

## **Defence Ministry to decide on Army's Rs 10,000 crore Akash missiles proposal for Pakistan, China border**

*The proposal to acquire two regiments of the Akash Prime missiles which can be deployed in high altitude areas to counter China and Pakistan would be discussed at the meeting of the Defence Acquisition Council scheduled to be held today*

New Delhi: Seeking to prevent any intrusion of aircraft through the mountainous borders with Pakistan and China, the Defence Ministry is set to discuss a proposal to acquire two regiments of the Akash Prime missiles which can be deployed in high altitude areas above 15,000 feet.

The new Akash missiles which will have an extended performance range than its predecessors are being prepared to be deployed in high altitude areas in Ladakh which shares boundaries with both Pakistan and China.

"The Defence Ministry is scheduled to consider the Army proposal worth around Rs 10,000 crore for acquiring two regiments of the Akash Prime or extended performance Akash missiles. The Akash Prime Missile is an upgraded version of the missile system already existing in the Army," government sources told ANI.

The proposal would be discussed at the meeting of the Defence Acquisition Council scheduled to be held today after the return of Army Chief General Bipin Rawat and Defence Minister from Ladakh.

Defence Minister Rajnath Singh will inaugurate the Col Chewang Rinchen Bridge built between Durbuk and Daulat Beg Oldie in eastern Ladakh.

The Akash missile system has been developed in India by DRDO and has proven to be highly successful in the defence forces.

The Army already has two regiments of the missile and is looking to add two more for deployment on Pakistan and China border.

Even though the Army is facing minor issues with servicing of the system due to involvement of two production agencies including the Bharat Electronics Limited and the Bharat Dynamics Limited, it is generally happy with missile's performance.

The present order of two regiments was earlier to be given to foreign vendors but the Narendra Modi government decided in favour of 'Make in India' in defence.

Recently, the Cabinet Committee on Security headed by Prime Minister Narendra Modi cleared the project for the Air Force to buy seven squadrons of the surface to air missile.

During an exercise in Surya Lanka held last year, the Akash missile system was tested along with all other air defence missiles including Israeli ones in the Indian Air Force inventory and it came out as the best performer.

Defence Research and Development Organisation (DRDO) had successfully test-fired AKASH-MK-1S, the surface to air missile from ITR, Chandipur, Odhisa on May 25 and 27 this year. Akash Mk1S is an upgrade of existing AKASH missile with indigenous Seeker.

<https://economictimes.indiatimes.com/news/defence/defence-ministry-to-decide-on-armys-rs-10000-crore-akash-missiles-proposal-for-pakistan-china-border/articleshow/71685060.cms>

# Why the army's changed mindset on indigenous technology is a relief | India Today insight

*The army's record of embracing local technology leaves much to be desired*

*By Sandeep Unnithan*

New Delhi: Two very significant pitches for indigenously developed arms came from the highest levels of the Indian Army in the past week. Addressing a DRDO conference on October 15, army Chief Gen. Bipin Rawat said the forces would fight and win the next war with homegrown solutions. Addressing the annual Defence Attaches' conclave four days later, Vice-Chief of Army Staff Gen. M.M. Naravane said that the army would accept indigenous technology even if they didn't meet the 'best' parameters. Improvements, he said, could be made later. In any other country, army officials endorsing home-grown technology would not have been a non-sequitur. But in the Indian context, these major endorsements signal a welcome shift in the thought process.

Indian industry officials say the army has been the slowest of the three services to embrace indigenous technology. This could also be explained by the fact that it is the least technology-intensive of the three services. The army is manpower intensive. It does not operate hundreds of fighter aircraft over vast airspaces nor does it have platforms as technologically intensive as an aircraft carrier or a nuclear-powered submarine. Army testing procedures are rigorous and trials of critically required equipment like bulletproof jackets often go on for years without achieving results. The navy has worked closely with the DRDO to perfect indigenous sonars. The army can only claim a handful of successful collaborations such as the Dhanush which fielded an indigenous 155 mm howitzer from blueprints supplied by Bofors in the 1980s. Three critical systems-the Tactical Communications System (TCS), Battlefield Management Systems (BMS) and the Future Infantry Combat Vehicle (FICV) have been on for over a decade without a prototype in sight.

