

**IALA COUNCIL**  
**78<sup>th</sup> session**



**3 JUNE 2023**  
**Rio de Janeiro**  
**Brazil**

## **7 – TECHNICAL ACTIVITIES**

### ***7.2 – Committee’s work programme 2023-2027***

Note by the Secretariat

#### **INTRODUCTION**

Based on General Regulations Article 6.1 and the Rules of procedure – Terms of reference committees, it is expected that “committees should work to the work programme which has been approved by the Council showing the deliverables as draft documents.”

In accordance with this, PAP has prepared the draft work programme for the upcoming quadrennial 2023-2027, attached in the annex of this document, using inputs received from the committees.

The work programme aims to identify work items with outcomes and priorities based on IALA’s strategic vision, current drivers and trends, and the IALA position document on the development of Marine Aids to Navigation.

The work programme serves as a foundation for the committees’ work plans, outlining assigned tasks. It is important to note that the list does not include updating other documents (e.g. manuals and model courses), liaising with related bodies, or events such as workshops and seminars, which will continue to be addressed by the committees.

While focusing on the work programme, committees will also continue to review all current publications, and make proposals to Council as necessary.

Please be advised that the ENAV committee has undergone a name change and is now referred to as the Digital Technology (DTEC) Committee.

#### **THE COUNCIL IS REQUESTED TO**

Approve the draft Work Programme of the committee for 2023-2027.



