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DRDO News

DRDO Technology News



Fri, 23 Sep 2022

भारतीय नौसेना की बढ़ेगी ताकत, ब्रह्मोस मिसाइलों के लिए 1700 करोड़ रुपये के सौदे पर रक्षा मंत्रालय ने किया हस्ताक्षर

रक्षा मंत्रालय ने गुरुवार को ब्रह्मोस एयरोस्पेस (BrahMos Aerospace Thiruvananthapuram Ltd-BATL) के साथ एक समझौते पर हस्ताक्षर किया है। इसके तहत 1,700 करोड़ रुपये की लागत से स्टील्थ गाइडेड मिसाइल विध्वंसक के दो पी-15बी वर्ग के लिए सतह से सतह पर मार करने वाली 35 लड़ाकू (Combat) और तीन अभ्यास ब्रह्मोस सुपरसोनिक क्रूज मिसाइलों (Practice BrahMos Supersonic Surface-To-Surface Cruise Missiles) की भारतीय नौसेना को आपूर्ति की जाएगी।

रक्षा मंत्रालय ने एक बयान में कहा, “दोहरी भूमिका वाली इन मिसाइलों (Dual-Role Capable Missiles) को शामिल करने से नौसेना के बेड़े की परिसंपत्ति (Navy Fleet Assets) की परिचालन क्षमता में काफी इजाफा होगा।” लगभग 29,643.74 करोड़ रुपये की परियोजना लागत से प्रोजेक्ट-15बी के तहत चार स्टील्थ गाइडेड मिसाइल डिस्ट्रॉयर (Stealth Guided Missile Destroyers) (यानी ऐसा विध्वंसक मिसाइल जो दुश्मन के रडार पर नहीं आता है) का निर्माण किया जा रहा है, जो कोलकाता क्लास (15-ए) विध्वंसक (Destroyers) के आगे की कड़ी है।

इनका नामकरण – विशाखापत्तनम, मोरमुगाओ, इंफाल और सूरत- देश के चारों कोनों के प्रमुख शहरों के नाम पर किया जाता है। आईएनएस विशाखापत्तनम (INS Visakhapatnam) नवंबर 2021 नौसेना को मिल चुका है, शेष तीन को पानी में उतारा गया है।

इनका डिजाइन नौसेना के नेवी डिजाइन निदेशालय द्वारा किया गया है और निर्माण मझगांव डॉक शिपबिल्डर्स लिमिटेड (Mazagon Dock Shipbuilders Limited), मुंबई ने किया है। 7,400 टन के विस्थापन के साथ, वे उन्नत स्टील्थ सुविधाओं की सुविधा देते हैं जिसके चलते रडार क्रॉस सेक्शन कम हो

जाता है। ये ब्रह्मोस और बराक -8 सतह से हवा में मार करने वाली मिसाइलों सहित अत्याधुनिक हथियारों और सेंसर से भरे होते हैं।

ब्रह्मोस DRDO और रूस के NPO Mashinostroyeniya के बीच एक Joint Venture है

ब्रह्मोस डीआरडीओ (DRDO) और रूस के एनपीओ माशिनुस्ट्रोयेनिया (NPO Mashinostroyeniya) के बीच एक संयुक्त उद्यम (Joint Venture) है और मिसाइल का नाम ब्रह्मपुत्र और मोस्कवा नदियों से लिया गया है। मिसाइल जमीन, समुद्र, उप-समुद्र और हवा से सतह और समुद्र-आधारित लक्ष्यों के खिलाफ लॉन्च करने में सक्षम है। लंबे समय से भारतीय सशस्त्र बलों में इसकी जरूरत महसूस की जा रही थी।

मिसाइल प्रौद्योगिकी नियंत्रण व्यवस्था (MTCR) के दायित्वों के अनुसार मिसाइल की सीमा मूल रूप से 290 किमी थी। जून 2016 में क्लब में भारत के प्रवेश के बाद, डीआरडीओ के अधिकारियों ने कहा था कि बाद के चरण में सीमा को 450 किमी और 600 किमी तक बढ़ाया जाएगा। आईएनएस विशाखापत्तनम (INS Visakhapatnam) सहित युद्धपोतों से ईआर संस्करण (ER version) का कई बार परीक्षण किया गया है।

<https://www.jansatta.com/national/defense-ministry-signs-rs-1700-crore-deal-with-bapl-for-surface-to-surface-dual-role-brahmos-missiles/2392653/>



Fri, 23 Sep 2022

ब्रह्मोस का जखीरा बढ़ने से और ताकतवर होगी भारतीय नौसेना, जानिए BrahMos क्रूज मिसाइल की खासियत

भारत अपनी सैन्य क्षमता में लगातार इजाफा कर रहा है. दुश्मनों के दांत खट्टे करने के लिए भारत लगातार आधुनिक फाइटर जेट, युद्धपोत और मिसाइलों को विकसित करने पर जोर दे रहा है. थल, जल और हवा में दुश्मन को और बेहतर तरीके से मात देने के लिए अपनी ताकत बढ़ा रहा है. इस कड़ी में भारत सरकार ने युद्धपोतों पर तैनाती के लिए दोहरी-भूमिका वाली ब्रह्मोस मिसाइल (BrahMos Missile) देने का निर्णय लिया है. इससे भारतीय नौसेना (Indian Navy) की ताकत काफी बढ़ जाएगी.

