

Astra Missile

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The <u>DRDO</u> and <u>Indian Air Force (IAF)</u> has successfully test-fired the <u>indigenous Beyond Visual</u> Range Air-to-Air Missile (BVRAAM) 'Astra' with an <u>indigenously developed Radio Frequency (RF)</u> Seeker from a <u>Su-30 Mk-I fighter aircraft</u> off the coast of Odisha.

BVRAAM Astra:

- About: Astra is India's first indigenous BVRAAM, designed to target enemy aircraft beyond line-of-sight.
 - It is equipped with a DRDO-developed indigenous Radio Frequency (RF) Seeker, which enables the missile to detect, track, and lock onto targets using radar, ensuring high accuracy in the terminal phase.
- Key Features:
 - Astra is India's first indigenous BVRAAM, capable of engaging supersonic, manoeuvrable targets beyond 100 km and up to 20 km altitude.
 - Uses inertial navigation, mid-course data link updates, and active radar homing, with a smokeless solid-fuel engine for enhanced stealth.
 - Equipped with a DRDO-developed active RF seeker, enabling fire-and-forget and buddy launch mode, where one aircraft launches and another guides.

Indigenous Mounted Gun System (MGS):

- DRDO's Vehicle Research and Development Establishment (VRDE) has developed a fully indigenous 155mm/52 calibre MGS, which can be deployed in just 80 seconds.
 - MGS is a type of mobile artillery weapon where a large-calibre gun (like a 155mm howitzer) is mounted on a wheeled or tracked vehicle instead of being towed separately.

Su-30MKI:

- The <u>Su-30MKI</u> is a <u>twin-engine</u> multirole fighter developed by Russia's Sukhoi and built by HAL for the IAF.
 - Inducted in 2002, it performs air superiority, ground attack, electronic warfare, and maritime strike roles, and is a key asset in India's combat fleet.



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