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

☐ ARM          ☐ ENG          ✓ PAP              ✓ **Input**

☐ ENAV         ☐ VTS                             ☐ Information


| Agenda item | 8. Work programme for the Committee |
| --- | --- |
| Author(s) / Submitter(s) | Secretariat |

# Work programme for the Committees as approved by Council 67

## 1.   INTRODUCTION

Basic Documents, "Policy and Procedures Committees" clause 1.1 states

> *"The purpose of a Committee is to create draft Documents, for example draft standards, recommendations, guidelines, and manuals.*
>
> *Draft documents become IALA official documentation after approval by Council or the General Assembly in the case of standards, and are then made available by the Secretariat on the website for public use."*

## 2.   APPROVAL OF THE WORK PROGRAMME FOR COMMITTEES

Article 6, Clause 6.1, 2a states

> *"Committees or other bodies may … study matters relevant to the aims of IALA, with the objective of preparing Standards, Recommendations, Guidelines and Manuals, and submissions to other organisations in accordance with the Work Programme approved by Council: … "*

## 3.   WORK PROGRAMME FOR COMMITTEES 2018-2022

The table which follows is the draft Work Programme for Committees for the period 2018-2022, for the creation and maintenance of draft Documents

- Standards
- Recommendations
- Guidelines
- Manuals
- Model Courses.

The Policy Advisory Panel will review progress of the work of Committees at each session, and its findings will be provided to Council in the reports of these sessions.

The Technical Operations Manager will maintain close coordination of the work, with the Committee Chairs, and the objectives of keeping the work timely, and reporting to the Policy Advisory Panel.