रक्षा मंत्रालय (Defense Ministry) ने इंडियन नेवी के अग्रिम मोर्चों के युद्धपोतों पर अधिक मारक क्षमता वाली ब्रह्मोस सुपरसोनिक क्रूज मिसाइलों की आपूर्ति के लिए गुरुवार को ब्रह्मोस एयरोस्पेस प्राइवेट लिमिटेड (BAPL) के साथ 1700 करोड़ रुपये के समझौते पर हस्ताक्षर किए.

काफी घातक क्रूज मिसाइल है ब्रहमोस

ब्रहमोस दुनिया की सबसे तेज और बेहद ही घातक क्रूज मिसाइल मानी जाती है। इस घातक मिसाइल का पहली बार 12 जून 2001 को टेस्ट किया गया था। ब्रहमोस सुपरसोनिक क्रूज मिसाइल का पहली बार चांदीपुर में भूमि आधारित लॉन्चर से परीक्षण किया गया था। उस वक्त के बाद से करीब 21 साल के सफर में इसे कई बार अपग्रेड किया गया है।

ब्रहमोस क्रूज मिसाइल की क्या है खासियत?

ब्रहमोस क्रूज मिसाइल को सरफेस टू सरफेस, जमीन से समुद्र और इसके विपरीत समुद्र से जमीन, हवा से समुद्र और जमीन तक लॉन्च करने को लेकर परीक्षण किया जा चुका है। ये बेहद ही घातक मिसाइल है। शुरुआत में इस मिसाइल की रेंज 290 किलोमीटर तक ही थी, लेकिन मौजूदा वक्त में इसकी रेंज बढ़ाकर 300-400 किमी तक कर दी है। इन मिसाइलों में जमीन के साथ-साथ जहाज-रोधी हमलों के लिए एडवांस रेंज और दोहरी भूमिका निभाने की क्षमता है। ये मिसाइल 2.8 मैक यानी 3000 किलोमीटर प्रतिघंटे की गति से मार करने में सक्षम है।

कैसे पड़ा है 'ब्रहमोस' नाम?

ब्रहमोस मिसाइल (BrahMos Missile) भारतीय सेना की तीनों विंग्स में शामिल है। ब्रहमोस मिसाइल को रूस और भारत की साझा वेंचर के तहत विकसित किया गया है। इस मिसाइल का नाम ब्रहमोस, भारत की ब्रहमपुत्र (Brahmaputra River) और रूस की मोस्क्वा नदी के नाम को मिलाकर रखा गया है। ये मिसाइल दो प्रकार की होती हैं। पहला बैलेस्टिक और दूसरा क्रूज। इस मिसाइल की और अधिक रेंज वाली वेरियंट पर काम चल रहा है।

<https://www.abplive.com/news/india/defence-news-brahmos-supersonic-cruise-missiles-defense-ministry-signed-deal-with-bapl-for-more-missiles-strengthen-indian-navy-2222156>

Defence Ministry Signs ₹1,700-Crore Deal for 35 BrahMos Missiles



Officials of Ministry of Defence (MOD) and M/s BrahMos Aerospace Pvt. Ltd. (BAPL) sign a contract for the acquisition of additional dual-role capable Surface to Surface BrahMos missiles.

The Defence Ministry on Thursday signed a ₹1,700-crore contract with BrahMos Aerospace Pvt Ltd for 35 combat and three practice BrahMos supersonic surface-to-surface cruise missiles for two P-15B class of stealth guided missile destroyers of the Indian Navy. “Induction of these dual-role capable missiles will significantly enhance the operational capability of the Navy fleet assets,” the Defence Ministry said in a statement.

Four stealth guided missile destroyers being constructed under Project-15B at a project cost of about ₹29,643.74 crore are a follow-on to the Kolkata class (Project 15A) destroyers. They are christened after major cities from all four corners of the country — Visakhapatnam, Mormugao, Imphal and Surat. While INS Visakhapatnam was commissioned end 2021, the remaining three have been launched into waters.

They are designed by the Navy’s Directorate of Naval Design and constructed by the Mazagon Dock Shipbuilders Limited, Mumbai. With a displacement of 7,400 tonnes, they feature enhanced stealth features resulting in a reduced Radar Cross Section and are packed with sophisticated state-of-the-art weapons and sensors, including BrahMos and Barak-8 Surface-to-Air missiles.

Joint venture

BrahMos is a joint venture between the DRDO and Russia's NPO Mashinostroyeniya and the missile derives its name from Brahmaputra and Moskva rivers. The missile is capable of being launched from land, sea, sub-sea and air against surface and sea-based targets and has been long inducted by the Indian armed forces.

The range of the missile was originally capped at 290 km as per obligations of the Missile Technology Control Regime (MTCR). Following India's entry into the club in June 2016, DRDO officials had stated that the range would be extended to 450 km and to 600 km at a later stage. The ER version has been tested several times from warships, including from INS Visakhapatnam.

