



MODEL COURSE

C2006-1

MARINE AIDS TO NAVIGATION – TECHNICIAN TRAINING ATON SERVICE CRAFT AND BUOY TENDERS

Edition 2.0

June 2026

urn:mrn:iala:pub:c2006-1:ed2.0



DOCUMENT HISTORY

Revisions to this document are to be noted in the table prior to the issue of a revised document. The latest edition of the Model Course is the only version in force unless the Model Course is revoked by the Council.

Date	Revision details	Approval
June 2016	Edition 1.0 Minor text amendments and update of Teaching Modules	
June 2026	Edition 2.0 Entire document	Council 04



CONTENTS

PART 1 - COURSE OVERVIEW	5
1. SCOPE	5
2. OBJECTIVE	5
3. COURSE OUTLINE	5
4. TEACHING MODULES	5
5. SPECIFIC COURSE RELATED TEACHING AIDS	5
6. ACRONYMS	6
7. DEFINITIONS	6
8. REFERENCES	6
PART 2 – TEACHING MODULES	7
1. MODULE 1 – INTRODUCTION TO SERVICE CRAFT	7
1.1. Scope	7
1.2. Learning Objective	7
1.3. Syllabus	7
1.3.1. Lesson 1 – Function of Service Craft	7
1.3.2. Lesson 2 – Types of Service Craft	7
2. MODULE 2 – SEA EXPERIENCE	7
2.1. Scope	7
2.2. Learning Objective	7
2.3. Syllabus	7
2.3.1. Lesson 1 – Tour of the Vessel	7
2.3.2. Lesson 2 - Role of the Crew	8
2.3.3. Lesson 3 – Safety and Medical Issues	8
2.3.4. Practical Tasks	8
2.3.5. On-Board Assessments	8

List of Tables

<i>Table 1</i>	<i>Table of Teaching Modules</i>	<i>5</i>
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FOREWORD

The International Organization for Marine Aids to Navigation (IALA) recognizes that training in all aspects of Marine 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.

Under the SOLAS Convention, Chapter 5, Regulation 13, contracting governments should undertake to take into account existing international recommendations and guidelines when establishing aids to navigation. A footnote is included referencing inter alia recommendations and guidelines of IALA.

IALA has adopted the normative Recommendation R0141 on Training and Certification of AtoN Personnel. In order to help Members of the Organization, AtoN authorities and other stakeholders worldwide to conform with the provisions of the Recommendation a series of model courses covering elements of training for AtoN personnel have been developed by the Committees and the World-Wide Academy of the Organization (WWA).

It is intended that such courses shall be conducted by a training institute or an organization accredited by a competent authority in a Member State of the Organization or a Non-member State. This model course is intended to provide Members, AtoN authorities, and other appropriate stakeholders with specific guidance on the training of AtoN technicians in shore marks.

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 functions 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 Model Course C2000 Level 2 Technician Training Model Course Overview.

2. OBJECTIVE

Upon successful completion of this course, participants will have acquired sufficient knowledge and skill to recognize the types and functions of service craft and buoy tenders used by their authorities, organizations, or other stakeholders.

3. COURSE OUTLINE

This two-part course is intended to cover the knowledge required for a technician to understand the types and functions of service craft and buoy tenders used by their authorities, organizations, or other stakeholders 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	3.0	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)
Total Hours	6	1-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.

3. ACRONYMS

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

AtoN	Marine Aids to Navigation
IALA	International Organization for Marine Aids to Navigation
L	Level
SOLAS	International Convention for the Safety of Life at Sea, 1974 (as amended)
STCW	Standards of Training, Certification and Watchkeeping
WWA	World-Wide Academy

4. DEFINITIONS

The definition of terms used in this Guideline can be found in the International Dictionary of Marine Aids to Navigation.

5. REFERENCES

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

- 1 IALA NAVGUIDE.
- 2 Technical documentation from equipment manufacturers will be another useful source of information.

PART 2 – TEACHING MODULES

1. MODULE 1 – INTRODUCTION TO SERVICE CRAFT

1.1. SCOPE

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

1.2. LEARNING OBJECTIVE

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

1.3. SYLLABUS

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

2.1. SCOPE

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

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

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