पंजाब केसरी

Thu, 21 Nov 2019

भारत ने किया दो पृथ्वी बैलिस्टिक मिसाइलों का सफल रात्रि-परीक्षण

भुवनेश्वर, (एजैसी): भारत ने ओडिशा के तट से दो पृथ्वी बैलिस्टिक मिसाइलों का रात्रि-परीक्षण सफलतापूर्वक किया है। स्ट्रैटेजिक फोर्सेस कमांड द्वारा 300 किलोमीटर की दूरी तक मार करने वाली दो मिसाइलों का परीक्षण किया गया है। इससे पहले भारत ने 2,000 किलोमीटर की मारक क्षमता वाली अग्नि-2 बैलिस्टिक मिसाइल का ओडिशा के बालासोर से सफल रात्रि-परीक्षण किया था। रक्षा सूत्रों ने कहा था कि सतह से सतह पर मार करने वाली मिसाइल का परीक्षण समन्वित परीक्षण रेंज (आईटीआर) से किया गया। अग्नि-2 मिसाइल का

तीन हजार किमी तक मार करने में सक्षम

परीक्षण पिछले साल ही कर लिया गया था लेकिन रात के समय इसका परीक्षण पहली बार हुआ। इसकी मारक क्षमता को दो हजार से बढ़ाकर तीन हजार किमी तक किया जा सकता है। अग्नि-2 मिसाइल न्यूक्लियर हथियार ले जा सकने में सक्षम है।

THE ECONOMIC TIMES
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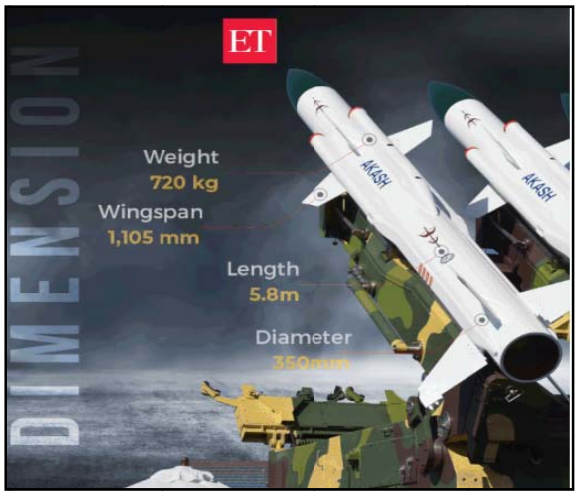
Akash Missile: All about India's first home-made supersonic missile

The nuclear-capable missile can fly at a speed of up to Mach 2.5 (nearly 860 meter per second) at a maximum height of 18 km. It can strike enemy aerial targets like fighter jets, drones, cruise missiles, air-to-surface missiles as well as ballisti..

Akash is India's first indigenously produced medium range Surface to Air missile that can engage multiple targets from multiple directions. The all-weather missile can engage targets at a speed 2.5 times more than the speed of sound and can detect and destroy targets flying at low, medium and high altitudes.



The Akash missile system has been designed and developed as part of India's 30-yearold integrated guided-missile development programme (IGMDP) which also includes other missiles like Nag, Agni, Trishul and Prithvi.

Here is everything about Akash's salient features, its range and why it is one of the best surface-to-air defence missiles in the world.

1. What is Akash missile's range and capability?

The nuclear-capable missile can fly at a speed of up to Mach 2.5 (nearly 860 meter per second) at a maximum height of 18 km. It can strike enemy aerial targets like fighter jets, drones, cruise missiles, air-to-surface missiles as well as ballistic missiles from a distance of 30 km.

2. What's the length and weight of Akash?

The missile has a launch weight of 720 kg, a wingspan of 1,105 mm, length of 5.8 m and a diameter of 350 mm. It can carry a warhead of 50-60kg.

3. What are the unique features of Akash?

* The missile is unique in the way that it can be launched from mobile platforms like battle tanks or wheeled trucks.

