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| Draft IALA Model Course |

L1.5

Marine Aids to Navigtion Management Training

Level 1 – Module 5 - Historic Lighthouse Projects

Edition 2.0

December 2018

Revisions to this 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 |
| December 2014 | 1st issue | Edition 1 |
| December 2018 | Entire document | Document style updated  Scheduled Committee review to edition 2 |
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|  |  |  |
|  |  |  |
|  |  |  |

PART 1 - COURSE OVERVIEW 7

1. Scope 7

2. Objective 7

3. Course Outline 7

4. Table of Teaching Modules 7

5. Specific Course Related Teaching Aids And Notes 7

6. Pre-Course Reading 8

7. Certification 8

8. Acronyms 8

9. References 8

PART 2 - TEACHING MODULES 8

10. MODULE 1 – HISTORIC OVERVIEW 9

10.1. Scope 9

10.2. Learning Objectives 9

10.3. Detailed Teaching Syllabus for Module 1 – Historic Overview 9

11. MODULE 2 - NATIONAL CONSERVATION PLANS 10

11.1. Scope 10

11.2. Learning Objectives 10

11.3. Detailed Teaching Syllabus for Module 2 – National Conservation Plans 10

12. MODULE 3 - LEGAL ISSUES 11

12.1. Scope 11

12.2. Learning Objectives 11

12.3. Detailed Teaching Syllabus for Module 3 – Legal Issues 11

13. MODULE 4 - COMPLEMENTARY USE OF HISTORIC LIGHTHOUSES 12

13.1. Scope 12

13.2. Learning Objectives 12

13.3. Detailed Teaching Syllabus for Module 4 – Complementary Use of Historic Lighthouses 12

14. MODULE 5 - TECHNICAL ASPECTS OF LIGHTHOUSE PROJECTS 14

14.1. Scope 14

14.2. Learning Objectives 14

14.3. Detailed Teaching Syllabus for Module 5 – Technical Aspects of Lighthouse Projects 14

15. MODULE 6 - DOCUMENTATION 16

15.1. Scope 16

15.2. Learning Objectives 16

15.3. Detailed Teaching Syllabus for Module 6 - Documentation 16

15.4. Evaluation Test 16

List of Tables

Table 1 Table of Teaching Modules 6

Table 2 Detailed Teaching Syllabus - Module 1 8

Table 3 Detailed Teaching Syllabus - Module 2 9

Table 4 Detailed Teaching Syllabus - Module 3 10

Table 5 Detailed Teaching Syllabus - Module 4 11

Table 6 Detailed Teaching Syllabus - Module 5 13

Table 7 Detailed Teaching Syllabus - Module 6 15

FOREWORD

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) recognises that training in all aspects of the management of Marine Aids to Navigation (AtoN) service delivery is critical to the consistent provision of that AtoN service.

Taking into account that under the SOLAS Convention, Chapter V, 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 marine aids to navigation, including recommendations on training and qualification of AtoN managers, IALA has adopted Recommendation R0-141 on Standards for Training and Certification of AtoN personnel.

IALA Committees working closely with the IALA World Wide Academy (The Academy) have developed a series of model courses for AtoN personnel having R0-141 Level 1 management functions. This model course on historic lighthouse projects should be read in conjunction with IALA Recommendation R0141/1 – Model Course on Level 1 Manager Training, which contains standard guidance for the conduct of all Level 1 model courses. .

This model course is intended to be delivered by either The Academy in conjunction with a national member or an Approved Training Organisation. It contains specific guidance on the training of AtoN managers in historic lighthouse projects. 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: [academy@iala-aism.org](mailto:academy@iala-aism.org)

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1. - COURSE OVERVIEW

# Scope

This course is intended to provide marine aids to navigation managers and other interested parties with the theoretical training necessary to have a satisfactory understanding of the processes involved in projects concerning historic lighthouses.

# Objective

Upon successful completion of this course, participants will have acquired sufficient knowledge to project manage or oversee projects concerning historic lighthouses.

# Course Outline

This course is intended to cover the knowledge required for an marine aids to navigation manager to understand historic lighthouse projects within their organisations. The complete course comprises 6 teaching modules.