<https://www.thehindu.com/news/national/defence-ministry-signs-deal-for-35-brahmos-missiles-for-two-p-15b-destroyers-of-indian-navy/article65922724.ece>

Defence News

Defence Strategic : National/International

THE ECONOMIC TIMES

Thu, 22 Sep 2022

Indigenous Loitering Munition Successfully hits Target at Pokhran

An indigenous loitering munition, capable of operating from difficult terrain and high altitude areas, has reached a milestone by successfully demonstrating its strike capability during tests conducted at Pokhran on Thursday. Developed by Tata Advanced Systems Limited (TASL), the autonomous system is designed for Vertical Take Off and Landing (VTOL) and will soon be inducted into the armed forces. Sources told ET that the system - named ALS 50 - accurately hit the ground target with an explosive warhead during trials. The test is a landmark for the private industry which has scaled up efforts in recent years to develop tailored solutions for the armed forces, on the back of policy initiatives steered by the Defence Ministry.

The ALS 50 - which can take off like a quadcopter and transitions into fixed wing mode during flight for long distance travel - has also demonstrated its ability to operate from high altitude areas during tests in Ladakh earlier this year. Developed by a team of young engineers at TASL, the ALS 50 has an autonomous targeting system that can accurately identify and home into a pre-determined target. The system can also be scaled up to increase range and payload capability, as per requirements of the armed forces. Future development can also include integration of Artificial Intelligence and swarming capabilities.

The VTOL capability gives the system the ability to operate in areas where limited space is available, like narrow valleys, fortified mountain positions, small jungle clearings and the decks of warships. The armed forces have been looking to induct a range of loitering munitions - relatively low cost 'suicide drones' that can be used to accurately take down high value targets like command centres, missile launchers and enemy armour.

https://m.economictimes.com/news/defence/indigenous-loitering-munition-successfully-hits-target-at-pokhran/amp_articleshow/94383125.cms

THE ECONOMIC TIMES

Thu, 22 Sep 2022

Quick Reaction Missile Induction to be Delayed; Deficiencies Found During Trials

The army's plans to induct Quick Reaction Surface to Air Missiles (QRSAM) for protection of its mobile formations are likely to get further delayed, with the system underperforming in recent trials and with glaring deficiencies emerging.

Sanctioned in 2014, the project is already running five years behind schedule and corrective measures would be required to meet the operational requirements of the armed forces. Sources aware of the recent trials told ET that deficiencies were observed when it comes to the mobility, surveillance, detection and firing capability of the system.

The QRSAM is required to protect mechanised formations of the Army against enemy aircraft and attack helicopters as they advance into contested zones. A detailed questionnaire sent to Defence Research and Development Organisation (DRDO) was not answered. The research body has claimed that six successful tests were conducted off the Odisha coast.

However, sources said that in the recent validation trials -- carried out between July and September -- the system failed to even detect and engage hovering helicopters at low altitude and minimum range. As attack helicopters are a primary threat to advancing armoured formations, this underperformance by the surveillance radars of the system has raised alarm bells within the establishment.

During the limited Preliminary Staff Qualitative Requirement (PSQR) validation trials, the system was observed to have limited mobility due to excessive size and weight, which renders it inefficient to move across uneven terrain with advancing formations. Sources added that the firing success rate was also unimpressive, with only half the missiles hitting the designated targets. Besides, the trial teams noticed low serviceability of various components of the system, with malfunctions observed in the radar, launcher and command vehicles almost on a daily basis. To meet service requirements and fill a critical operational capability gap in the army, the system will need to go through more rounds of developmental firing and simulation at the earliest.

The QRSAM has been under development for years, with the project to replace OSA-AK weapon systems first approved by the Defence Acquisition Council in June 2012. DRDO was sanctioned Rs 476.43 crore for the design and development of the system in 2014 after it gave an

assurance that the process would be completed by 2017. After several hiccups, a capability demonstration was given in December 2021 but the present round of validation trials have raised concerns of further delays.

<https://economictimes.indiatimes.com/news/defence/quick-reaction-missile-induction-to-be-delayed-deficiencies-found-during-trials/articleshow/94383051.cms>



Thu, 22 Sep 2022

PM to Visit Tokyo Next Week, will also have a Separate Meeting with Japanese PM Kishida

Next week Prime Minister Narendra Modi will visit Japan to attend the State Funeral of former Japanese Prime Minister Shinzo Abe.

On Thursday (Sept 22, 2022) the Ministry of External affairs officially announced that the Prime Minister will visit that country on September 27, 2022 to attend the state funeral of the former leader of that country. He will also have a separate meeting with the Japanese Prime Minister Fumio Kishida during the visit.

Importance of the visit

PM Modi's meeting with his Japanese counterpart comes ahead of the G20 summit in Japan in November. And what is likely to be the focus of the short meeting in Tokyo would be related to strengthening relations amongst the QUAD member countries, more about trade and economic relations, deepening of military cooperation and joint production of different military platforms. Also, the ongoing conflict between Russia and Ukraine has escalated. The two leaders PM Modi and Japanese Prime Minister Kishida are likely to discuss issues of regional and global interest.

