

## Integrated Air Defence Weapon System (IADWS)

*Prelims - Current events of national and international importance | Science and technology*

### Why in News?

The Ministry of Defence (MoD) recently said that the Defence Research and Development Organisation (DRDO) has successfully conducted the first flight-tests of an Integrated Air Defence Weapon System (IADWS).

- IADWS is a multi-layered air defence system and it is a combination of elements organised to minimise threats emerging from the air.
- **Functions** - Air surveillance, Battle management, and Weapons control.
- **Developed by** - Defence Research and Development Organisation (DRDO).
- **Components**
  - Quick Reaction Surface to Air Missiles (QRSAM),
  - The advanced Very Short-Range Air Defence System (VSHORADS) missiles,
  - High-power laser-based Directed Energy Weapon (DEW).

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| <b>Quick Reaction Surface to Air Missiles (QRSAM)</b>          | <ul style="list-style-type: none"> <li>• QRSAM is a <u>short-range Surface to Air Missile (SAM)</u> system.</li> <li>• Primarily designed to provide a protective shield to moving armoured columns of the Army from enemy aerial attacks.</li> <li>• It has search and track capability and can fire on short halts.</li> <li>• The system has an operation range of 3 to 30 kilometers.</li> </ul> |
| <b>Very Short-Range Air Defence System (VSHORADS) Missiles</b> | <ul style="list-style-type: none"> <li>• VSHORADS is a fourth-generation, technically advanced miniaturised <u>Man Portable Air Defence System (MANPAD)</u>.</li> <li>• The weapon system can neutralise targets between the range of 300 meters and 6 kilometers, including drones and other classes of aerial threats.</li> </ul>  |

### High-power laser-based Directed Energy Weapon (DEW)

- It is a high-power laser system.
- DEWs can be used for various purposes, including drone defence systems, missile defence, and disabling enemy electronics.
- DEW is said to have a range of less than three kilometers.

- The integrated operation of all these weapon system components is controlled by a ***Centralised Command and Control Centre***.
- **Significance** - The IADWS ensures that all types of aerial threats can be countered.

### Reference

[The Indian Express | IADWS](#)