# Table of Teaching Modules

1. Table of Teaching Modules

|  |  |  |
| --- | --- | --- |
| **Module Title** | **Time in hours** | **Overview** |
| Historic Overview | 2 | This module describes the historic development of lighthouses and their components and the reasons why they should be preserved as national monuments |
| National Conservation Plans | 2 | This module describes the requirement for the production of a national conservation plan and the factors to be considered |
| Legal Issues | 2 | This module describes the legal issues to be considered for the complementary use of an historic lighthouse |
| Complementary use of historic lighthouses | 2 | This module describes the process of deciding which lighthouses to open to the public or other complementary use |
| Technical aspects of lighthouse projects | 2 | This module describes how to manage the consequences of the technical changes required when reconfiguring an historic lighthouse |
| Documentation | 1 | This module describes the records and other documentation required to be generated when managing an historic lighthouse project |
| Evaluation | 1 | Case study evaluation test |
| **Total Hours:** | **12** | Two day course |

# Specific Course Related Teaching Aids And Notes

This course will be classroom based with presentations delivered using MS PowerPoint®. Although the course is limited to 24 participants, the classroom should be big enough to permit the participants to sit at desks large enough to operate a laptop computer with room for printed material to hand. Each desk should be provided with a power socket.

The classroom should be equipped with overhead projectors and screens to enable presentation of the subject matter.

To enable all participants to receive clear guidance from instructors and to raise questions that can be heard throughout the classroom, lapel or fixed lectern microphones should be provided together with a roving microphone for use by participants.

# Pre-Course Reading

Students should be encouraged to study the IALA Lighthouse Conservation Manual [1].

# Certification

Participants who pass successfully the test of competency can be presented with an AtoN Level 1 Manager certificate which states that they have completed successfully the Complementary Module on the projects concerning historic lighthouses.

# Acronyms

AtoN Aid(s) to Navigation

IALA International Association of Marine Aids to Navigation and Lighthouse Authorities - AISM

L Level

SOLAS International Convention for the Safety of Life at Sea, 1974 (as amended)

WWA World Wide Academy

# References

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

1. IALA Lighthouse Conservation Manual.
2. IALA IALA Guideline 1093 on management of surplus property.
3. IALA Guideline 1074 on branding and marketing of historic lighthouses.
4. IALA Guideline 1075 on a business plan for the complementary use of an historic lighthouse.
5. IALA Guideline 1080 on the selection and display of heritage artifacts.
6. - TEACHING MODULES

The following six teaching modules cover all aspects of historic lighthouses.

# MODULE 1 – HISTORIC OVERVIEW

## Scope

This module describes the historic development of lighthouses and their components and the reasons why they should be preserved as national monuments.

## Learning Objectives

To gain a **basic** (Level 1)understandingof the history of lighthouses and a **satisfactory** (Level 2) understanding of their components and the reasons why historic lighthouses should be preserved as national monuments.

## Detailed Teaching Syllabus for Module 1 – Historic Overview

1. Detailed Teaching Syllabus - Module 1

| Module | Element | Sub-element | Subject | Level of Competence | Recommended training aids; exercises and external visits | References  Rec = Recommendation  GL = Guideline | Lecture No. |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1** |  |  | **HISTORIC OVERVIEW** |  | | | |
|  | **1.1** | **History of lighthouses** |
|  |  | 1.1.1 | Why early lighthouses were constructed | 1 |  |  | 1 |
|  |  | 1.1.2 | Examples of ancient lighthouse |
|  |  | 1.1.3 | Definition of an historic lighthouse |
|  |  | 1.1.4 | Developments from the 18th century |
|  |  | 1.1.5 | Examples of 19th and 20th century historic lighthouses |
|  | **1.2** |  | **Components of historic lighthouses** |  | | | |
|  |  | 1.2.1 | Development of light sources | 2 |  | GL 1080 | 2 |
|  |  | 1.2.2 | Development of sound signals |
|  |  | 1.2.3 | Development of power source |
|  | **1.3** |  | **Preservation as National Monuments** |  | | | |
|  |  | 1.3.1 | Iconic status of historic lighthouses as world maritime heritage sites | 2 |  | GL 1074 | 2 |
|  |  | 1.3.2 | Public interest in lighthouses |
|  |  | 1.3.3 | Impact on local businesses |

# MODULE 2 - NATIONAL CONSERVATION PLANS

## Scope

This module describes the requirement for the production of a national conservation plan and the factors to be considered.

## Learning Objectives

To gain a **satisfactory** understanding of the production of a national conservation plan.

