

### Shipborne Automatic Identification System (AIS) and incorrect data

The purpose of this notice is to advise shipmasters, watch-keepers and authorities that operate AIS ashore of incorrect data emanating from some shipborne AIS units.

From the numerous reports of incorrect AIS data, three broad areas of concern have been identified:

1. Incorrect or incomplete static data. This includes name, call sign, MMSI, IMO number etc. Often, the MMSI provided by the supplier is left unaltered. Shipmasters must ensure that correct static data is entered and transmitted at all times.

2. Failure to input correct voyage related data. For example, incorrect or no information is entered in the destination field. IMO SN/Circ. 244 offers guidance on this aspect and recommends the use of the UN Locator Code (UN LOCODE).

In some cases, AIS units are being switched off in port. When in port, ships should comply with port regulations for the operation of AIS.

3. A relatively more serious issue is incorrect dynamic information such as position, heading, course and speed over ground.

Problems stemming from analogue to digital conversion of gyrocompass information and those caused by interfacing older\* GNSS equipment have the potential

to jeopardize safety, particularly when AIS information is used to assist in making collision avoidance decisions.

Older GNSS receivers do not have Remote Autonomous Integrity Monitoring (RAIM), and are therefore unable to offer an indication of the integrity of the positional information being broadcast (DGNSS can mitigate this). They also lack course over ground and speed over the ground output and are less able to cope with signal interference.

Shipmasters should ensure that their AIS units function without errors in dynamic information. This can be achieved by periodically asking either another ship or a shore station to verify the information.

Position errors in the form of constant offsets can result from an incorrect position datum being used in a GPS receiver that is linked to an AIS unit. For AIS, the WGS-84 position datum must always be used.

\* There are currently two IMO performance standards for GNSS receiver equipment:

- If installed on board on or after 1 July 2003, units need to conform with performance standard MSC 112(73) (the "new" standard);
- If installed before 1 July 2003, units need to conform to standards specified in Res. A.819 (19) (the "old" standard).



These constant offset errors convey false and misleading information, and can have serious consequences, particularly when used for collision avoidance. Masters are urged to ensure that any such mismatches are avoided by implementing appropriate onboard procedures.

Another common error is not changing the navigational status on the AIS (when the vessel gets underway from an anchorage, for example). Again, shipmasters are to guard against this by raising awareness of correct AIS operation and through the use of appropriate onboard procedures.

During a port State control inspection, AMSA surveyors may check the functional requirements of AIS, under the provisions of SOLAS Chapter V Regulation 19.2.4. Shipmasters are strongly advised to ensure that their AIS units meet these prerequisites, taking into consideration the information provided in this Marine Notice.

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