* It's unique all-the-way-powered missile system has nearly 90 per cent kill probability. Akash has a kill probability of 88 per cent for the first missile and 99 per cent for the second.

*The missile is supported by the indigenously developed radar called 'Rajendra' that can handle highly-manoeuvring multiple targets from multiple directions in group or autonomous mode. The missile is reportedly cheaper and more accurate than US' Patriot missiles due to its solid-fuel technology and high-tech radars. Akash uses ramjet propulsion system which can intercept the target at supersonic speed without deceleration. The ramjet propulsion and its electronic couter-counter measure equipment also help it break any electronic jamming system.

4. What are the components of the complete Akash missile defence system?

* Akash missile system has seven components. It contains integral ramjet propulsion; a switchable guidance antenna system; a command guidance unit; an onboard power supply; a system arming and detonation mechanism; digital autopilot; multi-function Rajendra phased-array radar; 3D passive electronically scanned array Rajendra radar (PESA) and command centres.

* Akash contains four Rajendra radars and four launchers are interlinked together and controlled by the group control centre. Each launcher, equipped with three missiles and one radar, can track 16 targets. So in total, the radar can track 64 targets and simultaneously launch 12 Akash missiles.

5. Who manufactures Akash? The missile system is designed and developed by DRDO. But Bharat Dynamics (BDL) manufacturer the missiles, while Bharat Electronics produces its hi-tech 'Rajendra phased array radar'.

https://economictimes.indiatimes.com/news/defence/akash-missile-all-about-indias-first-home-made-supersonic-missile/articleshow/72119996.cms

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Now, IIT & IISc will help forces to get futuristic defence technologies

DRDO has already identified over 60 specific projects, many of which will give armed forces a lethal edge

By Anubhuti Vishnoi

New Delhi: The government has set up a national task force to help bring in the country's premier technical and scientific institutes to work on 'futuristic defence technologies' and address defence and security requirements of the country indigenously.

The task force on 'DRDO-Academia Interaction for achieving leadership in futuristic technologies' was set up last week to identify niche domains and dual use technologies for current and futuristic requirements of defence and security, as well as to identify higher education Institutions that can work on developing these, people aware of the development said.

Chaired by director of Indian Institute of Technology (IIT) Delhi, the task force has on board director of Indian Institute of Science, Bangalore, director of National Institute of Technology (NIT) Durgapur, Vice chancellor of University of Hyderabad, and top officials of Defence Research and Development Organisation (DRDO).

DRDO has already identified more than 60 specific projects, many of which would give armed forces access to cutting edge technology, people aware of the plan said.

Under discussion are bullet proof vests that are at least 25per cent lighter, robotic exoskeletons, and full body armours to help soldiers operate swifter than ever, advanced weaponisation for Hindustan Aeronautics' Dhruv helicopters, artificial intelligence (AI)-based cyber defence system, and technology for automatic change detection in satellite imagery.

There is also considerable focus on health concerns of defence personnel. DRDO has sought help with detection of pathology in images of slides to detect chronic diseases like cancer and analysis of health data of young adults for early indications of high altitude sickness, acute mountain sickness and acute myocardial infraction that may cause serious health problems to those posted in hostile terrains, sources said.

Among other identified areas are a range of advanced aircraft applications and instruments, drones for high altitude areas, perimeter security solutions, robotic solutions for disposal of misfire of ammunition, and AI-based aerial target recognition system.

Leading technical and scientific institutes will look to find solutions to these challenges.

Besides helping create a larger research ecosystem to address India's security challenges, the taskforce will also look at bringing PhD scholars from higher education institutes to work in DRDO laboratories on specific projects on deputation and for joint R&D projects.

This committee will submit its report to the government by December 15 for further action, people cited earlier said. It will also suggest mechanisms to set up new defence and security-related centres of excellence at higher education institutes and bring in place monitoring and review mechanism for R&D collaborations.

https://economictimes.indiatimes.com/news/defence/task-force-to-help-iits-iisc-work-for-defence/articleshow/72135370.cms