STUDY NOTES · BASIC CONCEPT

What is Maritime Domain Awareness (MDA)?

Defence & Security

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What?

Maritime Domain Awareness (MDA) is the effective understanding of activities and conditions at sea that may affect security, safety, the economy or the environment.

It helps authorities identify suspicious vessel movements, assess threats, monitor shipping and coordinate responses.

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Tools used for maritime domain awareness

1. Automatic Identification System (AIS).
2. Coastal surveillance radar.
3. Satellite imagery and remote sensing.
4. Vessel traffic monitoring.
5. Intelligence sharing.
6. Patrol vessels and maritime aircraft.
7. Coordination between navies, coast guards, port authorities and shipping companies.

What is AIS?

The Automatic Identification System transmits vessel information such as identity, position, course and speed. It helps improve navigation safety and maritime awareness.

However, AIS data has limitations. Signals may be unavailable, inaccurate or deliberately manipulated. It should be combined with other sources of information rather than treated as a complete picture of maritime activity.

Why does MDA matter for India?

India's long coastline, major ports, dependence on maritime trade and location near important Indian Ocean shipping routes make maritime awareness important for national security and economic resilience.

Better information-sharing can help authorities assess threats to merchant ships, coordinate search and rescue, and protect maritime infrastructure.

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