Heron Mk II UAVs

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Why in News?

The Indian armed forces have signed contracts for additional satellite-linked Heron Mk II Unmanned Aerial Vehicles (UAVs) under emergency procurement.

- **Heron MK-II** – It is a ***medium-altitude long-endurance (MALE)*** unmanned aerial vehicle.
  - MALE UAV – Built to fly between 10,000 and 30,000 feet for long periods, often ***more than 24 hours, nonstop***.
  - It bridges the gap between smaller tactical drones and larger high-altitude systems, offering the right mix of endurance, payload, and cost-efficiency.
- **Developed by** – ***Israel Aerospace Industry (IAI).***

Key Features

- **Endurance –** more than 24 hours (some 45 hours) of continuous flight (without refuelling)
- **Altitude –** Operates at altitudes up to 35,000 feet
- **Speed –** Maximum of 150 knots
- **Payload Capacity –** Approximately 500 kg (half a tonne)
- **Sensors & Systems –**
  - It supports ***multiple payloads simultaneously***, including Electro-Optics, Radars, ELINT, COMINT, ESM, and Communication Relay systems.
  - Synthetic Aperture Radar (SAR) – Provides high-resolution imaging even in poor visibility
  - Electro-Optical Systems – ***Day/night surveillance*** capability
  - SIGINT Sensors – Signals intelligence for electronic warfare and monitoring adversary communications
- **Operational Capabilities** – Its ***fully automated*** take-off and landing

systems, coupled with encrypted satellite communication, enable remote operations, ***flexible mission*** planning and deployment across varied theatres ***without ground-based line-of-sight control***.

- **Uses –** Can carry advanced sensors for surveillance, reconnaissance, and electronic warfare.
    - In India, Heron drones are primarily deployed for long-range surveillance on both the ***Chinese and Pakistan frontiers*** and have proven highly effective.
- **Global Use –** It is already operational with the Israeli Air Force and over 20 other entities worldwide.
- **Future Partnership –** Now, IAI is focused on manufacturing the MK-II in India through partnerships with Hindustan Aeronautics Limited (HAL) and Elcom.
    - Aim – To manufacture the systems in India, creating an Indian version of the Heron - not only the MK-II but other systems as well.

References

1. The Hindu | India to procure more satellite-linked Heron Mk II UAVs

2. IAI | Heron MK II

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