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# समाचार पत्रों से चयित अंश Newspapers Clippings

A Daily service to keep DRDO Fraternity abreast with DRDO  
Technologies, Defence Technologies, Defence Policies,  
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Thu, 18 Aug 2022

### **DRDO develops a facial recognition system that can penetrate masks, disguise**

*By Aihik Sur*

When Covid forced everyone to hide behind masks, one lot was happy: the criminals. Now they could find it easier to disappear into the crowd as identifying a person became more difficult. With such a threat, there was talk of the deployment of a facial recognition system that can detect faces with masks or disguises during the pandemic.

The National Crime Records Bureau, in fact, had floated a tender for it last year, but no announcement was made on whether this technology was developed or deployed.

However, it turns out that Defence Research and Development Organisation (DRDO), India's premier defence laboratory, has indeed developed such a system. Dubbed 'Face Recognition System under Disguise', or FRSD, the system claims to detect faces through several "disguises like face masks, beard, moustache, wigs, sunglasses, head-scarves, monkey-caps, hats, etc".

The Ministry of Defence (MoD) recently released a report called 'AI in Defence', which revealed FRSD and other three facial recognition systems developed by organisations under MoD for the Indian Army. Since these technologies may not just be reserved for military activities, but also be deployed in public places, it is necessary to throw light on how and why they are being used.

#### **FRSD**

Instead of human eyes, the FRSD relies on algorithms to identify the person from patchy, low-resolution surveillance camera feeds.

“The algorithm can also be used by security agencies for robust face search across large repositories,” the MoD report said. The system can be deployed in restricted/ secure zones for live video surveillance. It can also be deployed in public places to recognise anti-social elements, the report said. It takes into consideration different lighting conditions, shadows on the face, crowd occlusions and so on for identification.

“‘Face recognition in the wild’ on surveillance camera feeds is a difficult problem to solve due to the low resolution of the images captured from the cameras. This problem becomes even more

challenging to solve with the added complexity of various facial disguises, crowd occlusions and varied illuminations,” the MoD report said.

DRDO has developed the system keeping in mind that it should be scalable across servers and graphic processing units.

“The system comes with a flexible video analytics suite with a number of additional surveillance applications like people counting, geo-fencing, fire detection and collision detection.”

### **Project Seeker**

Project Seeker is a facial recognition system developed by entities under the MoD.

Developed and deployed by the Indian Army, it has been designed for population monitoring, surveillance and garrison security, according to the MoD report. It doesn't require internet connectivity, can accrue intelligence data from multiple sources and be set up remotely with a field-ready system anywhere. It can be deployed in ‘disturbed’ areas for continuous surveillance and monitoring, as well as at civilian establishments ‘for ensuring state-of-the-art security’.

“The Seeker system is a self-contained, AI-based facial recognition, surveillance, monitoring, and analysis system for identification & tracking of threats for counter-terrorism, continuous surveillance, and monitoring of disturbed areas,” the report said.

It said the system can be deployed in ‘critical military’ or ‘civilian establishments’ for added security. Using intelligence data from various sources, the Army aims to track the movement of terrorists and ‘anti-national’ elements. The Army aims to achieve "psychological dominance on threats and anti-national elements", the report said, while explaining how the technology will serve the nation. It is important to note that there is no legal definition for the term ‘anti-national’, and has not been defined in Statutes.

### **Robot at the border**

Apart from Project Seeker, the Indian Army has also developed Silent Sentry, which is a fully, facial recognition capable, 3D-printed rail-mounted robot that slides on a rail and can be installed on fences and anti-filtration obstacle system (AIOS).

The robot which communicates through WiFi is embedded with artificial intelligence for detecting human beings and faces.

“The video feed received from the robot is analysed by an AI software utilising object recognition. The software detects movement and human presence automatically, generates an audio alarm and stores the photographs with time and date log,” the report said. On detection of a human, a background facial recognition algorithm is activated, which tries to determine the identity of a person from a stored database. The facial feature information is then stored in the database.

### **Driver fatigue monitoring system**

BEML Ltd, a public sector company under the MoD, has developed a driver fatigue monitoring system which uses facial recognition.

“Assessing driver fatigue in critical conditions is an indispensable tool, especially in the Armed Forces,” the report said. The report said that the system detects the onset of drowsiness in a driver while the vehicle is in motion.

A camera inside the cabin films the driver continuously, and an algorithm analyses the footage frame by frame and determines whether the driver's eyes are open or closed.

“Detection is done by continuously looking out for symptoms of drowsiness, while considering physical cues including yawning, drooping eyelids, closed eyes and increased blink durations by using the percentage of eyelid closure over the pupil over time (PERCLOS) algorithm,” it added.

### **Reliability**

As dazzling as these technologies may sound, at the end of the day, these are all based on algorithms and the software that is being deployed.

So how reliable are these systems, given that they are documented to be prone to error?

There are concerns over mis-identification due to poor accuracy in correctly identifying faces.

“Facial recognition technology is inaccurate. It throws up faulty results. And now with masks, which can cover half the face, the accuracy will go even lower,” said Anushka Jain, associate counsel at Internet Freedom Foundation (IFF).

For instance, in a test conducted in 2018, Amazon's facial recognition tech known as Rekognition incorrectly matched 28 members of US Congress, identifying them as other people who have been arrested for a crime.

Jain gave the example of two siblings who can be wrongly identified while wearing masks.

“Two siblings wearing masks can very well have similar looking upper-half of the face. They can be wrongly identified. This can even lead to communities being targeted,” Jain said.

The report does not mention the accuracy of the FRSD technology. Moneycontrol has reached out to the DRDO for comments in this regard, and the copy will be updated when a response is received.

"Any decision taken on account of any misinformation might lead to dire consequences. Facial recognition, as a practice, in its application, can also have shortcomings of its own. Therefore, the data thus received needs to be subject to a process where the Armed Forces need to further scan and filter the retrieved data," Kritika Seth, Founding Partner at Victoriam Legalis – Advocates & Solicitors.

### **Privacy**

Over the years, the deployment of facial recognition technology by state governments and the Centre for governance and policing has been under the scanner of civil society groups and digital rights activists, who worry about privacy infringement.

Although the usage of the system will be more concentrated on foreigners, Seth from Victoriam Legalis raised queries on the data collection practices, and on whether its usage aligns with the Right to Privacy judgement.

“There is no legal framework which mandates transparency in data collection for the above purpose. The opacity regarding the use of personal data can be a violation of the right to privacy as given in the case of Justice K.S. Puttaswamy (Retd.) versus Union of India,” Seth said.

“Furthermore, the Army is also keen to monitor social media pages. Such surveillance will intersect with already existing state surveillance and might not fall within the purview of roles of Armed Forces,” she added.

Moneycontrol has reached out to the Indian Army with queries in this regard, and the story will be updated when a response is received.

### Legality

Siddharth Suresh, partner at DSK Legal, explains that facial recognition, currently, comes under the Information Technology (Reasonable security practices and procedures and sensitive personal data of information) Rules, 2011 (“SPDI Rules”).

“Data collected by facial recognition solutions comes within the purview of “Biometric Data” and is classified as “sensitive personal data,” he said.

However, he said, regulations have carved out exemptions for government agencies to collect and use such data without the consent of the data subject, with the underlying presumption being that such use of data is for the general public good and national security.

The recent notification of the Criminal Procedure (Identification) Act, 2022 also allows authorities to collect and share biometric information.”