## Detailed Teaching Syllabus for Module 2 – National Conservation Plans

1. Detailed Teaching Syllabus - Module 2

| Module | Element | Sub-element | Subject | Level of Competence | Recommended training aids; exercises and external visits | References  Rec = Recommendation  GL = Guideline | Lecture No  . |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2** |  |  | **NATIONAL CONSERVATION PLANS** |  | | | |
|  | **2.1** | **Development of a national conservation plan a** |
|  |  | 2.1.1 | Planning process | 2 | Identification of  stakeholders exercise | IALA Lighthouse  Conservation Manual  Chapter 1 | 3 |
|  |  | 2.1.2 | Involvement of stakeholders |
|  |  | 2.1.3 | Production of a conservation plan |
|  |  | 2.1.4 | Production of a management plan |
|  |  | 2.1.5 | Project management plans |
|  | **2.2** |  | **Implementation of a management plan** |  | | | |
|  |  | 2.2.1 | Identification of potential and limitations | 2 |  | IALA Lighthouse  Conservation Manual  Chapter 1 | 4 |
|  |  | 2.2.2 | Risk assessment considerations |
|  |  | 2.2.3 | Public relations considerations |
|  |  | 2.2.4 | Benchmarks to measure success |

# MODULE 3 - LEGAL ISSUES

## Scope

This module describes the legal issues to be considered for the complementary use of an historic lighthouse.

## Learning Objectives

To gain a basic understanding of the legal issues appertaining to the complementary use of an historic lighthouse and a satisfactory understanding of joint risk assessments appertaining to the complementary use of historic lighthouses.

## Detailed Teaching Syllabus for Module 3 – Legal Issues

1. Detailed Teaching Syllabus - Module 3

| Module | Element | Sub-element | Subject | Level of Competence | Recommended training aids; exercises and external visits | References  Rec = Recommendation  GL = Guideline | Lecture No. |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **3** |  |  | **LEGAL ISSUES** |  | | | |
|  | **3.1** | **Ownership rights and legal restrictions** |
|  |  | 3.1.1 | Overview of national legislation and planning laws | 1 |  | IALA Lighthouse  Conservation Manual  Chapter 2 | 5 |
|  |  | 3.1.2 | Site ownership and rights of access |
|  |  | 3.1.3 | Possible legal restrictions |
|  |  | 3.1.4 | Legal agreements |
|  | **3.2** |  | **Joint Risk Assessment** |  | | | |
|  |  | 3.2.1 | Assessment of risks | 2 | Legal checklist and  risk control exercise | IALA Lighthouse  Conservation Manual  Chapter 2 | 6 |
|  |  | 3.2.2 | Risk management to limit legal liability |
|  |  | 3.2.3 | Monitoring and review procedures |

# MODULE 4 - COMPLEMENTARY USE OF HISTORIC LIGHTHOUSES

## Scope

This module describes the process of deciding which lighthouses to open to the public or other complementary use.

## Learning Objectives

To gain a satisfactory understanding of the how to select which lighthouses to open to the public or other complementary use.

## Detailed Teaching Syllabus for Module 4 – Complementary Use of Historic Lighthouses

1. Detailed Teaching Syllabus - Module 4

| Module | Element | Sub-element | Subject | Level of Competence | Recommended training aids; exercises and external visits | References  Rec = Recommendation  GL = Guideline | Lecture No. |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **4** |  |  | **COMPLEMENTARY USE OF HISTORIC LIGHTHOUSES** |  | | | |
|  | **4.1** | **Potential sites for Complementary Use** |
|  |  | 4.1.1 | Risk-based reasons to recategorise a lighthouse t | 2 |  | IALA Lighthouse  Conservation Manual  Chapter 3 | 7 |
|  |  | 4.1.2 | Retention of marine aids to navigation |
|  |  | 4.1.3 | Stakeholder feedback |
|  |  | 4.1.4 | General suitability for complementary use |
|  | **4.2** |  | **Selection of Lighthouses to Open** |  | | | |
|  |  | 4.2.1 | Location factors | 2 |  | IALA Lighthouse  Conservation Manual  Chapters 3 - 5  GL 1074 and 1075 | 7 |
|  |  | 4.2.2 | Vehicular, vessel and pedestrian access |
|  |  | 4.2.3 | Potential visitor numbers |
|  |  | 4.2.4 | Health and Safety considerations |
|  |  | 4.2.5 | Accommodation possibilities on site |
|  | **4.3** |  | **Financial Aspects** |  | | | |
|  |  | 4.3.1 | Cost of alternative use and/or conversion | 2 |  | IALA Lighthouse  Conservation Manual  Chapter 6  GL 1074 and 1075 | 8 |
|  |  | 4.3.2 | Operating costs |
|  |  | 4.3.3 | Staff requirements |
|  |  | 4.3.4 | Potential sponsorship |
|  |  | 4.3.5 | Potential revenue from visitors |

# MODULE 5 - TECHNICAL ASPECTS OF LIGHTHOUSE PROJECTS

## Scope

This module describes how to manage the consequences of the technical changes required when reconfiguring an historic lighthouse.

