

New Generation Akash missile

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About New Generation Akash missile

- It is a surface-to-air new generation missile.
- The missile intercepted the high-speed unmanned aerial vehicle at a very low altitude.
- The test has validated the functioning of the complete weapon system consisting of a missile with an indigenously developed radio frequency seeker, launcher, multi-function radar and command, control and communication system.
- This was the first trial of the missile against a live target, which was successfully intercepted and destroyed.
- Features
 - It is a new generation state-of-the-art surface-to-air missile (SAM) for the Indian Air Force (IAF) to destroy high manoeuvring low radar cross section agile aerial threats.
 - This advanced variant comes with an active electronically scanned array (AESA) multi-function radar that features all three functions – search, track and fire control in one platform.

- It can defend an area 10 times better compared to any short-range SAM and is capable of engaging up to 10 targets simultaneously.
 - It can strike targets up to 40 km as against the earlier variant's maximum range of 30 km.
 - With a canisterised launcher and a much smaller ground system, the missile has been developed with better deployability compared to other similar systems.
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Q1) What is Active Electronically Scanned Array (AESA) radar?

It is a multimode, solid-state active phased array fire control radar with scalable architecture that can be adapted for various types of fighter class of aircraft. The radar features include wide band RF front end, ultra low antenna side lobes, frequency and waveform agility, jammer suppression, Low Probability of Intercept and Non Co-operative Target Recognition.

Source: [DRDO conducts successful flight-test of New Generation AKASH missile off Odisha coast](#)

Source: <https://vajiramandravi.com/current-affairs/ngam/>

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