

# Akash-NG & MPATGM: DRDO

## Why in News

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

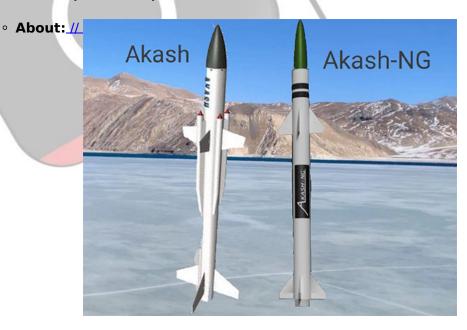
- In **June 2021** a new generation nuclear capable ballistic missile **Agni-P** (**Prime**) was successfully test-fired by the DRDO.
- In February 2021 India also successfully test-fired indigenously-developed anti-tank guided missile systems <u>'Helina' and 'Dhruvastra'.</u>

### **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):



- 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 <u>Atmanirbhar Bharat</u> **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:

- **P**rithvi: 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: 3<sup>rd</sup> generation anti-tank missile.
  Akash: Medium range surface to air missile.

### **Source: PIB**