<https://www.moneycontrol.com/news/business/drdo-develops-a-facial-recognition-system-that-can-penetrate-masks-disguise-9048981.html>

## Defence News

## Defence Strategic : National/International



Thu, 18 Aug 2022

### अमेरिकी सोल्जर से कम नहीं होंगे भारतीय जवान:इंडियन आर्मी को मिला F-INSAS; कैसे हमारे जवान बन जाएंगे फाइटिंग मशीन

बॉर्डर पर तैनात भारतीय सैनिक अब फाइटिंग मशीन में बदलने वाले हैं। सिर पर बैलिस्टिक हेलमेट, आंखों में बैलिस्टिक गॉगल्स, बाँड़ी पर बुलेट जैकेट, कोहनी पर एब्लो पैड, घुटने पर नी पैड्स, कानों में हेडसेट, हाथों में AK-203 ऑटोमेटिक राइफल।

75वें स्वतंत्रता दिवस के अगले दिन रक्षा मंत्री राजनाथ सिंह ने भारतीय सेना को F-INSAS, निपुण माइंस और असॉल्ट लैंडिंग क्राफ्ट जैसे आधुनिक हथियार और इक्विपमेंट सौंपे हैं। खास बात ये है कि इन सभी को भारत में ही बनाया गया है।

### F-INSAS: हमारे सैनिक ही बन जाएंगे फाइटिंग मशीन

F-INSAS का मतलब है Future Infantry System as a Soldier; यानी भविष्य में एक सैनिक ही हथियार की तरह काम करेगा। ये पूरा सिस्टम बॉर्डर पर तैनात सैनिकों को दिया जाएगा। इनमें आधुनिक हथियार और इक्विपमेंट रहेंगे, जिनका वजन काफी कम होगा। ये हर मौसम में सभी इलाकों यानी पहाड़, रेगिस्तान, मैदान सब जगह काम आएंगे।

F-INSAS का मकसद पैदल सेना, यानी इन्फैंट्री को आधुनिक बनाना है। यह सैनिकों की ऑपरेशनल कैपेसिटी को बढ़ाएगा, यानी सैनिक दुश्मनों पर जल्दी और तेजी से हमला कर पाएंगे।



F-INSAS को भारत और रूस के साझा मिशन के तहत उत्तर प्रदेश के अमेठी में बनाया जा रहा है। राजनाथ सिंह ने F-INSAS के अलावा भी इंडियन आर्मी को कई आधुनिक हथियार सौंपे हैं। एक-एक करके उनके बारे में जानते हैं...

### **निपुण माइंस: एंटी टैंक माइंस की तरह दुश्मन सैनिकों को उड़ाने के काम आती हैं**

निपुण माइंस को एंटी पर्सनल माइंस कहते हैं। DRDO ने इन्हें सॉफ्ट टारगेट ब्लास्ट म्यूनिशन नाम दिया है। ये एंटी टैंक माइंस की तरह काम करते हैं। एंटी टैंक माइंस को भारी वाहनों के खिलाफ इस्तेमाल किया जाता है। वहीं निपुण माइंस को घुसपैठियों और दुश्मन पैदल सैनिकों के खिलाफ इस्तेमाल किया जाएगा।



निपुण माइंस साइज में छोटे हैं और इन्हें ज्यादा संख्या में इंस्टॉल किया जा सकता है।

### **लैंडिंग क्रॉफ्ट असॉल्ट: एक बार में 35 लड़ाकू सैनिकों को ले जाएगा**

लैंडिंग क्रॉफ्ट असॉल्ट एक तरह की नाव है। लद्दाख की पेंगोंग सो झील में भी इसका इस्तेमाल किया जा सकता है। ये एक बार में 35 लड़ाकू सैनिकों को बहुत कम समय में अपने साथ ले जा सकती है। लैंडिंग क्रॉफ्ट को गोवा की एक्वेरियस शिप यॉर्ड लिमिटेड ने बनाया है। इसकी स्पीड और क्षमता पहले की नावों के मुकाबले बेहतर है।



लैंडिंग क्रॉफ्ट असॉल्ट भारतीय नौसेना में पहले से ही मौजूद है।

### **SRAX MK-2: आर्मी का कम्युनिकेशन ब्लॉक नहीं हो सकेगा**

यह एक ऑटोमेटिक टेलीफोन एक्सचेंज है। इससे आर्मी का लाइन कम्युनिकेशन बेहतर होगा। यह पूरी तरह डिजिटल है और इसे ब्लॉक नहीं किया जा सकता। बॉर्डर वाले इलाकों में सैनिकों से बात करने के



लिए यह बेहतर सिस्टम है। भारतीय सेना के पास इससे पहले जो एक्सचेंज थे, वो नए इंटरनेट प्रोटोकॉल तकनीक के साथ काम नहीं कर सकते थे।



भारत इलेक्ट्रॉनिक्स लिमिटेड, कोटद्वार ने सेना की लाइन कम्युनिकेशन बेहतर करने के लिए नया एक्सचेंज बनाया है।

#### **सोलर फोटो-वोल्टिक एनर्जी प्रोजेक्ट: सूरज से एनर्जी लेकर बिजली बनाएगा**

सियाचिन में बिजली के लिए अभी तक केवल कैप्टिव जनरेटर का इस्तेमाल किया जाता था। इसमें ईंधन की खपत बहुत ज्यादा होती है। इससे बचने के लिए फोटो-वोल्टिक प्लांट लगाया गया है। यह सन लाइट से एनर्जी लेकर बिजली बनाएगा।

#### **इन्फैंट्री प्रोटेक्टेड मोबिलिटी व्हीकल: पहाड़ी रास्तों के लिए मुफीद गाड़ी**

यह 8x8 पहियों की गाड़ी है। इसमें 12 सैनिक एक साथ बैठ सकते हैं। पहाड़ी इलाकों में आने-जाने के लिए यह इस्तेमाल की जाएगी। इसमें ड्राइवर को 3 पेरिस्कोप्स, डिस्प्ले कैचिंग विजन, सामने और पीछे कैमरे मिलते हैं। इनके जरिए चारों तरफ से होने वाले हमलों पर बेहतर नजर रखी जा सकती है। साथ ही एक के बाद एक सीट होने से दोनों तरफ के सैनिकों को फायरिंग करने के लिए 3-3 पोर्ट मिल जाते हैं। यह भारत की उत्तरी सीमा के सैनिकों को तेजी और ज्यादा सुरक्षा देगा। इन्फैंट्री प्रोटेक्टेड मोबिलिटी व्हीकल को मेसर्स टाटा एडवांस सिस्टम्स लिमिटेड ने बनाया है।



इन्फैंट्री प्रोटेक्टेड मोबिलिटी व्हीकल में सामने और पीछे कैमरे लगाए गए हैं।

### **क्विक रिएक्शन फाइटिंग व्हीकल (मीडियम): तेज और सटीक हमले में मददगार**

ये 4x4 पहियों की गाड़ी है। जिससे तेज और बेहतर हमला करने में मदद मिलेगी। साथ ही यह ज्यादा सुरक्षित भी है। यह माइन प्रूफ है, यानी किसी माइन के फटने पर अंदर बैठे लोगों को कोई नुकसान नहीं होगा। यह 14 और 21 किलो के विस्फोटकों से भी सैनिकों की सुरक्षा करने में सक्षम है। इसमें 14 सैनिक एक साथ बैठ सकते हैं।

साथ ही यह 2 टन तक का भार अपने साथ ले जा सकती है। पहाड़ों के लिए यह एक बेहतर गाड़ी है। इसमें 10 फायरिंग पोर्ट्स हैं। क्विक रिएक्शन फाइटिंग व्हीकल (मीडियम) को टाटा एरोस्पेस एंड डिफेंस ने बनाया है।



क्विक रिएक्शन फाइटिंग व्हीकल (मीडियम) की छत पर 360 डिग्री यानी सभी तरफ फायरिंग करने के लिए बंदूक लगाई जा सकती है।

क्विक रिएक्शन फाइटिंग व्हीकल (मीडियम) की छत पर 360 डिग्री यानी सभी तरफ फायरिंग करने के लिए बंदूक लगाई जा सकती है।

### **RPAS:सैन्य परीक्षण की कमियों को दूर करेगा**

RPAS भारतीय वायु सेना के विमानों और मानवरहित हवाई-जहाजों में आने वाली ऑपरेशनल परेशानियों को दूर करेगा। यह पैदल सेना बटालियन (इन्फैंट्री) और मशीन यूनिट्स की निगरानी, खोज और सैन्य परीक्षण की कमियों को दूर करते हुए भारतीय सेना को सशक्त बनाएगा।