## 4.   THE PANEL IS REQUESTED TO

**Note** the Work Programme and **review** as necessary.

# Work Programme for Committees 2018-2022

## A. Standards, Recommendations and Guidelines

| | update planned for 2018-2022 | | No relevant document |
|---|---|---|---|

[G] Not updated in new document numbering

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| **IALA1010 AtoN Planning and Service Requirements** | **Aids to Navigation planning** | R1001 | The IALA Maritime Buoyage System | ARM | Normative | [G]1078 | The Use of AtoN in the Design of Fairways (June 2011) | ARM | Revision and gap analysis of related documents |
| | | R0111 (E-111) | Port Traffic Signals | ENG | Normative | | Not planned | | |
| | | R0113 (O-113) | The Marking of Fixed Bridges and Other Structures over Navigable Waters | ARM | Normative | | Not planned | | |
| | | R0139 (O-139) | The Marking of Man-Made Offshore Structures | ARM | Normative | | Not planned | | |
| | | R1010 | The Involvement of Maritime Authorities in Marine Spatial Planning | ARM | Informative | [G]1079 | Establishing and Conducting User Consultancy by [Marine] Aids to Navigation Authorities (Dec 2009) | ARM | |
| | | | | | | G1121 | Navigational Safety Within Marine Spatial Planning (June 2017) | ARM | |
| | | | | | | [G]1033 | Provision of [Marine] Aids to Navigation for Different Classes of Vessels, Including High-Speed Craft (Dec 2003) | ARM | |
| | | No document | | | | [G]1096 | Anticipated User e-Navigation Requirements from Berth to Berth, for AtoN Authorities (May 2013) | ARM | Revise the document anticipated user eNav requirements (may be deleted) |
| | | Not planned | | | | [G]1107 | Planning and Reporting of e-Navigation Testbeds (June 2016) | ENAV | |
| | | No document | | | | [G1090] | The Use of Audible Signals (Dec 2012) | ARM | |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | Obligations and regulatory compliance | R1xxx NEW | The need for a Competent Authority for Marine Aids to Navigation [and vessel traffic] services | ARM VTS | Informative | New | New Guideline(s) describing purpose, management, legislation needs, regulation needs, perhaps with examples of legislation and regulation clauses to assist understanding. | ARM& Possibly VTS | Develop with support of WWA |
| | | R1xxx **NEW** | The international obligations of competent authorities IMO SOLAS, UNCLOS, EU Directives, etc. | ARM | Normative | [G]1054 | Preparing for a Voluntary IMO Audit on Aids to Navigation Service Delivery (Nov 2006) | ARM | |
| | | | Not planned | | | [G]1005 | Contracting Out [Marine] Aids to Navigation Services (Dec 2005) | ARM | |
| | Levels of service | R0130 (O-130) | Categorisation and Availability Objectives for Short Range Aids to Navigation | ARM | Normative | G1004 | Level of Service | ARM | |
| | Risk Management | R1002 | Risk Management for Marine Aids to Navigation | ARM | Normative | [G]1018 | Risk Management (May 2013) | ARM | Ensure compatibility with risk toolbox |
| | | | | | | G1123 | The Use of IALA Waterway Risk Assessment Programme (IWRAP MkII) (June 2017) | ARM | Develop document to promulgate these to IMO (SN circular) |
| | | | | | | G1124 | The Use of Ports and Waterways Safety Assessment (PAWSA MkII) Tool (June 2017) | ARM | |
| | | | | | | G1138 | The Use of the Simplified IALA Risk Assessment Method (SIRA) (Dec 2017) | ARM | |
| | | | | | | [G]1104 | The Application of Maritime Surface Picture for Analysis in Risk Assessment and the Provision of [Marine] Aids to Navigation Service Delivery (Dec 2013) | ARM | |
| | | R0142 (E-142) | Maritime Data Sharing 'IALA-NET' <br> • New title "Maritime data sharing for risk assessment and analysis" | ENG | Informative | New | Revise this Recommendation to note the storage and use of historical [AIS and other] data for risk analysis. | ARM | ENG and ARM in cooperation |
| | | | | | | [G]1086 | Global Sharing of Maritime Data (June 2012) | ARM | Consider with ref to the above |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | R0138 (O-138) | The Use of GIS and Simulation by [Marine] Aids to Navigation Authorities | ARM | Informative | [G]1057 | The Use of Geographical Information Systems by [Marine] Aids to Navigation Service Delivery (Dec 2007) | ARM | |
| | | | | | | [G]1058 | The Use of Simulation as a Tool for Waterway Design and [Marine] Aids to Navigation Planning (June 2011) | ARM | ARM revise R0138 and G1058 in cooperation with ENG |
| | | | | | | [G]1097 | Technical Features and Technology Relevant for Simulation of AtoN (May 2013) | ARM | Review and revise with ENG |
