Input paper: ENG21-3.1.1.4

Input paper for the following Committee(s): check as appropriate Purpose of paper:

**□** ARM **X** ENG **□** PAP **□** Input

**□** DTEC **□** VTS **□** Information

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Technical Domain / Task Number 2 …………………………………

Author(s) / Submitter(s) ………………WWA…………………

Proposed updates to IALA WWA Model Courses Based on AtoN Engineering Workshop outcomes

# Summary

This paper reports on the outcomes of the AtoN Engineering Workshop (October 2024, Sydney), specifically the review and refresh of selected World-Wide Academy (WWA) Model Courses (Level 2 and Level 1.1). The working groups identified updates to ensure training materials remain aligned with technological advances and IALA’s latest guidance.

## Purpose of the document

The purpose of this paper is to present the selected outcomes of the workshop working groups and request the Committee to support the proposed updates to Model Courses, and to incorporate them into the ongoing review programme under ENG21.

## Related documents

Report of the AtoN Engineering Workshop, October 2024, Australia.

IALA Recommendation R0204 – Marine Signal Lights – Determination and Calculation of Effective Intensity.

IALA Guideline G1028 – Design of Fairways.

C1001 Marine Aids to Navigation Manager Training Ed3.1

Model Course Level 2 Technician Training – Introduction to AtoN IALA WWA L2:1.1-1.2

IALA Model Course – Level 2 – Model Course Overview

C2007-1 Radar beacon (RACON) maintenance Ed2

# Background

The AtoN Engineering Workshop convened in October 2024 included dedicated sessions for reviewing WWA Model Courses. Working Groups were tasked to identify areas requiring refreshment in response to updated IALA Recommendations and Guidelines, as well as advances in AtoN engineering technology.

The workshop WG3 in particular addressed Model Course Level 1.1, while other groups reviewed Level 2 modules. Their findings highlight the need for updated terminology, expanded explanations, and restructuring of certain training elements to maintain conformance with best practice.

# Discussion

**Group 2A (2a.1) – Visual AtoN**

Expanded explanation of effective intensity, reflecting updates in IALA R0204.

Updated terminology regarding astronomical events.

Reorganized content on background lighting, contrast, and glare for clarity.

**Group 2A (w2a.6) – Channel Design**

Review against the newly updated IALA Guideline on the Design of Fairways (G1028).

Course content updated from “Channel design and mix of AtoN” to Comprehensive Channel Design.

**Group 2B (2b.1) – Radio AtoN (Radars & Racons)**

Broadened “New Technology Radars” to “Types of Radar, including New Technology Radars”.

Verification of ship’s radar independence from GNSS.

Addition of a module on the cross-sectional area of radar reflectors.

# Action requested of the Committee

These updates will ensure the training modules remain aligned with technological advances and IALA’s latest guidance, supporting Member States in maintaining compliance with SOLAS Chapter V and IALA Standards.

The Committee is requested to: (Body text)

1. Support to achieve the proposed updates to WWA Model Courses (Level 2 and Level 1.1).
2. Work jointly with the relevant ENG21 Working Groups with drafting the revisions for approval.
3. Ensure alignment of training content with the latest IALA Recommendations, Guidelines, and technological developments.
4. ........
5. Annex Heading 1
   1. Annex heading 2
      1. Annex heading 3
6. ........
7. Appendix heading 1
   1. Appendix heading 2
      1. Appendix heading 3

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