



ABHYAS: High-speed Expendable Aerial Target

Why in News?

Recently, India successfully tested the indigenously-designed [Abhyas - a High-speed Expendable Aerial Target \(HEAT\)](#) - in Odisha.

- The trial was carried out by the [Defence Research and Development Organisation \(DRDO\)](#) from the Integrated Test Range (ITR) in Odisha's Chandipur.



What are the Key Points of ABHYAS?

- **Designed and developed by:**
 - Aeronautical Development Establishment (ADE), of DRDO.
 - 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 powered by a **gas turbine engine to sustain a long endurance** flight at subsonic speed.
 - It is equipped with a **MEMS (Micro-Electro-Mechanical Systems)-based Inertial Navigation System (INS)** for navigation along with the Flight Control Computer (FCC) for guidance and control.
 - The vehicle is **programmed for fully autonomous flight** and their check-out is done using a laptop-based Ground Control Station (GCS).
 - Abhyas system is equipped with **Radar Cross-Section (RCS) and infrared signatures** which **can be used to simulate a variety of aircraft for the practice of anti-aircraft warfare** and also for the testing designed to target aerial targets.
- **Utility:**
 - It will be used **as a target for the evaluation of various missile systems**.

- It offers a realistic threat scenario for practice of weapon systems.

What are the Other Recent Developments?

- In September 2021, the DRDO tested a new version of the [Akash Missile - 'Akash Prime'](#) – from the Integrated Test Range (ITR), Chandipur, Odisha.
- In July 2021, DRDO launched the [Akash-NG \(New Generation\)](#) 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'](#).
- In October 2020, the DRDO conducted a successful flight test of the [Supersonic Missile Assisted Release of Torpedo \(SMART\)](#) from Wheeler Island off the coast of Odisha.

[Source: IE](#)

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