

India plans 5,000-km range submarine launched ballistic missile

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By Shishir Gupta

New Delhi: With the K-4 submarine-launched ballistic missile completing the development stage and ready for induction, the Defence Research and Development Organisation (DRDO) has gone back to the drawing board to develop a 5,000km-range submarine-launched platform that matches the surface-to-surface Agni-V missile, according to senior officials.

The 5,000km-range submarine-launched ballistic missile will carry the same K-series label and will cover all of Asia, parts of Africa, Europe and Indo-Pacific including South China Sea, the officials added.



While the details remain classified and the DRDO tight-lipped, the officials said that after testing the 3,500km-range K-4 missile twice in one week, the weapon is now fully developed with fixed parameters and is ready to be inducted on INS Arihant class of nuclear submarines. The solid fuelled K-4 is a three-metre tall missile with accuracy within 100 metres of its over one tonne nuclear warhead. Both the tests were conducted using underwater pontoon off the coast of Vizag on India's eastern seaboard. At present, INS Arihant carries B-05 nuclear missile with a range of 750km, with the K-15 nomenclature being made redundant.

However, the DRDO focus is now on a 5,000km-range ballistic missile to join the elite club of US, Russia and Chinese nuclear submarines. According to officials, this missile will match Agni-V in range with a potent destruction capacity. India currently has no plans to develop any other longer-range missile as the 5,000km range will act as a deterrent to all its adversaries in Asia and beyond. "While we have the capacity to build a longer range nuclear missile of intercontinental range, the final decision lies with the government. And no such sanction has been either sought or approved," said a senior official.

<https://www.hindustantimes.com/india-news/india-plans-5-000-km-range-ballistic-missile/story-bystz09QSaHJwYvAtlbNeI.html>

DRDO flaunts anti-satellite weapon system

A-Sat missile 'Shakti', Dhanush artillery, Chinook , Apache copters make debut at Rajpath parade

By Sunil Thapliyal

New Delhi: Anti-satellite weapon “Shakti”, lethal artillery gun “Dhanush”, and newly-inducted helicopters Apache and Chinook were among the key military assets showcased by India for the first time at the Republic Day parade on Sunday. With space becoming a vital dimension of any country’s economic and military superiority, DRDO’s Anti-Satellite Weapon System which play a critical role in providing the necessary strategic deterrence was also displayed at the parade.

In March last year, the DRDO had launched “Mission Shakti”, India’s first A-SAT mission and demonstrated its anti-satellite technology. A live orbiting satellite in the Low Earth Orbit (LEO) was destroyed in a “Hit to Kill” mode with 10 centimetre accuracy, with the satellite and the missile approaching each other at a high speed of nearly 11 km per second.



Scaled down models of IAF’s Rafale aircraft and Indian Navy’s Kolkata-class stealth destroyer and a Kalvari-class submarine were also displayed during the ceremonial event. In the mechanised columns, three indigenously-developed battle tank T-90 Bhishma, three Ballaway Machine Pikate, three K-9 Vajra gun system, two transportable satellite terminal (TST) and two Akash surface-to-air-missiles, were also showcased.

The Apache and Chinook were among the main attractions as they flew across the clear blue sky, leaving the spectators spellbound. The helicopters, transport aircraft C-130J Super Hercules and C-17 Globemasters, drew loud cheers from people as they showed their aerial manoeuvres.

US-made Chinook, twin-engine, tandem rotor is a multi-role, vertical-lift platform, which is used for transporting troops, artillery, equipment and fuel. Four Chinooks were inducted into the IAF in March last year. Eight US-made Apache stealth attack helicopters were inducted into the IAF in September last year, significantly boosting the force’s firepower capability. The three Chinooks flew in ‘vic’ formation followed by the Apache, the latest attack helicopters of the Indian Air Force. Five Apache helicopters flew past the huge crowd in ‘arrowhead’ formation.

After Apache came the “Eye in the Sky- Netra” formation, comprising a single AEW&C flanked by two Su-30 MKIs. Thereafter, three C-17 Globemasters, in “displaced trail vic” formation called “Globe” formation flew past the dais, showcasing the IAF’s heavy lift capabilities. Besides Rafale, the IAF tableau also depicted scaled-down models four other systems recently added to its inventory — indigenously developed light combat aircraft Tejas, surface-to-air guided weapon Aakash missile and Astra missiles.

