



# IALA MODEL COURSE

L2.6.1 & L2.6.2

AIDS TO NAVIGATION - TECHNICIAN  
TRAINING  
MODULE 6 ELEMENTS 1 & 2  
LEVEL 2 - AtoN SERVICE CRAFT AND BUOY  
TENDERS

**Edition 2.0**

**June 2016**



# DOCUMENT REVISION

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

Date	Page / Section Revised	Requirement for Revision
June 2016	Page 3	Minor text amendments and update of Teaching Modules



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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 AtoN Service Craft and Buoy Tenders 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 an introduction to service craft and buoy tenders. Assistance in implementing this and other model courses may be obtained from the IALA World Wide Academy at the following address:

The Secretary-General  
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10 rue des Gaudines  
78100 Saint Germain-en-Laye  
France

Tel: (+) 33 1 34 51 70 01  
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## PART 1- COURSE OVERVIEW

### 1. SCOPE

This course is intended to provide technicians with the theoretical training necessary to have a satisfactory understanding of the types and function of service craft and tenders used to install, service, maintain or replace marks.

This introductory course is intended to be supported by further training modules on practical aspects of buoy handling, moorings, retrieval, cleaning and deployment. Details of these supporting model courses can be found in the Level 2 Technician training overview document IALA WWA L2.0.

### 2. OBJECTIVE

Upon successful completion of this course, participants will have acquired sufficient knowledge and skill to recognise the types and functions of service craft and buoy tenders used by their organisations.

### 3. COURSE OUTLINE

This two-part course is intended to cover the knowledge required for a technician to understand the types and function of service craft and buoy tenders used by their and other organisations to install, service, maintain or replace marks. The course comprises a theoretical classroom module and practical time afloat in a service craft or buoy tender designed to consolidate theoretical knowledge. Both modules begin by stating their scope and aims, and then provide a teaching syllabus.

### 4. TEACHING MODULES

**Table 1** *Table of Teaching Modules*

Module Title	Time in hours	Overview
Introduction to service craft	2.0	This module describes the basic functions and types of service craft and buoy tenders
Sea experience	7.0	This practical module provides a guide to buoy handling equipment fitted in a service craft and describes the roles of crew members; personal protection and equipment health and safety issues afloat
Evaluation	1.0	Written and practical test conducted on board the vessel (where practicable)
<b>Total Hours</b>	<b>10</b>	2 day course

### 5. SPECIFIC COURSE RELATED TEACHING AIDS

- 1 This course involves both classroom instruction and experience afloat. Classrooms should be equipped with blackboards, whiteboards, and overhead projectors to enable presentation of the subject matter.
- 2 Participants should be supplied with all appropriate safety clothing and life-saving equipment during the practical module.

- 3 Models or photographs of service craft and or buoy tenders used by AtoN service providers should be considered as valuable teaching aids.

## 6. ACRONYMS

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To assist in the use of this model course, the following acronyms have been used:

AtoN	Aid(s) to Navigation
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
L	Level
SOLAS	International Convention for the Safety of Life at Sea, 1974 (as amended)
WWA	World Wide Academy

## 7. DEFINITIONS

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The definition of terms used in this Guideline can be found in the International Dictionary of Marine Aids to Navigation (IALA Dictionary) at <http://www.iala-aism.org/wiki/dictionary>

## 8. REFERENCES

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

- 1 IALA NAVGUIDE.
- 2 'IALA at 50' or other publication showing pictures or schematics of service craft.

## PART 2 – TEACHING MODULES

### 1. MODULE 1 – INTRODUCTION TO SERVICE CRAFT

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#### 1.1. SCOPE

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This module describes the basic functions and types of service craft and buoy tenders.

#### 1.2. LEARNING OBJECTIVE

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To gain a **basic** understanding of the function and types of service craft and buoy tenders.

#### 1.3. SYLLABUS

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##### 1.3.1. LESSON 1 – FUNCTION OF SERVICE CRAFT

1. Principal equipment fitted to service craft.
2. Accurate (dynamic) positioning.
3. Health and Safety Issues afloat.

##### 1.3.2. LESSON 2 – TYPES OF SERVICE CRAFT

1. Offshore service craft.
2. Rapid Intervention Vessels.
3. Inshore/river service craft.
4. Multi-purpose vessels.
5. Time charter (contracted) vessels.

### 2. MODULE 2 – SEA EXPERIENCE

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#### 2.1. SCOPE

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This practical module provides a guide to buoy handling equipment fitted in a service craft and describes the roles of crew members; personal protection and equipment health and safety issues afloat.

#### 2.2. LEARNING OBJECTIVE

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To gain a **satisfactory** understanding of the type and function of buoy-handling equipment fitted to service craft or buoy tenders; the role of crew members and health and safety issues specific to the safe operation of service craft.

#### 2.3. SYLLABUS

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##### 2.3.1. LESSON 1 – TOUR OF THE VESSEL

- 1 Safety on the working deck.
- 2 Cranes and their capacities.
- 3 Windlasses and winches.
- 4 Buoy carrying capacity.
- 5 Use of boats and buoy jumpers.
- 6 Buoy handling slings and equipment.
- 7 Navigation equipment.

- 8 Accurate positioning equipment.

**Note: A full safety brief should be given before embarkation.**

#### **2.3.2. LESSON 2 - ROLE OF THE CREW**

- 1 Bridge crew and STCW.
- 2 Engine room crew.
- 3 Seamen and buoy handlers.
- 4 Support crew.

#### **2.3.3. LESSON 3 – SAFETY AND MEDICAL ISSUES**

- 1 Potential dangers and preventative measures.
- 2 Personal Protection Equipment and clothing.
- 3 First Aid procedures on board.

#### **2.3.4. PRACTICAL TASKS**

- 1 Witness buoy handling operation.
- 2 Assist with buoy handling operation.

#### **2.3.5. ON-BOARD ASSESSMENTS**

- 1 Short written assessment test.
- 2 Oral assessment test on board.