RPAS का उपयोग सैन्य मशीन यूनिट्स की निगरानी के लिए किया जाएगा।

ऊपर बताए गए हथियारों और डिफेंस सिस्टम के अलावा टी-90 टैंक्स के लिए थर्मल इमेजिंग साइट, हाथ में पकड़ने वाले थर्मल इमेजर, फ्रीक्वेंसी हॉपिंग रेडियो और रिकॉर्डिंग की सुविधा के साथ डाउनलिनक इक्विपमेंट भी सेना को दिए गए हैं।



## इन हथियारों से भी बढ़ेगी सेना की ताकत

### थर्मल इमेजिंग साइट:

यह रात के अंधेरे में 8 किमी दूर तक दुश्मन को ढूंढ सकती है। इसमें लेजर रेंज फाइंडर भी है, जो 5 किमी दूर तक के टारगेट को सटीक पहचान सकता है।



### थर्मल इमेजर:

इंफ्रारेड लाइट्स के जरिए किसी भी चीज को पहचानता है। यह धुएं, धुंध, कोहरे और रात में भी किसी चीज को पहचानने की क्षमता रखता है।



### फ्रीक्वेंसी हॉपिंग रेडियो:

यह लगातार अपनी फ्रीक्वेंसी बदलता रहता है। इससे दुश्मन हमारी बातों को नहीं सुन पाएगा।

### डाउनलिक इन्विपमेंट:

निगरानी करने वाले हेलिकॉप्टर्स की मदद करेगा। यह सैनिकों के परीक्षण और जासूसी के डेटा को रिकॉर्ड कर सकेगा।



### ड्रोन सिस्टम: लाइन ऑफ

एक्चुअल कंट्रोल से लगे बॉर्डर इलाकों में दुश्मन की सेना पर नजर रखेगा।

Source: PIB

<https://www.bhaskar.com/db-original/explainer/news/indian-army-modern-weapons-f-insas-defense-system-nipun-mines-130198019.html>

## Startup helps army make a quantum leap in secure comms

India is about to join the league of select advanced countries who are developing quantum technology for secure communication. QNu Labs, a Bengaluru-based startup, will provide Indian military Quantum Key Distribution (QKD) technology which is considered unhackable.

After successful trials, Indian Army is issuing Request For Proposal to QNu Labs for procurement of QKD systems. Defence Secretary Dr Ajay Kumar has termed the event as a befitting success story of Aatmanirbhar Bharat because QNu Labs has developed the technology indigenously. India joins the US, Canada, China and a few European countries which are developing QKD for strategic and commercial uses.

The QKD project was curated by Innovation for Defence Excellence (iDEX) and Defence Innovation Organisation (DIO). Launched in April 2018, iDEX is a defense tech incubator that aims to achieve self-reliance and foster innovation. QNu Labs had won an Open Challenge launched by iDEX.

In February this year, DRDO and IIT Delhi demonstrated a QKD link between Prayagraj and Vindhyachal in Uttar Pradesh, a distance of more than 100 kilometres.

QKD may sound like just another esoteric tech, but its application has far-reaching implications for everyone. That's why many countries are rushing to build QKD for both military and civil uses.

### What is QKD?

QKD is a data encryption technology based on quantum mechanics as opposed to the existing encryption technologies which are based on mathematics. As power of computing rises, existing data encryption methods based on complex mathematical calculations will not remain as secure.

QKD is so called because it encrypts data in quantum states. Roughly speaking, an unknown quantum state gets disturbed when it is measured. QKD uses this principle to secure communication between two parties from malicious third-party eavesdropping.

For two parties to communicate securely, QKD produces a shared random key which is used to encrypt and decrypt messages. QKD encodes each bit of the key on a single photon, a particle of light, transmitted through optical fiber. If a third party tries to eavesdrop, it must measure the key in some way. Any attempt to measure the photons alters their encoding. And that alters the key, alerting the two parties to the anomaly.

According to Toshiba, a market leader in QKD, unlike other existing security solutions, QKD is secure from all future advances in mathematics and computing, including the data processing power of a quantum computer.

### Why does QKD matter so much?

Since everything involves communication channels these days, any disruption in a channel can cause havoc. You can lose your privacy, your money or, if someone hacks the electricity grid,

the power at your home. Firms can lose money and confidential business data to hackers. During a war, a country can be totally disabled by hacking into its defence and infrastructure systems. In short, data security has become as important as the security of life.

As computing technology advances, there are new ways to hack into computer networks. Interestingly, just when quantum computing threatens existing encryption methods, the world is looking at QKD, a solution based on quantum mechanics itself.

Spread of internet technologies at a maddening speed in every sphere of life may have made life easier, but it has also left us vulnerable. We are as secure as our data. Defence, banking, aerospace, health, corporate, pharmaceuticals and critical R&D sectors will benefit from QKD technology since security of data is of key importance in these sectors.

### **Why is QKD important for India?**

Though any country would want to have the latest technology for its defence systems, the one-word answer to the question why India needs it so much is China.

If we believe claims made by China, it is miles ahead of India in QKD. While India has demonstrable capacity for QKD linkage over a distance of 100 kilometres, China claims to have built a QKD network spanning 4,600 km—the longest in the world—which includes a link between Shanghai and Beijing.

Since QKD works the best through fibre-optic transmission, it needs elaborate physical infrastructure. Even that has limits because signals attenuate over long-distance transmission. Free-space transmission through satellites is an option, though that too has its challenges as photons are sensitive to light. Satellite transmission doesn't rule out attenuation of signal. It is at an initial stage of development but China is leading this effort.

Last month, China's Lijian quick-response rocket carried to space a satellite that will conduct QKD experiments in lower-Earth orbit. In 2016, China launched the world's first QKD satellite Mozi and achieved QKD transmission between two ground stations 2,600 km apart.

Thanks to Mozi, free-space QKD transmission is part of China's Beijing-Shanghai network. Such a large QKD network is not possible with optical fibre cables. Mozi also plays critical role in China's public infrastructure. China's electricity grid, the largest in the world, is secured with free-space QKD technology through Mozi.

It's plain to see that a China protected by QKD technology won't need a war to defeat an India that has just conventional protection for its communication systems. A series of cyber attacks can disable India to the extent that it won't remain able to fight effectively.

India too has demonstrated free-space QKD capacity but it just doesn't compare with China. Last year, Indian Space Research Organisation demonstrated free-space QKD communication over a distance of just 300 meters. China claims to have that capacity for thousands of kilometres. The transmission was demonstrated at Space Applications Centre, Ahmedabad, between two line-of-sight buildings on the campus.

If you believe China's claims and compare them to India's achievement, India has a long way to go.

<https://www.livemint.com/opinion/online-views/mint-explainer-startup-helps-army-make-a-quantum-leap-in-secure-comms-11660733877632.html>

Thu, 18 Aug 2022

## **Kanpur's OFC & Field-Gun Factory to Manufacture Parts for Advanced Arjun Tank**

One of the 41 centres established under the aegis of Ordnance Factory Board, Ordnance Factory (OFC) Kanpur has been a supplier of arms and ammunition equipment to the Indian Army for over 7 decades. Now, as per the latest plans, this production centre along with the field-gun factory in Kanpur has been given the charge of manufacturing barrel and breach mechanism components for Arjun Tank Mark 1A. Alternatively named as 'Hunter Killer', the tank is being produced by using 100% indigenous technology.

According to reports, a total of 114 Arjun tanks have been ordered for development in the next 3 years. It is said that the two components occupy a significant position in determining the strength of the military vehicle. With the addition of 71 new features as compared to the old tank and an improved target range of 5 Km, the latest tank is being touted as a 'world-class' development. It is to be noted that the design and framework of this advanced tank have been prepared by the Defence Research & Development Organisation.

As per the reports, the Indian Army currently has 124 old Arjun Tanks that have been deployed for usage on the India-Pakistan border in Jaisalmer. Evaluating the improvement areas of the old tanks, the army had recommended a list of 71 features that have been Incorporated in the DRDO's revamped version of the Arjun Tank. The new tank comes with greater firing strength, precise target detection, transmission system amongst other provisions. Additionally, the tank can now spot the target on its own.

