today. Though India has five systems and other surveillance planes of the Indian Navy, the task of 24x7 surveillance on both fronts is becoming a bit challenging, they said.

The sources said the IAF might try to lease these planes from global manufacturers if someone is willing to, as only a few countries can produce such systems.

The Indian Air Force has got a programme with the Defence Research and Development Organisation (DRDO), which is turning six Airbus 320 planes into AWACS, but the project would take some time to get completed. Meanwhile, the leased aircraft are planned to be used until the IAF gets new planes and aircraft from indigenous sources.

https://www.indiatoday.in/india/story/indian-air-force-to-lease-airborne-early-warning-aircraft-drdo-indigenous-aircraft-2000891-2022-09-16

THE HINDU

Sun, 18 Sep 2022

Insurgency Down in Northeast, Army Shifts to LAC

With insurgency having significantly gone down in the northeast as seen by recent revocation of Armed Forces Special Powers Act (AFSPA) in several parts of the region, the Army has been able to pull out most of its troops from Counter Insurgency (CI) duties to refocus on the Line of Actual Control (LAC) amid the stand-off with China in Eastern Ladakh in the last two years. Assam Rifles is now responsible for all CI duties.

There is only one Army Brigade in the entire Eastern sector now tasked with CI duties with its mandate spread across four districts of Assam bordering Arunachal. "Insurgency has waned and the counter to it has also changed. It is a whole-of-the-nation approach now. Now the battle is for the mind-space," said Brig. K.S. Gill, commanding the 73 Brigade. Recruitment still happens but has come down in last two years, he stated.

Elaborating, he said while space for United Liberation Front of Asom (ULFA) is shrinking, residual potential still remains and "it's a threat in being" as threat of use of Improvised Explosive Devices (IED), kidnapping and extortion loom large.

However, their operational space is reducing due to constant pressure on them and outreach to people for development, Brig. Gill said adding they continue to keep pressure by area domination, keeping up checks and "intelligence-based ethical operations."

Terming the lifting of AFSPA from areas of Manipur, Nagaland and Assam as a "momentous achievement" made possible by reduction in violence, Eastern Army Commander Lt. Gen. R.P. Kalita noted that the Act is now restricted to only those areas where remnants of militancy still exist.

"With public support and our constant domination of these areas, I am sanguine that in the future, more such areas will reach a level of peace," he said speaking on the sidelines of an event at Kibithu. The situation is dynamic and is being constantly monitored, he stated.

The National Investigation Agency (NIA) has also been active and keeping up the pressure. In addition to dwindling recruitment, there have also been desertions among the cadres and also differences among the various factions.

In this regard, the footprint of the National Socialist Council of Nagaland (NSCN) has been seen in Assam of late, officials on the ground said, with inputs suggesting that that NSCN (Ky) is working with ULFA. NSCN (Ky) is active in Longding, Tirap and Changlng districts of Nagaland and so offers a conduit for ULFA.

Among the various initiatives by the Army to win hearts and minds of the people, those that have caught attention are an effort to impart training in football and another to impart training to students to crack national-level entrance examinations for engineering and medicine.

For instance, the 'Capt. Jintu Gogoi, VrC Memorial Football Tournament' organised in February-March this year by the Army in coordination with the Assam Football Association and Tinsukia District Sports Authority was a huge draw. It brought together 64 teams from several districts of Assam and Arunachal Pradesh, according to Lt. Col. Kumar Gaurav, who was

involved in the organisation of the tournament. “It was not just a match, but a platform for budding talent to go ahead and get national recognition,” he said.

Capt. Gogoi from Assam served in 17 Garhwal Rifles and was posthumously awarded the Vir Chakra (VrC) for his actions during the Kargil conflict of 1999.

Commenting on reorientation, Lt. Gen. Kalitha said the deployment of Army on CI duties is dictated by the security situation and the violence parameters and as situation improves, Army is de-inducted and Central Armed Police Forces (CAPF) and police take on the responsibility of ensuring peace and stability.