Japan is one of the countries which have imposed stringent sanctions on Russia following its invasion of Ukraine. Earlier this year in March, during his visit to India, the Japanese PM Fumio Kishida had urged PM Modi to take a tougher stand against Russia's invasion of Ukraine. However, according to the joint statement issued at the end of the visit made no direct mention of Ukraine and the two leaders called for immediate cessation of violence and to choose the path of diplomacy and dialogue.

The visit also comes close on the heels of the recently concluded 2+2 Ministerial Level Dialogue between the two countries earlier this month.

Defence Minister Rajnath Singh and External Affairs Minister Dr S Jaishankar met with Japan's Foreign Minister Yoshimasa Hayashi and Defence Minister Yasukazu Hamada. Both sides at the end of the meeting expressed their support for stronger defence and security cooperation.

The two countries are keen to work together on various military platforms and in Technological cooperation, as the two countries play a very important role in ensuring free and open and rules based Indo-Pacific Region.

<https://www.financialexpress.com/defence/pm-to-visit-tokyo-next-week-will-also-have-a-separate-meeting-with-pmkishida/2686539/>

ThePrint

Thu, 22 Sep 2022

Peace in the Northeast allows Army to Hand Over Counter-Insurgency Duties to Assam Rifles

India's Northeast, a region that bled profusely due to insurgency for decades, is undergoing a massive change with the Army cutting down its once-sprawling counter-insurgency deployment to a single brigade due to improved security situation, military sources have told ThePrint. At the peak of the insurgency, the Army had a full-fledged Corps — Dimapur-based 3 Corps — to carry out counter-insurgency (CI) and counter-terrorism (CT) roles as well as several other units. This meant that over three Army divisions were deployed solely for CI/CT roles.

Sources in the defence establishment explained that the 3 Corps had its own three divisions besides two divisions of the Assam Rifles, making it the biggest Corps in the Indian Army. However, it also had the responsibility of the Line of Actual Control (LAC). On the LAC, 3 Corps looks after an area called 'Rest of Arunachal Pradesh'.

They added earlier besides one of the divisions of the 3 Corps, reserve troops of the other two Corps — 33 and 4 — under the Eastern Command and other formations also were involved in CI/CT.

However, with the dramatic improvement in the situation over the years as seen in the Centre withdrawing the Armed Forces (Special Powers) Act (AFSPA) from various parts of three Northeast states, the Army has almost completely withdrawn all its troops from CI/CT roles in the region and assigned them the primary role of preparing for a conventional war.

Instead of multiple divisions, the Army now has only the 73 Mountain Brigade, headquartered in Assam's Laipuli, for CI/CT operations. This is besides certain other battalion level units that are still tasked with these operations as and when needed.

This is the first time since 1954 that no Army unit, of a Brigade level, is involved for counter-insurgency duties anywhere in Nagaland, Mizoram, Manipur, Tripura, Arunachal Pradesh and Meghalaya.

The counter-insurgency and counter-terrorism role is now with the Assam Rifles, a paramilitary force specifically maintained for the Northeast. Headquartered in Shillong, the Assam Rifles is India's oldest paramilitary force with its history dating back to 1835, when it was then known as the Cachar Levy. With about 750 men, it was tasked primarily to protect British tea estates and their settlements against tribal raiders.

Subsequently, the Cachar Levy was reorganised and renamed as the Frontier Force with an additional role of conducting punitive expeditions across the borders of Assam on behalf of the British. In 1917, the force was rechristened as the Assam Rifles. With a sanctioned strength of 66,412 personnel, the Assam Rifles — also known as ‘Sentinels of the Northeast’ — has 46 battalions deployed through the length and breadth of the region.

“The Assam Rifles has always been involved in CI operations, but operationally came under the Army. It continues to perform its duties while the Army is now focusing completely on the LAC,” Lt. Gen. Shokin Chauhan (retired), former director general of Assam Rifles, told ThePrint.

Sources explained that the security situation started changing over a decade and half ago with state police forces becoming more enabled and active, besides the central armed police forces which allowed the Army to slowly return to its main task. They added that the reorientation of the Army in the Northeast began a few years ago as a result of this improved security situation.

According to the Ministry of Home Affairs (MHA), insurgency incidents in the Northeast had gone down by 80 per cent in the last eight years. The MHA report also stated that security forces saw casualties dip by 75 per cent while civilian deaths went down by 99 per cent.

Under the Narendra Modi government, there has been a big focus on entering into peace deals with various insurgent groups to improve the overall security scenario and to also expedite talks that were initiated by the previous governments which had led to many outfits entering into ceasefire agreements. As recently as 15 September, the central and Assam governments signed a tripartite agreement with eight adivasi insurgent groups to end the decades-old crisis of tribals and tea garden workers in the Northeast’s biggest state. As many as 1,182 cadres of these eight outfits surrendered and joined the mainstream on the occasion.

In the last three years, the Centre and state governments in the Northeast have entered into several agreements with various extremist groups. The agreements include the NLFT (National Liberation Front of Twipra) agreement in 2019, the Bodo accord in 2020, the Karbi Anglong agreement in 2021 and the Assam-Meghalaya Inter-State Boundary Agreement in 2022.

