Input paper: [[1]](#footnote-2) DTEC5-6.2.2.11

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

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

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

Agenda item [[2]](#footnote-3) n.n

Technical Domain / Task Number 2 DTEC-5.1.2

Author(s) / Submitter(s) WWA

Training in Implementation of Digital Solutions (Data Analytics & Maritime Informatics)

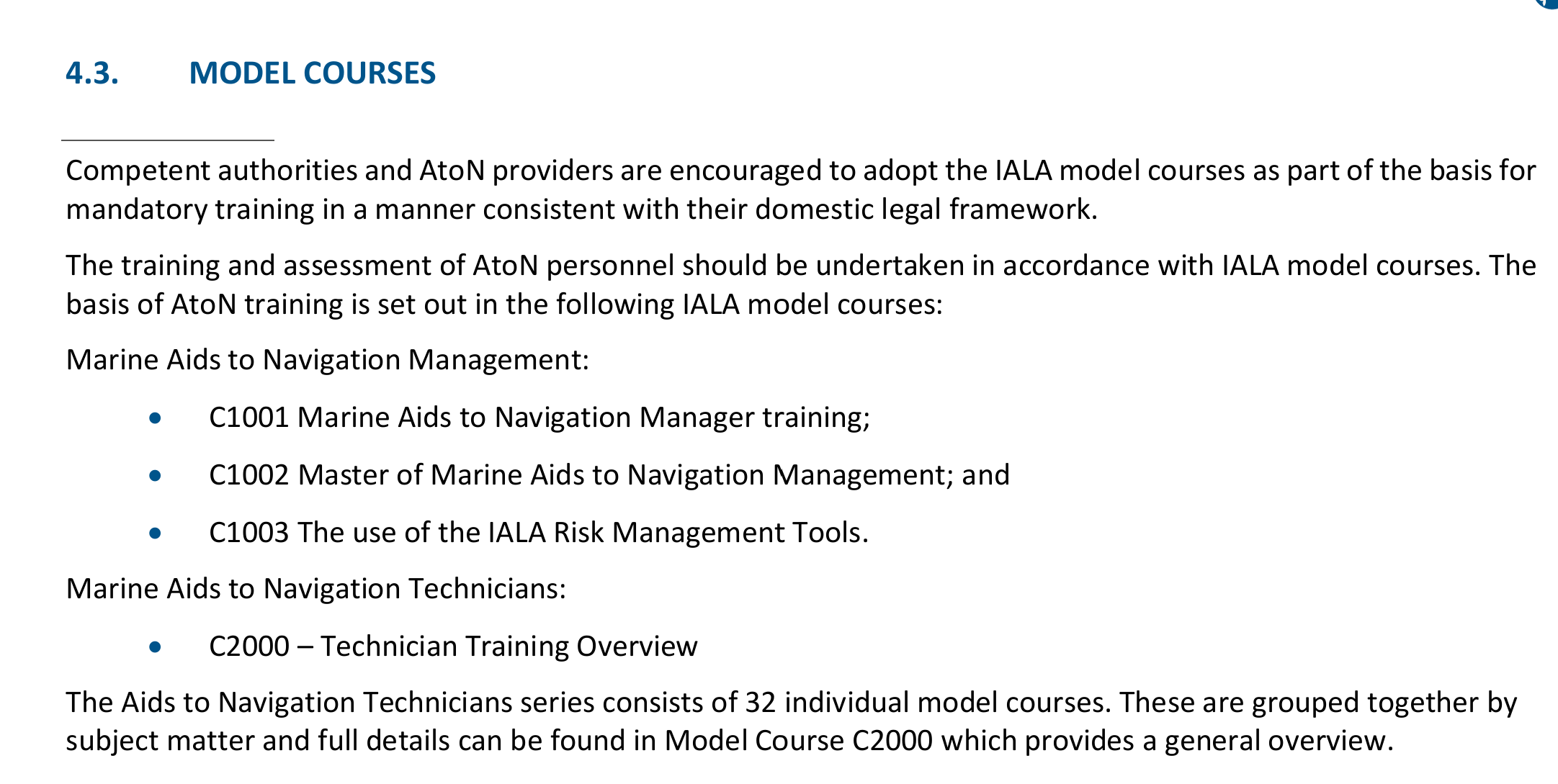
# Summary

This paper proposes the development of a guideline on skills related to the digital environment, specifically in data analytics and maritime informatics, together with associated training programs under the IALA World-Wide Academy (WWA). The proposal suggests reviewing and enhancing the existing Model Course L1.4 *Aids to Navigation Management Training Level 1 – Global Navigation Satellite Systems and e-Navigation*, in order to integrate new competencies aligned with digitalization trends in the maritime domain.

## Purpose of the document

The Committee is invited to consider the need to support the review and adaptation of Model Course L1.4 *Global Navigation Satellite Systems and e-Navigation* in order to include modules addressing data analytics, maritime informatics, digital fairways, designing digital maritime services and their application in AtoN and e-Navigation services.

There is also a new to review some documents addressing the need to provide training on L1.4, below is an extract from IALA Guideline G1169 Training and Certification of Marine Aids to Navigation Personnel, where a reference to C1004 *Global Navigation Satellite Systems and e-Navigation* is proposed to appear.



## Related documents

# IALA Model Course L1.4 Aids to Navigation Management Training Level 1 – GNSS and e-Navigation

# IALA Guideline G1111 Training and Certification Framework for AtoN Personnel

# IALA Strategic Vision 2030 – Goal 2 (Digital Transformation)

DTEC5-n.n.n.n Draft C1004 Global navigation satelitte systems and e-navigation Ed3

# Background

Digitalization is increasingly shaping the maritime domain. Concepts such as e-Navigation, data-driven decision-making, and maritime informatics are becoming essential for modern AtoN and VTS services. Many coastal States, particularly in developing regions, face a gap in the digital skills required to implement, operate, and manage digital solutions.

The IALA WWA, in line with its mission to foster capacity building, proposes to develop a guideline on digital skills and to align training programs with evolving needs. Model Course L1.4 already provides a foundation in GNSS and e-Navigation, and therefore constitutes the appropriate vehicle for incorporating data analytics and maritime informatics elements.

# Discussion

The proposed work would:

* Identify the core competencies related to data analytics and maritime informatics applicable to AtoN and e-Navigation;
* Consider if developing a guideline defining digital skill requirements for managers, operators, and technical staff is the accurate framework to deal with this task;
* Review and update Model Course L1.4 to incorporate relevant training modules;
* Ensure alignment with IMO instruments, IALA Recommendations, and international best practice in maritime digitalization;
* Facilitate delivery of training through the WWA network and regional workshops, supporting capacity building across IALA Member States.

This initiative will help Member States to better integrate digital solutions into their AtoN and e-Navigation strategies, improve operational efficiency, and strengthen compliance with SOLAS Chapter V obligations.

# References

IALA Model Course L1.4

IALA Recommendation R0141 on the Training and Certification Framework for AtoN Personnel

IMO Resolution A.917(22) on e-Navigation

Relevant publications on maritime informatics and digital skills frameworks

# Action requested of the Committee

The Committee is requested to: (Body text)

* Note the importance of digital skills for AtoN and e-Navigation services;
* Agree to the review and updating of Model Course L1.4 to include training modules in this area;
* Task the WWA to lead this work and report progress at the next session of DTEC.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-2)
2. Leave open if uncertain [↑](#footnote-ref-3)