But right now, the 1.3 million-man Indian army, the world's second largest, is looking at a budgetary wall. The army accounts for over half the total defence budget but spends 80 per cent of its share on salaries and running costs. Defence budgets are unlikely to rise for it to be able to fill all its equipment voids. The indigenisation route may be the only way around this.

In recent years, the army has embarked on what could only be called Quixotic pursuits. A bizarre contest to buy a multi-caliber rifle-a single rifle firing two different types of ammunition-was scrapped after seven long years. Last year, it shut down a BMS project that would seamlessly link all its fighting formations, citing high project costs.

Yet, nothing compares in the scale of neglect to the army's now-shelved Beta battle computer project. The Kargil War of 1999 exposed how little the infantryman's kit had changed since the 1971 war. Project Beta, flagged off in 2003, then, seemed astonishingly ahead of its time by army standards.

Among the early projects initiated by the Army Technology Board, the aim was for every soldier to field a hand-held computer. It was the army's leap into the digital battlefield of the future, bringing the Indian soldier on par with counterparts in the US and Israel who were racing to develop the same capability. Project Beta's hand-held or body-worn PDA would enhance a soldier's situational awareness in the battlefield by answering three basic questions: where am I, where is the enemy, and where are my comrades?

The answers would blip on the screen of a hand-held device, rugged-proofed for military use. The device was meant to equip infantry companies (100 or more soldiers) engaged in counter-insurgency in Jammu and Kashmir.

The project combined the expertise of Bengaluru's IT industry with academia, defence scientists along with end-users. Bengaluru-based Encore software collaborated with the Indian Institute of Science (IISc) and the DRDO. The Indian Army's Directorate General of Information Systems worked as co-developers and end-users on the project. "It was a unique partnership and it would have been a fantastic base for us to build on for the army's future projects," says Colonel D.P.K. Pillay (retired) who coordinated Project Beta at Army HQ, New Delhi.

By 2005, the team had produced an integrated battlefield computer that would allow a soldier to pinpoint his exact location on a Geographical Information System (GIS) powered map, allow friendly troops to see his position on their screens and allow communication between them. The Situational Awareness and Tactical Handheld Interface (SATHI) packed a lot into an 875-gram rugged set that was smaller than a brick. The solar-powered PDA ran on a 128-bit encrypted system, a Linux programme and was capable of withstanding temperatures between -20 degrees C to + 70 C. It had a 5 km range and a GPS receiver-with a 24 hour battery life.

It supported both voice and text for devices deployed in the mission area. Its software-controlled radio allowed regular updates of device positions, messages and map markings over the entire network, directly, or by relay. The password-protected device, its manufacturers say, could even act as a decoy if it fell into enemy hands. If unauthorised attempts were made to log in, the unit could actually reveal the position of the person attempting the break-in to friendly troops.

When the first 120 units were tested, it was a formidable game-changer. Infantry closing in on the enemy knew their location and those of friendly forces in real time. Troop movements could be monitored by commanders on a laptop several kilometres away. Each Sathi unit theoretically had unlimited range because each unit acted as a relay station, bouncing signals to the next unit and thus doing away with the need to erect signal relay stations to boost range. The system was successfully demonstrated to President A.P.J Abdul Kalam. The developers drew up plans for a series of devices using the same core and operating systems which could scale up the Sathi's capabilities and be used by decision-makers up the command chain.