With a crew consisting of commander, gunner, loader and driver, the tank would traverse its paths clearing all obstacles on the battlefield. Also, the tank contains the special facility to detect any chemical attack and an alarm that would warn of an impending nuclear bomb attack.

It is noteworthy here than the defence manufacturing in Kanpur is all set to witness huge investments from the public and private sector companies in the near future. While notable government companies like HAL and Bharat Dynamics Limited are looking for lands for their proposed projects, 5 private companies have also planned to install defence production units in Kanpur.

<http://www.indiandefensenews.in/2022/08/kanpurs-ofc-field-gun-factory-to.html>



*Wed, 17 Aug 2022*

## **Indian Army Gets Made-In-India Drone Systems To Monitor LAC**

Defence Minister Rajnath Singh handed over indigenously-developed equipment and systems to the Indian Army in New Delhi on August 16, 2022. These include Future Infantry Soldier as a System (F-INSAS), new generation anti-personnel mine 'Nipun', rugged and automatic communication system with enhanced capabilities, upgraded sights system for tanks and advanced thermal imagers.

State-of-the art high mobility Infantry Protected Vehicles and Assault Boats were virtually handed over by Raksha Mantri enabling the troops deployed along the borders to respond to any challenge in a befitting manner. The equipment/systems have been jointly developed by Indian Army in collaboration with Defence Public Sector Undertakings, Defence Research & Development Organisation (DRDO) and the Industry.

One of the key additions to the firepower of the Indian Army is the new Mini Remotely Piloted Aerial System (RPAS)

RPAS removes the operational limitations faced by the Indian Air Force aircraft and the heron Unmanned Aerial Vehicles at tactical level.

It empowers the Indian Army by removing the restricted capability for surveillance, detection and reconnaissance at the infantry battalion and mechanised units level.

<https://www.news18.com/news/tech/indian-army-gets-made-in-india-drone-systems-to-monitor-lac-watch-video-5765485.html>



*Wed, 17 Aug 2022*

## **AK-203 assault rifles manufactured in Amethi, handed over to indian army**

Under the leadership of PM Narendra Modi, India is continuously emerging as a self-reliant nation. The AK-203 assault rifles manufactured in Amethi, Uttar Pradesh, are a living example of this. Amethi is the same district whose political identity was once from the Gandhi family, but now the MP there is Smriti Irani and during this time Amethi has got a new identity. Rajiv



Gandhi was MP from the Amethi seat for 10 years, Sonia Gandhi for 5 years and then Rahul Gandhi for 15 years, but there was no significant change in the condition of the area. Today, AK-203 rifles are being made with the technical help of Russia in the same Amethi.

On Tuesday, August 16, the Indian Army also received its first consignment. Union Defence Minister Rajnath Singh has handed over the first batch to the Army. These rifles are being developed in collaboration with the Russian government under the 'Make in India' initiative of the central government. In the year 2019, PM Narendra Modi announced that the Amethi district of UP will be identified with AK-203 rifles. However, today, after three years, PM Modi's words have come true. The country's brave soldiers will now have an AK-203 assault rifle in their hands.

Let us know that AK-203 assault rifles are counted among the best rifles in the world. It is being manufactured at the Ordnance Factory located in the Hindustan Aeronautics Limited (HAL) Korwa campus in Amethi. At present, the production of 5 lakh rifles has got the green signal. Their construction work is going on in a rapid pace.

<https://english.newstracklive.com/news/ak-203-assault-rifles-made-in-amethi-hand-over-to-indian-army-mc25-nu764-ta322-1245255-1.html>

## THE ECONOMIC TIMES

*Wed, 17 Aug 2022*

### **India monitors any development in its neighbourhood which has bearing on its security issues: Jaishankar**

India monitors any development in its neighbourhood which has a bearing on its security, External Affairs Minister S Jaishankar said on Wednesday, as a high-tech Chinese research vessel docked at a strategic port in Sri Lanka. Jaishankar, who arrived here on Tuesday to attend the 9th India-Thailand Joint Commission Meeting, made the remarks when asked about the docking of the ballistic missile and satellite tracking ship 'Yuan Wang 5' at the Hambantota port in Sri Lanka on Tuesday.

"What happens in our neighbourhood, any development, which has a bearing on our security issues, is of interest to us," Jaishankar said while replying to a question during a press conference along with his Thai counterpart Don Pramudwinai after the joint commission meeting. "I think a spokesman had said some time ago, we obviously monitor any development, which has a bearing on our interests very, very carefully. So, I think I will leave at that," he said.

The Chinese vessel will be docked at the southern Sri Lankan port till August 22 for replenishment, Sri Lankan officials said.

The ship was originally scheduled to arrive at the Chinese-run port on August 11 but it was delayed in absence of permission by the Sri Lankan authorities. Sri Lanka had asked China to defer the visit amid India's concerns over it.

On Saturday, Colombo granted the port access to the vessel from August 16 to 22 on condition that it will keep the Automatic Identification System (AIS) switched on within the Exclusive

Economic Zone (EEZ) of Sri Lanka and no scientific research to be conducted in Sri Lankan waters. Sri Lanka has said that the security clearance was granted from the Ministry of Defence for the visit of the vessel for replenishment purposes during the stipulated period. It said no rotation of personnel would take place during the port call and the Sri Lankan government was requested to provide the necessary assistance by the Chinese Embassy in Colombo.

The security and cooperation in the neighbourhood are of utmost priority in handling the issue of the Chinese vessel, the Sri Lankan Foreign Ministry said in a statement last week. The local telecommunications regulatory authority had issued a No Objection Letter for the use of frequencies and communication equipment subject to non-interference and non-protection basis tracking systems attempting to snoop on Indian defence installations while being on its way to the Sri Lankan port.

China says the ship is used for scientific research, but the US Defense Department says the ship is under the command of China's People's Liberation Army (PLA) and is capable of tracking satellites and missile launches. China's Ministry of Foreign Affairs said on Tuesday the ship is conducting scientific research "in accordance with international law." It "does not affect the security and economic interests of any country, and should not be interfered with by third parties," foreign ministry spokesman Wang Wenbin said in Beijing. The ship's arrival at the Hambantota port became controversial as China leased the port from Sri Lanka in 2017 for 99 years after Colombo failed to pay debts related to the construction of the facility. The arrival of the Chinese ship came a day after India gifted a Dornier maritime reconnaissance aircraft to Sri Lanka which will enable the island nation to tackle multiple challenges like smuggling and other organised forms of crime in its coastal waters more effectively.

<https://economictimes.indiatimes.com/news/defence/india-monitors-any-development-in-its-neighbourhood-which-has-bearing-on-its-security-issues-jaishankar/articleshow/93620476.cms>



*Wed, 17 Aug 2022*

## **This maritime partnership is still a work in progress**

*By Abhijit Singh*

The docking of the USNS *Charles Drew*, a United States Navy dry cargo ship, for repairs at an Indian facility in Chennai last week, marks an important first in the India-U.S. military relationship. Although bilateral strategic ties have advanced considerably over the past decade, reciprocal repair of military vessels was still a milestone that had not been crossed. With the arrival of *Charles Drew* at the Larsen and Toubro (L&T) facility at the Kattupalli dockyard, India and the U.S. seem to have moved past a self-imposed restriction.

### **Signs of a broader template**

As some see it, a renewed sense of optimism now drives India-U.S. relations. During the bilateral 2+2 dialogue held in April this year, the two countries agreed to explore the possibilities of using Indian shipyards for the repair and maintenance of ships of the U.S. Military Sealift

Command (MSC). In the weeks following that meeting, the MSC carried out an exhaustive audit of Indian yards, and cleared the facility at Kattupalli for the repair of U.S. military vessels.

The docking of a U.S. military vessel at an Indian facility has both functional and geopolitical implications. Functionally, it signals a more efficient leveraging of the Logistics Exchange Memorandum of Agreement (LEMOA) — the military logistics agreement India signed with the U.S. in 2017. Thus far, India-U.S. cooperation under the pact had largely been confined to the exchange of fuel and stores during joint exercises and relief operations. With the arrival of a U.S. military vessel at an Indian dockyard, the template of logistics cooperation seems to have broadened. There is a good possibility now that India would seek reciprocal access to repair facilities at U.S. bases in Asia and beyond.