## ANNEX A DRAFT COMMITTEE WORK PROGRAMME 2023-2027

Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
<b>S1010 Marine AtoN</b>	1.1 Marine AtoN planning	Compile new Guideline on AtoN Buoy Tender requirements and specification	New Guideline on Tender requirements.	New Guideline	ARM*, ENG		
		Compile guidance for buoy tender activities	WWA related	Model courses	ARM		
		Providing guidance on the process to implement developments of innovation	Develop a guideline on how to move from development test bed/trial reporting to implementation of innovative solutions.	New Guideline	DTEC		
		Full review of Guideline G1078 The Use of AtoN in the Design of Fairways	Revise Guideline G1078	Revised Guideline	ARM		
		Development of aspects of digital communications, including promoting broadband connectivity for operational technology.	Based on IHO/IALA portrayal and IALA comms workshop output.		ARM, DTEC*		
		Guidance on the use of simple IOT sensors on physical aids	Establish requirement for IOT sensors.	Guideline	ARM		
		Develop further guidance for navigators on the use of AtoN	Develop a guideline and make relevant training material available to enhance mariners' understanding of marine aids to navigation (AtoN) and to facilitate the effective use thereof.	Guideline Model course for use in STCW courses	ARM		
		Prepare an appropriate submission to IMO advising of the publication of the updated MBS highlighting MATON and MASS content.		Proposal for IMO Circular	ARM		
		Develop guidance on the provision of AtoN and risk management for autonomous vehicle/vessel operations (Maritime Autonomous Surface Ship, MASS)		New or revised guideline	ARM		
		Review relevant sections of NAVGUIDE in cooperation with the Secretariat		Revised NAVGUIDE	ARM, ENG, VTS, DTEC		
		Develop guidance on the provision of Marine AtoN for autonomous vehicle/vessel operations (Maritime Autonomous Surface Ship, MASS).	The Guideline will be continued led by DTEC	New Guideline	ARM, ENG, DTEC*, VTS		
	1.2 Obligations and regulatory compliance	Consider developing guidance on the certification of technical equipment, information systems and technical infrastructure related to MASS in the domain of IALA	Develop a guideline on the certification of technical MASS equipment, information systems, and technical infrastructure within the domain of IALA.	New Guideline	DTEC*, ENG, ARM, VTS		
		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.	Develop a training course and make relevant training material available to enhance mariners' understanding of marine aids to navigation (AtoN) and to facilitate the effective use thereof. IALA Model Course and IMO submission and IALA	Input to relevant IMO meetings and update IMO Model course	ARM		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
			Secretariat representation at IMO HTW sub-committee session 10 onwards.				
	1.3 Level of service						
	1.4 Risk management	Develop Guidance on Risk Assessment and Certification Methods in the context of e-Navigation	Development of guidance documents on Risk Assessment and Certification Methods in the context of e-Navigation.	Recommendation or Guideline	DTEC		
		Review Risk Management related documentation. Update as per ongoing risk toolbox developments.		Reviewed recommendations and guidelines	ARM		
		Consider the development of IALA as a facilitator for an ISAC (Information Sharing and Analysis Centre) in relation to cyber security.	Reference the result of the IALA Cyber Security workshop.	Discussion paper on ISAC (Information Sharing and Analysis Centre)	ARM		
		Develop a method to quantify and evaluate various risk mitigation options		Revised guidelines	ARM		
		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.	Review existing guidance (including G1086) and develop new guidance to assist IALA in its aim to gather historic AIS and other vessel tracking data.	Revised guidelines	ARM		
		Conduct a global scan of current risk analysis tools and identify potential candidates for inclusion within the IALA Risk Management Toolbox.		Risk management toolbox survey	ARM		
		Monitor the IRMAS reporting tool, ensuring it meets the requirements for future records of risk management. Ensure the form is modified as required.		Reportage	ARM		
		Ensure long term sustainable supportability for IWRAP Software.			ARM		
