

Agenda item 10.2

Author(s) / Submitter(s) Secretariat (DSG)

## **Draft plan for Recommendations to be referenced in Standards**

### **1. SUMMARY**

This paper

- Gathers information from our previous PAP work on Standards, Recommendations and Guidelines, and
- Proposes new and amended Recommendations, and other changes, aimed at ensuring we have a complete and logical set of Recommendations to be referenced in Standards.

It carries document numbers based on the numbering system agreed at PAP31, refer report clause 4.2.

### **2. ACTION**

The PAP is requested to

1. Study the tables below and send any comments, suggested changes, to the DSG by 01 March 2017
2. Finalise a definitive version during PAP Session 33 to inform our future work programme and for input to Council session 64, June 2017, and
3. Consider what parts of the necessary work could be completed before Council 65 in December 2017, and what should be deferred to the 2018-20122 work programme.
4. Note that the work which we thus plan to complete by December 2017 may require alterations or additions to the Recommendations listed in the draft Standards.

## Gaps in our line-up of Recommendations – Working paper

MDC 2017-01-13, Revised 2017-02-08

Indicates <b>NEW</b> or amended Recommendation is required	Indicates action needed, or a new or amended Guideline, etc.
Some items are from earlier PAP work, some are new from DSG.	

Standard	Topic area	Reference		Recommendation	Comment
<b>IALA1010</b> <b>AtoN Planning and Service Requirements</b>	<b>Maritime Buoyage System</b>	IALA1010-R1001 <b>NEW 2017</b>	<b>Normative</b>	<b>The Maritime Buoyage System</b> <ul style="list-style-type: none"> <li>This Recommendation will <ul style="list-style-type: none"> <li>note the original but superseded International Agreement</li> <li>note the subsequent amendment of the original scheme to include additional marks</li> <li>and note the universal acceptance of the MBS worldwide</li> <li>refer to a Guideline for details of the MBS</li> </ul> </li> </ul>	<p>Guideline to consist of the present IALA MBS booklet as an interim measure.</p> <p>Then a new Guideline in the the new corporate style and its distribution in the usual way via the website.</p> <p>Today we have no Recommendation or Guideline for the MBS, only a booklet which has unclear status in our document structure.</p>
	<b>Obligations, International &amp; national criteria</b>	IALA1010-R1002 <b>NEW</b>	<b>Normative</b>	<b>The need for a national competent authority for marine aids to navigation and vessel traffic services</b> <ul style="list-style-type: none"> <li>Recommends one or two authorities depending on national preferences or arrangements</li> </ul>	<p>New Guideline(s) describing purpose, management, legislation needs, regulation needs, perhaps with examples of legislation and regulation clauses to assist understanding.</p> <p>WWA teaches its students in this area but we have no Recommendation or Guideline.</p>
		IALA1010-R1003 <b>NEW</b>	<b>Normative</b>	<b>The international obligations of competent authorities</b> <ul style="list-style-type: none"> <li>IMO SOLAS, UNCLOS, EU Directives, etc.</li> </ul>	<p>New supporting Guideline detailing references and obligations.</p> <p>WWA teaches in this area but we have no Recommendation or Guideline.</p>
		IALA1010-R0105 <b>E-105</b>		<b>The Need to Follow National and International Standards</b>	Withdrawn by Council 63
	<b>Levels of service objectives, Availability and Categories</b>	IALA1010-R0130 <b>O-130</b>	<b>Normative</b>	Categorisation and Availability Objectives for Short Range Aids to Navigation	

	<b>Risk Management <del>Toolbox</del></b>	IALA1010-R1004 <b>NEW</b>	<b>Normative</b>	<b>Risk management for aids to navigation and related services</b>	Guidelines on: <ol style="list-style-type: none"> <li>1. IWRAP</li> <li>2. PAWSA</li> <li>3. Simple qualitative tool</li> <li>4. Prepare for future IALA-approved risk analysis software that directly accesses and uses our stored IALANET AIS data</li> </ol>
		IALA1010-R0142 E-142	Informative	Maritime Data Sharing 'IALA-NET' <ul style="list-style-type: none"> <li>• New title <b>"Maritime data sharing for risk assessment and analysis"</b></li> </ul>	Revise this Recommendation to note the storage and use of historical [AIS and other] data for risk analysis. Guideline(s) on: <ul style="list-style-type: none"> <li>• How to connect to IALA net</li> <li>• Data format(s)</li> </ul>
		<del>O-134</del>		<del>The IALA Risk Management Tool for Ports and Restricted Waterways</del>	Withdraw this and create R1004 and its Guidelines
		IALA1010-R0138 O-138	<del>Informative</del> <b>Normative</b>	The Use of GIS and Simulation by Aids to Navigation Authorities	The informative content should become a <u>normative</u> recommendation
	<b>Quality management, Record keeping</b>	IALA1010-R0132 O-132	<b>Normative</b>	Quality Management for Aids to Navigation Authorities	
		IALA1010-R0118 O-118	<b>Normative</b>	The Recording of Aids to Navigation Positions	
	<b>Offshore signals, Bridge signals, Traffic signals</b>	IALA1010-R0111 E-111	<b>Normative (?)</b>	Port Traffic Signals	Should this one be normative? Is this type of marking in port areas within the scope of IALA?
		IALA1010-R0113 O-113	<b>Normative</b>	The Marking of Fixed Bridges and Other Structures over Navigable Waters	
		IALA1010-R0139 O-139	<b>Normative</b>	The Marking of Man-Made Offshore Structures	
	<b>AIS, AIS AtoN, Virtual AtoN</b>	IALA1010-R0143 O-143	Informative	Provision of Virtual Aids to Navigation	Does this need updating or revision?