| | | R1009 | Disaster recovery | ARM | Informative | G1120 | Disaster Recovery (June 2017) | ARM | |
| | | R1015 | Marking of Hazardous Wrecks | ARM | Normative | [G]1046 | Response Plan for the Marking of New Wrecks (June 2005) | ARM | |
| | | R1016 | Mobile AtoN (MAtoN) | ARM | Normative | New | Guideline | ARM | |
| | Quality management | R0132 (O-132) | Quality Management for Aids to Navigation Authorities | ARM | Normative | [G]1052 | Quality Management in [Marine] Aids to Navigation Service Delivery (Dec 2013) | ARM | Revise guideline (not copy ISO texts) |
| | | R0118 (O-118) | The Recording of Aids to Navigation Positions | ARM | Normative | | Not planned | | |
| | Virtual marking | R0143 (O-143) | Provision of Virtual Aids to Navigation | ARM | Informative | [G]1081 | Virtual [Marine] Aids to Navigation (May 2013) | ARM | Review the documents |
| IALA1020 AtoN Design and Delivery | Visual AtoN | R0106 E-106 | The Use of Retroreflecting Material on Aids to Navigation Marks within the IALA Maritime Buoyage System(June 2017) | ENG | Normative | New | Guideline | ENG | |
| | | R0108 E-108 | The Surface Colours used as Visual Signal on Aids to Navigation (Dec 2017) | ENG | Normative | G1134 | Surface Colours Used as Visual Signals on AtoN (Dec 2017) | ENG | |
| | | R0110 E-110 | The Rhythmic Characters of Lights on Aids to Navigation (June 2012) | ENG | Normative | [G]1116 | Selection of Rhythmic Characters and Synchronisation of Lights for [Marine] Aids to Navigation (Dec 2015) | ENG | ARM review G1116 in association with ENG |
| | | R0112 E-112 | Leading Lights (Dec 2005) | ENG | Normative | [G]1023 | Design of Leading Lines (Dec 2005) | ENG | An example is in R0112 |
| | | R1201 E-200-1 | Marine Signal Lights – Colours (Dec 2017) | ENG | Normative | | No guideline required | | |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | R0104 O-104 | Off Station Signals for Major Floating Aids (June 2012) | ARM | Normative | | Not planned | | |
| | | | No document | | | [G]1038 | Methods and Ambient Light Levels for the Activation of AtoN Lights (Dec 2016) | ENG | |
| | | | No document | | | [G]1043 | Light Sources Used in Visual [Marine] Aids to Navigation (Dec 2011) | ENG | Revise |
| | | | No document | | | [G]1048 | LED Technologies and their Use in Signal Lights (Dec 2005) | ENG | Revise |
| | | | No document | | | [G]1061 | Light Applications – Illumination of Structures (Dec 2008) | ENG | Revise |
| | | | No document | | | G1094 | Daymarks for [Marine] Aids to Navigation (June 2016) | ENG | |
| | | | No document | | | G1122 | The Use of Pictograms on [Marine] Aids to Navigation (June 2017) | ARM | |
| | Range and Performance | R0200 E-200-0 | Marine Signal Lights Overview | | Informative | New | May be converted into Guideline (There is presently no guidance on how visual range checks of lighted AtoN should be conducted. The WWA has developed a form to do this which could be added as an Annex.) | ENG | |
| | | | No document | | | [G]1041 | Sector Lights (June 2016) | ENG | |
| | | R0201 E-200-1 | Marine Signal Lights - Colours | ENG | Normative | | | | |
| | | R0202 E-200-2 | Marine Signal Lights - Calculation, Definition and Notation of Luminous Range | ENG | Normative | G1135 | Determination and calculation of effective intensity | ENG | |
| | | R0203 E-200-3 | Marine Signal Lights – Terms of Measurement | ENG | Normative | G1065 | AtoN Signal Light Beam Vertical Divergence (Dec 2017) | ENG | |
| | | | | | | New | Existing E200-3 will be converted into a new guideline on Measurement | ENG | |
| | | R0204 E-200-4 | Marine Signal Lights - Determination and Calculation of Effective Intensity | ENG | Normative | G1135 | Determination and Calculation of Effective Intensity (Dec 2017) | ENG | Guideline to be reviewed in 2018 |
| | | E-200-5 | Marine Signal Lights - Estimation of the Performance of Optical Apparatus | ENG | Normative | New | New guideline Re-write Rec into a guideline | ENG | |
| | | | | | | New | Monitoring of the function and degradation of light sources | ENG | Write new guideline |
| | | | | | | New | Service factors for AtoN lights | ENG | Write new guideline |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | | | | | New | Colour fading of plastic AtoN | ENG | Write guideline (could be with a guideline on daymarks) |
| | | | | | | G1073 | Conspicuity of AtoN Lights at Night (Dec 2017) | ENG | |
| | | R0109 E-109 | The Calculation of the Range of a Sound Signal | ENG | Informative | | No document | | |
| | | | No document | | | [G]1035 | Availability and Reliability of [Marine] Aids to Navigation (Dec 2004) | ENG | |
