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Jane's 360

Tue, 21 Jan 2020

India test-fires locally developed K-4 SLBM

By Rahul Bedi

New Delhi: India's government-run Defence Research and Development Organisation (DRDO) successfully test-fired on 19 January its locally developed, nuclear-capable K-4 intermediate-range submarine-launched ballistic missile (SLBM) off the country's east coast to its longest range so far, military sources revealed on 20 January.

Although no official confirmation has yet been provided by the DRDO of the 19 January day-time firing of the SLBM, the sources told *Jane's* on condition of anonymity that the 12 m-long K-4 was launched from an underwater pontoon near Visakhapatnam out to a distance of about 2,200 km.

This was 1,300 km short of the maximum 3,500 km range claimed by the DRDO, but reportedly "far in excess" of the range the missile had achieved in its previous test-firing from a similarly submerged platform in March 2016, the sources stated. The test also demonstrated that the DRDO has resolved the missile's earlier problem of 'tilting' after emerging from the water, they added.

The K-4 was first test-fired from an underwater pontoon in January 2010 but both the Ministry of Defense and the DRDO have refused to confirm any of the ranges attained by the SLBM in trials.

Weighing 17 tonnes and capable of carrying a 2.2 tonne warhead, the K-4's flight-path was tracked by DRDO radars, electro-optical systems, and coastal telemetry stations for about 1,500 km and thereafter by radar on Indian Navy (IN) ships deployed in the Bay of Bengal.

The military sources said further details of the latest test-firing will only be known to the DRDO once the IN platforms involved in the trials return to base, which will also determine the number of additional tests required before the SLBM is declared operational.

The K-4, which has suffered several technical setbacks over the past decade, is being developed to arm the indigenously designed Arihant-class nuclear-powered ballistic missile submarines (SSBNs), one of which is in service, with at least two more being built locally.

These SSBNs, each of which has been designed to carry four K-4s, are expected to bolster the IN's nuclear strike capability as part of India's three-tier retaliatory nuclear deterrence strategy.

https://janes.ihs.com/Janes/Display/1964499

नवभारत टाइम्स

Tue, 21 Jan 2020

समुद्र से 3500 किमी एटमी हमले की रेंज हासिल करके भारत ने अपना रक्षा घेरा संपूर्ण कर लिया है

के-4 मिसाइल ने दी जवाबी हमले की शक्ति

रंजीत कुमार

समुद्र से छोड़ी जाने वाली बैलिस्टिक मिसाइलों की दुनिया में भारत ने एक अहम छलांग लगाई है। 19 जनवरी को भारतीय रक्षा वैज्ञानिकों ने 3500 किलोमीटर तक मार करने वाली के-4 मिसाइल का सफल परीक्षण किया। इस तरह भारत ने सही मायने में त्रिआयामी परमाणु ताकत हासिल कर ली है। इसे हम आम शब्दों में न्यूक्लियर डिटरेंस यानी दुश्मन में परमाणु खौफ पैदा करने की ताकत भी कह सकते हैं। दुश्मन के परमाणु हमले का जवाब देने के लिए सेकंड स्ट्राइक कैपेबिलिटी यानी दुश्मन पर जवाबी हमले की ताकत को इस परीक्षण के जरिये हासिल किया जा सका है। हालांकि भारतीय वैज्ञानिकों ने सागरिका (के-15) नाम की सबमरीन लांच्ड बैलिस्टिक मिसाइल (एसएलबीएम) का परीक्षण करीब 12 साल पहले ही कर लिया था लेकिन इसकी मारक दूरी केवल 750 किलोमीटर थी।

ब्लैकमेल का दौर गया

पिछले एक दशक से विकसित की जा रही इस मिसाइल के परीक्षण पहले भी हो चुके हैं लेकिन अब भारतीय मिसाइल वैज्ञानिकों का दावा है कि इसके ताजा परीक्षण सभी पैमानों पर खरे उतरे हैं और यह अरिहंत परमाणु पनडुब्बी पर तैनात करने लायक हो चुकी है। भारतीय रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने जमीन से छोड़ी जाने वाली अग्नि श्रृंखला की इंटरकॉन्टिनेंटल बैलिस्टिक मिसाइलों का विकास किया है जिनमें अधिकतम 5000 किलोमीटर तक मार करने वाली अग्नि-5 मिसाइल भारतीय शस्त्र भंडार में शामिल हो चुकी हैं। लेकिन जमीन की तुलना में समुद्री बैलिस्टिक मिसाइल का विकास तकनीकी रूप से काफी जटिल होता है। जाहिर है, भारतीय मिसाइल वैज्ञानिकों ने समुद्री मिसाइलों की दुनिया में अपनी क्षमता दिखा कर दुनिया की अन्य मिसाइल ताकतों को आगाह किया है कि भारत को कोई भी सैन्य ताकत अपनी परमाणु मिसाइलें दिखाकर ब्लैकमेल नहीं कर सकती।

