# 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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| **Quick Reaction Surface to Air Missiles (QRSAM)** | • QRSAM is a *short-range Surface to Air Missile (SAM)* system.<br>• Primarily designed to provide a protective shield to moving armoured columns of the Army from enemy aerial attacks.<br>• It has search and track capability and can fire on short halts.<br>• The system has an operation range of 3 to 30 kilometers. |
| **Very Short-Range Air Defence System (VSHORADS) Missiles** | • VSHORADS is a fourth-generation, technically advanced miniaturised *Man Portable Air Defence System (MANPAD).*<br>• The weapon system can neutralise targets between the range of 300 meters and 6 kilometers, including drones and other classes of aerial threats. |

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| **High-power laser-based Directed Energy Weapon (DEW)** | • It is a high-power laser system.<br>• DEWs can be used for various purposes, including drone defence systems, missile defence, and disabling enemy electronics.<br>• 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