| | | | No document | | | [G]1037 | Data Collection for [Marine] Aids to Navigation Performance Calculation (Dec 2009) | ENG | |
| | Design, implementation and maintenance | R0126 A-126 | Use of the AIS Aid to Navigation in Marine Aids to Navigation Service | ARM | Informative | [G]1082 | An Overview of AIS (June 2016) | ENAV | |
| | | | | | | [G]1062 | Establishment of AIS as a [Marine] Aid to Navigation (Dec 2008) | ENAV | Revise |
| | | | | | | [G]1084 | Procedure of the Authorisation of AIS AtoN | ARM | Revise |
| | | | | | | [G]1098 | The Application of AIS AtoN on Buoys (May 2013) | ENG | Update from 2022 |
| | | Rxxxx | New recommendation on the responsible design and maintenance of AtoN | ENG | Informative | [G]1077 | Maintenance of [Marine] Aids to Navigation (Dec 2009) | ENG | Develop recommendation |
| | | Rxxxx | Planned 2018-2022 | ENG | Informative | G1092 | Safety Management for AtoN Activities (Dec 2017) | ENG | Develop recommendation |
| | | | No document | | | [G]1108 | The Challenges of Providing AtoN Services in Polar Regions (Dec 2013) | ENG | |
| | | New | Requirements for AtoN provision in Polar regions (Standard 1010) | ARM | | | | | Develop recommendation |
| | | | No document | | | G1136 | Providing AtoN Services in Extremely Hot and Humid Climates (Dec 2017) | ENG | |
| | | | No document | | | G1140 | Commissioning of AtoN Equipment and Systems (Dec 2017) | ENG | |
| | | | No document | | | [G]1008 | Remote Monitoring and Control of [Marine] Aids to Navigation (May 2009) | ENG | review |
| | | | No document | | | [G]1109 | Theft and Vandalism Deterrents (Dec 2013) | ENG | |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | | No document | | | [G]1012 | Protection of Lighthouses and [Marine] Aids to Navigation Against Lightning (May 2013) | ENG | |
| | | | No document | | | [G]1051 | Provision and Identification of [Marine] Aids to Navigation in Built Up Areas (Dec 2005) | ARM | |
| | | | No document | | | [G]1091 | Bird Deterrents (Dec 2012) | ENG | |
| | Floating AtoN | R0107 E-107 | Moorings for Floating Aids to Navigation | ENG | Informative | [G]1066 | Design of Floating [Marine] Aid to Navigation Moorings (June 2010) | ENG | |
| | | | No document | | | [G]1006 | Plastic Buoys (Dec 2013) | ENG | |
| | | | No document | | | [G]1015 | Painting [Marine] Aids to Navigation Buoys (Dec 2013) | ENG | |
| | | | No document | | | [G]1099 | The Hydrostatic Design of Buoys (May 2013) | ENG | |
| | Environment and sustainability | R1004 | Environmental management in the provision of Marine Aids to Navigation | ENG | Informative | G1036 | Environmental Management in [Marine] Aids to Navigation (June 2017) | ENG | |
| | | | | | | G1137 | AtoN Management in Protected Areas (Dec 2017) | ARM | |
| | Heritage and legacy | R1005 | Conserving the built heritage of lighthouses and other aids to navigation | ENG | Informative | [G]1007 | Lighthouse Maintenance (Dec 2005) | ENG | |
| | | | | | | [G]1076 | Building Conditioning of Lighthouses (Dec 2009) | ENG | |
| | | | | | | [G]1049 | Use of Modern Light Sources in Traditional Lighthouse Optics (Dec 2007) | ENG | |
| | | | | | | [G]1063 | Agreements for Complementary Use of Lighthouses (Dec 2008) | ENG | |
| | | | | | | [G]1074 | Branding and Marketing Historic Lighthouses (Dec 2009) | ENG | |
| | | | | | | [G]1075 | Business Plan for the Complementary Use of a Historic Lighthouse (Dec 2009) | ENG | |
| | | | | | | [G]1093 | The Management of Surplus Lighthouse Property (Dec 2012) | ENG | |
| | | | | | | [G]1080 | Selection and Display of Heritage Artefacts (Dec 2011) | ENG | |
| | Power systems | | No document | | | G1039 | Designing Solar Power Systems for AtoN (Dec 2017) | ENG | |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | | No document | | | G1039-1 | Solar Power System Calculation Tool | ENG | |
| | | | No document | | | G1039-2 | Handbook for Meteorological Data for IALA Solar Power System Calculation Tool | ENG | |
| | | | No document | | | [G]1064 | Integrated Power Systems Lanterns (Dec 2008) | ENG | |
| | | | No document | | | G1067-0 | Selection of Power Systems for AtoN and Associated Equipment (Dec 2017) | ENG | |
| | | | No document | | | G1067-1 | Total Electric Loads of AtoN (Dec 2017) | ENG | |
| | | | No document | | | G1067-2 | Power Sources (Dec 2017) | ENG | |
| | | | No document | | | G1067-3 | Electric Energy Storage for AtoN (Dec 2017) | ENG | |
| | | | No document | | | New | Cybersecurity in AtoN operations | ENG | Guideline to write Involve all Committees (organize Workshop) |
| | | | No document | | | New | Floating AtoN | ENG | Guideline to write |