The Navy’s tableau also showcased model of country’s first indigenous aircraft carrier Vikrant with MiG-29K aircraft and depicted the force’s humanitarian assistance during the Maharashtra floods last year.

<https://www.asianage.com/india/all-india/270120/drdo-flaunts-anti-satellite-weapon-system.html>

R-Day celebrations: DRDO displays A-SAT weapon system

With space becoming a vital dimension of any country's economic and military superiority, A-SAT (Anti-Satellite) weapons play a critical role in providing the necessary strategic deterrence. In March last year, the DRDO launched 'Mission Shakti', India's first A-SAT mission and demonstrated its anti-satellite technology

New Delhi: The DRDO Anti-Satellite (A-SAT) Weapon System was on display at Rajpath in the Republic Day parade on Sunday.

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In March last year, the Defence Research Development Organisation (DRDO) launched 'Mission Shakti', India's first A-SAT mission and demonstrated its anti-satellite technology.

A live orbiting satellite in the Low Earth Orbit (LEO) was destroyed in a "Hit to Kill" mode with 10 centimetre accuracy, with the satellite and the missile approaching each other at a high speed of nearly 11 km per second.

The covert technology of 'hit to kill', developed for the first time by India for such applications, enables it to destroy an enemy satellite by directly colliding with it with pin-point accuracy.

The successful demonstration has placed India at par with the elite club of three nations -- US, Russia and China -- that possess this capability.

<https://economictimes.indiatimes.com/news/defence/r-day-celebrations-drdo-displays-a-sat-weapon-system/printarticle/73629331.cms>

परेड में किया गया एंटी सेटेलाइट मिसाइल और एयर डिफेंस रडार का प्रदर्शन, दुनिया को दिखाई धमक

गणतंत्र दिवस पर राजपथ पर आयोजित परेड में इस बार डीआरडीओ की मिशन शक्ति की एंटी-सेटेलाइट मिसाइल और एयर डिफेंस टैक्टिकल कंट्रोल रडार का भी प्रदर्शन किया गया।

नई दिल्ली: 71वें गणतंत्र दिवस के मौके पर रविवार को राजपथ पर आयोजित परेड में इस बार डीआरडीओ की मिशन शक्ति की एंटी-सेटेलाइट मिसाइल और एयर डिफेंस टैक्टिकल कंट्रोल रडार का भी प्रदर्शन किया गया। बता दें कि इन दोनों ने ही भारत की रक्षा प्रणाली को मजबूत किया है। इसके बाद भारत उस खास क्लब का हिस्सा बन गया, जिसमें सिर्फ अमेरिका, चीन और रूस शामिल थे।

पिछले साल 27 मार्च को भारत ने एंटी सैटलाइट मिसाइल का सफल परीक्षण किया था। परीक्षण के दौरान इस मिसाइल ने पृथ्वी की सतह से 300 किलोमीटर की ऊंचाई पर स्थित 'लो अर्थ ऑर्बिट' पर अपने ही एक डीकमीशन हो चुके सैटलाइट को मार गिराया था। इस मिसाइल के सफल परीक्षण के साथ ही अमेरिका, रूस और चीन के बाद इस तरह की ताकत का प्रदर्शन करने वाला भारत चौथा देश बन गया था। पीएम नरेंद्र मोदी ने इस सफलता के लिए राष्ट्र के नाम देश के लोगों को संबोधित किया था।

कॉवर्ट टेक्नॉलॉजी को विकसित करने वाला पहला देश बना भारत

सेटेलाइट को 'हित टू किल' मोड में 10 सेंटीमीटर की दूरी पर नष्ट किया गया। इस दौरान सेटेलाइट और मिसाइल 11 किलोमीटर प्रति सेकंड की रफ्तार से एक-दूसरे की तरफ बढ़ रहे थे। सटीक तरीके से दुश्मन के सेटलाइट को मार गिराने वाली इस कॉवर्ट टेक्नॉलॉजी को विकसित करने वाला पहला देश भारत बना। खास बात है कि डीआरडीओ DRDO ने इस पूरे सिस्टम को बनाने, डिजाइन करने, इंटीग्रेट और सफलतापूर्वक परीक्षण करने में सिर्फ 2 साल का समय लिया।