		Enhancing the safety and efficiency of navigation around offshore installations	To develop comprehensive guidance that will assist members enhance the safety of navigation and environmental protection in / around offshore renewable energy installations (OREI).	Guideline	ARM*, VTS		
		Develop guidance on cyber security for Marine AtoN		Guideline	ARM*, VTS, ENG, DTEC		
	1.5 Quality management	Develop a guideline on quality management system for VTS	Develop a guideline on quality management system for VTS	New Guideline	VTS		
		Develop a recommendation and guideline consolidating content from G1030, G1035 and G1004.	Compile a recommendation and guideline to incorporate all references relating to the Categorization, Availability Objectives (G1030), Availability and Reliability for Short Range Aids to	Recommendation, Guideline	ARM		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
			Navigation (G1035), Calculation of Availability (G1004) and relevant text appearing in the 2018 & draft 2023 NAVGUIDE that are not cross-referenced in the aforementioned Guidelines.				
		Revision of Guideline 1052 on Quality Management in Marine Aids to Navigation Service Delivery	Revised Guideline G1052	Revised Guideline	ARM		
		Revise Recommendation R0132 Quality management for AtoN authorities	New edition of R0132, as proposed by China MSA in ARM 15-7.2.2	Revised Recommendation	ARM		
<b>S1020 AtoN design and delivery</b>	2.1 visual signalling	Update G1043 Light sources used in visual AtoN	Review & update guideline 1043 on Light sources and amalgamate with Guideline on modern equipment in traditional lighthouses	New amalgamated Guideline	ENG		
		Update G1048 LED technologies and their use in signal lights	Update Guideline 1048 LED Technologies and their use in signal lights	Revise Guideline	ENG		
		Develop guideline on Port Traffic Signals	Develop a new guideline on Port Traffic Signals in consultation with ARM	New Guideline	ENG		
		Update R0112 Leading lights	Update E-112 Leading Lights and 1023 Leading Lines into a guideline	New Guideline	ENG		
		Update G1061 Light application illumination of structures	Complete Guideline G1061 (2008) on Illumination of Structures	Revise Guideline	ENG		
		Consider developing guidance on the marking of test areas for autonomous vessels and vehicles, ice roads and competition and event areas etc	Marking of test area for autonomous and unmanned/remote controlled ships and vehicles, due to the fact that i.e. industry and scientific institutes in Sweden have made inquiries to the STA regarding such marking. Marking of ice roads for vehicle traffic on lakes and archipelagos in the vicinity of fairways to prevent ice breaking of established ice roads. Marking of competition and event areas for activities such as swim runs, kayaking, rowing, sailing, racing boats, hovercraft, and boat exhibition etc.	New Guideline	ARM		
	2.2 Range and performance	Update R0203(E200-3)	Update E200-3 on Light measurement into a guideline	New Guideline	ENG		
		Develop Guidance on monitoring of function and degradation of AtoN light sources	Develop Guidance on monitoring of function and degradation of AtoN light sources	Add to G1077	ENG		
		Update G1041 Sector Lights	Update Guideline 1041 on Sector Lights to define 'Angle of Uncertainty'	Revise Guideline	ENG		
	2.3 Design, Implementati	Update G1037 Data collection for AtoN performance calculation	Update G1037 Data collection for AtoN performance calculation 2.0 Provides details of methods that can be used to collect information	Revise Guideline	ENG		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
	on & Maintenance		on the availability and reliability of AtoN equipment.				
		Update G1077 Maintenance of AtoN	Update G1077 Maintenance of AtoN 1.0 Information to help develop a maintenance strategy. Several annexes are attached to provide detailed information on the activities involved in the maintenance.	Revise Guideline	ENG		
		Develop Guideline on complimentary use of AtoN	Develop Guideline on complimentary use of AtoN. Eg. Tsunami monitoring, Met Hydro monitoring, Private communications platforms etc. Develop Guideline on meteorological and oceanographical data dissemination	New guideline on Complimentary use of AtoN	ENG		
		Update and Amalgamate the Guidelines G1108 and G1136	Update and Amalgamate the Guidelines 1108, 1136 and new guideline "AtoN equipment and structures exposed to extreme environmental conditions into one guideline"	New single Guideline on AtoN in extreme environmental conditions	ENG		