| | | | No document | | | New | Buoy stability testing | ENG | Guideline to write |
| | | | No document | | | New | Marine solar panels | ENG | Guideline to write |
| | | | No document | | | New | Maintenance of AtoN structures | ENG | Guideline to write |
| | | | No document | | | New | AtoN Equipment for use in extreme environments | ENG | Guideline to write |
| IALA1030 Radionavigation Services | | | No document | | | G1127 | Systems and Services for High Accuracy Positioning and Ranging (Dec 2017) | ENAV | |
| | Satellite positioning and timing | R1xxx NEW | Resilient PNT (identification, impact & mitigation) | ENG | Informative | New | Resilient PNT | ENG | Input to ITU and RTCM document, if necessary. |
| | Terrestrial positioning and timing | R1xxx NEW | Terrestrial radionavigation systems Can note the IMO multi-sensor receiver for SOLAS ships (NCSR/MSC) | ENG | Informative | G1125 | The Technical Approach to Establishing a Maritime eLoran Service (June 2017) | ENAV | |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | R1011 | The performance and monitoring of eLoran services in the frequency band 90-110 kHz | ENG | Normative | | | | Coordinate with RTCM |
| | | | | | | New | For R-mode | ENG | Develop |
| | | | | | | New | Product specification support (e-Loran etc) | ENG | Develop product specification |
| | RACON & Radar positioning | e-NAV-146 | Maintaining Racon Service Capability | ENAV | | [G]1010 | Racon Range Performance (June 2005) | ENAV | Revise |
| | | R1006 R-101 | Marine Radar Beacons (racons) | ENAV | Normative | | No document | | Review |
| | | | | | | New | New guideline on e-Racons (standard approach) | ENG | New guideline |
| | Augmentation services | R0115 R-115 | The Provision of Maritime Radionavigation Services in the Frequency Band 283.5-315 kHz in Region 1 and 285-325 kHz in Regions 2 and 3 | ENAV | Normative | [G]1016 | Bilateral Agreements and Inter-Agency Memorandums of Understanding on the Provision of DGNSS Services in the Frequency Band 283.5 – 325 kHz (June 2001) | ENG | |
| | | R0121 R-121 | The Performance and Monitoring of DGNSS Services in the Frequency Band 283.5 - 325 kHz | ENAV | Normative | [G]1112 | Performance and Monitoring of DGNSS Services in the Frequency Band 283.5 – 325 kHz (May 2015) | ENG | |
| | | R0150 R-150 | DGNSS service provision upgrade and future use | ENAV | Informative | [G]1053 | Submission of a DGNSS Service for Recognition as a Component of the IMO World-Wide Radionavigation Service (Nov 2006) | ENG | |
| | | R-135 | The Future of DGNSS | ENAV | | [G]1060 | Recapitalisation of DGNSS (June 2011) | ENG | |
| | | | No document | | | [G]1119 | Marine Beacon Coverage Prediction (Dec 2016) | ENG | |
| | | | No document | | | G1126 | Calculation of DGNSS Antenna Efficiency (June 2017) | ENG | |
| | | R-129 | GNSS Vulnerability and Mitigation Measures | ENAV | | New | Becomes a Guideline under IALA1030. Maybe some text from R-129 can inform Recommendation above | ENAV | Review R129 & move to Satellite P&T |
| | | New | SBAS performance for Maritime | ENG | Informative | G1129 | The Retransmission of SBAS Corrections Using MF-Radio Beacon and AIS (Dec 2017) Develop guidance on satellite vulnerabilities. | ENG | |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | | | | | New | Marine beacon support (maintenance, knowledge, harmonisation) | ENG | New guideline to write |
| IALA1040 Vessel Traffic Services | VTS implementation | R0102 V-102 | The application of the 'User Pays' principle to Vessel Traffic Services | VTS | Informative | | Not planned | | |
| | | R0119 V-119 | The Implementation of Vessel Traffic Services (Review and update) | VTS | Normative | [G]1071 | Establishment of a Vessel Traffic Service Beyond Territorial Seas (Dec 2009) | VTS | |
| | | | | | | [G]1083 | Standard Nomenclature to Identify and Refer to VTS Centres (June 2011) | VTS | |
| | | | | | | New | [Guidance and/or] Model Course on Planning, Implementing, Operating and Managing VTS in developing countries | VTS | New Guidance |
| | | | | | | New | Human Factors and Ergonomics in VTS | VTS | New Guidance |
| | | | | | | New | Guidance for Non-VTS Ports (previously described as Local Port Services – LPS) | VTS | New Guidance |
| | | R0120 V-120 | Vessel Traffic Services in Inland Waters | VTS | Informative | | Not planned | | |