के-4 मिसाइल की कामयाबी से भारत की जवाबी परमाणु क्षमता सिद्ध हो चुकी है। इस मिसाइल की बदौलत भारत जमीन, आसमान और समुद्र के भीतर से परमाणु हथियार छोड़ने की ताकत यानी त्रिआयामी परमाणु क्षमता (न्यूक्लियर ट्रायड) को भी साबित करने में कामयाब हुआ है। आज की दुनिया में त्रिकोणीय परमाणु प्रतिरोधक क्षमता की अहमियत इसलिए है कि कोई देश यदि भारत पर पहले परमाणु हमला कर देता है तो उसका समुचित जवाब देने के लिए

> जमीन पर अग्नि श्रृंखला की मिसाइलें और आकाश में सुखोई-30 व मिराज-2000 जैसे लड़ाकू विमानों से परमाणु हमले की क्षमता भारत के पास पहले से मौजूद है

भारत को तैयार रहना होगा। त्रिकोणीय परमाणु प्रतिरोधक क्षमता समुद्री बैलिस्टिक मिसाइलों की बदौलत ही हासिल की जा सकती है क्योंकि इसे सुदूर महासागर में कहीं भी किसी परमाणु पनडुब्बी में छिपाकर रखा जा सकता है, जिसकी भनक दुश्मन देश को नहीं लग सकती।

750 किलोमीटर मारक दूरी वाली के-15

सागरिका बैलिस्टिक मिसाइलें भारत ने पहले ही अपनी पनडुब्बियों पर तैनात रखी हैं लेकिन इनकी अपनी सीमा है। दुश्मन देश पर गिराने के लिए इसे दुश्मन के समुद्र तट से काफी नजदीक ले जाना होगा, जहां वह राडार की पकड़ में आ सकती है। आज की सामरिक जरूरत लंबी दूरी वाली समुद्री बैलिस्टिक मिसाइलों को तैनात करने की है क्योंकि चीन के पास 8000 किलोमीटर और अमेरिका तथा रूस के पास इससे भी अधिक मारक दूरी वाली समुद्री परमाणु बैलिस्टिक मिसाइलें भारी संख्या में जमा हो चुकी हैं। इनके मुकाबले भारत की पनडुब्बी से छोड़ी जाने वाली बैलिस्टिक मिसाइल (एसएलबीएम) के-4 कम मारक दूरी वाली है, लेकिन इससे इस मिसाइल की अहमियत कम नहीं हो जाती है। इतनी मारक दूरी वाली मिसाइल भारत की सामरिक आवश्यकताएं पूरी करेगी, हालांकि भारत के-4 से भी अधिक मारक दूरी वाली के-5 और के-6 श्रृंखला की समुद्री बैलिस्टिक मिसाइलों की महत्वाकांक्षी योजना पर भी काम कर रहा है जो पांच और छह हजार किलोमीटर दूर तक मार कर सकती हैं।

के-4 मिसाइलों की 3500 किलोमीटर की मारक दूरी खासकर चीन के लिए चिंता पैदा करने वाली साबित होगी। इससे लैस अरिहंत परमाणु पनडुब्बी को बंगाल की खाड़ी या फिर सुदूर दक्षिण चीन सागर के इलाके में भी छुपा कर तैनात रखा जा सकता है, जहां से जरूरी होने पर चीन के किसी बड़े शहर को आसानी से निशाना बनाया जा सकता है। हालांकि परमाणु बमों से लैस लंबी दूरी की बैलिस्टिक मिसाइलें किसी देश पर गिराने के लिए नहीं तैनात की जातीं। इन्हें हासिल कर लेने से ही एक देश को इतनी ताकत हासिल हो जाती है कि दुश्मन देश डर कर पहले परमाणु हमला करने की जुर्रत ही नहीं कर पाता। आज जब अमेरिका और रूस ने बैलिस्टिक मिसाइलों के विकास और तैनाती को रोकने वाली स्टार्ट संधि को निरस्त करके नई किस्मों की बैलिस्टिक मिसाइलें तैनात करनी शुरू कर दी हैं, तब दुनिया की एक बड़ी ताकत के तौर पर उभरते भारत के लिए भी अपनी मांसपेशियां दिखाते रहना जरूरी है।

त्रिकोणीय परमाणु क्षमता

के-4 मिसाइल का ताजा परीक्षण भारत की परमाणु अवधारणा के अनुरूप है। भारत का परमाणु सिद्धांत यानी न्यूक्लियर डॉक्ट्रीन कहता है कि वह किसी भी देश पर पहले परमाणु हमला नहीं करेगा लेकिन यदि भारत पर कोई देश पहला परमाणु हमला करने में कामयाब हो जाता है तो उसका जवाब फौरन दिया जाएगा। इसीलिए त्रिकोणीय परमाणु क्षमता हासिल करना भारत के लिए जरूरी है। इस क्षमता का अर्थ है कि परमाणु बमों से लैस भारत की बैलिस्टिक मिसाइलें जमीन, आसमान और समुद्र में निरंतर तैनात हों। जमीन पर अग्नि श्रृंखला की मिसाइलें और आसमान पर सुखोई-30 और मिराज-2000 जैसे लड़ाकू विमानों से परमाणु हमला करने की क्षमता भारत के पास पहले से है। केवल समुद्री मिसाइल क्षमता की कमी रह गई थी। के-4 एसएलबीएम की बदौलत भारत ने इस खाई को भरा है। चूंकि ये मिसाइलें किसी परमाणु पनडुब्बी पर ही तैनात की जा सकती हैं इसलिए भारत ने अरिहंत परमाणु पनडुब्बी को अपने नौसैनिक बेड़े में सक्रिय कर दुनिया को संदेश दिया है कि कोई भी देश उसपर अपनी सैन्य शक्ति की धौंस नहीं जमा सकती।

