

## Bhargavastra Counter Drone System

*Prelims: Current events of national and international importance | Defence*

### Why in News?

Recently, Army was given a demonstration of Bhargavastra, an indigenous counter-swarm drone system developed under the Make-II programme.

### Bhargavastra system -

- It is mounted on a vehicle and integrates
  - A Command-and-Control Vehicle (equipped with radar)
  - Electro-Optical/Infrared (EO/IR) sensors and
  - Passive radio-frequency detectors (linked through a network).
  - Alongside, a launcher vehicle carries multiple launch tubes.
- **Developed by** - Solar Defence and Aerospace Ltd. (SDAL)
- **C4I Suite** - Generates real-time air picture, issues alerts, assigns targets, initiates firing sequence.

***C4** - Command, Control, Communications, Computers; **I** - Intelligence*

- **Detection Range** - Large UAVs up to 10 km, smaller drones up to 6 km.
- **Operational Terrain** - Designed for deserts to high-altitude regions (>5,000 m).
- **Kill Mechanism**
  - **Dual Layered**
  - **Unguided micro-rockets** (lethal radius - 20 m).
  - **Precision-guided micro-missiles** (intercepts up to 2.5 km).
- **Soft Kill** - Electronic jamming for non-kinetic neutralisation.

***Hard-Kill (Kinetic)** - Unguided rockets + precision-guided missiles*

- **Resilience** - Resistant to conventional Electronic-Warfare measures like jamming.
- **Architecture** - Multi-layer engagement neutralises both individual drones and swarms.
- **Cost-Effective** - Cheaper alternative to expensive surface-to-air missiles against low-cost drones.
- **Integration** - Seamless with armed forces' existing networks.
- **Unique Feature** - Fully integrated, vehicle-mounted platform with swarm neutralisation not yet deployed elsewhere.

## Reference

[TOI | Bhargavastra](#)

