

Year of the Heron TP



The proliferation of drones in conflict areas highlights the role that large unmanned aircraft systems (UAS) have in modern conflict. The USA, China and Israel are currently the sole providers of large UAS platforms which offer long mission endurance and mission versatility. One of the largest, most advanced systems is the Heron TP from Israel Aerospace Industries (IAI).

Equipped with most advanced avionics, line of sight and satellite communications and multiple mission payloads, the Heron TP climbs up to 45,000 ft, high above commercial air traffic routes, where it can operate on missions spanning over 30 hours, carrying more than 1,000 kg of payload. Its robust structural design features double boom, twin-tail design which is most suitable for such missions, offering better antennae separation, optimal coverage and a stable platform necessary for precision signal measurements.

Israel Aerospace Industries (IAI) had signed a strategic collaboration MOU with focus on UAVs with Hindustan Aeronautics Limited (HAL) and Dynamatic Technologies Limited (DTL) at DefExpo 2020. The MOU will reflect existing capabilities developed by IAI over the years and promote the production of Indian UAVs, in line with the Indian Government's 'Make in India' and 'self-reliance' policy. Strategic partnership with the Indian corporations will allow the implementation of optimal solutions for the needs of the Indian forces based on their specific technologies and needs.

New Mission Capabilities

The Heron TP is configured to carry multiple payloads in a large internal payload bay, with universal payload attachments and underwing hardpoints. Such payloads include electro-optical systems, SAR and maritime search radars, COMINT

and ELINT systems as also persistent surveillance systems designed for operation from standoff range.

In addition to the payloads integrated in the aircraft, Heron TP can also carry mission payloads in underwing pods. Such EO pods can deliver in real-time a 3D image of the ground scene, other sensors designed for persistent surveillance, provide continuous coverage of large areas, monitoring all movements over time, enabling analysts to follow objects of interests by specific parameters such as vehicles type, shape and colour, define life patterns and identify anomalies from such patterns.

A new capability provided by the Heron TP is maritime anti-submarine surveillance, integrating maritime surveillance radar, EO payload, magnetic anomaly detector (MAD) and sonobuoys that are dropped on water and transmit sonar data to the aircraft. With this equipment, the Heron can detect submarines underwater and track them at