“In northeast also, with improvement in situation, Army has got de-inducted and is geared to look at the primary role,” he said while cautioning that even while being employed for CI Ops, the units are always prepared for a conventional role at all times.

“We have a large border with three neighbouring countries, each with its own unique dynamics. Therefore, our units and troops are always prepared, trained and equipped for multifarious tasks and multiple threat scenarios,” Lt. Gen. Kalita added. “This is an ongoing exercise all round the year.”

In all, around two Divisions of troops have been pulled off CI duties and redeployed along the LAC in tune with the overall reorientation towards the LAC carried out by the Army since the May 2020 stand-off. Of the 3,488 km-long LAC, 1,346 km falls in the Eastern sector.

https://www.thehindu.com/news/national/northeast-insurgency-losing-public-support-recruitment-down/article65906559.ece

the pioneer

Mon, 19 Sep 2022

Indian Navy Holds Exercise with Japan in Bay of Bengal

Navies of India and Japan held bilateral complex exercises, including anti-submarine warfare and air defence, for a week in the Bay of Bengal as part of the sixth edition of Japan India Maritime Exercise 2022, JIMEX 22. The exercise ended on Saturday with the two sides bidding farewell to each other with a customary steam past Indian Naval ships were led by Rear Admiral Sanjay Bhalla, Flag Officer Commanding Eastern Fleet.

Japan Maritime Self Defence Force (JMSDF) ships Izumo and Takanami were led by Rear Admiral Hirata Toshiyuki, Commander Escort Flotilla Four. JIMEX 22 witnessed some of the most complex exercises undertaken jointly by the two navies. Both sides engaged in advanced level anti-submarine warfare, weapon firings and Air Defence exercises. Shipborne helicopters, fighter aircraft and submarines also took part in the exercise. Indian Navy and JMSDF ships replenished each other at sea under the agreement on Reciprocal Provision for Supply and Services (RPSS). The exercise, which marked the tenth anniversary of JIMEX since its inception in 2012, consolidated the mutual understanding and interoperability between the two navies. Incidentally, the joint exercise were held days after India and Japan held the two plus two dialogue in Tokyo on September 8.

Both the sides reaffirmed their resolve to commitment to uphold rules based global order respecting sovereignty of nations and stressed upon the need for all countries to peacefully resolve disputes without resorting to threat or use of force or any attempt to unilaterally change the status quo. The two countries also agreed to hold the first ever joint fighter jets exercise.

Defence Minister Rajnath Singh and External Affairs Minister S Jaishankar represented India while Yasukazu Hamada and Hayashi Yoshimasa respectively from Japan took part in the dialogue. The '2+2' dialogue took place more than five months after Japanese Prime Minister Fumio Kishida visited India for the annual India-Japan summit. This year also marks 70 years of diplomatic relations between India and Japan.

Calling for respecting international laws, the two plus two dialogue stressed that global cooperation is required more than ever to address security challenges that have become more acute. Rajnath said after the meeting there is consensus on both sides that a strong India-Japan relationship is very important for a free, open, rule-based and inclusive Indo-Pacific based upon sovereignty and territorial integrity of nations.

India's Indo-Pacific Oceans Initiative (IPOI) shares many commonalities with Japan's Free and Open Indo-Pacific (FOIP). India has also developed maritime cooperation with regional partners in consonance with our inclusive vision of Security and Growth for All in the Region (SAGAR), he said. Jaishankar said the dialogue takes place in the backdrop of a complicated global environment.

'We are two nations committed to promoting a rules-based order, ensuring respect for international law and norms, and safeguarding the global commons.To our endeavors in that regard are now added necessity of creating resilient and reliable supply chains in aftermath of the Covid pandemic," he said.