Many in India, meanwhile, are seeing the U.S. ship's docking as a global endorsement of Indian shipbuilding and ship-repair capabilities. In recent years, New Delhi has sought to showcase its private shipyards, in particular the L&T, which has developed significant ship design and construction capability at its yards in Hazira (Gujarat) and Kattupalli. At a time when the Indian Navy has taken delivery of the INS *Vikrant*, the country's first indigenously constructed aircraft carrier, the spirits of Indian shipbuilders are already riding high. As Indian observers see it, the presence of the USNS *Charles Drew* in an Indian dockyard is a boost for 'Atmanirbhar Bharat' and 'Make-in-India'.

### **The political signal**

Politically, too, the development is noteworthy, as it signals a consolidation of the India-U.S. partnership, and the Quadrilateral (India, Japan, Australia and the United States) Security Dialogue. Despite its intention to strengthen logistics exchanges among Quad members, New Delhi has desisted from offering foreign warships access to Indian facilities. Notwithstanding the odd refuelling of foreign warships and aircraft in Indian facilities, India's military establishment has been wary of any moves that would create the impression of an anti-China alliance. Yet, Indian decision makers evidently are willing to be more ambitious with the India-U.S. strategic relationship. New Delhi's decision to open up repair facilities for the U.S. military suggests greater Indian readiness to accommodate the maritime interests of India's Quad partners.

For Washington, the strategic implications of the docking in India are no less tangible. This is an incremental step forward in the U.S. moving to bolster its military presence in the Eastern Indian Ocean. Recent assessments of the evolving security picture in the Indian Ocean point to the possibility of China's military expansion in the Asian littorals, holding at risk U.S. and European assets. Reportedly, the North Atlantic Treaty Organization (NATO) has been readying to play a more active security role in the region. New Delhi's offer of repair services for U.S. military vessels could kickstart a process that would culminate in India opening up its naval bases for friendly foreign warships. At a time when New Delhi has shied away from backing the U.S. position in the Russia-Ukraine war, greater India-U.S. synergy in the Indian Ocean littorals could galvanise the supporters of closer bilateral ties. It would revive talk about the bilateral as a defining partnership in the Indian Ocean, and of India's potential to counter China in the Indian Ocean. Coming on the heels of the delivery of the first two U.S. manufactured MH-60R (Multi Role Helicopters) to India (with a third craft due to arrive later this month) the visit of the USNS *Charles Drew* has given Indian and U.S. observers much to be optimistic about.

### **CMF cooperation**

Meanwhile, the Indian Navy has formally commenced its cooperation with the Bahrain-based multilateral partnership, Combined Maritime Forces (CMF), as an ‘associate member’. This comes months after India had announced its intention to join the grouping in furtherance of its regional security goals. India’s political and military leadership is seeing this as a demonstration of Indian commitment towards the collective responsibility of ensuring security in the shared commons.

Indian analysts, however, ought not to overread developments, as extrapolating from perceived trends can often be misleading. The reality is that the India-U.S. relationship is still some way from crossing a critical threshold. For all the hype in the media surrounding India’s membership of the CMF, the modalities of the engagement are still being worked out. The Indian Navy, it seems, has stopped short of formally joining the group, of which the Pakistan Navy is a key member. According to the CMF website, “associate members provide the assistance that they can offer, if they have the time and capacity to do so, whilst undertaking national tasking”. This is not unlike India’s earlier model of cooperation, whereby the Indian Navy worked alongside CMF and other security forces in the Western Indian Ocean on a need-to basis — all while operating independently, and under the broader banner of the United Nations. Despite increased engagement with the U.S. Navy, India’s liaison officer at the U.S. Navy component (NAVCENT, or the U.S. Naval Forces Central Command) in the U.S. Central Command (CENTCOM) is still the military attaché at the Indian Embassy in Bahrain.

#### **Limited in scope now**

Even with the docking of the U.S. vessel at Kattupalli, Indian analysts ought to recognise that the U.S. military sealift command has no warships. The MSC is charged with delivering supplies to U.S. bases, and deals only with transport vessels of the U.S. Navy. The agreement with India for the repair of U.S. military vessels is limited to cargo ships. U.S. decision makers are unlikely to seek Indian facilities for repair and replenishment of U.S. destroyers and frigates in the near future until New Delhi is clear about the need for strategic cooperation with the U.S. Navy.

By many accounts, then, the India-U.S. maritime relationship remains a work in progress. There has doubtless been some movement ahead, but it is far from clear whether navy-to-navy ties are headed towards a wide-ranging and comprehensive partnership in the Indian Ocean littorals.

<https://www.thehindu.com/opinion/op-ed/this-maritime-partnership-is-still-a-work-in-progress/article65780441.ece>

# **The Tribune**

*Thu, 18 Aug 2022*

## **Tackle conflict with joint politico-military approach**

*By Lt Gen DS Hooda (retd)*

As India celebrated 75 years of Independence, Indian Army soldiers guarding the borders did not have the luxury of a holiday. Instead, just as they have been doing for the past 75 years, they were in a state of eternal vigil, manning their posts, patrolling the Himalayas and preventing terrorist acts. Since Independence, India has achieved enormous successes and become an

influential power that commands global respect. However, there is much also that remains to be done. While many institutions have contributed to India's rise, I will trace the role played by the Indian Army and the challenges it needs to confront as it looks ahead.

The Indian Army has been in a continuous state of conflict since 1947. Two months after Independence, it was engaged in its first and longest war in Jammu and Kashmir. Over a period of more than a year, the Army secured the Kashmir Valley, recaptured Rajouri, linked up with Poonch and opened the route to Leh. Without these successes, India's control over Jammu and Kashmir would have been almost impossible.

The debacle of the 1962 war and the near-stalemate of the 1965 war gave valuable lessons that led to the finest hour of the Indian Army in 1971. This war firmly established India's primacy in South Asia. Although 1971 was the last major war fought by the Indian Army, there has been no period of calm for the soldiers. The Indian Peace Keeping Force to Sri Lanka in the late 1980s, the Kargil conflict in 1999 and the ongoing insurgencies and counter-terrorist operations in Jammu and Kashmir and the Northeastern states have seen the Army in continuous conflict.

There have been some setbacks, but on balance, the Army can be justifiably proud of its contribution to India's post-Independence history. It must now consider the challenges that lie ahead.

The first of these is in the handling of our internal conflicts. The Indian Army has achieved significant success in controlling insurgencies in the Northeast states. In Jammu and Kashmir, violence has reduced significantly from the peak levels of the early 2000s, though terrorists still retain the ability to carry out some high-profile attacks. The Army now needs to consider transiting from the conflict-management stage to the conflict-resolution stage.

It is often stated that the soldiers' job in an internal conflict is to bring the violence under control by weakening the insurgent organisations. Thereafter, it is for the political leadership to initiate steps for a permanent resolution of the problem. Unfortunately, this siloed approach has often meant that military success and political initiatives are not integrated while planning the strategy.

Conflict resolution requires a combined politico-military approach. This should not be seen as the Army overstepping its turf but as operating in line with the political guidelines set by the government. This will strengthen civil-military relations, which are currently characterised by an absence of serious dialogue on strategic matters. Military leaders must seek clear political objectives and give frank, professional advice on how they view the success or failure of the ongoing strategy. If our internal conflicts can be resolved, it will not only strengthen India's national security but also free the Army for its primary role of defending the nation from external threats.

And, the external threats have grown as China looms large on the security landscape. With the confidence-building measures that held peace along the Line of Actual Control in shreds, the Indian Army is realigning its military posture toward the northern borders. This is a welcome step, but much more comprehensive actions are required to deal with a future military threat from China.

The first step is to develop a combined warfighting strategy for the northern borders. This must take into consideration the People's Liberation Army's expanding capabilities in cyber, electronic warfare, missile force and space. The warfighting strategy will suggest organisational structures and the type of capabilities required for the future.

Some reports suggest that the Army has decided to cut its strength by around two lakh over the next two to three years. This will demand a fresh look at the current organisations and the need for creating new structures for enhancing capability in the fields of long-range systems, cyber operations, information warfare, unmanned systems etc.