| | VTS operations | R0127 V-127 | Operational Procedures for Vessel Traffic Services Review/update with a view to a new Recommendation on VTS Operations with associated Guidelines on Operational Procedures, etc. (For example, as has been done for Communications, Auditing and Assessing, etc. <br>• Note - The current Recommendation only refers to Operational Procedures and provides no reference to the associated Guidelines listed in the adjoining column. <br>• A draft Recommendation on VTS Operations and a Guideline on Operational Procedures could be prepared intersessionally for VTS 45 | VTS | Normative | [G]1089 | Provision of VTS Services (INS, TOS & NAS) (Dec 2012) | VTS | |
| | | | | | | [G]1110 | Use of Decision Support Tools for VTS Personnel (Dec 2014) | VTS | Review |
| | | | | | | G1131 | Setting and Measuring VTS Objectives (Dec 2017) | VTS | |
| | | | | | | New | Guidelines for Promulgating the Requirements of a VTS To Mariners – A VTS Users Guide Template | VTS | |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | | No document | | | [G]1045 | Staffing Levels at VTS Centres (Dec 2005) | VTS | |
| | | | | | | [G]1118 | Marine Casualty / Incident Reporting and Recording, Including Near-Miss Situations as it Relates to VTS (Dec 2016) | VTS | |
| | | | | | | New | Maritime Service Portfolios for VTS | VTS | New Guidance |
| | | | | | | New | Implications of Maritime Autonomous Surface Ships from a VTS Perspective | VTS | New Guidance |
| | | | | | | New | How to develop a Safety Culture in VTS | VTS | New Guidance |
| | | | | | | New | Development and Implementation of VTS related MSP's other than MSP 1, 2 and 3. | VTS | New Guidance |
| | | | | | | New | Management of a VTS | VTS | New Guidance |
| | VTS data and information management | R0125 V-125 | The use and presentation of symbology at a VTS centre | VTS | Normative | | No document | | |
| | | R1014 | Portrayal of VTS information and data | VTS | Normative | New | Guideline on the portrayal of VTS information and data | VTS | New Guideline |
| | | New | Cyber-Security (Recommendation) | ENG | Informative | | | | All Committees via Workshop |
| | VTS communications | R1012 | VTS Communications | VTS | Normative | G1132 | VTS VHF Voice Communication (Dec 2017) | VTS | |
| | | | | | | New | VTS Communication Phrases/Phraseology | VTS | New Guideline |
| | | R1xxx NEW | Digital information transfer between ship and shore in VTS operations (Operational aspects) | VTS | Normative | | See IALA1070 for a separate technical Recommendation to cover message format, communications channels, etc. Covers:<br>• Maritime safety information (MSPs)<br>• Route information transfer (route exchange)<br>• And others | VTS | The VTS Ctee prefers to wait for MSP related outputs first then takes this work item on board as appropriate. |
| | VTS technologies | R0128 V-128 | Operational and Technical Performance of VTS Systems | VTS | Normative | [G]1111 | Preparation of Operational and Technical Performance Requirements for VTS Systems (May 2015) | VTS | Review |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | | | | | New | Technical Acceptance of a VTS System | VTS | New Guidance |
| | VTS Auditing and assessing | R1013 | Auditing and Assessing Vessel Traffic Services | VTS | Normative | [G]1101 | Auditing and Assessing VTS (Dec 2013) | VTS | |
| | | | | | | [G]1115 | Preparing for an IMO Member State Audit Scheme (IMSAS) on Vessel Traffic Services (Dec 2015) | VTS | |
| | VTS additional services | | No document | | | [G]1070 | VTS Role in Managing Restricted or Limited Access Areas (Dec 2009) | VTS | |
| | | | No document | | | [G1102] | VTS Interaction with Allied or Other Services ( Dec 2013) | VTS | |
| | | | No document | | | G1130 | Technical Aspects of Information Exchange Between VTS and Allied or Other Services (Dec 2017) | VTS | |
| IALA1050 Training and Certification | Training and assessment | R0141 (E-141) | Training and Certification of AtoN Personnel | ENG | Normative | [G]1020 | Training Related to [Marine] Aids to Navigation (Dec 2005) | ARM | Update (ongoing) via WWA Make one for both AtoN and VTS |
| | | R0103 (V-103) | Training and Certification of VTS Personnel | VTS | Normative | [G]1017 | Assessment of Training Requirements for Existing VTS Personnel, Candidate VTS Operators, Revalidation of VTS Operator Certificates (Dec 2005) | VTS | Review 5 MC associated with V-103 |
| | | | | | | [G]1027 | Simulation in VTS Training (Dec 2005) | VTS | |
| | | | | | | [G]1103 | Train the Trainer (Dec 2013) | VTS | |
| | Human factors and ergonomics | | No document | | | | No document | | |
| | Capacity Building | | No document | | | | No document | | |
| | Competency, certification and revalidation | R0149 (O-149) | Accreditation of Training Organisations | ARM | Normative | G1100 | The Accreditation and Approval Process for AtoN Personnel Training (Dec 2017) | ENG | |