Conflicts and climate events have further aggravated global economic situation, creating deep anxieties in respect of energy and food security. Trust and transparency are our shared concerns in a digitized world, he said.

https://www.dailypioneer.com/2022/india/indian-navy-holds-exercise-with-japan-in-bay-of-bengal.html

the pioneer

Sun, 18 Sep 2022

Jaishankar to Discuss Defence, Strategic Ties with America

External Affairs Minister S Jaishankar will discuss the ever growing defence and strategic with his US counterpart Antony Blinken and take part in the 77th session of the United Nations General Assembly(UNGA)during his visit to the US commencing Sunday. He will host a meeting of the G-4(India, Brazil, Germany and Japan)during his visit to New York. The tour ends on September 28.

The theme of 77th UNGA is "A Watershed Moment: Transformative Solutions to interlocking Challenges". His address at the High Level Session is on September 24. In keeping with India's

strong commitment to reformed multilateralism, Jaishankar will host a Ministerial meeting of the G4 (India, Brazil, Japan, Germany), as well as participating at the High Level Meeting of the L.69 Group on "Reinvigorating Multilateralism and Achieving Comprehensive Reform of the UN Security Council".

To commemorate and showcase Azadi Ka Amrit Mahotsav, the minister will address a special event "India@75: Showcasing India UN Partnership in Action" on September 24 .

The event is expected to be addressed by the President of the 77th UNGA, along with Foreign Ministers of several member states, and the UNDP Administrator.

The MEA said during the visit, Jaishankar will also be participating in plurilateral meetings of the Quad, IBSA, BRICS, India – Presidency Pro Tempore CELAC, India-CARICOM and other trilateral formats, such as India-France-Australia, India-France-UAE and India-Indonesia-Australia. He will also have bilateral meetings with Foreign Ministers of the G20 and UNSC member states, amongst others. Jaishankar will also meet UN Secretary General António Guterres and the 77th PGA Csaba Korosi.

Upon completion of the 77th UNGA related engagements, the minister will visit Washington from September 25-28 for bilateral meetings with US interlocutors.

His program includes discussions with Blinken, senior members of the U.S. Administration and US business leaders, the ministry said.

https://www.dailypioneer.com/2022/india/jaishankar-to-discuss-defence--strategic-ties-with-america.html

THE HINDU

Mon, 19 Sep 2022

A Disruptive Nexus of China and Pakistan

By Sujan Chinoy

Recently, China used its status as a permanent member of the UN Security Council (UNSC) to put a hold on the UN Security Council's Al Qaida and ISIL (Daesh) Sanctions Committee's (also known as the UNSC 1267 Committee) listing of Laskar-e-Taiba (LeT) terrorist Sajid Mir, one of India's most wanted in the 2008 Mumbai attacks. Earlier, China had blocked the listing of US-designated terrorists Abdul Rehman Makki and Abdul Rauf Azhar of the LeT and the Jaish-e-Mohammed (JeM), respectively. It may be recalled that China brazenly opposed the listing of JeM chief Masood Azhar for ten years until 2019 before lifting the hold.

These terrorists are based in Pakistan and enjoy the patronage of its "deep state". Despite China's efforts to save its "all weather friend" from global censure, Pakistan continues to be in the "grey list" of the Financial Action Task Force (FATF).

China's misuse of its P-5 status disrupts collective efforts to counter terrorism. Such actions are in direct contrast to the consensus at the global level on the scourge that is international terrorism.

Counter-terrorism is not the only area in which the Sino-Pak tandem has weakened global efforts. The two have a long history of collusion in the proliferation of weapons of mass destruction and their delivery systems as well. There are other examples of collaboration in military matters and in the area of infrastructure and connectivity that have proved destabilising to regional stability in South Asia.

Missile proliferation

The Sino-Pak nexus in the field of nuclear and missile proliferation is well recorded. The illicit A.Q. Khan network evolved into a three-way proliferation with China and Pakistan helping one another with bomb designs. Together, the two countries also helped North Korea with weapons of mass destruction (WMD) technologies. The Central Intelligence Agency (CIA) had reported that between 1991 and 1993, China supplied 34 M-11 short range missiles to Pakistan in violation of the Missile Technology Control Regime (MTCR). Subsequent cooperation included Chinese supply to Pakistan of ring magnets for high-speed centrifuges and the grandfathering of existing arrangements to deepen cooperation through the Chashma series of nuclear reactors.

