

IALA COUNCIL
79th session



11-14 December 2023
IALA Headquarters

10 – TECHNICAL ACTIVITIES

10.3 – ARM

10.3.1.– ARM 17 summary report

Note by the Secretariat

1. INTRODUCTION

The 17th session of the IALA AtoN Requirements and Management (ARM) Committee was held from 23 October - 1 November 2023, including the physical week at IALA HQ between 23 - 27 October, with Dave Lewald as Chair and Natasha McMahon as Vice-chair. The Secretary for the meeting was Thomas Southall.

93 participants from 27 countries participated in ARM17. 16 participants attended for the first time. The Committee considered 39 input papers and produced 13 output papers, including working papers, from three Working Groups.

The overall status of the committee has been annexed to this document.

2. OUTPUTS

During this session, the Committee did not finalise any draft recommendations or guidelines for submission to the Council for approval. However, the Committee has developed a questionnaire related to the IALA Risk Management Tools, which is scheduled for distribution to all members. The Secretariat is tasked with finalizing and circulating this questionnaire among the members in due course.

Additionally, the Committee prepared a draft information paper for submission to the IMO HTW. This paper aims to raise awareness about the updated IALA MBS and its relevance to training. Due to time constraints before the submission deadline, the draft paper (C79-12.1.4) was circulated to the Council using an online approval procedure.

3. IALA PAPER SUBMISSION TO OTHER ORGANISATIONS

The following liaison note was prepared for the Council approval:

- C79-12.1.2 (ARM17-11.2.1) Input to IMO NCSR on the IALA MBS revision
- C79-12.1.3 (ARM17-11.4.1) Draft submission to IMO on the Safety of Navigation Circular on the Risk Management Toolbox
- C79-12.2.1 (ARM17-11.3.2 and ARM17-11.3.2.1) Liaison note to IHO liaison note to NIPWG on S-125

4. THE COUNCIL IS REQUESTED TO

NOTE the information provided in this document.

Annex - Overall status of the ARM Committee 2023-2027 Work Programme after ARM17:

| Standard | Scope | No. | Task | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|-------------------------|---------------------------------------|-------|---|----|----|----|----|----|----|----|
| S1010 Marine AtoN | Marine AtoN planning | 1.2.1 | Compile new Guideline on AtoN Buoy Tender requirements and specification | | | | x | x | x | x |
| | Marine AtoN planning | 1.2.2 | Compile guidance for buoy tender activities | | x | x | x | x | | |
| | Marine AtoN planning | 1.2.3 | Full review of Guideline G1078 The Use of AtoN in the Design of Fairways | | | | | | x | x |
| | Marine AtoN planning | 1.2.4 | Development of aspects of digital communications, including promoting broadband connectivity for operational technology. | | | x | x | x | x | x |
| | Marine AtoN planning | 1.2.5 | Guidance on the use of simple IOT sensors on physical aids | | | x | x | x | | |
| | Marine AtoN planning | 1.2.6 | Develop further guidance for navigators on the use of AtoN | x | x | x | x | x | | |
| | Marine AtoN planning | 1.2.7 | Prepare an appropriate submission to IMO advising of the publication of the updated MBS highlighting MATON and MASS content. | x | | | | | | |
| | Marine AtoN planning | 1.2.8 | Develop guidance on the provision of AtoN and risk management for autonomous vehicle/vessel operations (Maritime Autonomous Surface Ship, MASS) | | x | x | x | | | |
| | Marine AtoN planning | 1.2.9 | Review relevant sections of NAVGUIDE in cooperation with the Secretariat | x | x | x | x | x | x | x |
| | Obligations and regulatory compliance | 1.1.1 | Monitor IMO work on STCW and develop IMO submissions and supporting advice on amendments to STCW in respect of IALAs inclusion within the Convention to cover AtoN training for navigators. | x | x | x | x | x | | |
| | Risk management | 1.4.1 | Enhancing the safety and efficiency of navigation around offshore installations | x | x | x | | | | |
| | Quality management | 1.5.1 | Develop a recommendation and guideline consolidating content from G1030, G1035 and G1004. | | x | x | x | x | | |
| | Quality management | 1.5.2 | Revision of Guideline 1052 on Quality Management in Marine Aids to Navigation Service Delivery | x | x | x | | | | |