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<b>IALA1020</b> <b>AtoN Design and Delivery</b>	<b>Visual AtoN</b>	IALA1020-R0106 E-106	Informative	The Use of Retroreflecting Material On Aids To Navigation Marks Within The IALA Maritime Buoyage System	
		IALA1020-R0108 E-108	<b>Normative</b>	The Surface Colours used as Visual Signal on Aids to Navigation	
		IALA1020-R0110 E-110	<b>Normative</b>	The Rhythmic Characters of Lights on Aids to Navigation	
		IALA1020-R0112 E-112	<b>Normative</b>	Leading Lights (*including Leading Line Design Program ver 2.02)	
		E-200-1		Marine Signal Lights Part 1 - Colours	Should it be a guideline?
		IALA1020-R0104 O-104	<b>Normative</b>	Off Station Signals for Major Floating Aids	
	<b>Range and Performance</b>	IALA1020-R0200 E-200-0	<b>Normative</b>	<del>Marine Signal Lights Part 0 – Overview</del>	Change to Normative as master for E-200-xx series which become Guidelines
		<del>E-200-2</del>		Marine Signal Lights Part 2 - Calculation, Definition and Notation of Luminous Range	Becomes a Guideline
		<del>E-200-3</del>		Marine Signal Lights Part 3 - Measurement	Becomes a Guideline
		<del>E-200-4</del>		Marine Signal Lights Part 4 - Determination and Calculation of Effective Intensity	Becomes a Guideline
		<del>E-200-5</del>		Marine Signal Lights Part 5 - Estimation of the Performance of Optical Apparatus	Becomes a Guideline
	<b>Design, Implementation &amp; Maintenance</b>	IALA1020-R0126 A-126	Informative	Use of the AIS <b>Aid to Navigation</b> in Marine Aids to Navigation Service	<ul style="list-style-type: none"> <li>Change title to make clear that it is AIS AtoN</li> <li>Consider to split into Recommendation and Guideline</li> <li>Make sure it is compatible with the new VDES documents below</li> </ul>
	<b>Power systems</b>				
	<b>Floating AtoN</b>	IALA1020-R0107 E-107	Informative	Moorings for Floating Aids to Navigation	
	<b>Environment, Sustainability &amp; Legacy</b>	IALA1020-R1001 <b>NEW</b>	Informative	<b>New Recommendation</b> to become the parent of environment protection Guidelines on mercury, batteries, paints, etc.	<ul style="list-style-type: none"> <li>Capture existing documents and/or add new Guidelines.</li> <li>Include safety of personnel too?</li> </ul>

		IALA1020-R1002 <b>NEW 2017</b>	Informative	<b>Protection of the built heritage of lighthouses and other aids to navigation</b> <ul style="list-style-type: none"> <li>An informative Recommendation to recognise the need to preserve AtoN heritage and to assist members having heritage obligations</li> <li>Important for 2018 Conference</li> </ul>	<ul style="list-style-type: none"> <li>Recognises need</li> <li>Refer to the Manual in the Recommendation, rather than create Guidelines.</li> </ul>
	<b>Additional AtoN systems, including Sound signal</b>	IALA1020-R0109 E-109		The Calculation of the Range of a Sound Signal	This should be a Guideline under Range and Performance. Maybe not under IALA1020-R0200, which is on signal lights. Perhaps an orphan with no parent Recommendation?