The Indian EXPRESS

Tue, 21 Jan 2020

Key components of K-4 missile designed, developed in Pune

The K-4, which is an intermediate-range missile with maximum range of 3,500 kilometres, has been designed to arm the Arihant Class submarines of the Indian Navy

By Sushant Kulkarni

The nuclear capable submarine-launched ballistic missile, K-4, which was successfully test-fired Sunday, had some of its key components designed and developed at the three facilities of Pune-headquartered Armament and Combat Engineering (ACE) cluster of the Defence Research and Development Organisation (DRDO).

The K-4, which is an intermediate-range missile with maximum range of 3,500 kilometres, has been designed to arm the Arihant Class submarines of the Indian Navy. On Sunday, the test was conducted off the coast of Andhra Pradesh from an underwater platform in the Bay of Bengal during daytime, news agency ANI reported. The missile is part of the K series of the missile, which are Submarine Launched Ballistic Missiles (SLBMs) named after Dr APJ Abdul Kalam.

The testing of various stages of development of the missile started in 2010 and the developed missile has been test-fired successfully in 2014 and 2016. Sources said that the test Sunday further validated the capabilities of the missile to carry nuclear warheads.

The three facilities of the ACE cluster of the DRDO that contributed to the development of the missile are High Energy Material Research Laboratory (HEMRL) and Research and Development Establishment (Engineers), also known as R&DE (Engrs) in Pune, and Advanced Centre for Energetic Materials (ACEM) in Nashik.

The high energy and motor systems of the missile have been designed, developed and made by HEMRL and ACEM. The launch system of the missile has been developed by the R&DE (Engrs).

The HEMRL, which works in technologies relating to high explosives, propellants and pyrotechnics, has developed propellants and motor systems for almost all the missiles, including Prithvi, versions of the Agni, Akash, and Nag, all developed by the DRDO till now. For K-4, the facility has contributed in design and development of the stage separators, the three motors powering various stages of the missile, the gas generator, the low thrust boosters and some more systems.

Some of these systems have been produced by ACEM, which is a facility that processes composite propellants for various DRDO programmes.

The R&DE (Engrs) not only develops engineering systems for three defence forces, but also ground support mechanisms for various weapons programmes.

The Naval Systems Group of the facility has developed the launch system of the K-4 missile.

“The capability of the hypersonic missile of being able to be launched from a submarine platform will certainly be a key strategic addition to the naval might. But what makes the system even more effective is its high accuracy and the maneuverability. The development of K series missiles is one of the ways DRDO pays tribute to Dr Kalam,” said a DRDO official.

https://indianexpress.com/article/cities/pune/key-components-of-k-4-missile-designed-developed-in-pune-6226854/lite/

TIMESNOWNEWS.COM

Tue, 21 Jan 2020

How K-4 submarine-launched nuclear ballistic missile boosts India's second-strike capability

With a range of 3,500 km and a nuclear or conventional payload capacity of 2-tonnes, the K-4 gives you India unprecedented nuclear deterrent capabilities

KEY HIGHLIGHTS

- ***The test, is the latest development in the integration of the K-4 SLBM , reported to have a range of 3,500 km, and capable of carrying a 2-tonne nuclear payload***
- ***The 3,500km range of the K-4 will also ensure that India's nuclear submarines can vastly reduce the likelihood of detection during a mission***
- ***As of reports from 2017, Pakistan had claimed second-strike capability having successfully launched a SLBM of their own known as Babur III, with an alleged range of 450 km***

On Sunday, the Defence Research and Development Organisation (DRDO) successfully carried out a test launch of the K-4 intermediate-range, nuclear-capable, submarine-launched ballistic missile (SLBM) off a submerged terminal near Andhra Pradesh's coastal line. Although no formal statement has been made by the DRDO or the Ministry of Defence, a Notice to Airmen (NOTAM) was issued at the start of January over a 3,400 km stretch of the Bay of Bengal between 19 and 21 January.

The test, is the latest development in the integration of the K-4 SLBM, reported to have a range of 3,500 km, and capable of carrying a 2-tonne nuclear payload. The missile also features a Ringer Laser Gyro Inertial Navigation System, allowing it to move in three-dimensions when approaching a target at hypersonic speeds.

Testing on the ballistic missile began approximately a decade ago, with the last successful test being carried out in "full operational configuration" from the INS Arihant, India's indigenously built nuclear-powered ballistic missile submarine (SSBN). Along with the K-15 Sagarika SLBM, that is believed to have a range of 750 km, the K-4 will now equip India's Arihant-class of submarines with upgraded nuclear "second-strike" capabilities, providing the Indian Navy with unprecedented deterrence power.

