New Autonomous Flying Wing Technology Demonstrator

Why in News?

Recently, **Defence Research and Development Organisation(DRDO)** carried out the maiden test flight of a new **unmanned Aerial Vehicle**, an **Autonomous Flying Wing Technology Demonstrator.**

- DRDO is in the process of developing **Unmanned Aerial Vehicles (UAVs)** of **different classes** to meet the requirements of the armed forces.

What is Autonomous Flying Wing Technology?

- **About:**
  - It's an **Unmanned Combat Aerial Vehicle (UCAV)** or a combat drone that is a flying wing type.
  - It refers to a **tailless fixed-wing aircraft that houses its payload and fuel in its main wings and does not have a defined fuselage-like structure found in conventional aircraft.**
  - The design has the potential to deliver **high fuel efficiency and stability** if executed with precision.
- **Applications:**
  - Mapping of Landslide Affected Area
  - Infested Crop Damage Assessment
  - Large Scale Mapping
  - Traffic Monitoring and Management
  - Logistics support

What are its Specifications?

- The Autonomous Flying Wing Technology Demonstrator is a precursor to an **autonomous stealthy UCAV** which is being developed by the **DRDO's Aeronautical Development Establishment (ADE)**, primarily for the **Indian Air Force.**
  - 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.**
- The UCAV will be **capable of launching missiles and precision-guided munitions.**
- The vehicle is **powered by a small turbofan engine.**

Source: TH

demonstrator