Strong military ties have been the bedrock of China-Pakistan relations since the 1960s. For China, this has emerged as a low-cost tool to balance India and keep it hemmed in the sub-continent. Around 47% of China's military exports go to Pakistan and involve the full spectrum of support from small arms to fighter jets, as well as ships and submarines. These include advanced equipment such as the JF-17 fighter jets, the K-8 training aircraft, Airborne Warning and Control Systems (AWACS), the Al-Khalid tanks and the Babur cruise missile, among others.

The so-called China-Pakistan Economic Corridor (CPEC), which runs through Pakistan-occupied Kashmir (POK) is one of the mainstays of connectivity under the Belt and Road Initiative (BRI). It violates the Sino-Pak border agreement of March 1963, Article 6 of which explicitly refers to its interim nature. Undertaken without any wider consultation with India, which has territorial claims over the region through which it runs, the CPEC has proved disruptive to both India-Pakistan and India-China relations.

China got engaged in the CPEC project for its own ends, more strategic than economic. The Karakoram Highway passes through the Khunjerab Pass and facilitates direct linkages between occupied Kashmir territory on both sides, including the trans-Karakoram tract of Shaksgam claimed by India, now part of China-occupied Kashmir. The CPEC offers China access to the Indian Ocean, natural resources and facilitates greater control over a strategic partner prone to upheavals.

Today, China is one of Pakistan's largest lenders, holding more than 27% of Pakistan's debt. Bilateral trade hovers around $20 billion but is skewed in favour of China which enjoys a huge favourable balance of trade in the region of $18 billion. There are signs of resentment in Pakistan at over-dependence on China, and the exploitative and usurious terms inherent in the CPEC projects.

One of the abiding features of the Sino-Pak collusion concerns the status of Jammu and Kashmir. During the 1950s, China's position on the Kashmir issue was relatively neutral. In the 1960s and 1970s, after the border conflict with India, China stepped up its rhetoric of support for "self-determination" for the people of Kashmir on the basis of UN resolutions. As the 1980s progressed and as relations between India and China gradually improved, China's stand

underwent some change, with emphasis on resolving the issue on the basis of UN resolutions and relevant bilateral agreements.

After the abrogation of Article 370 by India in August 2019, China vehemently opposed the internal political changes effected by India. China unsuccessfully tried, thrice, to trigger discussions on J&K in the UN Security Council at the behest of Pakistan. Itself a party to the Kashmir dispute, China is surreptitiously pushing Pakistan to alter the status of Gilgit-Baltistan (GB) by converting it into its fifth province. The intention is to dilute the interim character of the 1963 agreement between the two countries and consolidate the de facto possession of Pakistan-occupied Kashmir (POK) territory by Pakistan and that of Shaksgam by China.

Political support

Apart from synchronising their positions at the UN, China and Pakistan have created new tandems extending to other international organisations such as the Organisation of Islamic Cooperation (OIC). Pakistan is China's main bridge to Islamic world. Pakistan plays a key role in fending off pressure on China within the OIC on account of its human rights violations in Xinjiang and the ill-treatment of its Muslim minorities, especially the Uyghurs. Pakistan also remains sensitive to Chinese concerns with regard to East Turkestan Islamic Movement (ETIM) separatists seeking refuge in FATA (Federally Administered Tribal Areas).

As Pakistan has gradually drifted away from the U.S., it has moved closer to China. China's economic rise and growing clout is an enticing factor for a stricken economy such as that of Pakistan. As part of their Faustian bargain, the two act as hand maidens for each other on critical issues. In return for giving Pakistan a reprieve at the UN in the listing of Pak-based terrorists, China uses the former to secure its interests in the OIC. Taken in by the Sino-Pak shenanigans, the OIC has adopted hypocritical positions on the treatment of the Muslim minority in Xinjiang.