The 3,500km range of the K-4 will also ensure that India's nuclear submarines can vastly reduce the likelihood of detection during a mission. Prior to its development, India's submarines would have had to move within 750 km off enemy shores before being able to carry out an attack. As such, the development of the K-4 will go a long way towards enabling India's INS-Arihant class of nuclear submarines to fulfil their tactical roles of acting as potent nuclear deterrents, especially against China and Pakistan.

As of reports from 2017, Pakistan had claimed second-strike capability having successfully launched an SLBM of their own known as Babur III, with an alleged range of 450 km. It had also struck an agreement with China in 2015 for the purchase of eight Type 41 Yuan-class diesel-electric submarines. China's Jin-class of nuclear-capable submarines though are, reportedly, already armed with SLNMs with a range of 7,200 km.

India is also currently working on the K-5, which is expected to have an estimated range of 5,000 km. However, the S-5 and any further upgrades are being developed for India's second-generation class of ballistic missile submarines (SSBN). It has also been reported that the DRDO has been given approvals to develop the K-6 SLBM as well, expected to have a range of 6,000 km.

https://www.timesnownews.com/india/article/indias-successful-missile-test-how-the-k-4-missile-gives-india-unprecedented-deterrence-capabilities/542348

THE ECONOMIC TIMES
WWW.ECONOMICTIMES.COM

Tue, 21 Jan 2020

Air Force's LCA to get Astra firepower, not Rafale's Meteor

Sources said after the missile is inducted into the Su30MKI fighter jets from which it has been tested, the system would be integrated on other foreign-origin combat aircraft. The performance of the Astra, sources said, is regarded to be better than similar Russian systems currently in service

By Manu Pubby

New Delhi: The Air Force is keen to make the indigenous Astra missile its standard long-range weapon for fighter aircraft and is promoting its integration on board the Light Combat Aircraft (LCA) as well as other platforms, top officials have told ET.

The LCA will not bear Meteor — beyond visual range air-to-air missile (BVRAAM) — that is standard on the Rafale fighter jets, with the French side expressing its reluctance to integrate the weapon with an aircraft equipped with an Israeli-origin radar and the Air Force determined to bring down the heavy imports bill by selecting a home-grown option.

"We are not even looking at the French option. We want to promote the indigenous system and have it equipped across all our platforms. The Astra development programme has been satisfactory," a top official said.

Sources said after the missile is inducted into the Su30MKI fighter jets from which it has been tested, the system would be integrated on other foreign-origin combat aircraft. The performance of the Astra, sources said, is regarded to be better than similar Russian systems currently in service.

User trials for Astra have been completed and the next stage, DRDO officials say, is for the first production order for the missile system. On board the LCA, integration tests are being carried out and the missile is likely to be part of the weapons package for 83 of the Mk1A version that is set to be ordered shortly.

Currently, the missile has a range of over 100 km and has been successfully test-fired against Banshee target aircraft simulating all possible threat scenarios. In the most recent user trials last September, the missile was launched with a warhead against manoeuvring targets that were neutralised, including a direct hit of the target at maximum range.

As reported by ET, DRDO is looking to nearly doubling the range of the missile to make it the most lethal weapon in India's air-to-air arsenal. "Astra initially had some technological challenges, which have been overcome successfully. With our persistent effort and with active IAF support, all the user evaluation has been completed and Astra is now ready for induction," DRDO Chief G Sateesh Reddy had told ET.

Hindustan Aeronautics Ltd (HAL) has played a significant role in modifying the aircraft for weapon integration and over 50 public and private industries are involved in building the Astra weapon system.

https://economictimes.indiatimes.com/news/defence/air-forces-lca-to-get-astra-firepower-not-rafales-meteor/articleshow/73466978.cms

नवभारत टाइम्स

Tue, 21 Jan 2020

ब्रह्मोस के साथ तमिलनाडु में सुखोई तैनात, पाकिस्तान पर बोले सीडीएस रावत- तीनों सेनाएं तैयार

मीडिया को संबोधित करते हुए चीफ ऑफ डिफेंस स्टाफ जनरल बिपिन रावत ने कहा कि देश की सभी डिफेंस सर्विसेज को किसी भी ऐक्शन के लिए तैयार रहने के निर्देश दिए हैं।

हाइलाइट्स

- ***तमिलनाडु के तंजावुर एयरबेस पर सुखोई-30 की 222 टाइगर शार्क स्क्वॉड्रन तैनात***
- ***तंजावुर में तैनात सुखोई फाइटर जेट बेहद घातक ब्रह्मोस मिसाइल से लैस***
- ***हिंद महासागर, बंगाल की खाड़ी और अरब सागर से लगने वाले तटीय इलाकों की सुरक्षा होगी मजबूत***
- ***सीडीएस बिपिन रावत बोले- सामने आने वाली हर परीस्थिति के लिए पूरी तरह से तैयार***