Sources, meanwhile, explained that the Army’s reorientation process gathered pace following tensions breaking out between India and China at the LAC in 2020 following the Ladakh stand-off. As reported by ThePrint earlier, the Army has seen numerous changes being made to the Order of Battle, known as ORBAT. This included re-orienting the Pakistan-centric Mathura-headquartered 1 Corps, a Strike Corps, to the northern borders.

The Army deployment in the sensitive region of Jammu & Kashmir has also seen major changes, with a full formation now redirected to the LAC.

Army’s reorientation in Northeast

The Army’s Eastern Command — whose area of operation include Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Meghalaya, Assam and Bengal — consist of 33, 17, 3 and 4 Corps. Till a few years ago, the 3 Corps used to lead the CI/CT operations in the Northeast. “The 3 Corps was reoriented to the LAC a few years ago and CI/CT operations were being handled by the 21 Division. Now only one Brigade looks after the same role,” a source explained.

Sources pointed out that because of the improvement in the security situation, the AFSPA was revoked in many areas in the Northeast. The government had announced reduction of the disturbed areas under the AFSPA in Nagaland, Assam and Manipur from April 1, after decades.

Explaining the re-orientation of forces, the above-mentioned source said that earlier too, while troops were posted for CI/CT operations, they were always dual-tasked and, if needed, they would be deployed towards the LAC. "But this would have taken time, though plans were always in place. With the LAC now being the main focus, the troops have now been permanently reoriented towards the China border and necessary deployment changes have been made," a second source said. According to the sources, the 21 Para Special Forces (SF) and the 12 Para SF under the Eastern Command continue to have a dual role depending on the situation.

After the Doklam episode in 2017 when Indian and Chinese troops were locked in a standoff for nearly three months, the Eastern Command has seen a heavy infrastructure and technology push as well as deployment of new artillery and missile systems. Though tensions had broken out between India and China in eastern Ladakh, the LAC overall has seen an increase in military and construction activities on both sides.

In the Northeast, Sikkim, which was directly threatened by the Doklam standoff, and Arunachal Pradesh share border with China. In February, the Ministry of Defence informed Parliament that the Border Road Organisation had constructed 149.98 km and 69.46 km of roads in Arunachal Pradesh and Sikkim, respectively.

The Chinese, meanwhile, have sped up infrastructure-building on their side of the LAC, which includes the construction of new dual-role villages (which can serve both offensive and defensive purposes), especially near Arunachal Pradesh.

<https://theprint.in/defence/peace-in-the-northeast-allows-army-to-hand-over-counter-insurgency-duties-to-assam-rifles/1138603/>



Fri, 23 Sep 2022

वायु सेना के तीन सैनिकों को युद्ध सेवा पदक, छह यूनिटें भी सम्मानित

नई दिल्ली, प्रेस: वायुसेना प्रमुख एयर चीफ मार्शल वीआर चौधरी ने वायु सेना के कई सैनिकों को युद्ध सेवा पदक और अन्य पुरस्कार प्रदान किए। सुब्रतो पार्क स्थित वायु सेना सभागार में आयोजित अलंकरण समारोह के दौरान ये सम्मान

प्रदान किए गए। अधिकारियों की ओर से साझा की गई पुरस्कार विजेताओं की सूची के अनुसार तीन सैनिकों को युद्ध सेवा पदक, चार को वायु सेना पदक (वीरता) से सम्मानित किया गया। 14 सैनिकों को वायु सेना पदक दिए गए।

भारतीय वायुसेना के तीन सेवानिवृत्त कर्मियों सहित 28 सैनिकों को विशिष्ट सेवा मेडल दिया गया। इसके अलावा भारतीय वायुसेना की छह इकाइयों को वायुसेना प्रमुख का प्रतिष्ठित प्रशस्ति पत्र प्रदान किया गया।

आइएनएस निस्तार और निपुण का लोकार्पण

विशाखापत्तनम, प्रेट्र: नौसेना प्रमुख एडमिरल आर हरिकुमार ने गुरुवार को यहां देश के दो अत्याधुनिक और परिष्कृत स्वदेशी डाइविंग सपोर्ट वेसल्स (डीएसवी) आइएनएस निस्तार और निपुण को लांच किया। ये डीएसवी नौसेना की ताकत में और वृद्धि करेंगे। इन डीएसवी का मुख्य कार्य पोतों और पनडुब्बियों का बचाव करना है। इन दोनों पोतों को हिंदुस्तान शिपयार्ड लिमिटेड विशाखापत्तनम ने तैयार किया है। आइएनएस निस्तार ने अपने पिछले अवतार में 1971 में भारत-पाक के बीच हुई जंग में अहम भूमिका निभाई थी। उसने पाक की डूबी पनडुब्बी गाजी को गहरे समुद्र से भी खोज निकाला था। उस वक्त भारत ने इसे रूस से खरीदा था।

इस मौके पर एडमिरल हरिकुमार ने कहा, यह ऐतिहासिक अवसर है। इन



आंध्र प्रदेश के विशाखापत्तनम में गुरुवार को दो डाइविंग सपोर्ट वेसल्स (डीएसवी) आइएनएस निस्तार और निपुण को लांच किया गया।

