



Akash-NG & MPATGM: DRDO

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Why in News

Recently, the **Defence Research & Development Organisation (DRDO)** successfully flight-tested the **New Generation Akash Missile (Akash-NG)** and the **Man Portable Anti Tank Guided Missile (MPATGM)**.

- In **June 2021** a new generation nuclear capable ballistic missile **Agni-P (Prime)** was successfully test-fired by the DRDO.
- In **February 2021** India also successfully test-fired indigenously-developed anti-tank guided missile systems **'Helina' and 'Dhruvastra'**.

Defence Research & Development Organisation

- It is the **Research & Development wing of the Ministry of Defence, Govt of India**, with a vision **to empower India with cutting-edge defence technologies**.
- It was **established in 1958** after combining the Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).

Key Points

- **Akash Missile (Akash-NG):**



- **About:**

- It is a **surface-to-air Missile**. It is a new variant of the **Akash missile** that can **strike targets at a distance of around 60 km** and fly at a **speed of up to Mach 2.5**.
- Once deployed, the Akash-NG weapon system will **prove to be a force multiplier for the air defence capability of the Indian Air Force**.

- **Development & Production:**

- Developed by **Defence Research & Development Laboratory (DRDL)**, Hyderabad in collaboration with other **DRDO laboratories**.
- It is being produced by **Bharat Electronics Limited (BEL)** and **Bharat Dynamics Limited (BDL)**.

- **Akash Missile:**

- Akash is **India's first indigenously produced medium range Surface to Air missile** that can engage multiple targets from multiple directions.
 - The missile is unique in the way that it can be **launched from mobile platforms** like battle tanks or wheeled trucks. It has nearly 90% kill probability.
 - The missile is supported by the **indigenously developed radar called 'Rajendra'**.
 - The missile is **reportedly cheaper and more accurate than US' Patriot missiles** due to its solid-fuel technology and high-tech radars.
- It 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-year-old Integrated Guided-Missile Development Programme (IGMDP)**.

- **Man Portable Anti Tank Guided Missile:**



- It is an **indigenously-developed** anti-tank guided missile.
 - **Anti Tank guided missile** is a **medium or long-range missile** whose primary purpose is **to destroy tanks** and other armoured vehicles.
- It is a **low weight, fire and forget** missile. It is incorporated with state-of-the-art **Miniaturized Infrared Imaging Seeker** along with **advanced avionics**.
- It is launched using a tripod designed for a **maximum range of 2.5 km** with a launch **weight of less than 15 Kg**.
- Its successful test marked a major boost for the government's **Atmanirbhar Bharat** campaign and would strengthen the Indian Army.

Integrated Guided-Missile Development Programme

- It was conceived by **Dr. A.P.J. Abdul Kalam** to enable India attain self-sufficiency in the field of missile technology. b
- The 5 missiles (**P-A-T-N-A**) developed under this program are:
 - **Prithvi**: Short range surface to surface ballistic missile.
 - **Agni**: Ballistic missiles with different ranges, i.e. Agni (1,2,3,4,5)
 - **Trishul**: Short range low level surface to air missile.
 - **Nag**: 3rd generation anti-tank missile.
 - **Akash**: Medium range surface to air missile.

Source: PIB