चेन्नै: दक्षिण भारत के तटीय इलाकों में सामरिक मोर्चे पर मजबूती के लिए भारतीय वायुसेना ने यहां अपने घातक फाइटर जेट सुखोई-30 की तैनाती कर दी है। तमिलनाडु के तंजावुर एयर बेस पर सोमवार को एयरफोर्स की ओर से सुखोई-30 की 222 टाइगर शार्क स्क्वॉड्रन की तैनाती की गई है। इस खास समारोह के दौरान चीफ ऑफ डिफेंस स्टाफ जनरल बिपिन रावत, एयरफोर्स चीफ आरकेएस भदौरिया समेत तमाम बड़े अधिकारी मौजूद रहे। तंजावुर में तैनात सुखोई फाइटर जेट बेहद घातक ब्रह्मोस मिसाइल से लैस हैं।

तंजावुर में सुखोई की तैनाती के बाद मीडिया को संबोधित करते हुए चीफ ऑफ डिफेंस स्टाफ जनरल बिपिन रावत ने कहा कि देश की सभी डिफेंस सर्विसेज को किसी भी ऐक्शन के लिए तैयार रहने के निर्देश दिए हैं। फिलहाल किसी भी स्थिति का पूर्वानुमान लगाना कठिन है लेकिन हम खुद के सामने आने वाली हर परीस्थिति के लिए पूरी तरह से तैयार है।

वहीं एयरफोर्स चीफ आरकेएस भदौरिया ने कहा कि सुखोई को तंजावुर में तैनात करने का फैसला यहां के सामरिक महत्व को देखकर लिया गया है। तंजावुर में तैनात सुखोई विमान ब्रह्मोस मिसाइल से लैस होंगे।

कोयंबटूर में तेजस की तैनाती

तंजावुर के इस एयरफोर्स स्टेशन की शुरुआत 2013 में हुई थी। इस मोर्चे पर सुखोई की तैनाती के साथ भारतीय वायुसेना दक्षिण भारत के तटीय इलाकों को सुरक्षा के लिहाज से और मजबूत बनाना चाहती है। सुखोई की तैनाती से पहले तमिलनाडु के कोयंबटूर एयरबेस पर तेजस विमानों एक स्क्वॉड्रन मौजूद है। ऐसे में तंजावुर में सुखोई के बेड़े के मौजूद होने से दक्षिण भारत में हिंद महासागर, बंगाल की खाड़ी और अरब सागर से लगने वाले तटीय इलाकों की सुरक्षा और मजबूत हो सकेगी।

https://navbharattimes.indiatimes.com/state/other-states/bangalore/chennai/sukhoi-deployed-at-tanjavur-airbase-of-tamilnadu/articleshow/73424976.cms

Jane's 360

Tue, 21 Jan 2020

Indian Air Force commissions first squadron of Su-30MKI fighters armed with the BrahMos-A missile

By Rahul Bedi

New Delhi: The Indian Air Force (IAF) commissioned on 20 January its first squadron of Sukhoi Su-30MKI multirole fighter aircraft armed with the BrahMos-A (Air) supersonic cruise missile.

IAF officials told *Jane's* that the recently re-activated No. 222 'Tiger Sharks' Squadron at Thanjavur Air Force Station (AFS) on India's southeast coast, which will be tasked with "monitoring" India's eastern and western seaboards and the wider Indian Ocean Region (IOR), is also the IAF's first Su-30 MKI squadron to operate from southern India.

Air Chief Marshal R K S Bhadauria, who presided over the induction ceremony alongside India's newly appointed Chief of Defence Staff General Bipin Rawat, said the decision to deploy the Su-30MKIs from Thanjavur was taken because of the AFS's "strategic location".

Senior IAF officers said No 222 Squadron is expected to be equipped with its full complement of 18 licence-built Su-30MKIs by early 2021, with eight of these aircraft set to be armed with the 2.5 tonne, air-launched BrahMos-A missile, which has a 292 km range.

The 'Tiger Sharks' are the IAF's 12th Su-30MKI squadron overall and only the service's second fighter squadron based in southern India: the other is the No. 45 'Flying Daggers' Squadron at Sulur AFS, 250 km west of Thanjavur, which operates the locally developed and built Tejas Light Combat Aircraft (LCA).

The induction of the squadron followed three successful test-firings of the BrahMos-A missile system from the Su-30MKI since November 2017, the most recent of which took place off India's east coast in December 2019.

Developed by a joint venture between India's state-owned Defence Research and Development Organisation (DRDO) and Russia's NPO Mashinostroyenia, the 8.3 m-long BrahMos-A is a modified variant of basic naval/land configuration BrahMos.

The two-stage BrahMos-A features several design refinements that include a lighter propulsion system, as well as redesigned fins and nose cap. Its first stage comprises a solid-fuel rocket for initial acceleration, while its second is an air-breathing liquid-fueled ramjet that boosts the missile to a speed of up to Mach 2.8.

The BrahMos' land- and ship-launched variants have been in service with the Indian Army and Indian Navy for more than a decade, while the submarine-launched variant is currently undergoing advanced trials.

https://janes.ihs.com/Janes/Display/FG_2650421-JDW

hindustantimes

Tue, 21 Jan 2020

IAF bases first BrahMos-armed Su-30s in south

The fighters are equipped with the air-launched version of the BrahMos supersonic cruise missile, a 2.5-tonne missile that flies at nearly three times the speed of sound

By Rahul Singh

New Delhi: The country on Monday upgraded its capabilities to keep a watch on the strategically-important Indian Ocean Region and deliver an offensive option swiftly, if necessary, with the air force basing its front-line Sukhoi-30 fighters in southern India for the first time.

