**N O T I C E  T O  M A R I N E R S**

**(No. 2 of 2012)**

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## SCOTLAND / ISLE OF MAN

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# Automatic Identification System (AIS)

# Use of AIS as an Aid to Navigation (AtoN)

Northern Lighthouse Board
Edinburgh, 4 January 2012

Mariners are advised that the General Lighthouse Authorities (GLAs) provide AIS AtoN at selected fixed and floating stations on the coasts of Great Britain and Ireland.

AIS AtoN are Aids to Navigation under the Merchant Shipping Acts and as such Statutory Sanction for their provision is required from the General Lighthouse Authority for the area in which they are established.

The GLAs offer the following guidance to mariners on the purpose of AIS AtoN and what they may expect to see on some of the available displays. This will include information relating to the AtoN and in some cases additional information relating to the Meteorological and Hydrological (Met/Hydro) conditions in the area.

It is important to bear in mind that the information available to mariners will be dependent on their display system and **not all transmitted information may be displayed**.

**Displays & Symbology**
The IMO mandatory carriage requirement for the Class A[1] AIS display is the Minimum Keyboard Display which displays the data in alphanumeric form.

It is important to bear in mind that not all vessels are equipped with AIS. Of those vessels that are AIS equipped the displays available can range from no display on some Class B[1] units, through the mandatory Class A MKD, to full ECDIS and Radar overlay. In the absence of ECDIS or Radar overlay users will not be able to fully utilise AIS AtoN functionality. There is also a variance of information that will be displayed by different manufacturers on ECDIS or Radar equipment.

The symbology that may be displayed on nautical charts, display systems and MKD is summarised below.

Nautical Charts


On nautical charts AIS AtoN are indicated by a magenta circle surrounding the existing AtoN symbol and an adjacent legend stating AIS. The font will be straight for fixed AtoN and italic for floating AtoN.

Display Systems

Where AIS is provided as an overlay on ECDIS, Radar or other display systems AIS AtoN are indicated by a Diamond shape with crossed lines at the reported position of the AtoN. Where the AtoN is on station the diamond will be Blue and where the AtoN Off Station flag has been activated the diamond will be Red. In the case of a Virtual AIS[2] AtoN there will be a V below the crossed lines.

Minimum Keyboard Display

| **Range** | **Bearing** | **Name** |
|---|---|---|
| XX.XX | XXX.X | XXXXXXXXX |
| XX.XX | XXX.X | XXXXXXXXX |
| XX.XX | XXX.X | XXXXXXXXX |

| | |
|---|---|
| **Latitude** | XXX XX.XXX |
| **Longitude** | XXX XX.XXX |

The mandatory Minimum Keyboard Display (MKD) is only required to display data in alphanumeric form. Some MKD are units supplemented by a small graphical display. Exact presentation will vary but the layout opposite would be typical of MKD displays.

**Message Types.**

AIS stations provided by the GLAs will transmit Message 21 and may also transmit Messages 12 & 14.

Message 21 – Aids to Navigation report. This message will provide details of the Name, MMSI, Type and Position of the AtoN. In addition there will be an indication if the AtoN is off station, and of the status of the light, racon or other equipment.

Messages 12 & 14 – Addressed & Broadcast Safety Related Messages. These messages will be used to supplement Message 8 for Met/Hydro messaging by providing a texting service and to provide additional information on the status of AtoNs in an area.

**Feedback**

Mariners are requested to contact the General Lighthouse Authorities (navigation@nlb.org.uk) regarding their experience of AIS and in particular the extent to which AIS AtoN data is available to them.

**R G LOCKWOOD**
**Chief Executive**

**Notes**

[1] Class A AIS units are those meeting the mandatory SOLAS carriage requirements (SOLAS Chapter V, Rule 19) for vessels over 300GRT. Class B AIS units are for use on craft that are not covered by the mandatory carriage requirements.

[2] Virtual AIS AtoN are used to mark new dangers / wrecks or in circumstances where a physical AtoN cannot be established. The AtoN does not physically exist and therefore will only be visible on display systems.