| | | | | | | [G]1014 | Accreditation and Approval Process for VTS Training Courses (Dec 2011) | VTS | |
| | Model Courses | | Model Courses are not belong to Recommendations either Guidelines. | | | AtoN Level 1 | L1.1 – L1.5 (see annex) | | On going work |
| | | | | | | AtoN Level 2 | L2.0 – L.2.11 (see annex) | | On going work |
| | | | | | | VTS | V-103/1 – 5 (see annex) | | On going work |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | | | | | New | New Model Course on Master of AtoN Management | | On going work |
| IALA1060 Digital Communication Technologies | Harmonised maritime connectivity framework (CMDS) Maritime Internet of Things (Intelligent sensors, AtoN monitoring) | R1xxx **NEW** | Communications channels for [public service] digital information services in coastal areas. <br>• Single new Recommendation on (free-to-air, non-commercial) communications channels to be used by coastal authorities for digital information transfer between ship and shore in coastal areas <br>may absorb A-123 and A-124 | ENAV | | [G]1105 | Shore-side portrayal ensuring harmonisation with e-Navigation related information | ENAV | Develop. Can refer to MRCP as an Appendix |
| | | | No document | | | New | Tidal flow data capture & display | ENG | Guideline to write |
| | | R0140 (e-NAV-140) | e-Navigation architecture | ENAV | Informative | [G]1113 | Design and Implementation Principles for Harmonised System Architectures of Shore-Based Infrastructure (May 2015) | ENAV | Revise |
| | | | | | | [G]1114 | A Technical Specification for the Common Shore-Based System Architecture (CSSA) (May 2015) | ENAV | Revise |
| | | R0148 (e-NAV-148) | The need to implement regional e-Navigation solutions based on international standards | ENAV | Informative | New | New guideline could be merged with R0140 | ENAV | Revise |
| | | R1xxx **NEW** | maritime connectivity platform | ENAV | Informative | New | Maritime Connectivity Platform | ENAV | Awaiting further development of MCP initiatives by Korea et al |
| | Wide/Medium bandwidth systems (AIS & VDES) | R1007 | The VHF Data Exchange System (VDES) for shore infrastructure (June 2017) | ENAV | Normative | G1117 | VHF Data Exchange System (VDES) Overview (Dec 2017) | ENAV | |
| | | | | | | G1139 | Technical Specification of VDES (Dec 2017) | ENAV | |
| | | | | | | New | Input to ITU-R.M2092-0 and -1 | ENAV | Develop |
| | | | | | | New | Input to IEC test standard | ENAV | Develop |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | R0123 (A-123) | The Provision of Shore Based Automatic Identification System (AIS) (June 2007) | ENAV | Normative | [G]1050 | Management and Monitoring of AIS Information (Dec 2005) | ARM | Review |
| | | R1008 | The AIS Service Planned in draft Standard 1060 (supersedes A-124) | ENAV | | New | Move recommendation A-124 content to Recommendation R1008 remainder to Guideline(s) | ENAV | |
| | | | | | | New | A-124 APPENDIX 0 to APPENDIX 19 become Guidelines for Recommendation R1008 | ENAV | |
| | Narrow bandwidth systems (NAVDAT, MF beacons) | R1xxx NEW | Digital MF information broadcast | ENAV | Normative | New | Supporting Guideline 500KHz Other channels (MF beacons) | ENAV | |
| IALA1070 Information Services | Data models and data encoding (IVEF, S-100, S-200, ASM) | | | | | New | Data Model for Digital Information Services for VTS (e.g. route exchange) | VTS | A data model and a product specification in S-200 Under e-NAV-147 |
| | | | | | | New | Maritime Service Portfolios | ARM | Develop a new Guideline |
| | | e-NAV-144 | Harmonized implementation of Application Specific Message (ASM) | ENAV | Normative | [G]1095 | Harmonized Implementation of Application Specific Messages (ASMs) (May 2013) | ENAV | |
| | | R0147 e-NAV-147 | Product Specification Development and Management | ARM | Normative | [G]1088 | Introduction to Preparing S-100 Product Specifications (Dec 2012) | ARM | |
| | | | | | | [G]1085 | Standard Format for Electronic Exchange of AtoN Product Information | ARM | |
| | | | | | | G1106 | Producing an IALA S-200 Series Product Specification (June 2017) | ARM | |
| | | | | | | G1106-1 | IALA Product Specification Number Template (Dec 2017) | ARM | |
| | | | | | | G1106-2 | Proposal for Additional S-100 Feature Concept Dictionary (FCD) Item – Name of Proposed FCD Item (Dec 2017 | ARM | |
| | | | | | | G1106-3 | Product Specification under Development – Template (Dec 2017) | ARM | |
| | | R0145 V-145 | The Inter-VTS Exchange Format (IVEF) Service | VTS | Normative | New | Split into Recommendation and Guideline | VTS | Review recommendation |