		Update G1064 Integrated power system lanterns (Solar LED lanterns)	Update G1064 Integrated power system lanterns (Solar LED lanterns)	Revise Guideline	ENG		
		Full review of A-126, G1084 and other AIS associated documentation	ARM coordinate cross-committee review to consolidate and update AIS documentation into a succinct document suite. Take into consideration input from China MSA on Marine Electronic Fence (ARM15).	Revised recommendations and guidelines	ARM*, ENG, VTS, DTEC		
		Develop an IALA guideline on the Maritime Architecture Framework		New guideline	ARM		
		Develop an IALA recommendation and guideline on developing Harmonized Waterway Concept	Develop recommendation & guideline (with possible repository of waterways hosted by IALA)	New recommendation and guideline	ARM		
		Develop Recommendation and Guideline on the use of Drones for AtoN inspection and maintenance		New recommendation and guideline	ARM		
	2.4 Floating Aids to Navigation	Develop guidance quantifying floating AtoN characteristics	Develop guidance quantifying characteristics to meet nautical and operational requirements and ways to verify them	New or revised guideline	ENG		
		Creating an overview guidance on floating AtoN	Creating an overview guidance on floating AtoN	New Guideline on floating AtoN	ENG		
		Update Recommendation R0107 (E-107) Moorings for floating AtoN	Update Recommendation E-107 Moorings for floating AtoN 2.0 Technical recommendation on moorings.	Updated Recommendation on moorings for floating AtoN	ENG		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
		Update G1066 Design of floating AtoN moorings	Update G1066 Design of floating AtoN moorings 1.1 General consideration on mooring materials, and comparison of mooring loads and design.	Updated Guideline on Design of floating AtoN moorings	ENG*, ARM		
	2.5 Environment & Sustainability	Review and update as necessary G1036, the Green Guide	Review and update as necessary G1036, the Green Guide	Revise guideline on Environmental and Sustainability responsibilities.	ENG		
		Guidance on through life environmental impact	Guideline on how to assess the through life environmental impact of AtoN and AtoN provision	New Guideline	ENG		
	2.6 Heritage and Culture	Maintain the Heritage web page on the IALA website	Maintain the Heritage web page on the IALA website	Updated Heritage web page	ENG		
		Develop Guidance on modern equipment in traditional lighthouses	Develop Guidance on modern equipment in traditional lighthouses	New Guideline	ENG		
		Heritage Lighthouse of the Year award	Make proposal for the Heritage Lighthouse of the Year award	Maintain the Award	ENG		
		Write the Heritage lecture for the WWA L1.1 AtoN Manager course	Write the Heritage lecture for the WWA L1.1 AtoN Manager course	New module on Heritage to include in the L1.1 course.	ENG		
		Review of documents pertinent to heritage reviewed	Review of documents pertinent to heritage reviewed	Revised documents	ENG		
		Update G1063 ENG Dec 2008 Agreement for complementary use of lighthouse property. What should the agreement contain and safety aspect of the agreement including examples of few countries.	Update G1063 ENG Dec 2008 Agreement for complementary use of lighthouse property. What should the agreement contain and safety aspect of the agreement including examples of few countries.	Updated Guideline	ENG		
		Review Guidelines 1074, 1075 & 1076 on Branding, Business plans and Building Conditioning for content and relevance.	Review Guidelines 1074, 1075 & 1076 on Branding, Business plans and Building Conditioning for content and relevance.	Reviewed guidelines	ENG		
<b>S1030 Radionavigation services</b>	3.1 Satellite positioning and timing	Guidance on timing and synchronization	New Guideline on the need and potential solutions	New Guideline	ENG		
		WWRNP review	Review the World Wide Radionavigation Plan (2012) and update it.	Updated WWRNP	ENG		
	3.2 Terrestrial positioning and timing (including eLoran,	R-Mode development	Development of R-Mode Guideline Coordination of R-Mode test beds	New Guideline	ENG		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
	eChayka, R-mode)						
	3.3 Racon & radar positioning	Radar & Enhanced Racon positioning	Development of eRacon/eRadar technology Review related IALA documents	Revised Guideline	ENG		
	3.4 Augmentation services (SBAS & DGNSS)	Augmentation systems	Monitoring DGNSS developments, both SBAS and marine Radiobeacon and update IALA documents as necessary	Reportage	ENG		