In 2008, a proposal for a second batch of 1,300 Beta-2 devices came up before the Army Technology Board for funding approval. The project team wanted to test it across a wider area. That's when the army pulled the plug on the project. The decision took the project team by surprise. It was almost inexplicable, says one officer who worked on the project. "We don't need to reinvent the wheel," a three-star officer who headed the army's Information Systems (IS), reportedly told the project team when they protested. Project Beta was closed down. The Sathis already manufactured were consigned to the almira's in the office of the D-G, IS. It was a move that would have delighted the dozens of foreign equipment manufacturers who are now offering their own solutions to the Indian Army. Cut to 2019. The army still does not have a hand-held computer. Special forces operatives crawling up on the enemy at the Line of Control have no way of knowing where their comrades are at. Infantrymen engaged in combing operations operate just as they would do several years ago--through radio, mobile phone or hand signals. The Sathi project remains a wistful reminder of what might have been.

Could the project be revived? Quite easily, says Colonel K.P.M. Das (retired) who worked on the project and is now with Cisco Systems. "The technology has gone through four or five cycles since then, with the result that today's start point can be achieved in a matter of months. A Sathi for 2020 can do a hundred times more than what it did 15 years ago and a large number of military-grade systems can be fielded in a year." A resurrected Sathi could well be the biggest statement of the army's indigenisation intent.

<https://www.indiatoday.in/india-today-insight/story/why-the-army-s-changed-mindset-on-indigenous-technology-is-a-relief-1611391-2019-10-21>

## On wrong track

India's Defence Research and Development Organisation (DRDO) has announced that it is set to begin development of the next generation of hypersonic missiles. The move has come in the wake of a Chinese display of military ware at its National Day parade 01 October. It is being labeled as yet another 'necessity' in the face of growing military power in the neighbourhood. The question, though, is whether developing deterrents based on how well the neighbour is equipped will help this country innovate.

The Second World War had seen different countries, both Axis powers and the Allies, develop technologies that circumstances had forced upon them. The period saw an explosion of scientific exploration and technological development. Many of the technologies developed during both the World Wars helped the countries that fought in them to rebuild relatively well later. While fighting a war should not be an essential to develop deterrents, fresh approaches need to be developed to ensure that the country stays ahead of the curve. Hypersonic missiles are being developed across the world by leading nations including the US, Russia and China. But by the time India catches up with these nations, given its history of not only administrative delays and lack of political will but also general inabilities of people working on particular projects, the missile could become obsolete in technology by the time it sees the light of day. The research organization could rather focus on developing technology that treads into new areas which affect real life. If, for instance, the organisation is able to develop a weapons system that is of the stealth class and is economical then it would not only help India's defense, but may also be marketable globally as a weapon of Indian origin.

Such a technology, already available with many nations, would be of immense help and would work as a greater deterrent than bigger and more potent conventional arsenals. Recently the Indian army claimed that it had destroyed terror camps again in Pakistan Occupied Kashmir (POK) by means of an artillery strike. Success of the strike, even the military establishment would agree, is temporary and unfathomable. With global dynamics at play in the region, one cannot be assured anytime that the hydra of extremism will not sprout a fresh head. Most noticed by us all now is one big weapon the West has unleashed on the world – social media. It exerts influence on such a large segment of the world population today and at such unprecedented levels of speed and penetration that the conquest is complete and without resistance. While India has invested heavily on its services sector, what the country's best brains are doing is to develop software for foreign firms at a lower price for profit.

The country, however, is yet to develop, say, a search engine or even a simple platform such as TikTok or YouTube that gives the country soft power across borders. The deterrence that world powers have today developed rests also to a large extent on their ability to project an image of strength. In today's modern world, artificial intelligence (AI) is taking over most human responsibilities and actions. Drones and robots are not only frontline attack weaponry but are part of the AI environment which encompasses surveillance, attack and defence roles which were earlier the responsibilities of humans. In the absence of humans, such as foot soldiers, in large numbers, the need for conventional weapons also decreases. The question could be whether India needs hypersonic missiles or it requires anti-hypersonic counter missiles.

<https://www.orissapost.com/on-wrong-track/>