| Standard | Topic area | Recommendation | | | | Guideline | | | Work to be done 2018-2022 |
|---|---|---|---|---|---|---|---|---|---|
| | | Ref. | Title | TC | Normaritve /Informative | Ref. | Title | TC | |
| | | R1xxx **NEW** | Maritime Resource Names | ENAV | Informative | G1087 | Procedures for the Management of the IALA Domains under the IHO GI Registry (June 2017) | ENAV | |
| | | | | | | G1128 | The Specification of e-Navigation Technical Services (Dec 2017) | ENAV | |
| | **Data exchange systems (Traffic Information)** | | | | | [G]1072 | AtoN Information Exchange and Presentation (Dec 2009) | ARM | Review to make 1 G with G1105 |
| | **Terminology, symbology and portrayal** | | | | | New | Symbology and portrayal of AtoN | ARM | New guidance and liaise with IHO |

## B. IALA Manuals

| Title | Edition | Date of last revision | Remarks |
|---|---|---|---|
| NAVGUIDE | 8 | 2018 | |
| IALA Complementary Lighthouse Use Manual | 2 | 2017 | |
| IALA VTS Manual | 6 | 2016 | |

## C. IALA Model Courses
### a. AtoN

| Ref. | Edition | Title | Date of last revision |
|---|---|---|---|
| L1.1 | Ed3 | Marine Aids to Navigation - Manager Training | 1-Dec-17 |
| L1.3 | Ed2 | Aids to Navigation manager training Level 1- Use of the IALA Risk Management Tools | 1-Dec-15 |
| L1.4 | Ed2 | Aids to Navigation Management Training Level 1 – Global Navigation Satellite Systems and e-NAV | 1-Dec-15 |
| L1.5 | Ed1 | Historic Lighthouse Projects | 14-Dec-14 |
| L2.3.9 | Ed2 | Maintenance of Mercury Rotating Optics | 1-Jun-16 |
| L2.1.1 & 2.1.2 | Ed1 | Introduction to Aids to Navigation | 10-Oct-12 |
| L2.1.3 & 2.1.4 | Ed2 | Introduction to AtoN Buoyage | 1-Jun-16 |
| L2.1.8 | Ed2 | Buoy Cleaning | 1-Jun-16 |
| L2.1.12 | Ed2 | Maintenance of Plastic Buoys | 1-Jun-16 |
| L2.1.13 | Ed2 | Maintenance of Steel Buoys | 1-Jun-16 |
| L2.1.12 | Ed2 | Power Sources on Buoys | 1-Jun-16 |
| L2.6.1 & 2.6.2 | Ed2 | AtoN Service Craft and Buoy Tenders | 1-Jun-16 |
| L2.7.1 & 2.7.2 | Ed2 | Racons Beacon Maintenance | 1-Jun-16 |
| L2.9.1 - 2.9.9 | Ed2 | Introduction to Radionavigation and DGNSS | 1-Jun-16 |
| L2.1.9 | Ed2 | Introduction to Buoy Positions | 1-Jun-16 |
| L2.1.14 | Ed2 | An introduction to shore marks | 1-Jun-17 |
| L2.3.1 – 3 | Ed2 | Lights and Marine Lanterns | 1-Dec-16 |
| L2.3.7 –8 | Ed2 | Rotating Beacons and Classic lenses | 1-Dec-16 |
| L2.3.10 | Ed2 | range, sector and precision direction lights | 1-Dec-16 |
| L2.4.1 - 2 | Ed2 | Sound Signals | 1-Dec-16 |
| L2.5.1 & 2 | Ed2 | Introduction to coatings and specifications; surface preparation | 1-Jun-17 |
| L2.8.1 | Ed2 | AIS AtoN Operations | 1-Dec-17 |
| L2.3.1 - 3 | Ed1 | Introduction to Marine Signal Lanterns | 31-May-13 |
| L2.3.4 - 6 | Ed2 | Light Flashers Lamp changers and IPS lanterns | 1-Dec-16 |
| L2.3.1 - 3 | Ed2 | Introduction to Marine Lanterns | 31-May-13 |
| L2.11.1 - 5 | Ed2 | Marine Aids to Navigation Structures: Materials, Corrosion and Protection | 1-Dec-17 |
| L2.11.7 | Ed2 | Maintenance Planning & Records | 1-Dec-17 |
| L2.11.6 | Ed2 | Preservation of Structures | 1-Dec-17 |
| L2.10.1 & 2 | Ed2 | Introduction to remote monitoring of AtoN | 1-Dec-17 |
| L2:2.7 | Ed2 | Lightning Protection | 1-Jun-17 |
| L2.2.5 & 6 | Ed2 | Mains AC Utility Power Systems; Diesel and Petrol Generators | 1-Jun-17 |
| L2.1.5- 2.1.6 | Ed2 | Buoy Handling and Safe Working Practices | 1-Jun-16 |

| Ref. | Edition | Title | Date of last revision |
|---|---|---|---|
| L2.2.4 | Ed2 | Wind Generators | 1-Jun-17 |
| L2.0 | Ed3 | Technician Training Level 2 – Model Course Overview | 1-Jun-16 |
| L2.2 | Ed1 | Primary and Secondary Battery Maintenance | 15-Dec-14 |
| L2.2.3 | Ed1 | Photovoltaic (Solar panel) systems and maintenance | 15-Dec-14 |
| L2.2.1 | Ed1 | DC Power Systems | 15-Dec-14 |
| L2.1.7 | Ed1 | Buoy Moorings | 15-Dec-14 |

## b. VTS

| Ref. | Edition | Title | Date of last revision |
|---|---|---|---|
| V-103/1 | Ed2 | Model Course – VTS Operators Basic Training | 1-Dec-09 |
| V-103/2 | Ed2 | Model Course – Vessel Traffic Services Supervisor - Advancement Training | 1-Dec-09 |
| V-103/3 | Ed2 | Model Course – VTS On the Job Training (VTS Operator and VTS Supervisor) | 1-Dec-09 |
| V-103/4 | Ed2 | Model Course – Vessel Traffic Services - On the Job Training Instructor | 1-Dec-09 |
| V-103/5 | Ed 1 | Model Course- The revalildation process for VTS Qualification and Certification | 1-Jun-16 |