With China's footprint in the Indian Ocean growing at a rapid pace, the Indian Air Force raised a new squadron of Su-30 MKI fighter jets at the Thanjavur air force station in Tamil Nadu. Chief of Defence Staff General Bipin Rawat, IAF chief Air Chief Marshal RKS Bhadauria and Defence Research and Development Organisation chief G Satheesh Reddy attended the ceremony.

The fighters are equipped with the air-launched version of the BrahMos supersonic cruise missile, a 2.5-tonne missile that flies at nearly three times the speed of sound. The BrahMos missile, an Indo-Russian joint venture, has a range of 290 km.

The missile --- the fastest cruise missile in the world --- would provide the air force the capability to strike sea and land targets from stand-off ranges with pinpoint accuracy in all weather conditions.

The No. 222 squadron, nicknamed Tigersharks, has been raised with six fighter planes and is expected to have its full complement of 18 jets by the year-end. It's the air force's second fighter squadron in south India after the No. 45 'Flying Daggers' squadron at Sulur, which is also in Tamil Nadu. The No. 45 squadron is equipped with India's first LCA Tejas Mk.1 fighters.

The IAF operates Su-30s from bases scattered across the country including Adampur, Halwara, Sirsa, Bareilly, Pune, Tezpur and Chabua.

Experts said the deployment of Su-30s in Thanjavur was a significant step towards safeguarding the country's interests in the Indian Ocean region where Chinese warships are frequently sighted and tracked by the Indian Navy.

"While the Indian Navy is keeping a close watch on the Indian Ocean region with its P-8I maritime reconnaissance aircraft, the requirement of having an air-delivered kinetic offensive option at quick notice could no longer be neglected. A permanent availability of air power in the Indian Ocean, which was lacking, has now been made up to some extent with the basing of the Sukhois at Thanjavur," said Air Vice Marshal Manmohan Bahadur (retd), additional director general, Centre for Air Power Studies.

He said the deep-strike capabilities of the aircraft, especially with the air-to-surface BrahMos supersonic missile, would enhance the country's much-needed deterrent stance in the region.

The IAF has contracted 272 Su-30 fighter planes out of which around 260 have been delivered and the remaining 12 are expected to join the air force fleet by the year-end.

The first 50 jets came in a flyaway condition from Russia and the remaining have been built under licence by the state-owned aircraft maker Hindustan Aeronautics Limited. The IAF inducted its first Su-30 fighter at the Lohegaon air base in Pune in June 1997.

The safety record of the fighters has been blemished by 12 crashes since the planes were inducted. The IAF is placing an order for a few more jets to make up for the losses.

The IAF's Su-30 fleet was plagued by engine troubles a few years ago when a string of failures was reported. The fleet's poor serviceability has also been questioned in the past. Serviceability refers to the number of planes in the fleet that are mission-ready at any given time.

"BrahMos-armed Su-30 fighter jets will be a game changer for future air operations," BrahMos Aerospace CEO Sudhir Mishra told Hindustan Time on Monday.

India launched the BrahMos from a specially-modified Su-30 warplane for the first time against a target in the Bay of Bengal in November 2017, followed by a second launch against a land target in May 2019. Last December, the IAF announced that it had successfully fired the BrahMos missile from a Su-30 for the third time and the integration of the weapon on the fighter was complete. The weapon achieved a direct hit on a sea target off the Odisha coast.

At least two Su-30 squadrons consisting of 18 planes each are likely to be equipped with the missile. The missile's land and naval variants – 500kg heavier than the air launched version – are already in service. BrahMos is now capable of being launched from land, sea and air, completing the tactical cruise missile triad for India.

India is developing an extended range BrahMos missile that can hit targets at a range of 450 km by tweaking the configuration of the existing weapon. Increasing the missile's range became possible after India's induction into the Missile Technology Control Regime in June 2016.

Compared to an optimum strength of 42-plus units required to fight a two-front war with Pakistan and China, the count of the IAF's fighter squadrons currently stands at around 30.

https://www.hindustantimes.com/india-news/iaf-bases-first-brahmos-armed-su-30s-in-south/story-tGtA6zTpeZzozM70sVps1M.html

The Tribune
VOICE OF THE PEOPLE

Tue, 21 Jan 2020

1st BrahMos-armed Sukhoi squad to guard Indian Ocean Region

BrahMos cruise missile travels at a speed of Mach 2.8, nearly three times that of sound

New Delhi: Adding teeth to air and maritime dominance in the Indian Ocean Region, India on Monday inducted the BrahMos missile-equipped Sukhoi 30-MKI fighter jets at Thanjavur, Tamil Nadu, mandating it for a sea role.

The formal induction was done under the re-raised 222 Squadron — The Tigersharks — of the IAF. Chief of Defence Staff, General Bipin Rawat, said the resurrection of the "Tigersharks" highlighted the integration and jointness which was the future of the IAF.

"Sukhoi 30-MKI aircraft along with the BrahMos will be the game changer, which will extensively enhance the security of the maritime domain," he added.

