

**IALA World-Wide Academy**

**Model Course**

**For**

**Aids to Navigation**

**Level 2 – Technician**

**AIS Base Station**

**Draft v1**

**Module # Element(s) #.# (L2.#.#)**

**Edition 1.0**

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***AISM***Association Internationale de Signalisation Maritime ***IALA***

International Association of Marine Aids to Navigation and Lighthouse Authorities

10, rue des Gaudines

78100 Saint Germain en Laye, France

Telephone: +33 1 34 51 70 01 Fax: +33 1 34 51 82 05

e-mail: [contact@iala-aism.org](mailto:contact@iala-aism.org) Internet: [www.iala-aism.org](http://www.iala-aism.org)

DOCUMENT REVISIONS

Revisions to the IALA Document are to be noted in the table prior to the issue of a revised document.

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| **Date** | **Page / Section Revised** | **Requirement for Revision** |
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FOREWORD

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) recognises that training in all aspects of Aids to Navigation (AtoN) service delivery, from inception through installation and maintenance to replacement or removal at the end of a planned life-cycle, is critical to the consistent provision of that AtoN service.

Taking into account that under the SOLAS Convention, Chapter 5, Regulation 13, paragraph 2; Contracting Governments, mindful of their obligations published by the International Maritime Organisation, undertake to consider the international recommendations and guidelines when establishing aids to navigation, including recommendations on training and qualification of AtoN technicians, IALA has adopted Recommendation E-141 on Standards for Training and Certification of AtoN personnel.

IALA Committees working closely with the IALA World Wide Academy have developed a series of model courses for AtoN personnel having E-141 Level 2 technician functions. This model course on AIS Base Station should be read in conjunction with the Training Overview Document IALA WWA.L2.0 which contains standard guidance for the conduct of all Level 2 model courses

This model course is intended to provide national members and other appropriate authorities charged with the provision of AtoN services with specific guidance on the training of AtoN technicians in AIS Base Station. Assistance in implementing this and other model courses may be obtained from the IALA World Wide Academy at the following address:

The Dean

IALA World Wide Academy Tel: (+) 33 1 34 51 70 01

10 rue des Gaudines, 78100 Fax: (+) 33 1 34 51 82 05

Saint Germain-en-Laye e-mail: [contact@iala-aism.org](mailto:contact@iala-aism.org)

France Internet: [www.iala-aism.org](http://www.iala-aism.org)

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# PART A - COURSE OVERVIEW

## Scope

This course is intended to provide technicians with the practical and theoretical training necessary to have a basic understanding of an AIS base station.

This introductory course is intended to be supported by further training modules on theoretical and practical aspects of an AIS base station. Details of these supporting model courses can be found in the Level 2 Technician training overview document IALA WWA L2.0.

## Objective

Upon successful completion of this course, participants will have acquired sufficient knowledge and skill to understand an AIS base station.

## Course Outline

This course is intended to cover the knowledge required for a technician to understand an AIS base station. The complete course comprises 2 classroom modules, each of which deals with a specific subject covering aspects of an AIS base station. Each module begins by stating its scope and aims, and then provides a teaching syllabus.

## Table of Teaching Modules

|  |  |  |
| --- | --- | --- |
| **Module Title** | **Time in hours** | **Overview** |
| Purpose of an AIS Base Station |  | This module describes the purpose of an AIS base station |
| Base Station Messages |  | This module provides an overview of the different types of AIS base station messages |
| **Total Hours:** |  |  |

## Specific Course Related Teaching Aids

1. This course involves classroom instruction only. Classrooms should be equipped with blackboards, whiteboards, and overhead projectors to enable presentation of the subject matter.

## References

In addition to any specific references required by the Competent Authority, the following material is relevant to this course:

* IALA NAVGUIDE
* IALA Recommendation A-123 The Provision of Shore Based Automatic Identification System (AIS)
* IALA Recommendation A-124 Automatic Identification System (AIS) Shore Station and Networking Aspect relating to the AIS Service
* IALA Recommendation A-126 The Use of the Automatic Identification System (AIS) in Marine Aids to Navigation Services
* IALA Recommendation O-143 Virtual Aids to Navigation
* IALA Guideline 1028 The Automatic Identification System (AIS) Volume 1, Part I Operational Issues
* IALA Guideline 1028 The Automatic Identification System (AIS) Volume 1, Part II Technical Issues
* IALA Guideline 1050 The Management and Monitoring of AIS Information
* IALA Guideline 1059 The Comparison of AIS Stations
* IALA Guideline 1062 The Establishment of AIS as an AtoN
* IALA Guideline 1082 An Overview of AIS
* IALA Guideline 1084 Authorisation of AIS AtoN
* ITU Recommendation ITU-R M.1371 (latest edition) Technical characteristics for an automatic identification system using time-division multiple access in the VHF maritime mobile band
* Technical documentation from AIS manufacturers

# PART B - TEACHING MODULES

## Module 1 – Purpose of an AIS Base Station

### Scope

This module describes the purpose of an AIS base station.

### Learning Objective

To gain a basic understanding of the purpose of an AIS base station.

### Syllabus

Lesson 1 Shore Based Infrastructure

Lesson 2 AIS Channel Management

Lesson 3 Monitoring and Tracking of Traffic

Lesson 4 VTS / Local Authority Interaction

## Module 2 – Base Station Messages

### Scope

This module provides an overview of the types of AIS base station messages.

### Learning Objective

To gain a basic understanding of AIS base station messages.

### Syllabus

Lesson 1 Message 4 – Base Station Report

Lesson 2 Message 20 – Data Link Management Message (Slot Reservation)

Lesson 3 Message 22 – Channel Management