Even as the Army inducts modern weapons into its arsenal, it must also deal with the churn in its human resource management. The Agnipath scheme is a radical change in the system of recruitment and concerns have been expressed about its impact on the character and professionalism of the Indian Army. The leadership in the Army, particularly at the middle and junior levels, will have to lead from the front to ensure that the Agniveers maintain the same levels of motivation that have traditionally characterised the soldiers of the Indian Army.

There is some talk today about the Army's existing ethos, culture and traditions. There have been calls to indigenise military customs and change some traditional practices that are termed a colonial legacy. Changes can certainly be made, but only after a serious debate within the Army on the impact of tampering with the traditions and the ethos that have been the foundation of its professionalism.

The key ingredients of the military ethos are constant across democracies, cultures and times. The ethos is unique and promotes values like honour, self-sacrifice, courage, loyalty and comradeship. It accepts the supremacy of civilian rule and fosters diversity. When the Army units celebrate battle honour days dating back to pre-Independence times, they pay tributes to battles where officers and soldiers of different faiths came together to answer the call of duty, often at the cost of their lives. There are valuable lessons in this history.

Each period of time comes with its unique set of challenges. The Indian Army must display the agility to reform to meet these challenges while ensuring that its institutional strength and values are not diluted. It is the institutional mettle of the Army that has earned it the trust of Indian citizens.

<https://www.tribuneindia.com/news/comment/tackle-conflict-with-joint-politico-military-approach-422711>

## THE ECONOMIC TIMES

*Thu, 18 Aug 2022*

### **NSA Ajit Doval meets Patrushev in Moscow to discuss steps to boost strategic ties**

National Security Advisor (NSA) Ajit Doval on Wednesday met his Russian counterpart Nikolay Patrushev in Moscow to discuss measures to boost strategic partnership across sectors including defence, security, energy, counterterrorism and Afghanistan, among others. In what was low-profile but important visit, Doval and Patrushev, with whom he shares strong chemistry, reviewed progress on bilateral and regional issues regarding the situation in Afghanistan, energy

security, defence ties, counterterrorism and the status of war in Ukraine, ET has learnt. Patrushev is one of the closest confidantes of Russian President Vladimir Putin. Patrushev visited India twice last year including for the newly created Indo-Russian mechanism on Afghanistan as India expands its diplomatic presence in Kabul, coordination with Moscow is key, sources said. Counterterror cooperation in AfPak region and Central Asia were also among the talking points.

A key item on the agenda of the visit was expectedly defence ties including maintenance and servicing of Russian origin defence equipment in India, besides new projects as outlined at the last annual summit held here. The two sides had concluded a 10-year defence roadmap on that occasion. The two sides are reportedly negotiating leasing of six long range strategic bombers from Russia.

Russia has appreciated India's neutral and balanced position on Ukraine. Reports suggest Russia has become India's second-largest supplier of crude oil. India is also a big buyer of fertilisers and coal from Russia. The International North South Transport Corridor via Iran has helped increase Indo-Russian trade manifold. Indian retail chain stakeholders are also increasing their presence in Russia as the Western brands withdraw. India has also announced trade with various countries in national currencies. Meanwhile, India has taken note of the Ukrainian foreign minister's comments on Kiev's attempts to widen ties with Pakistan. Sources pointed out that Ukraine and Pakistan have shared close defence partnership and Ukraine did not back India on Kashmir at the UN Security Council. India has also taken note of the Ukrainian foreign minister's comments on New Delhi's purchase of Russian oil – which the government here considers critical for its population. Meanwhile, Deputy NSA Vikram Misri is representing India at SCO NSA meet in Tashkent on Thursday & Friday.

<https://economictimes.indiatimes.com/news/india/nsa-ajit-doal-meets-patrushev-in-moscow-to-discuss-steps-to-boost-strategic-ties/articleshow/93627290.cms>

# ThePrint

*Wed, 17 Aug 2022*

## **Chief of Royal Malaysian Navy lays wreath at National War Memorial**

Chief of Royal Malaysian Navy, Admiral Tan Sri Mohd Reza Mohd Sany paid his respects to the fallen soldiers while laying a wreath at the National War Memorial in New Delhi today.

The Malaysian Navy Chief is on a two-day visit to India in order to further strengthen the military ties between both nations.

Meanwhile, the four-day-long joint exercise “Udarashakti” between the Indian and the Malaysian Air Force culminated on August 16.

The exercise came to an end with a traditional closing ceremony hosted by the Royal Malaysian Air Force in Kuala Lumpur and was marked with a 7-aircraft formation flypast by both the Air Forces and an exchange of mementoes between the contingent leaders. “The four-day #ExUdarashakti culminated on 16 Aug 22 with a traditional closing ceremony hosted by

#RMAF. The ceremony was marked with a 7 aircraft formation flypast by both Air Forces & exchange of mementoes between the contingent leaders,” the Indian Air Force tweeted on Twitter.

With Su-30 MKI aircraft, supported by C-17 and IL-78 Air-to-Air refueller aircraft, the Indian Air Force arrived in Malaysia on August 12 to participate in a bilateral air exercise ‘Udarashakti’ with their Malaysian counterparts. This is the first bilateral exercise being conducted between the Indian and Royal Malaysian Air Force (RMAF).

The four days of exercise witnessed various aerial combat drills between the two Air Forces.

Notably, exercise Udarashakti also fortified the long-standing bond of friendship and enhance the avenues of defence cooperation between the two Air Forces, thereby augmenting security in the region.

The Indian contingent departed from one of its air bases directly for their destination, the RMAF base of Kuantan to share and learn best practices with some of the best professionals from RMAF, while also discussing mutual combat capabilities.

<https://theprint.in/world/chief-of-royal-malaysian-navy-lays-wreath-at-national-war-memorial/1086044/?amp>



*Wed, 17 Aug 2022*

## **India, China troops will attend military drill hosted by Russia**

Indian and Chinese soldiers will take part in a week-long multi-country drill in Russia starting later this month, with troops from the two countries practising military manoeuvres together in the backdrop of the ongoing border tension in eastern Ladakh and the war in Ukraine.

Led by host Russia, the drill will include troops from India, Belarus, Mongolia, Tajikistan and other countries besides China, the Chinese defence ministry said in a brief statement on Wednesday. The drill, which will be held between August 30 and September 5 at various military facilities in Russia, is likely to be closely tracked globally given the ongoing Russian invasion of Ukraine.

While there was no official comment from the ministry of external affairs in New Delhi, people familiar with the matter said both countries have sent troops for such exercises in the past in keeping with multilateral commitments to cooperate on defence and security issues.

Indian Army officials, too, refused an official comment on the upcoming drills, but said there have been instances of India and China taking part in multi-nation drills, including one held in Russia last year, before, too.

The Chinese defence ministry said the exercise is “unrelated” to the current international and regional conditions. The Russian government confirmed the “Vostok” (East) drills last month without sharing details.



The Chinese defence ministry confirmed the exercise and shared some more details on Wednesday. “In accordance with the annual plan for cooperation between the armed forces of the two countries and the bilateral agreements, the PLA (People’s Liberation Army) will soon delegate and send part of its forces to Russia for participation in the Vostok-2022 exercise,” the Chinese statement said.

“China’s participation aims at enhancing strategic coordination among the participating nations and strengthening the ability to respond to security threats,” the ministry statement said, according to official media.

Reacting to the development, former Northern Army commander Lieutenant General DS Hooda (retired) said: “I don’t attach too much significance to India and China taking part in these multi-nation drills against the backdrop of the Ladakh standoff. What will be more significant is restarting the India-China bilateral Hand-in-Hand exercise, which does not appear likely at the moment.”

In a statement in July, the Russian government said troops from the country’s eastern military district will take part in the drills and that it will be held across 13 military facilities.

“The drills will bring together the airborne forces, long-range and military transport aircraft and also military contingents of other countries,” the Russian statement, quoted by official news agency Tass, said.

Russia’s eastern military district includes part of the remote Siberian region and its headquarters is in Khabarovsk, located some 30km from the Chinese border.

