



## Army Variant of MRSAM

### Why in News?

Recently, the [Defence Research and Development Organisation \(DRDO\)](#) conducted two successful flight tests of the **Army version of [Medium Range Surface to Air Missile \(MRSAM\)](#)** at the **Integrated Test Range, Chandipur, off the coast of Odisha.**

- The tests were part of the live firing trials against high-speed aerial targets. The **first launch was to intercept a medium-altitude long-range target** and the **second launch was for providing capability of a low-altitude short-range target.**
- The maiden test of the **Medium Range Surface to Air Missile (MRSAM)** for the Indian Army was conducted in 2020.

### What is an MRSAM?

- **Army Variant of MRSAM:** //



- It is a surface to air missile developed jointly by **DRDO**, India and Israel Aerospace Industries (IAI), Israel for use by the [Indian Army](#).
- It consists of a command and **control post, multi-function radar and mobile launcher system.**
- **MRSAM:**
  - It is a **high response, quick reaction, vertically launched [supersonic missile](#)**, designed to neutralize enemy aerial threats – missiles, aircraft, guided bombs, helicopters.
    - Supersonic missiles exceed the speed of sound (Mach 1) but they are not faster than Mach-3.
  - It is used by the **Army, Navy and Air Force as different variants.**
    - In May 2019, Indian Navy, DRDO and IAI conducted the maiden co-operative engagement firing of the naval version of the MRSAM.
  - It is a land based variant of the [Barak Air and Missile Defence System \(AMD\)](#).

- **India buys Barak AMD from Israel**, it was designed and developed by Israel to protect its economic zones and strategic facilities from various threats.
  - The missile's management system **uses the radar to track and correctly identify the target, calculates the distance from it and gives all the information to the Commander** for a decision to be made on interception.
  - The missile itself is **4.5 metres in length with a weight of around 275 kg.**
  - It is **equipped with fins and canards to stabilise** its flight and provide it manoeuvrability.
  - The missile is powered by a **solid propulsion system coupled with a thrust vector control system.**
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- It can **engage multiple targets upto a range of 70 km.**

### UPSC Civil Services Examination, Previous Year Questions (PYQs)

**Q. From which one of the following did India buy the Barak anti-missile defence systems? (2008)**

- (a) Israel
- (b) France
- (c) Russia
- (d) USA

**Ans: (a)**

**Source: PIB**

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