<https://www.jagran.com/news/national-r-day-celebrations-drdo-displays-a-sat-weapon-system-19972589.html>

Anti-drone tech used for first time to guard VVIPs at parade

Anti-drone weapons, including those indigenously manufactured by the Defence Research and Development Organization (DRDO), were deployed at Janpath to protect high-value targets at the parade

By Shishir Gupta

New Delhi: National security planners on Sunday deployed anti-drone weapons to secure VVIPs during the Republic Day parade - the first instance of India attempting to neutralise the growing threat from unmanned aerial vehicles (UAVs) -- according to people familiar with the matter.

While security agencies are tight-lipped on the details of its classified action, HT has learnt that anti-drone weapons, including those indigenously manufactured by the Defence Research and Development Organization (DRDO), were deployed at Janpath to protect high-value targets at the parade.



The decision to deploy anti-drone weapons was taken by Union home minister Amit Shah after intelligence agencies reported the possibility of terrorists using UAVs to target VVIPs in a bid to embarrass the Narendra Modi government on the global stage. Though India's anti-drone capability is limited, DRDO and security forces responded by setting up a platform.

DRDO uses electro-optical laser pulses and radars to track hostile drones, and then either jams the radio frequency between the machine and the operator or destroys UAVs using laser technology. Interestingly, the classified drone weapon was on the day DRDO showcased its anti-satellite weapon at the parade.

Indian security agencies are concerned about the growing threat from drones, with the Pakistani deep state using Chinese-made UAVs to deliver weapons payloads across the Punjab border and the Line of Control (LoC) in recent months.

At least four Chinese drones have been recovered by Punjab Police since August 2019. They were used to drop assault rifles, satellite phones, grenades and pistols to terror operatives in Punjab. Security officials said the same modus operandi is used to drop weapons in Jammu & Kashmir. They added that the threat is even more serious with China developing armed drones, which fire missiles to destroy high-value targets.

“Rather than sending a human across the LoC, drone provides a cheap and effective way to stockpile weapons in J&K by Pakistan-based jihadist groups. Even if the drone gets shot down, there is total deniability, and handlers don't have to pay huge sums of money to the family of the weapon courier if he gets killed by Indian security forces,” said a senior official who asked not to be named.

Meanwhile, the Bureau of Civil Aviation Security (BCAS) – in a high-level meeting of a committee under BCAS director general Rakesh Asthana last week -- finalised specifications for a system to counter rogue drones at Indian civilian airports. The specifications have now been sent to the civil aviation minister for approval.

<https://www.hindustantimes.com/india-news/anti-drone-tech-used-for-first-time-to-guard-vvips-at-parade/story-TiscnVEtoThdt9csDCqxVN.html>

Tamil DRDO scientist honoured

The event was presided by President of Sastra Alumni Association Sridhar Gopalan

Chennai: The 2019 Sastra Distinguished Alumni Excellence Award was presented to S Pazhanikumar, a 1992 mechanical engineering graduate and a scientist at DRDO-CVRDE for his outstanding public service and contributing to India's defence.

The 2019 Sastra Distinguished Alumni Excellence award for Corporate Service was awarded to 1994 electrical engineering graduate SV Ramanan, CEO India and Asia, Intellect Design Arena.

Girish Mathroobotham, founder and CEO of Freshworks was presented the award for his exceptional entrepreneurial excellence.

All awards were presented in the Sastra Alumni Global meet in Chennai on Sunday. The event was presided by President of Sastra Alumni Association Sridhar Gopalan.

Corporate service award

The 2019 Sastra Distinguished Alumni Excellence award for Corporate Service was awarded to 1994 graduate SV Ramanan, CEO India and Asia, Intellect Design Arena.

<https://www.newindianexpress.com/states/tamil-nadu/2020/jan/27/tamil-drdo-scientist-honoured-2094933.html>