## Learning Objectives

To gain a satisfactory understanding of how to manage the consequences of necessary technical changes when reconfiguring an historic lighthouse complementary use.

## Detailed Teaching Syllabus for Module 5 – Technical Aspects of Lighthouse Projects

1. Detailed Teaching Syllabus - Module 5

| Module | Element | Sub-element | Subject | Level of Competence | Recommended training aids; exercises and external visits | References  Rec = Recommendation  GL = Guideline | Lecture No. |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **5** |  |  | **TECHNICAL ASPECTS OF LIGHTHOUSE PROJECTS** |  | | | |
|  | **5.1** | **Production of an inventory** |
|  |  | 5.1.1 | Optic systems and lanterns | 2 | Inventory production  exercise | IALA Lighthouse  Conservation Manual  Chapter 7 & its Annex B | 9 |
|  |  | 5.1.2 | Lantern house, balcony and weather vanes |
|  |  | 5.1.3 | Tower and internal stairways |
|  |  | 5.1.4 | Watch rooms, dwellings and outhouses |
|  |  | 5.1.5 | Power sources and systems |
|  |  | 5.1.6 | Other AtoN systems (radionavaids and sound signals) |
|  | **5.2** |  | **Re-engineering** |  | | | |
|  |  | 5.2.1 | Replacement options | 2 |  | Rec E-200 | 10 |
|  |  | 5.2.2 | Re-evaluation of existing optics and power system |
|  |  | 5.2.3 | Sympathetic design of replacement options |
|  | **5.3** |  | **Artefacts** |  | | | |
|  |  | 5.3.1 | Review of historically important maritime artefacts | 2 |  | GL 1080 | 11 |
|  |  | 5.3.2 | The degree of value of obsolete items |
|  |  | 5.3.3 | Schedule of significance for items to retain and/or exhibit |
|  |  | 5.3.4 | The conservation and display of artefacts |

# MODULE 6 - DOCUMENTATION

## Scope

This module describes the records and other documentation required to be generated when managing an historic lighthouse project

## Learning Objectives

To gain a satisfactory understanding of the records and associated documentation to be generated when reconfiguring an historic lighthouse complementary use.

## Detailed Teaching Syllabus for Module 6 - Documentation

1. Detailed Teaching Syllabus - Module 6

| Module | Element | Sub-element | Subject | Level of Competence | Recommended training aids; exercises and external visits | References  Rec = Recommendation  GL = Guideline | Lecture No. |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **6** |  |  | **DOCUMENTATION** |  | | | |
|  | **6.1** | **Documentation - General** |
|  |  | 6.1.1 | Reasons for keeping records | 2 |  | IALA Lighthouse  Conservation Manual  Chapter 8 | 12 |
|  |  | 6.1.2 | Management of historic record |  |
|  |  | 6.1.3 | Digital and hard copy records |  |
|  |  | 6.1.4 | Access to documentation |  |
|  | **6.2** |  | **Documentation for Reconfiguration** |  | | | |
|  |  | 6.2.1 | Photographic record of reconfiguration | 2 |  | IALA Lighthouse  Conservation Manual  Chapter 8 | 12 |
|  |  | 6.2.2 | Inventory of old and new equipment |  |
|  |  | 6.2.3 | Plans and drawings |  |

## Evaluation Test

Participants will be supplied with a simplified case study of an historic lighthouse and be tasked with the completion of a template based on Chapter 9 of the IALA Lighthouse Conservation Manual.

**ANNEX A** – EXAMPLE CERTIFICATE OF COMPLETION

Insert appropriate logo(s)

**Marine Aids to Navigation Certificate**

**Level 1**

**This is to certify that**

has completed successfully the Complementary Module on:

**Historic Lighthouse Projects**

In accordance with the IALA World-Wide Academy Model Course L1.5

Based on IALA Recommendation E-141/1 on Level 1 Manager Training

Awarded at [City, Country] on [date]

[name of Dean of Approved Training Organization] [name of chief instructor]

[title of Approved Training Organization] [title of chief instructor]