Tens of thousands of troops from India and China are deployed on either side of LAC in eastern Ladakh as the two countries struggle to resolve the worst chill in ties in decades.

The only military exercise held between India and China, the counterterrorism “Hand-in-Hand” drill, remains suspended. The eighth and last round was held in December, 2019, in Umroi, Meghalaya.

<https://www.hindustantimes.com/world-news/india-china-troops-will-attend-military-drill-hosted-by-russia-101660760739000.html>

## **Business Standard**

*Thu, 18 Aug 2022*

### **China wants military posts in Pakistan to safeguard BRI investments**

As part of its ambitious Belt and Road Initiative, China has made significant investments in the conflict-prone Pakistan-Afghanistan region.

China is planning to protect its interests in the two Asian countries by stationing its own forces in specially designed outposts, according to top diplomatic sources.

China has made significant investments in Pakistan and Afghanistan to further its goal of expanding its influence in the region.

China is a major source of financial, military and diplomatic support for Pakistan, and according to some estimates, the Chinese investments have exceeded \$60 billion.

Given the huge imbalance of power in its favour, China started putting pressure on Pakistan to allow the construction of posts where it would station its armed personnel.

However, Afghanistan, where the Taliban is currently in power, still has to meet the expectations of China and Pakistan on many counts.

Top diplomatic and security officials in Islamabad, who requested anonymity for this report, are convinced that China's People's Liberation Army is working at a war scale to establish military posts in Pakistan and Afghanistan to support its operations and expansion of its Belt and Road Initiative.

A diplomatic source claims that Chinese Ambassador Nong Rong discussed the issue in a meeting with Pakistan's Prime Minister Shehbaz Sharif, Foreign Minister Bilawal Bhutto, Pakistan's Foreign Ministry, Army and leaders of its Prime Minister's Office.

Ambassador Rong has recently arrived in Pakistan and has not been there since the end of March 2022.

However, the meeting in which he demanded the creation of outposts for Chinese forces was perhaps the first formal meeting between Ambassador Rong with the new government and state representatives.

According to sources, the Chinese ambassador has continuously been insisting on the security of Chinese projects and safety of its citizens.

Apart from requesting the use of Gwadar International Airport for its fighter jets, China has already demanded security outposts in Gwadar.

Another top source revealed that the facility, which could be used for military purposes, will soon become operational as revealed from its fencing.

However, the issue has its own sensitive dimensions as the Pakistani people may not be comfortable with a heavy Chinese military presence in the country.

There are concerns that Pakistan is already mired in a debt-trap-like situation and that Chinese tactics could leave it no better than a colony.

Both China and Pakistan have different concerns regarding Afghanistan. Both Pakistan and China expected unwavering support from the landlocked nation after the Taliban's takeover. However, this has not materialised fully.

Keeping Indians out of Afghanistan was one of the topmost priorities for Pakistan. But the Kandahar-based Taliban have not too much of a liking for Pakistan that would allow it to call the shots.

The Taliban have a strong desire for an independent foreign policy, including ties with India. Even Taliban Defence Minister Mullah Yakub has suggested military training in India.

However, this was not the only instance in which Pakistan expected the newly-elected Afghan government to comply with its demands.

Taliban and especially the groups affiliated to the Haqqanis were expected to facilitate the destruction of the Tehreek-e-Taliban Pakistan and hand over wanted militants to the Pakistani army.

It soon became clear that Haqqani would not comply. The reason being that the Kandaharis and some of the TTP leaders shared the same ancestral background. The Pakistan Army had no option but to engage in complex ceasefire talks with the TTP.

On one side, Pakistan is trapped in the debt-trap diplomacy of China, while on the other hand, the Chinese administration is constantly reminding them that they do not have trust in the Pakistani security apparatus.

Pakistan does not want to annoy China from whom it repeatedly takes financial aid. However, the acceptance of the demand would not only dent its global image further it could also lead to domestic complications, say sources who requested anonymity for this report due to their proximity to decision makers in the country.

[https://www.business-standard.com/article/international/china-wants-military-posts-in-pakistan-to-safeguard-bri-investments-122081800008\\_1.html](https://www.business-standard.com/article/international/china-wants-military-posts-in-pakistan-to-safeguard-bri-investments-122081800008_1.html)



*Wed, 17 Aug 2022*

## **China tests air defence system in high altitude region: What is the HQ-17A?**

According to reports, China's People's Liberation Army(PLA) tested its new surface-to-air defence missile HQ-17A in the high-altitude region ahead of India, US military exercise near the Line of Actual Control(LAC).

Reports said earlier India and the US were set to conduct military exercises in Uttarkhand near the China border next month. China had conducted large-scale military exercise near Taiwan after US House Speaker Nancy Pelosi's visit to the island nation.

Reports claimed a missile hit a plane as China tested its HQ-17A short-range air defence missile.

### **What is the HQ-17A short-range air defence?**

PLA's Xinjiang Military Command had commissioned the HQ-17 air defence missile system this year after it first appeared during the National Day military parade in October 2019. The Global Times said HQ-17A air defence missile system is an integrated "search radar, guidance radar, air defence radar and command system". It is hosted on a vehicle and can conduct long-range detection and launch missiles while on the move.

Reports claim the missile is based on the Russian Tor-M1 surface-to-air missile defence system. HQ-17 can also "data-link" with other Chinese systems.

The missile weighs 165 kg and can intercept flying objects at a distance of 1.5 km to 15 km.

### **HQ-17A deployed with Xinjiang Military Command**

The Xinjiang Military command is responsible for the India-China border area. Tensions between the two countries had peaked in June 2020 along the LAC as soldiers from both sides clashed leading to the deaths of 20 Indian soldiers and 4 PLA fighters. However, reports claimed the casualties among the PLA were much higher.

PLA's Xinjiang Military Command also received artillery and multiple rocket launch systems in January, China's state-run Global Times reported. The arsenal included self-propelled howitzer and multiple rocket launcher systems.

The reports said more units would get advanced gear as China ramps up its military along the Indian border.

<https://www.wionews.com/world/china-tests-air-defence-system-in-high-altitude-region-what-is-the-hq-17a-507624>



*Thu, 18 Aug 2022*

## **Russia's 5th-Gen Stealth Fighter 'Su-75 Checkmate' To Start Flight Testing By 2024; Looks To Compete With Gripen, F-35A**

The Sukhoi Aircraft Company, a division of United Aircraft Corporation, debuted its latest domestic single-engine fighter, the Checkmate, at the MAKS 2021 international airshow, which took place in the suburban town of Zhukovsky outside Moscow.

On August 16, the CEO of United Aircraft Corporation, a division of the state-owned Rostec, spoke to TASS about their plans at the Army 2022 international military-technical forum.

The Russian Defense Ministry is hosting the Army 2022 international military-technical forum from August 15 to 21 at the Patriot Park near Moscow, at the Alabino practice range and the Kubinka airfield, as well as in all of Russia's Military Districts, in the Northern Fleet, and in more than 30 Russian regions.

CEO Yury Slyusar described the company's strategies while revealing that the Checkmate project uses cutting-edge supercomputer technologies. Due to this, the company can significantly shorten the prototype construction period and start the flight tests as early as 2024.

"Now preparations have been launched for the production of two prototypes. In all, we plan to build four prototypes," the chief executive said. The fighter's international debut took place at the Dubai Airshow 2021 in the United Arab Emirates. The aircraft is an offshoot of the fifth-generation Su-57 fighter.

According to Slyusar, foreign clients specified their needs for the Su-75 Checkmate fighter, and then work was done to optimize the aircraft. Since the project was introduced at the MAKS 2021 airshow, efforts have been made to gather feedback from prospective customers.

The Chief executive noted that in addition to the different requirements of the customers, work has also been done to reduce costs, analyze technical options, and significantly improve the competitive edge and commercial attractiveness of the domestic single-engine jet.

The Checkmate project has undergone modifications, and the date of the fighter's first flight has changed. He said that the United Aircraft Corporation plans to test the fighter in 2024.