| Standard | Scope | No. | Task | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---------------------------------------|------------|--|----|----|----|----|----|----|----|
| | Quality management | 1.5.3 | Revise Recommendation R0132 Quality management for AtoN authorities. | x | x | x | | | | |
| S1020 AtoN design and delivery | Visual signalling | 2.1.1 | Consider developing guidance on the marking of test areas for autonomous vessels and vehicles, ice roads and competition and event areas etc | | | | x | x | x | x |
| | Design, Implementation & Maintenance | 2.2.1 | Develop Recommendation and Guideline on the use of Drones for AtoN inspection and maintenance | x | x | x | x | | | |
| S1050 Training and certificati on | Training and assessment | 5.1.1 | Model course on incident response and crisis coordination | | | | | | | |
| S1060 Digital communi cation technolo gies | Harmonized maritime connectivity | 6.3.1 | Review and update G1062 Establishment of AIS as a [Marine] Aid to Navigation | x | | | | | | |
| | Wide and medium bandwidth systems | 6.1.1 | Review G1050 Management and Monitoring of AIS Information | x | | | | | | |
| S1010 Marine AtoN | Marine AtoN planning | 1.2.1 1 | Develop guidance on the provision of Marine AtoN for autonomous vehicle/vessel operations (Maritime Autonomous Surface Ship, MASS). | | | | | | | |
| | Obligations and regulatory compliance | 1.1.2 | Consider developing guidance on the certification of technical equipment, information systems and technical infrastructure related to MASS in the domain of IALA | | | | | | | |
| S1020 AtoN design and delivery | Floating Aids to Navigation | 2.3.1 | Update G1066 Design of floating AtoN moorings | | | | | | | |
| S1040 VTS | VTS implementation | 4.1.1 | Develop guidance on delineating the VTS area | | | | | | | |
| S1060 Digital communi cation technolo gies | Harmonized maritime connectivity | 6.3.2 | Recommendation for the AIS Service | | | | | | | |
| | Harmonized maritime connectivity | 6.3.3 | Review of the contents of A-124 series recommendations | | | | | | | |
| S1010 Marine AtoN | Risk management | 1.4.2 | Consider the development of IALA as a facilitator for an ISAC (Information Sharing and Analysis Centre) in relation to cyber security. | x | | | | | | |

| Standard | Scope | No. | Task | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|--|-------|---|----|----|----|----|----|----|----|
| | Risk management | 1.4.3 | Develop guidance on cyber security for Marine AtoN | x | x | | | | x | x |
| S1050 Training and certificati on | Accreditation, competency, certification and revalidation | 5.2.1 | Develop a model course on AtoN Cyber Security arrangements | | x | x | | | | |
| S1020 AtoN design and delivery | Design, Implementation & Maintenance | 2.2.1 | Full review of A-126, G1084 and other AIS associated documentation | | | | | | | |
| | Design, Implementation & Maintenance | 2.2.2 | Develop an IALA guideline on the Maritime Architecture Framework | | | | | | | |
| | Design, Implementation & Maintenance | 2.2.3 | Develop an IALA recommendation and guideline on developing Harmonized Waterway Concept | x | x | x | x | x | | |
| S1050 Training and certificati on | Accreditation, competency, certification and revalidation | 5.2.2 | Create S-100 model course | x | x | | | | | |
| S1060 Digital communi cation technolo gies | Harmonized maritime connectivity | 6.3.4 | Define user requirements for Maritime Connectivity, Maritime Internet of Things (IoT), and MRN addressing (may be three subtasks) | x | | | | | | |
| S1070 Informati on services | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.1 | Digital Fairway | | | | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.2 | Contribute to the standardization efforts with respect of the requirements of the S-100 domain experts | x | x | x | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.3 | New Guideline on Operational considerations for S-200 (S-201 AtoN information and S-230 Application Specific Messages) | | x | x | x | x | | |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.4 | Continue to Develop Product Specification S-201. Continue development on S-201, specifically on Maintenance, data validation, and harmonization with S-125, S- 124, and S-101 | x | x | x | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.5 | Coordinate with IHO on implementation of IALA PS into S-98 | x | | | | | | |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.6 | Continue development on S-125 in coordination with IHO NIPWG | x | x | x | x | x | x | x |