Standard	Topic area	Reference		Recommendation	Comment
<b>IALA1030</b> <b>Radionavigation Services</b>	<b>Satellite positioning and timing</b>	IALA1030-R1001 <b>NEW</b>	Informative	<b>WAS augmentation for maritime use</b>	EGNOS, other national WAS, and existing ENAV work to date may inform a Guideline.
	<b>Terrestrial positioning and timing</b>	IALA1030-R1004 <b>NEW</b>	Informative	<b>Terrestrial radionavigation systems</b>  Can note the IMO multi-sensor receiver for SOLAS ships (NCSR/MSC)	Supporting Guidelines 1. eLoran. (Refer to an RTCM document?) 2. R-Mode operation of MF broadcasting stations 3. R-Mode use of AIS signals 4. Intelligent radar beacons (racons) 5. Guidelines for the creation or use of other emissions as the need arises, e.g Signals of Opportunity
		<del>R-129</del>		GNSS Vulnerability and Mitigation Measures	<ul style="list-style-type: none"> <li>Becomes a Guideline under IALA1030-R1001 above.</li> <li>Maybe some text from R-129 can inform Recommendation IALA1030-R1001</li> </ul>
	<b>RACON &amp; Radar positioning</b>	e-NAV-146		<del>Strategy for</del> Maintaining Racon Service Capability	<ul style="list-style-type: none"> <li>Change title</li> <li>Revision needed.</li> <li>Becomes Guideline under IALA1030-R0101 below</li> </ul>
		IALA1030-R0101 R-101	<b>Normative</b>	Marine Radar Beacons (racons)	<ul style="list-style-type: none"> <li>Check content</li> <li>E-NAV-146 becomes a Guideline under this Recommendation</li> </ul>
	<b>Terrestrial augmentation services (DGNSS)</b>	IALA1030-R0115 R-115	<b>Normative</b>	The Provision Of Maritime Radionavigation Services In The Frequency Band 283.5-315 kHz In Region 1 and 285-325 kHz In Region 2 And 3	
		IALA1030-R0121 R-121	<b>Normative</b>	The Performance and Monitoring of DGNSS Services in the Frequency Band 283.5 - 325 kHz	
		IALA1030-R0150 R-150	Informative	DGNSS service provision upgrade and future use	<ul style="list-style-type: none"> <li>Does this need revision?</li> <li>Merge with R-135?</li> <li>Do we need to mention R-mode here too?</li> </ul>
		R-135		The Future of DGNSS	<ul style="list-style-type: none"> <li>Should be guideline, do not list in standard</li> <li>Is it still valid? Add R-Mode?</li> <li>Withdraw this document?</li> </ul>
Standard	Topic area	Reference		Recommendation	Comment
<b>IALA1040</b> <b>Vessel Traffic Services</b>	<b>VTS implementation</b>	IALA1040-R0102 V-102	Informative	The application of the 'User Pays' principle to Vessel Traffic Services	

		IALA1040-R0119 V-119	<b>Normative</b>	The Implementation of Vessel Traffic Services	
		IALA1040-R0120 V-120	Informative	Vessel Traffic Services in Inland Waters	<ul style="list-style-type: none"> <li>Is this still needed and used?</li> <li>EU rules, USA practices?</li> </ul>
	<b>VTS operations</b>	IALA1040-R0127 V-127	<b>Normative</b>	Operational Procedures for Vessel Traffic Services	
	<b>VTS data and information management</b>	IALA1040-R0125 V-125	<b>Normative</b>	The use and presentation of symbology at a VTS centre	
	<b>VTS communications</b>	IALA1040-R1001 <b>NEW</b>	<b>Normative</b>	<b>Standard voice communications phrases for VTS operations</b> <ul style="list-style-type: none"> <li>Recognise the IMO SMCP in the Recommendation</li> </ul>	The list of VTS phrases could be an annex to the Recommendation, or a separate Guideline.
		IALA1040-R1002 <b>NEW</b>	<b>Normative</b>	<b>Digital information transfer between ship and shore in VTS operations (Operational aspects)</b>	See IALA1070 for a separate technical Recommendation to cover message format, communications channels, etc. Covers: <ul style="list-style-type: none"> <li>Maritime safety information (MSPs)</li> <li>Route information transfer (route exchange)</li> <li>Other?</li> </ul>
	<b>VTS technologies</b>	IALA1040-R0128 V-128	<b>Normative</b>	Operational and Technical Performance of VTS Systems	
	<b>Auditing and assessing of VTS</b>	IALA1040-R1003 <b>NEW</b>	<b>Normative</b>	<b>Auditing of Vessel Traffic Services</b>	<ul style="list-style-type: none"> <li>Audit includes, staff, procedures, equipment and sensors, records, and recording</li> </ul>

Standard	Topic area	Reference		Recommendation	Comment
<b>IALA1050</b> <b>Training and Certification</b>	<b>Training and assessment</b>	IALA1050-R0141 E-141	<b>Normative</b>	<del>Standards for</del> Training and Certification of AtoN Personnel	Amend title
		IALA1050-R0103 V-103	<b>Normative</b>	<del>Standards for</del> Training and Certification of VTS Personnel	Amend title
	<b>Accreditation, Competency certification and revalidation</b>	IALA1050-R0149 O-149	<b>Normative</b>	Accreditation of Training Organisations	Amend Topic area title
		<del>IALA1050-R1001</del> <b>NEW</b>	<b>Normative</b>	<del>Certification of VTS personnel</del>	Supporting Guideline
		<del>IALA1050-R1002</del> <b>NEW</b>	<b>Normative?</b>	<del>Certification of AtoN personnel</del>	Supporting Guideline
	<b>Simulation in training</b>				Delete Topic area
	<b>Human factors and ergonomics</b>				Delete Topic area