There is little doubt that China uses Pakistan as a proxy military and nuclear power against India. A key strategic objective for China is to seek access to basing facilities in Gwadar and other sites in the Indian Ocean littoral. Moreover, Pakistan's use of terrorism as an instrument of state policy appears, ironically, to be valued and encouraged by China, as demonstrated by the latter's actions at the UN. Sujan Chinoy is the Director General of the Manohar Parrikar Institute for Defence Studies and Analyses, New Delhi. Views expressed are personal.

https://www.thehindu.com/opinion/op-ed/a-disruptive-nexus-of-china-and-pakistan/article65906029.ece

THE ECONOMIC TIMES

Sat, 17 Sep 2022

China Biggest Threat to Global Peace Order; Need to Create a Counter-Narrative, says IPAC

Asserting that China is the biggest threat to the global peace order, the Inter-Parliamentary Alliance on China in its latest annual meeting here has agreed to create a counter-narrative against the Chinese propaganda and also send a global delegation of lawmakers to Taiwan to show their solidarity with the Taiwanese people.

The Inter-Parliamentary Alliance on China, which included members of parliament from India as well, during their annual summit in Washington was attended by 60 lawmakers from 30 countries, including Sujeet Kumar from the Biju Janata Dal.

"We are intending to go to Taiwan sometime in the future...MPs from different countries to show solidarity with Taiwan. Because Taiwan is a proud, vibrant, peaceful democracy. And it's really important to support Taiwan against Chinese aggression," Kumar told PTI in an interview. In its communique, IPAC calls for greater support for Taiwan and moving critical supply chains away from China. Observing that China is very good at creating a false narrative of its peaceful rise, Kumar said, "We know that China has sold this narrative of peaceful lives for a long time and fooled the world. Now we all know that was a mistake. The idea is to create a counter narrative to China's aggressiveness, to sensitise the world community."

"China is going to be the biggest threat to the peaceful world order, to international order. And also to ensure that China doesn't make spurious claims on the South China Sea for instance, on Indian Territory, Taiwan and also to raise awareness about what's going on in Xinjiang and Tibet," Kumar said at the end of the two-day conference that concluded here early this week.

Kumar is national convener of all-party parliamentary forum on Tibet. It is a bipartisan Indian parliamentary forum to raise the Tibetan issue, to help the Tibetan community living in India and also to support the peaceful struggle of the Dalai Lama.

"We all know what China has been doing in Tibet. It has literally embarked on a journey of destroying the language, the culture, religion, heritage, religion, of the Tibetan people, and also the ecosystem of the environment and ecosystem of Tibet, which will have serious consequences for India if it's not strong.

"Because most of the many of the larger rivers of India originate in the Tibetan Plateau. And China is trying to use that as a geopolitical tool by building large dams, by changing the course of the rivers," he said.

Kumar said he raised these issues at the conference and also raised the issue of the successor of the Dalai Lama. "Now, we all know that, as per the Tibetan tradition, it is the Dalai Lama, which has been indicted the overlords ready to anoint his successor, but China wants to have its own Dalai Lama in and to hijack the Tibetan struggle for independence," he said.

The issue was raised by him during the meeting and in his meetings with officials of the State Department here, Kumar said.

Responding to a question, Kumar said there is convergence of views on China between India and the United States.

Founded in June 2020 to promote reform of the approach of democracies towards China, IPAC has sought to sensitise democratic governments to the challenges posed by the rise of China, and to suggest tools to safeguard the rules and rights upon which global peace and prosperity depend.

https://economictimes.indiatimes.com/news/international/world-news/china-biggest-threat-to-global-peace-order-need-to-create-a-counter-narrative-says-ipac/articleshow/94258899.cms

IDN INDIAN DEFENCE NEWS
Global Defence, Aerospace & Security

Sun, 18 Sep 2022

Pakistan About to Get the Second Consignment of J-10 From China

Pakistan is about to get its second consignment of J-10 fighter aircraft from its all-time friend China. The consignment will include 8 fighter aircraft. China handed over 6 fighter aircraft to Pakistan in the first consignment. Pakistan had signed a deal to buy a total of 36 J-10 fighter jets from China. From these fighter planes, two squadrons will be made in the Pakistani Air Force, which will be deployed on the border with India. China's J-10 is a copy of Israel's old fighter aircraft IAI Lavi. Israel shared the design of its fighter plane with China. Based on its technology, the Chengdu Aircraft Industry Group of China developed the Chengdu J-10 fighter aircraft.

