



REPORT OF THE 4TH SESSION OF THE
IALA ATON REQUIREMENTS AND
MANAGEMENT (ARM) COMMITTEE
18 to 22 April 2016

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Report of the 4th Session of the IALA AtoN Requirements and Management (ARM) Committee Executive Summary

42 Members from 23 countries, one sister organisation (SG IMPA) participated in ARM4; 6 participants for the first time;

This was the fourth meeting for the 2014-18 Work Programme and the ARM Committee considered 38 input papers and produced 18 output papers of three Working Groups;

The committee considered a number of key issues and made significant progress on three new recommendations / guidelines which will be finalised at ARM5.

Particular matters to highlight are:

The Risk Management Tools Steering Group was continued as Working Group 3: Risk Management of the ARM Committee. A constructive meeting was held to guarantee a streamlined transition for developing IALA documents. It was proposed that current activities of the old Steering Group will be incorporated in the ARM Work Programme 2014-2018. A liaison note to Council on the addition of six new tasks was prepared for approval.

A report of the work done by the PIANC WG 161 in parallel with ARM Committee meetings on the interaction between shipping routes and windfarms was presented. This was a significant input to the work being done by the ARM Committee, especially for the Marine Spatial Planning task.

Key outputs included the preparation of the following liaison notes:

- To the SG on Portrayal of Aid to Navigation
- To the ENAV Committee on:
 - S-201 AtoN Information Product Specification
 - Portrayal of sector lights in S-201
 - NAVGUIDE update
 - ENAV Roadmap
- To the ENG Committee on:
 - NAVGUIDE update
 - Marine Spatial Planning
 - draft Guideline on Rhythmic Characters
 - Retroreflective Materials
- To the VTS Committee on Marine Spatial Planning
- To the Secretariat on NAVGUIDE update
- To the WWA on NAVGUIDE

Updates for the IALA Dictionary were submitted to the Dictionary Working Group.

The Committee marked the retirement of Gerry Brine and thanked him for his 10 years of work for the Committee.

Overall status of the ARM Committee 2014-2018 Work Programme:

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	Yellow	Red	
TD#1 – Requirements for AtoN systems								
1.1.1	Contribute to standards generated by Secretariat	4	7					
1.1.2	Workshop on AIS AtoN (real and virtual)	2	4	5			Initiated ARM2	
1.1.3	Guideline on the marking of wrecks as defined by the Nairobi Wreck Convention	4	7					
1.1.4	Guideline on the use of pictograms on AtoN	3	5	7			Commenced ARM3	
1.1.5							Task merged with 1.1.4 ARM3	
1.1.6	Guideline on the use of mobile AtoN	4	7					
1.2.1	Populate S-100 as requested by ENAV Committee	1	7				Commenced ARM1	
TD#2 – Management for AtoN services								
2.1.1	Develop guidance for AtoN authorities on disaster recovery	1	4	5			Commenced ARM1	
2.1.2	Contribute to standards generated by Secretariat	4	7					
2.1.3	Consider guidance for authorities on the use of enavigation services	4	7					
2.5.1	Develop guidance on the management of AtoN in environmentally protected areas	2	7				Commenced ARM2	
TD#3 – Marine Spatial Planning								
3.1.1	Develop guidance for AtoN authorities on the use of Marine Spatial Planning	1	4	5			Commenced ARM1	
3.4.1	Oversee development of Risk Management Toolbox	4	7				New task ARM4 WG3	
3.4.2	Develop guidance on PAWSA	4	7				New task ARM4 WG3	
3.4.3	Develop guidance on SQUART	4	7				New task ARM4 WG3	
3.4.4	Develop guidance on use of IWRAP	5	7				New task ARM4 WG3	
3.4.5	Training / workshop / seminar in association with WWA	5	7				New task ARM4 WG3	
3.4.6	IALANET	5	7				New task ARM4 WG3	
TD#4 – International coordination and liaison								
4.1.1							Task cancelled ARM3	
4.2.1							Task cancelled ARM3	
4.2.2	Coordinate a limited review of the IALA Navguide to incorporate amended guidelines and recommendations and other necessary updates via wiki	1	7				Commenced ARM1	
4.2.3							Task cancelled ARM3	
4.2.4							Task cancelled ARM3	
4.2.5	Amend IALA dictionary as appropriate including harmonisation of definition of AtoN	1	7				Commenced ARM1	
4.2.6	Map existing ARM documentation to 7 overarching standards	3	7				New task ARM3 Commenced ARM3	
4.2.7	Rewrite ARM documentation to meet new document structure in conjunction with IALA assistance	3	7				New task ARM3 Commenced ARM3	

All Members are kindly requested to send photographs for inclusion in the 2018 edition of the IALA NAVGUIDE.