Standard	Topic area	Reference		Recommendation	Comment
IALA1060 Digital Communication Technologies		IALA1060-R1001 NEW	Normative	<b>Communications channels for [public service] digital information services in coastal areas.</b> <ul style="list-style-type: none"> <li>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</li> <li>Absorb A-123 and A-124?</li> </ul>	<p>Explains/recommends our plan/vision in a single document.</p> <p>Supporting Guidelines would cover</p> <ul style="list-style-type: none"> <li>VDES Including AIS</li> <li>NAVDAT on 500KHz</li> <li>Future possibility of [NAVDAT] on 300KHz</li> <li>Other?</li> </ul> <p><b>Alternative</b> following is preferable</p> <p>See IALA1070 below for a separate Recommendation with Guidelines for <u>data models</u> for these channels.</p>
			ALTERNATIVE: -		
	Wide/Medium bandwidth systems (AIS & VDES)	IALA1060-R1002 NEW 2017	Normative	<b>VDES for shore infrastructure</b> <ul style="list-style-type: none"> <li>Could this absorb A-123 and A-124 below?</li> </ul>	Supporting Guidelines
		IALA1060-R0123 A-123	Normative	The Provision of Shore Based Automatic Identification System (AIS)	
		<del>IALA1060-R0124</del> A-124		The AIS Service	Supporting Guideline Move recommendation content to Recommendation IALA1060-R1001 or 1002, remainder to Guideline(s)
		A-124 APPENDIX 0 to APPENDIX 19			A-124 APPENDIX 0 to APPENDIX 19 become Guidelines for Recommendation IALA1060-R1001 or 1002
	Narrow bandwidth systems (NAVDAT, MF beacons)	IALA1060-R1003 NEW	Normative	<b>NAVDAT for MSI broadcast</b>	Supporting Guideline <ul style="list-style-type: none"> <li>500KHz</li> <li>Other channels (MF beacons?)</li> </ul>
	Maritime Internet of Things (Intelligent sensors, AtoN monitoring)	IALA1060-R1005 NEW	Informative	<b>Maritime Resource Numbering</b>	Will apply to [Maritime Cloud] and elsewhere in the maritime environment

Standard	Topic area	Reference		Recommendation	Comment
<b>IALA1070</b> <b>Information Services</b>	<b>Harmonised maritime connectivity framework (CMDS)</b>	IALA1070-R0140 e-NAV-140	Informative?	The Architecture for Shore-based Infrastructure 'fit for e-Navigation'	
		IALA1070-R0148 e-NAV-148	Informative?	The need to implement regional e-Navigation solutions based on international standards	<ul style="list-style-type: none"> <li>Do we still need this document?</li> <li>Could this be merged with the above?</li> </ul>
		IALA1060-R1004 <b>NEW</b>	Informative	<b>Framework for harmonised maritime connectivity</b>	<ul style="list-style-type: none"> <li>Placeholder for the Maritime Cloud. Name, content, need, etc., will become clearer in late 2017 or early 2018 after the E2 workshops.</li> </ul>
	<b>Data models and data encoding (IVEF, S-100, S-200, ASM)</b>	IALA1070-R1001 <b>NEW</b>	<b>Normative</b>	<b>Data models for digital information services [for VTS and AtoN services] in coastal areas (Technical)</b>	Supporting Guidelines covering data models and their management <ul style="list-style-type: none"> <li>S200 series</li> <li>E-NAV 147 as Guideline</li> <li>Application Specific Messages</li> <li>Route exchange/route transfer</li> <li>Maritime Service Portfolios</li> <li>Time stamps for maritime data</li> </ul>
		<del>e-NAV-144</del>	<b>Normative</b>	<del>Harmonized implementation of Application Specific Message (ASM)</del>	Merge into IALA1070-R1001 and its Guidelines
		<del>e-NAV-147</del>	<b>Normative</b>	Product Specification Development and Management	Merge into IALA1070-R1001 and its Guidelines
		IALA1070-R0145 V-145	<b>Normative</b>	The Inter-VTS Exchange Format (IVEF) Service	Split into Recommendation and Guideline
	<b>Data exchange systems (Traffic Information)</b>				
	<b>User requirements</b>				
	<b>Terminology and symbology (IALA Dictionary)</b>	IALA1070-R1002 <b>NEW</b>	Informative	<b>Use of IALA terms and definitions in documents and publications</b>	Dictionary as pseudo-Guideline