



### Purpose:

The e-learning module is designed for theoretical training of navigators in accordance with Chapter II of the STCW Convention in the part concerning use of Automatic Identification System.

### What is an e-learning module?

E-learning module is the electronic textbook on one or more sections. Theoretical materials can be accompanied by drawings, diagrams, photos, animations and videos. There is a test for assessment of knowledge gained at the end of each section.

### Contents:

- AIS concepts
- AIS data
- AIS ship installations
- Use of AIS at sea

### Target groups

Deck - Management  
Deck - Operational

### Ship types

Generic



## Regulations

### Table A-II/1 STCW Code

Competence:

Maintain a safe navigational watch

Knowledge, understanding and proficiency:

The use of information from navigational equipment for maintaining a safe navigational watch.

### Table A-II/2 STCW Code

Competence:

Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision-making

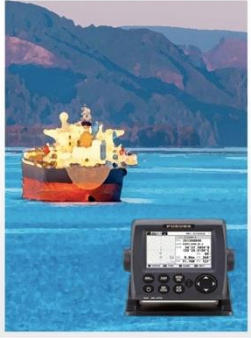


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Section 1: AIS concepts

### AIS concepts.

SOLAS regulation V/19 - Carriage requirements for shipborne navigational systems and equipment - sets out navigational equipment to be carried on board ships, according to ship type. In 2000, IMO adopted a requirement for all ships to carry automatic identification systems (AIS) capable of providing information about the ship to other ships and to coastal authorities automatically.



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Section 2: AIS data

### AIS data.

Ship's data content.

The AIS information transmitted by a ship is of four different types:

- 1 **static information**, which is entered into the AIS on installation and need only be changed if the ship changes its name, Maritime Mobile Service Identity (MMSI), location of the electronic position fixing system (EPFS) antenna, or undergoes a major conversion from one ship type to another;
- 2 **dynamic information**, which, apart from "Navigational status" information, is automatically updated from the ship sensors connected to AIS; and
- 3 **voyage-related information**, which might need to be manually entered and updated during the voyage.
- 4 **safety-related messages**.



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Section 4: Use of AIS at sea

### 4.1 Bridge procedures.

It is important that the use of AIS is covered in the ship's bridge procedures. These should cover at least the following aspects:

- > Frequency of checks of own ship data accuracy, including static, voyage-related and dynamic data;
- > Procedures for the update of voyage-related and navigation status data;
- > Cautions concerning the making of critical decisions (such as collision avoidance) based solely on AIS data;



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Section 4: Use of AIS at sea

### 4.2 Operation of the transceiver unit Activation.


AIS should always be in operation when ships are underway or at anchor. If the master believes that the continual operation of AIS might compromise the safety or security of his/her ship or where security incidents are imminent, the AIS may be switched off.

Unless it would further compromise the safety or security, if the ship is operating in a mandatory ship reporting system, the master should report this action and the reason for doing so to the competent authority.

Actions of this nature should always be recorded in the ship's logbook together with the reason for doing so. The master should however restart the AIS as soon as the source of danger has disappeared.

If the AIS is shut down, static data and voyage-related information remains stored. Restart is done by switching on the power to the AIS unit.

Ship's own data will be transmitted after a two-minute initialization period. In ports AIS operation should be in accordance with port requirements.



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Section 4: Use of AIS at sea

### 4.8 Use of AIS in oil terminals.


Oil transfer regulations contained within the International Safety Guide for Oil Tankers and Terminals - ISGOTT state that radio transmissions from a ship loading or discharging tankers must be limited to 1 watt maximum.

It should be realized that low power operation of an AIS is normally set at 2 watts.

Some systems have a 1-watt manual setting for use within oil terminals.

If this setting is not provided the master should order the AIS to be switched off during loading or discharging operations, unless port regulations override this.

This consideration should also be made when berthed in other hazardous environments where explosive gases may be present.



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Test tasks

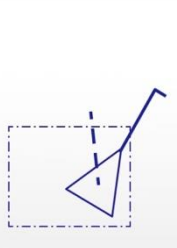
Test of question

What does the symbol shown in the illustration mean?

Choose the correct answer:

- Dangerous target.
- Sleeping target.
- Lost target.
- Activated target.
- Selected target.

Attempts: 1 Skip the task



COMMENT

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