प्रेट्र

डीएसवी में 80 प्रतिशत स्वदेशी सामग्री है। यह आत्मनिर्भरता की दिशा में बड़ा कदम है। निस्तार और निपुण भारत के जहाज निर्माण उद्योग में विशेषज्ञता व अनुभव का युग शुरू होने की कहानी

बयां करते हैं। कुछ दिनों पहले हमने कोच्चि में पहला स्वदेशी विमानवाहक पोत आइएनएस विक्रान्त लांच किया था। उन्होंने कहा, नौसेना बहुआयामी आपरेशन करने में पूरी तरह सक्षम है।

यूएनएससी में सुधार को लेकर भारत की जबरदस्त लार्बिंग

जयप्रकाश रंजन, नई दिल्ली

बदलते वैश्विक माहौल में संयुक्त राष्ट्र सुरक्षा परिषद (यूएनएससी) में सुधार को लेकर भारत की कोशिशों का असर दिखाई देने लगा है। पिछले 24 घंटे में अमेरिका के राष्ट्रपति जो बाइडन ने यूएन की महासभा को संबोधित करते हुए पहली बार भारत को स्थायी सदस्यता देने का समर्थन किया है। इसी बैठक में यूक्रेन के राष्ट्रपति वोल्दोमीर जेलेन्स्की ने भी यूएन के मौजूदा स्वरूप में बड़े बदलाव की अपील की है। बुधवार को ही भारत, ब्राजील व दक्षिण अफ्रीका के विदेश मंत्रियों की बैठक में संयुक्त राष्ट्र में बदलाव का मुद्दा काफी अहम रहा है। इसी तरह से गुरुवार देर रात भारत, जापान, जर्मनी और ब्राजील के समूह (जी-4) के विदेश मंत्रियों की तरफ से भी इस बारे में अपील जारी होने वाली है। जी-4 के चारों देश सुरक्षा परिषद के स्थायी सदस्य बनने के दावेदार हैं।

सूत्रों ने बताया कि अमेरिका की यात्रा पर गए दस दिनों की यात्रा के दौरान जयशंकर की 50 से ज्यादा द्विपक्षीय व बहुपक्षीय बैठकें होंगी। इसमें क्वाड संगठन के विदेश मंत्रियों से लेकर ब्रिक्स, आइ2यू2 जैसे

चार देशों के संगठनों की बैठक के अलावा दक्षिणी अमेरिकी व कैरिबियाई देशों के साथ भी बैठकें हैं। इन सभी में प्रत्यक्ष पर या परोक्ष तौर पर यूएनएससी में सुधार करने की बात भारत की तरफ से उठाई जाएगी।

जयशंकर ने बुधवार को कोलंबिया विश्वविद्यालय में भाषण देते हुए कहा, यूएनएससी में स्थायी सदस्यता के लिए भारत की दावेदारी को अब ज्यादा समर्थन मिलने लगा है। पूरी दुनिया में मोटे तौर पर यह सहमति है कि सुरक्षा परिषद में बदलाव होना चाहिए। भारत दुनिया की तीसरी सबसे बड़ी इकोनमी है और जल्द ही सबसे बड़ी आबादी वाला देश होगा। उसे परिषद से बाहर रखना दुनिया के हित में नहीं है।

आतंकवाद वैश्विक संकट, आतंकी पनाहगाह खत्म होनी चाहिए : इसा: न्यूयार्क, प्रेट्ट : भारत, ब्राजील व दक्षिण अफ्रीका के त्रिपक्षीय सहकारी मंच (इबसा) के सम्मेलन में भाग लेने वाले मंत्रियों ने बहुपक्षीय संगठनों में सहयोग, यूएनएससी में सुधार, जलवायु परिवर्तन समेत कई वैश्विक व क्षेत्रीय मुद्दों पर चर्चा की। मंत्रियों ने कहा, आतंकवाद वैश्विक संकट है, इससे मिलकर लड़ना चाहिए। विश्व के हर हिस्से से आतंकी पनाहगाह खत्म की जानी चाहिए।



Fri, 23 Sep 2022

Indian Navy Evaluating Trial Report of Rafale, F-18 for USD 5 Billion Fighter Jet Deal

In the USD 5 billion tenders to buy 26 combat aircraft, the report of the extensive trials of the French Rafale and American F-18 planes is being evaluated by the Indian Navy headquarters. The aircraft is planned to be acquired under a government-to-government deal by the Navy for operations from its latest aircraft carrier INS Vikrant commissioned recently by Prime Minister Narendra Modi in Kochi.

"The extensive trial was held by a naval team in Goa for both the fighter aircraft Rafale and F-18. The report is with the headquarters and is being eventuated for final shortlisting," a government source told ANI. The evaluation is to see whether the aircraft has met the technical specifications of the naval requirements or not, they said.

The American aircraft are built for carriers weighing around one lakh tonnes while the French Rafale is made for 60,000 tonne-size carriers. The Navy has MiG-29Ks which operate from the INS Vikramaditya and also don't have a very strong serviceability record and their numbers are considered to be sufficient only for one carrier. The trial report would determine the winner of the competition which was earlier planned for around 57 planes but now has been reduced to 26 only. The last time these two planes took part in an Indian tender, the Rafale had emerged as a winner but that deal could not be completed due to technical issues. However, based on the final selection of the previous deal, the government acquired 36 Rafales which played a big role during the deployment against China in eastern Ladakh and other areas.