### **Checkmate's Unmanned Version**

The Su-75 is predominantly being developed as an export model. The chief executive explained that the plane's modular design and a few optional features allow it to utilize the best 5th generation technologies.

The CEO also disclosed information regarding Checkmate's unmanned variant. The development of the base single-seat fighter will move forward concurrently with the development of the unmanned Checkmate, Slyusar said.

He noted that "the work on the Checkmate's unmanned version has been ongoing since the early stages of designing. The unmanned version can be created alongside the single-seat airplane.

The potential for the unmanned aircraft's flight tests will be developed as part of the outpacing work on the manned version."

The CEO said that even the baseline single-seat aircraft includes technical innovations that will speed up the development of the unmanned version. This single-seat fighter jet will be armed with "an inboard compartment for airborne air-to-air and air-to-surface armaments."

The fighter will have a payload of more than seven tones and be able to attack up to six targets simultaneously. The Checkmate fighter will have a 3,000 km operating range and be able to fly at Mach 1.8 (1.8 times the speed of sound). The aircraft will be equipped with a very effective engine.

In May 2022, Rostec CEO Sergei Chemezov revealed that Moscow will begin mass producing the fifth-generation combat fighter jet Checkmate in 2027.

Dmitry Shugayev, director of the Russian Federal Service for Military-Technical Cooperation, previously said the Russian Checkmate could be sold in the Middle East, North Africa, and Southeast Asia, potentially boosting Russian revenues in the face of severe Western sanctions.

The new combat aircraft's low cost will give it a competitive edge over other single-engine fighters. The single-engine fighter jets are more affordable and better suited to light fighter aviation tasks.

The latest stealth fighter from Russia is anticipated to compete against the American F-35A Lightning II and the Swedish JAS-39 Gripen. The Checkmate incorporates cutting-edge technology, such as its open architecture configuration to meet the customer's needs and special artificial intelligence techniques.

<https://eurasianimes.com/russias-5th-gen-stealth-fighter-su-75-checkmate-to-start/>

## **Amid global tension, US Air Force tests nuclear-capable long-range missile**

Amid the Russia-Ukraine war, rising tensions between China and Taiwan and other global issues, the US Air Force on Tuesday tested an unarmed nuclear-capable long-range missile, according to the Air Force Global Strike Command.

The unarmed Minuteman III intercontinental ballistic missile, equipped with a test re-entry vehicle, was launched from Vandenberg Air Force Base in California and travelled 4,200 miles to a test range near the Marshall Islands, reported CNN.

The missile, launched at 12:49 a.m. PT, was “to demonstrate the readiness of US nuclear forces and provide confidence in the lethality and effectiveness of the nation’s nuclear deterrent,” a statement from the Air Force said.

“This test launch is part of routine and periodic activities intended to demonstrate that the United States’ nuclear deterrent is safe, secure, reliable and effective to deter twenty-first century threats and reassure our allies. Such tests have occurred more than 300 times before, and this test is not the result of current world events,” the statement said.

The launch was originally scheduled for August 4, according to Steven Wilson, a spokesman for AF Global Strike Command, but it was delayed over concerns about China’s response to House Speaker Nancy Pelosi visiting Taiwan, CNN confirmed. A US official told CNN at the time that it was a “prudent step.”

The US regularly tests its intercontinental weapon system to verify its accuracy and reliability.

“Make no mistake – our nuclear triad is the cornerstone of the national security of our country and of our allies around the globe,” Col. Chris Cruise, 576th Flight Test Squadron Commander, said in a statement.

“This scheduled test launch is demonstrative of how our nation’s ICBM fleet illustrates our readiness and reliability of the weapon system. It is also a great platform to show the skill sets and expertise of our strategic weapons maintenance personnel and of our missile crews who maintain an unwavering vigilance to defend the homeland.”

The Minuteman III is traditionally known as the only land-based leg to the US nuclear triad. The other two parts of the triad are the Trident submarine-launched ballistic missile and nuclear weapons carried by long-range strategic bombers.

<https://theprint.in/world/amid-global-tension-us-air-force-tests-nuclear-capable-long-range-missile/1085691/>



*Wed, 17 Aug 2022*

## **Taiwan, China Hold Opposing Military Drills Amid Tensions**

Taiwan is staging military exercises to show its ability to resist Chinese pressure to accept Beijing's political control over the self-governing island, following new rounds of threatening drills from China.

The exercises Wednesday off the southeastern county of Hualien follow days of Chinese missile firings and incursions into Taiwan's sea and airspace by ships and planes from the Peoples Liberation Army, the military wing of China's ruling Communist Party.

"We strongly condemn Communist China's continuous military provocations around Taiwan's sea and air that undermine regional peace," Taiwan Defense Ministry spokesperson Sun Li-fang told reporters at Hualien Air Force Base.

"Communist China's military operations just provide us with the opportunity for combat-readiness training," Sun said.

Taiwan's Foreign Ministry spokesperson Joanne Ou said China was using recent visits by U.S. Congress members including House Speaker Nancy Pelosi as a pretext for escalating its attempts to intimidate Taiwan into accepting what it calls its terms for peaceful reunification.

"China launched military provocations on these grounds. This is absurd and a barbaric act, which also undermines regional stability and interferes with shipping and commercial activities in the Indo-Pacific region," Ou said.

"China sees the island as a breakaway province to be annexed by force if necessary, and considers visits to Taiwan by foreign officials as recognizing its sovereignty.

Alongside its military threats, China imposed visa bans and other sanctions Tuesday on Taiwanese political figures. China exercises no effective legal authority over Taiwan and it's unclear what effect the sanctions would have.

China has refused all contact with Taiwan's government since shortly after the 2016 election of President Tsai Ing-wen of the pro-independence Democratic Progressive Party. Tsai was overwhelmingly reelected in 2020.

The DPP also controls the legislature, while the vast majority of Taiwanese favor maintaining the status quo of de facto independence along with strong economic and social connections between the sides.

China accuses Washington of encouraging the island's independence through the sale of weapons and engagement between U.S. politicians and the island's government. The U.S. says it does not support independence and has no formal diplomatic ties with the island, but it is legally bound to ensure Taiwan can defend itself against threats from China, including a blockade.

Aside from putting its military on alert, Taiwan has largely played down the threat from the Chinese exercises and life has continued as normal among a population of 23 million that has lived under the shadow of bellicose rhetoric and saber rattling from China for more than seven decades.

<https://www.news18.com/news/world/taiwan-china-hold-opposing-military-drills-amid-tensions-5768905.html>

## THE ECONOMIC TIMES

*Wed, 17 Aug 2022*

### **North Korea fires two cruise missiles from west coasttown of Onchon**

North Korea fired two cruise missiles from the west coast town of Onchon early on Wednesday, a South Korean military source said, without giving details such as the missiles' range or altitude. The launches come as South Korea and the United States kicked off their fourday preliminary joint drill on Tuesday in preparation for the long-suspended live field training Ulchi Freedom Shield, which takes place from Aug 22 to Sep 1.

Meanwhile, South Korean President Yoon Suk-yeol on Wednesday said he is willing to provide phased economic aid to North Korea if it ended nuclear weapons development and began denuclearisation, as he took questions during a news conference to mark his first 100 days in office.

<https://m.economictimes.com/news/defence/n-korea-fires-two-cruise-missiles-from-west-coast-town-of-onchon/articleshow/93609158.cms>



# दैनिक जागरण

Thu, 18 Aug 2022

### चंद्रमा पर मानवरहित कैप्सूल भेजने की तैयारी



फ्लोरिडा के केप कैनवेरल स्थित कॅनेडी स्पेस सेंटर से नासा के आर्टेमिस-1 मिशन के तहत चंद्रमा पर मानव रहित ओरियन कैप्सूल भेजने की तैयारियों को अंतिम रूप दे दिया गया है। इसे 29 अगस्त को लांच किया जाएगा। इससे पहले तीन बार लांच करने की कोशिश की गई, परंतु ईंधन रिसाव और अन्य तकनीकी कारण से कामयाबी नहीं मिली। अब यदि यह मिशन कामयाब रहता है तो इंसान को चांद पर भेजने का फैसला लिया जाएगा। एपी