China's J-10 fighter aircraft is based on Israeli technology. Israel closed this multi-million dollar project in the year 1987. Twelve of the 13 ministers in the cabinet of the then Israeli Prime Minister Yitzhak Shamir gave their support for the closure of the project. The cabinet, approving Deputy Prime Minister Shimon Peres's proposed $100 million budget, ordered Israel Aerospace Industries to develop the technology of the future. After which Israel Aerospace Industries also developed a prototype, but this aircraft never went into the line of serial production.

It is claimed that Israel closed the IAI Lavi project under pressure from then US President Ronald Reagan. The Reagan administration ordered the closure of this Israeli project so that the two countries could work together to develop a new aircraft for the future. The US had offered that if Israel joined, One would not only share the technology, but would also offer to help Israel develop research and development infrastructure for the defence industries.

China has the largest number of Chengdu J-10 aircraft. About 488 J-10 variants are included in the Aviation Wing of the Chinese Air Force and the Chinese Navy. Launched in 2005, the J-10 is a single-engine multirole fighter with a delta wing and canard design. The J-10 is fitted with 11 hardpoints, an active electronically scanned array radar and a 23 mm gun. It is believed that it can fly at a speed of Mach 2 to an altitude of about 60,000 feet.

However, J-10 fighters have a chequered life, with several accidents reported due to mechanical and technical failures. Being a closed society most of these incidents go unreported in the mainstream media but with the advent of social media some of these accidents have filtered through sources within and outside China. It would be worthwhile to see, how long PAF would be able to hold on to a inferior fighter jet in its arsenal.

http://www.indiandefensenews.in/2022/09/pakistan-about-to-get-second.html

Sat, 17 Sep 2022

NATO Chiefs of Defence Discuss Operationalisation of Madrid Summit Decisions

The NATO Military Committee was welcomed to Tallinn during an official opening ceremony by the President of the Republic of Estonia, His Excellency Alar Karis. In his welcome address, the President highlighting the drastic change in the security environment since Russia's invasion of Ukraine and the invaluable reinforcement Allies has provided to NATO's Eastern flank. The Chair of the NATO Military Committee underscored the essential role played by Estonia, especially in the digital domain and when it comes to supporting NATO's digital transformation.

On the morning of the 17th of September, the Prime Minister of the Republic of Estonia Kaja Kallas set the scene for the day's meetings. She stressed the importance of broad international support for Ukraine. In his opening remarks, the Chair laid out the agenda and expectations for the conference: "Without a doubt: a new era for global security has begun. The entire international rules-based order is under attack. And it is up to the free, democratic nations of the world to protect it. Winter is coming, but our support for Ukraine shall remain unwavering".

The first session allowed the NATO Chiefs of Defence to discuss the implementation the far-reaching decisions on NATO's deterrence and defence posture taken, by the political leadership at NATO's Summit in Madrid as well as the operationalisation of NATO's deter and defend strategy. "This strategy makes sure that national plans are more closely interlinked with Alliance plans; military leaders have a common frame of reference for both Alliance wide threats and regional threats; and that we enhance the speed and effectiveness of our rapid deployable forces", underlined Admiral Bauer.

The next meeting was led by the Supreme Allied Commander Europe, General Christopher Cavoli, who provided his strategic considerations on NATO's current and future posture on the Eastern flank and across the whole spectrum of the Alliance's 360-degree approach to security. In a session dedicated to the future of Armed Forces, the Supreme Allied Commander Transformation, General Philippe Lavigne provided the Chiefs of Defence his insights in promoting cooperation across domains and service branches and enabling digital transformation.

