

DIGITAL SELECTIVE CALLING (DSC) & AUTOMATIC IDENTIFICATION SYSTEM (AIS) STANDARDS

Outcome: To demonstrate an understanding of the principles and operation of DSC and AIS for recreational boating.

Recommended Equipment: DSC may be taught in a classroom, or on a boat (or both), and tested utilizing at least two DSC-enabled VHF radios. AIS may be taught in a classroom, or on a boat (or both), and tested in a classroom utilizing an internet enabled device, or on a boat equipped with an AIS receiver.

Knowledge

1.0 Maritime Mobile Service Identity (MMSI)

- 1.1 Understand what a Maritime Mobile Service Identity (MMSI) is.
 - 1.1.1 Understand the different types of MMSI (domestic and international) and where to obtain them (e.g., BoatUS, US Power Squadrons, Shine Micro, and the FCC).
 - 1.1.2 Understand the use of an MMSI number as a unique identifier across different transmitting installations: fixed mount/handheld VHF, SSB, Aids to Navigation (AtoNs), AIS transmitting vessels, AIS base stations.
- 1.2 Understand what is needed to make a DSC-enabled call.
 - 1.2.1 Understand the benefits and mechanics of using the distress button on a DSC-enabled marine radio.
 - 1.2.2 Understand the different uses of DSC calling such as: distress, position polling & reporting, individual calls, group calls, all ship calls.
- 1.3 Understand the VHF data exchange system (VDES)

2.0 Automatic Identification System (AIS)

- 2.1 Understand what AIS is and the available sources of this information.
- 2.2 Understand the different uses for AIS, including collision avoidance, AtoNs, and personal beacons for Search and Rescue (SAR) use.
- 2.3 Understand the difference between receive only, and transmit and receive (transceiver).
- 2.4 Understand the different applications for commercial and recreational vessels.
- 2.5 Understand the actions to be taken to avoid collision utilizing AIS input, based on the relative positions and leader lines of the vessels.

Practical Skills

1.0 Communication

- 1.1. Identify the MMSI number of a VHF radio.
- 1.2. Make a DSC-enabled two-way call.
- 1.3. Determine the position of another DSC enabled VHF radio.
- 1.4. Demonstrate how to check the DSC call log: Review entries, missed calls, delete log.

2.0 Navigation

2.1 Identify the closest AIS-enabled AtoN to your position and describe its characteristics.

3.0 Collision Avoidance

3.1 Using AIS, identify vessel type, name, MMSI number, course, and speed of a vessel closest to your location.

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