		High accuracy positioning systems	Guidance on new systems and how they can be used	New Guideline	ENG		
		PNT technology review	Monitor developments in radionavigation topics for information exchange and development of appropriate guidance (inc. resilient PNT, cyber security, timing aspects etc). Rapporteur reports and new documents as required.	Reportage	ENG		
<b>S1040 VTS</b>	4.1 VTS implementation	Guidance for establishing a compliance and enforcement framework by participating ships	Develop guidance for establishing a compliance and enforcement framework by participating ships	New Guideline	VTS		
		Develop guidance on the implications of maritime autonomous surface ships (MASS) from a VTS perspective	a) Develop guidance on the implications of maritime autonomous surface ships (MASS) from a VTS perspective. b) Assess the implications associated with the advent of MASS on IALA Standards specifically related to the establishment and operation of VTS (scoping exercise)	New Guideline or contribute to a single IALA MASS guideline	VTS		
		Develop guidance on delineating the VTS area	Develop guidance on delineating the VTS area. considering risk assessment and MRN	New or revised Guideline	VTS*, ARM		
		Develop guidance to assist competent authorities for VTS establish an appropriate policy and regulatory framework to meet their obligations	Develop guidance to assist competent authorities for VTS establish an appropriate policy and regulatory framework to meet their obligations	New or revised Guideline (G1150)	VTS		
	4.2 VTS operations	Develop guidance for digital route exchange within VTS operations	Develop guidance for digital route exchange within VTS operations (application of S-421)	New Guideline	VTS		
	4.3 VTS communications	Guidance on VTS digital communications	Develop guidance on VTS digital communications (operational aspects) in consultation with DTEC	New Guideline	VTS		
		Revision of IMO Resolution A.918(22)	Revision of IMO Resolution A.918(22) IMO Standard Marine Communication Phrases	Revised IMO Resolution on SMCP	VTS		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
	4.4 VTS auditing and assessing	Develop guidance on aptitudes required by VTS operators	Guidance specifying the aptitudes required by VTS operators (aptitude/psychometric testing?) and how to assess for those aptitudes taking into consideration national legislation and requirements.	New Guideline	VTS		
	4.5 VTS Data and Information Management	Revise G1177 Portrayal of VTS information	Revise G1177 on portrayal of VTS information developed at previous WP	Revised Guideline	VTS		
		Develop technical service description	Develop technical service description for digital data exchange between VTS and other entities - primarily ships.	Technical service description	VTS		
	4.6 VTS technologies	Update G1111-1 Producing requirements for the core VTS system	Update G1111-1 to include guidance on VTS Management Information Systems	Revised guideline	VTS		
	4.7 VTS additional services						
	N/A	Proceed with the “living document” on “Future VTS”, including emerging technologies and Human Element	Continue discussion on Future VTS, including emerging technologies and Human Element to provide information to assist with future work programme tasks and of emerging trends and technologies that will impact on VTS	Input to VTS tasks and guidelines	VTS		
	N/A	Consider relevant VTS documents to be revised /updated	Revise and update VTS recommendations, guidelines, model courses and VTS Manual	Revised VTS documents	VTS		
<b>S1050 Training and certification</b>	5.1 Training and assessment	Model course on incident response and crisis coordination	Develop a model course on training on incident response and for crisis coordinators within AtoN and VTS system operating organisations.	Model course	ARM, VTS		
		WWA lesson plans to review		Review and updating of the WWA Lesson plans as requested by the Academy	ENG*, ARM, DTEC, VTS		
		Training in implementation of digital solutions (data analytics & maritime informatics)	Develop a guideline on skills related to the digital environment, such as data analytics and maritime informatics and associated training programs with WWA.	New Guideline and training programs	ENG, ARM, DTEC*, VTS		
		Revision of G1103 Train the Trainer	Revision of G1103 on Train the Trainer	Revised guideline	VTS		
		Develop guidance for remote training in VTS	Develop a Guideline for Remote training in VTS	New or revised guideline	VTS		





Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
		Develop guidance for dealing with stress or trauma in VTS operations	Develop new IALA guidance in establishing support for VTS Personnel that have handled a significantly stressful or traumatic incident in VTS operations	New guideline or consider to merge with other relevant guideline	VTS		
	5.2 Accreditation, competency, certification and revalidation	Revision of G1027 on Simulation in VTS training	Revision of G1027 on Simulation in VTS training	Revised guideline	VTS		
		Consider including English Language Competency requirements in VTS operations	New guidance on development of [or provision of] a VTS specific English language assessment.	New guideline	VTS		
		Develop a model course on AtoN Cyber Security arrangements		Model course	ARM		
		Create S-100 model course	How to make use of S-100 product specifications	Model course	ARM		
<b>S1060 Digital communication technologies</b>	6.1 Narrow bandwidth systems	Contribute to the development of IMT-2030 by formulating user requirements for Marine AtoN.	Contribute towards the development of 3GPP mobile communication standards, with a specific focus on the maritime industry vertical.	Revised Guideline, Reportage, input to 3GPP	DTEC		
	6.2 Harmonised maritime connectivity	Update G1008 Remote control and monitoring of AtoN	Remote control and monitoring of AtoN. Objectives of remote control and monitoring, and technical aspects such as communication links, display, maintenance and integration with other systems.	Revised Guideline	ENG		
		Digital communication	Develop a guideline for migrating current analogue VHF voice communications to digital VHF voice communications.	New Guideline	DTEC		
		Develop a Guideline for VDES VDL integrity monitoring	Provide references and advice for authorities to monitor the integrity of VDL. Internally, make VDES VDL operating normally. Externally, specify the common services and functions of the AIS/VDES VDL monitoring system or platform.	New Guideline	DTEC		
		Develop Guidelines on VDES Authentication Techniques	Describe potential methods for authenticating VDES transmissions, including VDES R-Mode signals. Provide basis for the development of an international standard for VDES authentication, so that all mariners can have trust in e-navigation	New Guideline	DTEC		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
			communications and future resilient positioning, navigation and timing solutions based on VDES.				
		Develop Guidelines on VDES resource sharing and coordination/cooperation	Develop a guideline that provides framework of VDES resource sharing and coordination / cooperation for VDES satellites providers, VDES land-stations and VDES users to realize smooth and effective VDES communications on both official and private communications.	New Guideline	DTEC		
		Review and update R1007 The VHF Data Exchange System (VDES) for shore infrastructure	Update to the latest development of AIS	Revised R1007	DTEC		
		Liaise with ITU on Recommendation ITU-R.M 2092-1	LN to ITU WP5B in regards with the Recommendation ITU-R.M 2092-1: Consider future development of VDES	Liaison note	DTEC		
		Liaise with IEC on the Test standard for VDES	Test standard for VDES: Contribute to the development of VDES test standard	Liaison note and input document	DTEC		
		Communications channels for [public service] digital information services in coastal areas	Develop documentation 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 may absorb A-123 and A-124	New Recommendation or Guideline	DTEC		
		New IALA Guideline on VDES system integration into ship and shore side	Develop documentation on the integration and operations of VDES for different user groups - leveraging the capabilities VDES provide and maintain them by managing the resource by optimized operations.	New Guideline	DTEC		
		Review und update G1062 Establishment of AIS as a [Marine] Aid to Navigation	Update to the latest development of AIS; This revision must be reflected in G1022, i.e MAToN	Revised G1062	ARM		
		Recommendation for the AIS Service	Develop Recommendation for the AIS Service Planned in draft Standard S1060 (supersedes A-124). Move recommendation A-124 content to Recommendation R0123 or remainder to Guideline(s)	New Recommendation	DTEC*, ARM		
		Review of the contents of A-124 series recommendations	A-124 APPENDIX 0 to APPENDIX 19 become Guidelines for Recommendation R1008: Move recommendation A-124 content to Recommendation R0123 remainder to Guideline(s)	New Guideline	DTEC*, ARM		
		NAVDAT development	Draft Recommendation and Guideline for Digital navigational data system (NAVDAT) considering shore based infrastructure	New Recommendation and Guideline	DTEC		
		Define user requirements for Maritime Connectivity, Maritime Internet of Things (IoT), and MRN addressing (may be three subtasks)	Revised Guideline G1143 to include aspects relevant to MRN	Revised guideline	ARM		Guideline G1143