| Standard | Scope | No. | Task | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|----------------------------------|---|--------|---|----|----|----|----|----|----|----|
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.7 | Continue development on MRN documentation, considering inputs from IALA Secretariat, other committees, or others as needed | x | | x | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.8 | Review Guideline G1106 on producing an IALA S-200 series Product Specification | | x | x | x | | | |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.9 | Coordinate Committee support and submissions for IALA representation at IHO working groups in cooperation with Secretariat (HSSC, S-100WG, NIPWG) | x | | x | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.10 | Monitor the development of S-201 Testbed | x | | x | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.11 | Develop, implement and execute procedures for IALA to add, maintain and harmonize items to the IHO S-100 Feature Concept Dictionary(FCD) | x | | x | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.12 | Create S-200 Implementation Plan, following similar S-100 Implementation Strategy and/or Roadmap | x | | x | x | x | | |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.13 | Develop guidance on the symbology and portrayal of AtoN for charting | x | | x | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.14 | Development of technical service specifications for the provision of AtoN information | x | | x | x | x | x | x |
| | Data models and data encoding (IVEF, S-100, S-200, ASM) | 7.1.15 | Review Guideline G1159 on ship reporting from the shore-side perspective | | x | x | x | x | | |
| S1050 Training and certification | Training and assessment | 5.1.2 | Training in implementation of digital solutions (data analytics & maritime informatics) | | | | | x | x | x |
| S1010 Marine AtoN | Risk management | 1.4.4 | Review Risk Management related documentation. Update as per ongoing risk toolbox developments. | x | x | x | x | x | x | X |
| | Risk management | 1.4.5 | Develop a method to quantify and evaluate various risk mitigation options | x | x | x | X | | | |

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|----------------------------------|-------------------------|--------|--|----|----|----|----|----|----|----|
| | Risk management | 1.4.6 | Encourage IALA members and other organisations to share historic AIS and other vessel tracking data with IALA. IALA aims to use such data for risk assessment, research and training purposes. | | x | | | x | X | |
| | Risk management | 1.4.7 | Conduct a global scan of current risk analysis tools and identify potential candidates for inclusion within the IALA Risk Management Toolbox. | x | x | | X | | | |
| | Risk management | 1.4.8 | Monitor the IRMAS reporting tool, ensuring it meets the requirements for future records of risk management. Ensure the form is modified as required. | X | | | | | | |
| | Risk management | 1.4.9 | Ensure long term sustainable supportability for IWRAP Software. | | | x | x | x | X | |
| | Risk management | 1.4.10 | Guideline for Risk Assessment of Cyber Security threats | x | | | x | x | x | X |
| S1050 Training and certification | Training and assessment | 5.1.3 | WWA lesson plans to review | x | x | x | x | x | x | x |

Legend:

| | |
|---------------|-------------------------------|
| Blank: | Ongoing or scheduled task |
| Light orange: | To Council to note or approve |
| Light grey: | Task completed or deleted |
| X | Prolonged task |

Legend for task numbering:

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| Digit 1: WG 1, 2 or 3 |
| Digit 2: Standard Scope No.; Other standards = 8; Standard not available = 9 |
| Digit 3: In sequence (1, 2, 3 etc.) |
| Digit 4: Sub task a, b, c...(if needed) |