The American side has been claiming that it has improved the performance and capabilities of the plane compared to the last competition saying that they have met all requirements of the Indian Navy.

<https://www.aninews.in/news/national/general-news/indian-navy-evaluating-trial-report-of-rafale-f-18-for-usd-5-billion-fighter-jet-deal20220922155016>

THE ECONOMIC TIMES

Fri, 23 Sep 2022

With an Eye on China, US to Develop Drones with India

The United States and India will co-develop drones, a senior Pentagon official said Thursday, as Washington seeks closer ties with Delhi as a way of countering China. India will build these aircraft and export them to other countries in its region, this official said. Delhi wants to diversify its weaponry, which is mainly Russian-made, and also to develop its own defense industry. And we want to support India on both fronts and are doing so," Eli Ratner,

assistant secretary of defense for Indo-Pacific security affairs, told a group of reporters and defense experts.

"In practical terms, that means that we're going to be working closely with India on co-producing and co-developing capabilities that will support India's own defense modernization goals," Ratner said. India can then "export to our partners across the region, including in South and Southeast Asia at affordable price points." Ratner cited the possibility of developing drones launched from airplanes and anti-drone defense systems. He also said the Pentagon is considering in the near and medium term "opportunities to co-produce major capabilities," but did not say which ones. "We're having good conversations with our counterparts in the Indian government at the highest levels about our respective priorities in that regard, and we hope to have more to announce on this front before too long," Ratner said. Ties between the United States and India were troubled for many years, but their shared wariness of an aggressive China brought the countries closer together under Prime Minister Narendra Modi and former president Donald Trump. In 2016, the United States designated India as a "major defense partner," and since then, the two countries have signed agreements that facilitate transfers of top-grade arms and deepen military cooperation.

<https://economictimes.indiatimes.com/news/defence/with-an-eye-on-china-us-to-develop-drones-with-india/articleshow/94383751.cms?from=mdr>

The Tribune

Fri, 23 Sep 2022

Running with the Hare, Hunting with the Hounds

Gp Capt Murli Menon (Retd)

Running with the hare and hunting with the hounds. No doubt, the English language has some apt idioms, but seldom does one see candidates who live up to them to the tee. Our newfound strategic ally, the US, and our neighbour Pakistan have been bedfellows of this ilk since time immemorial.

The nefarious linkages between the ISI and the Central Intelligence Agency dating back to the Cold War era are legion and they thrived even post the 9/11 attack simply because the USA just could not live without Pakistan's complicity, especially for its counter-terror campaign.

And even when it transpired that Osama bin Laden had been given refuge right next to the Pakistan Military Academy in Abbottabad and the US SEALs did the by-now-famous 'Zero Dark Thirty' on him, the Americans could just not do without Pakistan. One wonders why the virtual embargo on US arms supply imposed by the Donald Trump administration has been undone by the Joe Biden team, with the announcement of \$450-million military sales, ostensibly for the "safety and maintenance" of F-16s.

However, some electronic combat upgrade is also said to be on the anvil. Clearly, this is a quid pro quo for services rendered elsewhere. Incidentally, not much has been heard in the open media about where the (Predator?) — drone-fired Hellfire R9X Ninja missile that decapitated Al-Qaida chief Ayman al-Zawahiri — originated from. Was it indeed from American base Ganci near Bishkek or likely from a Pakistan airbase like Jacobabad? It is highly probable that the real-

time intelligence to zero in on the Kabul safe house, where the terrorist chief was apparently lounging in the balcony, must have been obtained with the Pakistani/ISI complicity.

It is ironical that India itself is currently purportedly negotiating a Predator deal with the Americans. While our targets of concern such as Hafiz Saeed or Dawood Ibrahim are in a different basket, no doubt, from those that interest the Americans, one can expect interference in our related counter-terror campaign, more so if the weapon platform employed comes from those quarters. 'Aatma nirbharta', anyone?

Besides Pakistan's likely complicity in Zawahiri's killing, there are reports of that country sending 122-mm artillery shells via a Royal Air Force aircraft for use by the Ukrainians in their counter-offensive against Russia. Now, both these instances cannot clearly be unrelated to the Pakistani penchant of playing double games.

The Chinese view on these would be interesting to speculate. Clearly, there are wheels within wheels and the Chinese would also play their cards accordingly. Coming back to Pakistan, the American largesse would, no doubt, lend an added life to Pakistan Air Force's (PAF) F-16 fleet, supplementing any assistance in this regard coming from its other Sunni friend Erdogan's Turkey.

This would directly impact Pakistan's war-waging capability against India. This move could also be a US counter to India's S-400 deal and oil purchases from the embargoed Russia.

On the same issue, it is to be noted that despite the existing clauses in their F-16 deal with Pakistan about not using their assets against "friendly" quarters, the Americans have chosen to not object to the PAF F-16 firing an AMRAAM against Abhinandan Varthaman's MiG-21 Bison in riposte to the Balakot strike. Besides, some 20 of the 75-odd F-16s with Pakistan are purportedly known to have been made nuclear-capable with Chinese assistance. So, clearly, it is once again a matter of opportunistic strategising or "hunting with the hounds".