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
	6.3 Wide and medium bandwidth systems	Harmonized implementation of Application Specific Message (ASM)	Review and update e-Nav 144 and G1095 - Update to the latest development of ASM	Recommendation and guideline	DTEC		
		Review G1050 Management and Monitoring of AIS Information	Coordinate with ARM WG3 (IALANET, etc.).	Revised guideline and Periodic Review	ARM		
<b>S1070 Information services</b>	7.1 Digitalisation and Digital Platforms	Develop a discussion paper on digitalisation in the scope of IALA	Development of a vision for digitalization of shipping and maritime transportation - Document sketching the IALA vision on digitalization of waterways and shipping	Discussion paper	DTEC		
		Digital Fairway	Develop a guideline on the developments and implementation of the digital fairway.	New IALA guideline	DTEC*, ARM		G1058, G1097
		Guideline for Risk Assessment and Cyber Security	Guideline for Risk Assessment and Cyber Security including Risk assessment methods Identification of risks, Identification of counter measures, Identification of core elements to ensure cyber security	New or revised Guideline	ARM*, DTEC		
		Review G1114 A Technical Specification for the Common Shore-based System Architecture (CSSA)	Consider developing a System Architecture Concept for Digitalized Waterways and Maritime Transformation: Architecture Pattern, Architecture Overview, Architecture Details / Platforms / Services	Revised Guideline	DTEC		G1114
		Consider developing a Recommendation for digital platforms	Recommendation on platforms to be used for implementation of the proposed Architecture (G1114 Update): Definition of the architecture based on Updated G1114, Description of platform elements	New Recommendation	DTEC		G1114
		Review G1128 Specification of e-Navigation technical services	Revise the Guideline from basic concepts and guideline for developers on technical services adjusted to the digital platform concepts.	Review G1128	DTEC		G1128, G1155
		Contribute to the standardization efforts with respect of the requirements of the S-100 domain experts	Support and contribute to international standardization efforts (IMO, IHO, WMO, etc.)		ARM*, DTEC		
	7.2 Data models and data encoding (IVEF, S-100, S-200, ASM)	New Guideline on Operational considerations for S-200 (S-201 AtoN information and S-230 Application Specific Messages)	Guideline on Operational considerations for S-200	Guideline	ARM		
		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	Review and revise S-201 as needed, publishing edition 2.0 and continuing development throughout the work plan	Product specification	ARM		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
		Coordinate with IHO on implementation of IALA PS into S-98	Ref. IALA/IHO Workshop Support IHO's S-100 Implementation documents with consideration of IALA's remit within S-100.		ARM		
		Continue development on S-125 in coordination with IHO NIPWG	Draft Product Specification for S-125 to be delivered to IHO, (Ref workshop - develop S-125 as a suitable replacement for the List of Lights and Fog Signals. S-125 should be tested at the earliest opportunity utilizing the services of the IHO Singapore lab that have been offered for this purpose. Review and revise S-125 as needed, publishing edition 1.0 and continuing development throughout the work plan	S-125	ARM		
		Continue development on MRN documentation, considering inputs from IALA Secretariat, other committees, or others as needed	Review and revise MRN Guidelines and Recommendation as needed, publishing edition 2.0 and continuing development throughout the work plan	Revised Guideline	ARM		
		Review Guideline G1106 on producing an IALA S-200 series Product Specification	Ref. First IALA/IHO Workshop.To update the existing guideline G1106	Revised Guideline	ARM		Guideline G1106
		Coordinate Committee support and submissions for IALA representation at IHO working groups in cooperation with Secretariat (HSSC, S-100WG, NIPWG)	IHO coordination including IALA submission to HSSC on the requirement to amend S-101 AtoN portrayal.		ARM*,DTE C		
		Monitor the development of S-201 Testbed	Update reports on S-201 testbed	Reportage	ARM		
		Develop, implement and execute procedures for IALA to add, maintain and harmonize items to the IHO S-100 Feature Concept Dictionary(FCD)	Guidance on the procedures to add definitions to the FCD. Coordination of harmonization of IALA definitions. Guidance and templates for add features and definition to the FCD. Update the existing guideline G1087	New and/or revised guideline	ARM		
		Create S-200 Implementation Plan, following similar S-100 Implementation Strategy and/or Roadmap	Develop a transition plan aiming to the creation adoption and delivery of S-200 products and services		ARM		
		Develop a VTS Product Specification S-212	Develop a Product Specification S-212 under the S-100 framework for VTS	New Product specification	VTS		
		Review and update Recommendation R0145	Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service (Output to be a revised Recommendation and associated Guideline including a technical service and/or product specification S-210)	Revised recommendation and new Guideline	VTS		
		Develop guidance on the symbology and portrayal of AtoN for charting		New Recommendation and guideline	ARM		



Reference to Standards	Scope	Title	Description	Expected outcome	Committee (*leading)	Committee work item no.	Related documents
		Development of technical service specifications for the provision of AtoN information	To develop technical service specifications for the provision of AtoN information using the G1128 guideline 'Specification of e-navigation technical services'.		ARM		
		Review Guideline G1159 on ship reporting from the shore-side perspective	Guideline for Coastal States on implementation of MSW	Revised Guideline	ARM		