

AKASH PRIME



Issue

The Defence Research and Development Organisation (DRDO) has conducted the maiden flight test of Akash Prime, the new version of Akash Missile.

Background

The test comes within months of testing Akash-NG (New Generation), which is another version of Akash missile.

Details

- The DRDO started work on the Akash SAM in 1980s under its Integrated Guided Missile Development Programme.
- In 1990s and 2000s, initial trials of components and field trials of the neutralization trials were conducted. Indian Army and Air Force conducted their own extensive trials.

The Akash

- The missile system is named after the original Sanskrit term for sky or space. It is a Short Range Surface to Air Missile that provides defence cover to vulnerable areas.
- The missile system has the ability to simultaneously engage multiple targets in group mode or autonomous mode.
- To deceive the detection systems, it has on board built-in Electronic Counter-Counter Measures (ECCM) features. It has been developed on a mobile platform.

Components involved

- A launcher
- A control centre
- Set of missiles
- Built-in mission guidance system
- C4I (command, control communication and intelligence) centres
- Radar named Rajendra

Akash Prime

- The Akash Prime version also has an operational range of 27-30 km and a flight altitude of around 18 km. It has improved its working under low temperature environments at higher altitudes.
- The additional feature that makes it different include indigenous active Radio Frequency (RF) seeker that improves its efficacy to hit aerial targets.

Akash NG

- The NG version was also tested few months back. It has an increased range of up to 70 km, is sleeker, lighter and has smaller ground system footprint.
- It has been designed to intercept high maneuvering aerial threats that have low Radar Cross Section (RCS). The RF seeker of this version operates in the Microwave Ku-band.
- The NG version is stored in specially designed compartments known as canisters. This makes their storage and transport easier along with increase in shelf life.

Important features

The missile system has been developed with 96% indigenization. Indian Army and Air Force currently operate multiple squadrons of missile system.

Significance

The Akash system helped in reducing the dependence on old air defence systems of Russian origin. They provide a robust air defence cover to security installations.

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