The squadron will be operating closely with the Indian Army and Navy to "get the ball rolling" in jointness of the IAF, opined Gen Rawat.

Air Chief Marshal RKS Bhadauria, IAF Chief, said the induction had been advanced by almost a year.

The Russian-origin Sukhoi's will be mandated for a maritime role. In lay parlance, the jets can be used for sea strikes using the BrahMos missile. So far, the IAF had been using the Jaguar for a sea role. The range of the Sukhoi is far greater and is capable of carrying the air version of the BrahMos, which weighs 2.5 tonnes.

The IAF will have the only air-launched supersonic weapon of its kind in the world that can be fired from an air platform at a target at sea. The BrahMos has a minimum range of 290 km. The Sukhoi 30-MKI has a flight radius of some 1,000 km extendable by mid-air re-fuelling.

https://www.tribuneindia.com/news/1st-brahmos-armed-sukhoi-squad-to-guard-indian-ocean-region-29337

THE TIMES OF INDIA

Tue, 21 Jan 2020

High-level Defence panel reviews work on indigenous aircraft carrier

Kochi: A committee headed by the Defence Secretary on Monday reviewed the progress of the Indian Navys first indigenous aircraft carrier Vikrant, currently under the third phase of construction here.

The Empowered Apex Committee (EAC) headed by Defence Secretary Ajay Kumar reviewed theprogress of the Indigenous Aircraft Carrier (IAC) project at Cochin Shipyard Limited.

"The review critically examined the current status of the project as the IAC is in a very advanced stage of construction and is scheduled to commence basin trials in early 2020 followed by the sea trials by mid 2020" , a Defence release said here. T

his is the 13th EAC Review Meeting of the Project and the first to be held after the signing of the Phase-III of the IAC Contract on October 31, 2019 between the Ministry of Defence and the public sector Cochin Shipyard Limited (CSL).

According to the officials, the construction of the aircraft carrier is in an advanced state with all four gas turbines, main engines having been started. Power generation systems comprising eight diesel alternators were ready and trials of the ships major systems and auxiliary equipment in progress.

Basin trials are conducted for proving of the propulsion, transmission and shafting systems and is scheduled in early half of this year.

The IAC would be ready to commence the Sea Trials once the Basin trials are successfully completed, the release said.

The Defence Secretary was accompanied by Vice Chief of Naval Staff Vice Admiral Ashok Kumar, Vice Admiral GS Pabby, Chief of Materiel, Vice AdmiralS R Sarma, Controller Warship Production & Acquisition, and other senior officers from the Integrated Headquarters (IHQ) of Ministry of Defence (Navy), Warship Overseeing Team and Carrier Acceptance & Trials Team.

The basic design of the nearly 40,000-tonne IAC was done by the Indian Navy's Directorate of Naval Design and developed into a detailed one by the design team of CSL.

The ship has a length of over 260 m and breadth of 60 m. It has two take-off runways and a landing strip with three arrester wires, capable of operating STOBAR aircraft including the indigenous LCA, as well as a range of helicopters with hangar facilities, officials had earlier said.

https://timesofindia.indiatimes.com/india/high-level-defence-panel-reviews-work-on-indigenous-aircraft-carrier/articleshow/73440670.cms

THE TIMES OF INDIA

Tue, 21 Jan 2020

CDS Rawat downplays Chinese matrix in Indian Ocean, gives weight to freedom of navigation

Thanjavur: Chief of Defence Staff General Bipin Rawat on Monday downplayed the question of China's growing presence in the Indian Ocean Region (IOR) and said every nation looked at its security from a strategic perspective.

After the induction of a Sukhoi-30 MKI fighter jet squadron at the Air Force Station here, General Rawat, answering a question on how Chinese presence in the Indian Ocean posed a threat to India, said every nation looked at its security from a stratgeic perspective.

While the squadron here is expected to give a thrust to India's capabilities for dominance especially in the IOR, China's presence in the same region is on the rise.

The Dragon nation already has a military base at the strategically located Djibouti at the horn of Africa, its first in a foreign nation, and it is also looking at expanding its presence.

"Every nation looks at its security from a strategic perspective.

Oceans are meant for freedom of navigation. And therefore wherever you find any country which has interest in a particular area, it will attempt to come to that area to dominate the area more so for the freedom of navigation," he told reporters.

Further, pointing to aspects like protection of trade in sea routes by any country, he said: "Therefore, I don't think we should look at it particularly from that perspective (a pointer to perceived threat from China)."

Also, he said the navies were operating in this area (indicating IOR) only because of freedom of navigation.

The top general also referred to facets like piracy that can disrupt movement of merchant ships.

https://timesofindia.indiatimes.com/india/cds-rawat-downplays-chinese-matrix-in-indian-ocean-gives-weight-to-freedom-of-navigation/articleshow/73437564.cms

The Tribune
VOICE OF THE PEOPLE

Tue, 21 Jan 2020

CDS Rawat says difficult to predict war possibility with Pakistan

Thanjavur: Chief of Defence Staff Gen Bipin Rawat on Monday said it was very difficult to predict if a scenario of a war with Pakistan would emerge or not but all the defence services were prepared to take on any challenge.