In a session dedicated to promoting diversity in the Armed Forces, the Chiefs of Defence exchanged ideas on how to create a more diverse talent pool in their workforce. Admiral Bauer: "This is important in order to increase our effectiveness on the battlefield. And because creating a culture of inclusion is fundamental for the trust between men and women in uniform. Without trust, we cannot function", underscored the Admiral.

Admiral Bauer, Chair of the NATO Military Committee and Lieutenant General Martin Herem, Chief of the Estonian Defence Forces, concluded the conference by briefing the media on the outcomes of the meetings.

https://www.nato.int/cps/en/natolive/news_207340.htm?selectedLocale=en

Press Information Bureau
Government of India

Ministry of Science and Technology

Fri, 16 Sep 2022 6:04PM

Cooperation Between the Institut National de la Propriété Industrielle, France and the Council of Scientific and Industrial Research (CSIR) on Access to the Traditional Knowledge Digital Library (TKDL), a Prior Art Database of Indian Traditional Knowledge

The *Institut National de la Propriété Industrielle* (INPI; the National Industrial Property Institute), France and the Council of Scientific and Industrial Research (CSIR) entered into a cooperation on the Traditional Knowledge Digital Library (TKDL) Access through an Agreement in the gracious presence of Dr. N. Kalaiselvi, DG, CSIR and Secretary, DSIR. The Agreement was exchanged by Mr. Sebastien Connan, Regional IP Counselor for India and Dr. Viswajanani J Sattigeri, Scientist-H and Head, CSIR-TKDL Unit. Through this Agreement, the INPI, France gains access to the complete TKDL database towards examining prior art related to Indian traditional knowledge for the purposes of patent grant procedure.

Speaking on the occasion, DG, CSIR welcomed the collaboration with France in the area of traditional knowledge. She encouraged concerted efforts for upcoming health care challenges. Mr. Connan while thanking India for the cooperation stated that the TKDL database would be an important instrument not only for the INPI but also for the traditional industrial entities in France. He stated that France also looks forward to strengthening ties with the CSIR for scientific pursuits in traditional areas.

The signing of the TKDL Access Agreement with the INPI, France marks the beginning of a new partnership and mutual cooperation in the domains of Intellectual Property Rights as well as traditional knowledge between France and India.

About TKDL:

The TKDL database, first of its kind worldwide, was established in 2001 by the Government of India, through a collaboration between CSIR and Ministry of AYUSH. The key objective of the TKDL is to prevent the erroneous grant of patents on Indian traditional knowledge (TK) and deter misappropriation of the country's traditional knowledge. Currently, the TKDL contains information on over 4.2 lakh formulations and techniques of Indian Systems of Medicine such as Ayurveda, Unani, Siddha, and Sowa Rigpa as well as Yoga from the traditional texts. The TK information from diverse languages and subject areas are transcribed into value-added information correlated with modern terminologies.

The TKDL information is presented in a digitized format in five international languages including English, German, French, Japanese and Spanish, and format easily understandable by patent examiners. As per the extant approvals in place, the TKDL database is available only to patent offices through TKDL Access Agreements. With this cooperation with Danish Patent and Trademark Office, the number of patent offices worldwide that have access to the TKDL database rises to fifteen.

The TKDL is a global benchmark in the defensive protection of traditional knowledge and has been successful in protecting India's interest against any possible misuse of its heritage. The impact has been significant, with over 265 patent applications world-over being revoked, amended, withdrawn or abandoned, based on the prior art evidences presented from the TKDL database.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=1859883

Press Information Bureau
Government of India

Ministry of Science and Technology

Sat, 17 Sep 2022 11:10AM

CSIR's Popular Science Magazine 'Vigyan Pragati' Receives 'Rajbhasha Kirti Award'

CSIR's popular science magazine "Vigyan Pragati" has created a new history. This magazine has received the National Rajbhasha Kirti Award (First position) and this award was given at the Second All India Rajbhasha Sammelan held during 14-15 September 2022 in the Pandit Deen Dayal Upadhyay Indoor Stadium, Surat. Department of Official Language, Ministry of Home Affairs, Govt. of India organized this grand event which was witnessed by around 9000 audience.