In the light of these plausible "conflict of interest" situations between our country and the USA, care needs to be exercised to ensure that we get an appropriate contract with respect to our impending deal for the Predators. What is meant, thereby, is that we should not be caught in a cleft stick in terms of their operational employment, a la what the Americans themselves have tried to enforce (and not succeeded!) for the F-16s supplied by them to Pakistan.

Rather than being employed against terror targets in Afghanistan and the FATA territory, as the Americans wish, these would (historically) find use against India, with little impact on Pakistan's traditional terror-mongering.

The above-mentioned predicament also re-emphasises our need to not make the mistake of distancing ourselves from Russia's good offices. Though the strategic tie-up with the USA may look rosy now, more so with the Quad gaining traction, we need to have alternative sources for defence equipment supply. Besides, post the Ukraine imbroglio, Russia is bound to have learnt a lesson and we can expect some superior stuff coming out of its military industrial complex and our all-weather friendship with it cannot be frittered away. But here is where our planners need to apply their minds as to what constitutes national interests.

Balancing our dealings with the US defence industry and that of Russia is going to get even more tricky in the future, more so with the trade and technology embargoes imposed on Russia post Ukraine and the Countering America's Adversaries Through Sanctions Act (CAATSA) threat looming. Pakistan's duplicity in dealing with the US and Russian lobbies is bound to have an

impact on its treatment by the Financial Action Task Force, affecting India's terror threats directly. Further, India needs to hone its capabilities in information technology, space and artificial intelligence and achieve profitable tie-ups with our benevolent allies to either side of the emerging unclear world order to ensure that our tri-service military wherewithal in countering terror does not get compromised.

Here, once again, spending adequately on defence is critical because capabilities, especially in the military domain for a large nation such as ours, come at a premium of inordinate timeframes.

<https://www.tribuneindia.com/news/comment/running-with-the-hare-hunting-with-the-hounds-434336>



Fri, 23 Sep 2022

यूक्रेन के कब्जे वाले क्षेत्रों में परमाणु हथियार तैनात करेगा रूस

लंदन, राष्ट्र : रूस के पूर्व राष्ट्रपति दिमित्री मेदवेदेव ने कहा है कि रूस के शस्त्रागार के सभी तरह के हथियारों की तैनाती रूस में शामिल होने वाले यूक्रेनी क्षेत्रों की सुरक्षा के लिए की जाएगी। इन हथियारों में उन्नत किस्म के परमाणु हथियार भी होंगे। मेदवेदेव को राष्ट्रपति व्लादिमीर पुतिन का खास माना जाता है। मेदवेदेव रूस की शक्तिशाली राष्ट्रीय सुरक्षा परिषद के उप प्रमुख हैं। परिषद के प्रमुख राष्ट्रपति पुतिन हैं। मेदवेदेव का यह बयान रूस के कब्जे वाले यूक्रेनी क्षेत्रों के जनमत संग्रह से ठीक पहले आया है। यूक्रेन के करीब 15 प्रतिशत भूभाग को रूस में शामिल करने के लिए यह जनमत संग्रह हो रहा है। संयुक्त राष्ट्र महासचिव एंटोनियो गुटेरस ने इस जनमत संग्रह को तत्काल रोकने की रूस से अपील की है। कहा है कि यूक्रेनी क्षेत्रों को रूस में शामिल किए जाने के भयंकर दुष्परिणाम होंगे।

This Face Mask can Sense the Presence of an Airborne Virus

Face masks — the unofficial symbol of the COVID-19 pandemic — are leveling up.

A mask outfitted with special electronics can detect SARS-CoV-2, the virus that causes COVID-19, and other airborne viruses within 10 minutes of exposure, materials researcher Yin Fang and colleagues report September 19 in *Matter*. “The lightness and wearability of this face mask allows users to wear it anytime, anywhere,” says Fang, of Tongji University in Shanghai. “It’s expected to serve as an early warning system to prevent large outbreaks of respiratory infectious diseases.”

Airborne viruses can hitch a ride between hosts in the air droplets that people breathe in and out. People infected with a respiratory illness can expel thousands of virus-containing droplets by talking, coughing and sneezing. Even those with no signs of being sick can sometimes pass on these viruses; people who are infected with SARS-CoV-2 can start infecting others at least two to three days before showing symptoms (SN: 3/13/20). So viruses often have a head start when it comes to infecting new people.

Fang and his colleagues designed a special sensor that reacts to the presence of certain viral proteins in the air and attached it to a face mask. The team then spritzed droplets containing proteins produced by the viruses that cause COVID-19, bird flu or swine flu into a chamber with the mask. The sensor could detect just a fraction of a microliter of these proteins — a cough might contain 10 to 80 times as much. Once a pathogen was detected, the sensor-mask combo sent a signal to the researchers informing them of the virus’s presence. Ultimately, the researchers plan for such signals to be sent to a wearer’s phone or other devices. By combining this technology with more conventional testing, the team says, health care providers and public health officials might be able to better contain future pandemics.

<https://www.sciencenews.org/article/face-mask-sensor-airborne-virus-detection-covid>

