



Abhyas High-speed Expendable Aerial Target

Why in News

Recently, the [Defence Research and Development Organisation](#) (DRDO) conducted successful flight-tests of the indigenously-designed **Abhyas High-speed Expendable Aerial Target (HEAT)** in Balasore (Odisha).

- Two demonstrator vehicles of Abhyas cleared all the evaluation parameters like 5 km flying altitude, vehicle speed of **0.5 mach (half the speed of sound)**, endurance of 30 minutes etc.



Key Points

- **Designed and developed by:** Aeronautical Development Establishment (ADE) of DRDO.
 - Aeronautical Development Establishment (ADE) is a key Aeronautical Systems Design Laboratory under DRDO.
 - It is involved in the design and development of the state-of-the-art Unmanned Aerial Vehicles (UAV) and Aeronautical Systems and technologies to meet the requirements of the **Indian Armed forces**.
- **Features:**
 - It is a **drone (UAV)** that will be used as a **target for various missile systems**.
 - It is powered by a small gas turbine engine.
 - Navigation by **Micro-electromechanical (MEMS)** systems based **Inertial Navigation System (INS)** for navigation.
 - MEMS is a process technology used to create tiny integrated devices or systems

that combine mechanical and electrical components.

- It is lightweight and reliable, consumes less power and is cost-effective.
- Programmed for **fully autonomous flight**.
- **Uses:** As a **target for evaluation of various Missile systems**.
- **Background:** This is the second time that the target vehicle was flight-tested successfully. The **first successful test was in May 2019.**
- **Others:** Recently, the DRDO successfully flight tested the **Hypersonic Technology Demonstrator Vehicle** (HSTDV).

Source: PIB

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