In the Surat Rajbhasha Sammelan, Director of CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), Prof. Ranjana Aggarwal received this prestigious Kirti Award in the presence of Union Minister for Home Affairs Shri Amit Shah. Hon'ble Chief Minister of Gujarat State, Shri Bhupendrabhai Patel and Hon'ble Ministers of State, Ministry of Home Affairs Shri Ajay Kumar Mishra and Shri Nisith Pramanik graced the programme.

'Vigyan Pragati' (a popular science magazine in Hindi) is one of India's best popular science magazines. It is popular among children, teachers, researchers, and the public across India as well as the world. Council of Scientific & Industrial Research (CSIR) started publishing this magazine in 1952. It carries a legacy of seven decades and over these many years, the readers of this magazine have been motivated through its content. This monthly Hindi publication imparts the knowledge of the recent national-international S&T related developments, discoveries, inventions, technological advancements in the form of article, feature, science fiction, science poetry, quiz, scientoon (science cartoon) and docudrama. Vigyan Pragati aims at communicating S&T to the masses in simple language. The magazine contents aim at igniting curiosity about

science among the young and strive to develop an interest in them to pursue science. Those engaged in preparation for various competitive examinations; use this magazine as an authentic source of information on science and technology.

Article 51 A[h] of the Indian Constitution put emphasis and says that it is every citizen's fundamental duty to develop scientific temper, spirit of enquiry, humanism and reform. Science magazines play a vital role in communicating S&T to the common man and thereby developing scientific temper.

On this great occasion, Prof. Ranjana Aggarwal, Director, CSIR-National Institute of Science Communication and Policy Research said that Rajbhasha National Kirti Award to 'Vigyan Pragati' is the honour of CSIR as well as all its readers, writers and editors.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=1860013

हिन्दुस्तान

Sun, 18 Sep 2022

तैयारी

इलेक्ट्रिक बस, कार और बाइक के बाद अब दुनिया की पहली ई फ्लाइट सेवा शुरू होने जा रही है। स्वीडन में बने इस विमान का सबसे पहले कनाडा की एयरलाइंस में इस्तेमाल होगा। इसे 'ईएस-30' इलेक्ट्रिक एयरक्राफ्ट नाम दिया गया है। एक बार चार्ज होने पर विमान 200 किलोमीटर तक की यात्रा कर सकता है।

दुनिया की पहली ई फ्लाइट कनाडा में उड़ेगी

19 सीटर विमान भी तैयार कर रही कंपनी

कंपनी के सीईओ माइकल रूसो ने बताया कि हमने 2050 तक शून्य कार्बन उत्सर्जन के लक्ष्य को तय किया है। इन विमानों के कनाडा एयर लाइंस के बेड़े में शामिल होने से हम लक्ष्य के करीब आसानी से पहुंच सकेंगे। स्वीडन विमान निर्माता कंपनी 19 सीटर ई-विमान भी तैयार कर रही है। इन्हें ईएस-19 नाम दिया गया है।

30 यात्रियों के बैठने की क्षमता होगी इस विमान में

20 हजार फीट की ऊंचाई तक मर सकता है उड़ान

02 सौ किलोमीटर की यात्रा एक बार में कर सकेगा

शून्य कार्बन उत्सर्जन की ओर बढ़ेगा कदम

कंपनी के सीइओ माइकल रूसो ने बताया कि हमने 2050 तक शून्य कार्बन उत्सर्जन के लक्ष्य को तय किया है। इन विमानों के कनाडा एयर लाइंस के बेड़े में शामिल होने से हम लक्ष्य के करीब आसानी से पहुंच सकेंगे। शुरुआत कंपनी कम ही विमान तैयार करेगी, बाद में यह संख्या बढ़ जाएगी।