The top general, who inducted the Sukhoi-30 MKI squadron here, was responding to a question about any possibility of a war emerging between India and Pakistan.

“All the defence services are tasked to be prepared for any option that may emerge. It is very difficult to predict a scenario. But, we are always prepared for any task that may be assigned to us,” Gen Rawat said.

The Chief of Defence Staff (CDS) said his new role was aimed at integrating defence systems and the three services (the Army, the Navy and the Indian Air Force).

It was for this reason the post of CDS was created, he said.

"...we will keep moving towards better integration and jointness," Rawat, who was appointed the country's first Chief of Defence Staff on December 30 last year, added.

On strengthening the Air base here, Air Chief Marshal Rakesh Kumar Singh Bhadauria said it will undertake the role of the southern peninsula's air defence.

The Indian Air Force commissioned a squadron of Sukhoi-30 MKI at the Air Force Station here, the first such base in south India for the high-profile fighter jets, seen as a game changer in guarding the strategically important Indian Ocean Region (IOR).

The 'Tigersharks' squadron of Sukhoi-30 MKI jets integrated with the BrahMos cruise missiles was inducted in the presence of the Air Chief and top officials.

The Su-30 MKI is a state-of-the-art all weather multi-role fighter aircraft capable of undertaking varied air defence, ground attack and maritime missions.

Rawat also downplayed the question of China's growing presence in the Indian Ocean Region (IOR) and said every nation looked at its security from a strategic perspective.

Gen Rawat, answering a question on how Chinese presence in the Indian Ocean posed a threat to India, said every nation looked at its security from a stratgeic perspective.

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The top general also referred to facets like piracy that can disrupt movement of merchant ships. — PTI

https://www.tribuneindia.com/news/cds-rawat-says-difficult-to-predict-war-possibility-with-pakistan-29009

The Tribune
VOICE OF THE PEOPLE

Tue, 21 Jan 2020

IAF gears up to send Mi-26 fleet to Russia for overhaul

By Vijay Mohan

Chandigarh: The Indian Air Force is preparing to ferry its Mi-26 heavy-lift helicopters to Russia for major overhaul and life extension, following which its vertical heavy-lift capability will get a substantial boost.

The resurrected Soviet-origin helicopters will operate along with the IAF's new American CH-47 Chinooks that are also employed in the heavy-lift logistics role for airlifting men and equipment.

At present, the IAF has three Mi-26s, the world's largest and heaviest helicopters. These are based at Chandigarh with the 126 Helicopter Unit, also called Featherweights. The same unit also operates the Chinooks. In service since 1985, the first Mi-26 was grounded in 2013, followed by the other two in 2014 and 2017 on the expiry of their stipulated technical life. Although the IAF set into motion the process to give fresh lease of life to these grounded flying machines around four years ago, the plans remained mired in bureaucratic machinery.

"The files were finally cleared by the Ministry of Defence late last year and we are now finalising the modalities to ferry the machines to Russia. Since two of the Mi-26s are not in fly-worthy condition at all, they will have to be partially disassembled and shipped," said a senior IAF officer. "A decision on the third chopper, which though non-operational but still fly-worthy, will be taken by Air Headquarters on whether to ship it or fly it to Russia after considering the costs, international air routing and other technicalities involved," he added. The IAF expects that each helicopter will take 10-12 months to be back in fly-worthy state.

https://www.tribuneindia.com/news/iaf-gears-up-to-send-mi-26-fleet-to-russia-for-overhaul-29336

Jane's 360

Tue, 21 Jan 2020

Indian MoD confirms procurement restructure

By Jon Grevatt

Bangkok: The Indian Ministry of Defence (MoD) has confirmed that its newly formed Department of Military Affairs (DMA) will take over some procurement duties to support efficiencies and collaboration across the armed services.

In a notice published on 17 January, the MoD said it has shifted responsibility for administration and "revenue procurement" matters to the DMA from the MoD's Department of Defence (DoD).

Large capital procurement requirements will continue to be overseen by the Defence Acquisition Council (DAC), which, under the restructure, moves from Integrated Defence Staff to the DoD.

Revenue procurement to be managed by the DMA include "common-user items" required by the armed services, which will be included in their respective annual defence budgets.

The MoD notice also identified a range of defence articles that the DMA will have responsibility to procure. These encompass armaments, ammunition, explosives, and weapons – including air-to-air missiles – vehicles, signal equipment, stores, clothing, night-vision devices, and the procurement of spares.

The DMA will also oversee the procurement of maintenance and overhaul services for major defence equipment including aircraft, tanks, aircraft, radars, and communication equipment. The DMA will also be responsible for the overhaul of defence facilities.

In addition, the MoD notice indicated that the new DMA will have responsibility to co-ordinate India's co-operation with "other countries" on the purchase of similar "revenue procurement" articles for the Indian military.

The DMA was established in December 2019 and is led by the newly created position of Chief of Defence Staff (CDS). General Bipin Rawat became CDS after retiring from his post as Indian Army chief of staff on 1 January.

https://janes.ihs.com/Janes/Display/FG_2650117-JDW