

Recommandation sur la fourniture de systèmes d'identification automatique (AIS) à partir de la côte.

Recommandation AISM A-123
Decembre 2002

Recommendation on The Provision Of Shore Based Automatic Identification Systems (AIS)

IALA Recommendation A-123
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20ter, rue Schnapper – 78100 Saint Germain en Laye – France
Telephone : +33 1 34 51 70 01 Telefax : +33 1 34 51 82 05
E-mail : iala-aism@wanadoo.fr Internet : <http://www.iala-aism.org>



Recommendation on the Provision of Shore Based Automatic Identification Systems (AIS) (Recommendation A-123)

THE COUNCIL:

RECALLING the function of IALA with respect to Safety of Navigation, the efficiency of maritime transport and the protection of the environment;

RECOGNISING that IMO has concluded that AIS will improve the safety of navigation and the protection of the environment;

RECOGNISING ALSO that there is a mandatory carriage requirement for AIS equipment on SOLAS Convention vessels that entered into force on 01 July 2002 and will be complete by [01 July 2008];

RECOGNISING FURTHER that documentation of IMO, ITU and IEC refer to the provision of an AIS shore infrastructure as part of the overall operational system;

NOTING the National Members provide shore infrastructure to support the goal of IMO to improve the safety of navigation and the protection of the environment;

NOTING ALSO that IALA has contributed substantially to the development of AIS through collaboration with IMO, ITU and IEC, as well as through the publication of standalone documents;

NOTING FURTHER that IALA has developed and maintains Recommendations and Guidelines on AIS;

CONSIDERING that there is an urgent need for shore based AIS to facilitate the interchange of data with shipping.

ADOPTS the Principles Relating to the provision of Shore Based Automatic Identification System (AIS) Services in annex 1 to this recommendation; and,

RECOMMENDS that National Members and other appropriate Authorities providing marine aids to navigation services adopt the provision of shore based AIS services in accordance with the principles set out in the annex to this recommendation.

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Annex

Considerations relating to the provision of shore based AIS.

1. Introduction

Chapter V of the 1974 SOLAS Convention (as amended) requires mandatory carriage of Automatic Identification System (AIS) equipment on all vessels constructed on or after 01 July 2002. Implementation for other types and sizes of SOLAS Convention vessels is continuing and will be completed not later than 01 July 2008.

SOLAS Chapter V, Regulation 19, section 2.4.5 states that:

"AIS shall

- 1. provide automatically to appropriate equipped shore stations, other ships and aircraft information, including ship's identity, type, position, course, speed, navigational status and other safety-related information;*
- 2. receive automatically such information from similarly fitted ships;*
- 3. monitor and track ships; and*
- 4. exchange data with shore-based facilities."*

In addition, the IMO Performance Standards for AIS state:

"1.2 The AIS should improve the safety of navigation by assisting in the efficient navigation of ships, protection of the environment, and operation of Vessel Traffic Services (VTS), by satisfying the following functional requirements:

- .1 in a ship-to-ship mode for collision avoidance;*
 - .2 as a means for littoral States to obtain information about a ship and its cargo; and*
 - .3 as a VTS tool, i. e. ship-to-shore (traffic management).*
- 1.3 The AIS should be capable of providing to ships and to competent authorities, information from the ship, automatically and with the required accuracy and frequency, to facilitate accurate tracking. Transmission of the data should be with the minimum involvement of ship's personnel and with a high level of availability."*

The provision of shore based AIS will be necessary to attain the full benefit of the 1974 SOLAS Convention (as amended).

National Members and other appropriate authorities should therefore consider the provision of an AIS shore infrastructure so that the full benefit of the system can be realised in terms of navigation safety and protection of the environment.

2. Background

AIS is an autonomous and continuous broadcast system, operating in the VHF maritime mobile band. It is capable of exchanging information such as vessel identification, position, course, speed, etc. between ships, between and shore and through information broadcasts. The system can provide many benefits, including increased situational awareness, improved navigational safety and automatic reporting in areas of mandatory and voluntary reporting schemes.

3. Benefits of AIS

AIS has the potential to improve many aspects of ship-to-shore and shore-to-ship communications, including efficiency in vessel traffic and port management, monitoring of aids to navigation and exchange of safety and security information. AIS has the potential to assist in obtaining detailed ship traffic statistics.

Specifically, with regards to VTS, AIS can enable automatic ship reporting and increase navigational safety by providing enhanced data regarding the:

- fairway situation, including meteorological and hydrological conditions;
- traffic situation, including vessel positions, movements, identities and intentions.
- Specifically, with regards to Aids to Navigation, AIS can:
 - complement existing aids to navigation;
 - provide information such as local and regional navigational warnings, real time tidal heights, tidal stream and local weather;
 - provide integrity monitoring of Aids to Navigation.

4. Provision of AIS

When considering the provision of AIS, the following publications should be taken into account:

1974 SOLAS Convention, Chapter V (as amended);

IMO Recommendation on Performance Standards for a ship-borne Automatic Identification System (AIS), (MSC 74(69) Annex 3);

ITU Recommendation on the Technical Characteristics for a Ship-borne Automatic Identification System (AIS) Using Time Division Multiple Access in the Maritime Mobile Band (ITU-R M.1371-1), including **IALA Technical Clarifications**

IEC Standard 61993-2: Class A Shipborne equipment of the Universal Automatic Identification System (AIS) - Operational and Performance requirements, methods of testing and required test results.

IALA Guidelines on the Universal Automatic Identification System (Volumes 1 and 2).

IALA Recommendation A-124 on AIS Shore Stations and Networking Aspects Related to the AIS Service

Flow Chart for planning the provision of Shore Based AIS