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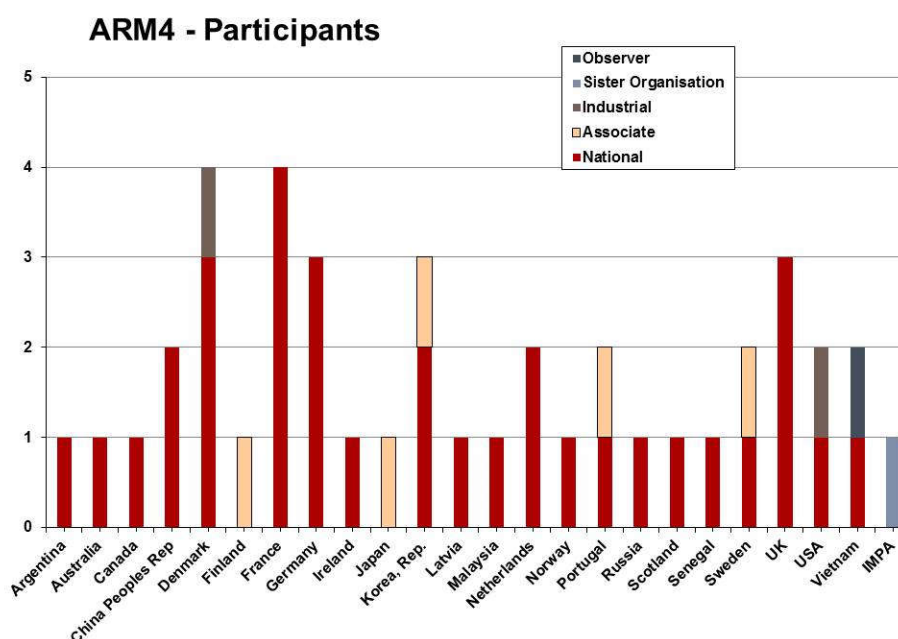
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Report of the 4th Session of the IALA AtoN Requirements and Management (ARM) Committee

1. INTRODUCTION

The 4th meeting of the ARM Committee was held from 18 to 22 April 2016 at IALA.

The Chairman was Phil Day and Michael Skov was Vice Chairman. The Secretary for the meeting was Wim van der Heijden. 42 Members from 23 countries and one sister organisation participated in ARM4; 6 participants for the first time.



Due to a visit to the IALA SG of the Commandant and the IALA Councillor of the Italian Coast Guard there was a little shift in the order of agenda items. However the report will follow the agenda.

The Chairman opened the meeting by welcoming all participants to ARM4 being the fourth session of the working period 2014-2018 with a special welcome to members participating for the first time. He apologised for a short delay of the beginning of the meeting because of the visit mentioned.

Francis Zachariae, the Secretary-General of IALA, welcomed all members of the Committee. He informed that IALA is on schedule with its transition from Non-Governmental Organisation (NGO) to Inter-Governmental Organisation (IGO). The draft Convention text has been approved by Council. Important to mention is that IALA can keep the Industrial Members on-board.

A Strategic Platform is established working on a strategic vision. The membership of IALA has increased over the last months, including some new National Members and many Industrial Members. The incentives for becoming a member of IALA are the increasing professionalism of the Organisation, the work of the World Wide Academy (WWA) and the change of status from NGO to IGO.

He also highlighted the update of the IT facilities and the new visual image (new logo, new branding).

1.1 Administrative announcements

The Administration and safety briefing has been replaced by a "General Information for Participants" leaflet. Each session it will be available in the input documents section on the IALA web-site. Delegates coming for the first time will receive a paper copy as well. All participants are requested to read this

document carefully because it contains important safety information. Also the IT services during the meetings are described. Additional information is included like lunch facilities and access options.



1.2 Approval of the agenda

The agenda was reviewed and adopted (ARM4-1.2).

1.3 Introductions and apologies

Individual Committee members were asked to introduce themselves.

The Committee noted apologies from members who were unable to attend as noted in ANNEX B.

1.4 Programme for the week

The Chairman explained the programme for the week (ARM4-1.4). Members were attended on the meeting of Working Group 3 on Wednesday afternoon and a meeting of the Steering Committee on the AIS AtoN Developments workshop on Wednesday morning. The football match will be played on Tuesday at 17:00, the Committee dinner is on Wednesday evening. New in the programme is the ice-breaking event to be held on Monday just after the closing of the plenary session in order to get to know each other, the new members in particular.

2. REVIEW OF ACTION ITEMS FROM ARM3

Input paper ARM4-2.1 refers.

2.1 Action Items – IALA Secretariat

It was noted that all IALA Secretariat actions from ARM3 had been completed.

2.2 Action Items – ARM Committee Members

It was noted that all Committee Member actions had been completed.

3. REVIEW OF INPUT PAPERS

Before the review of the input documents, the Committee Secretary gave a brief introduction of the document handling. He highlighted how to input documents to the Committee and highlighted the

deadline for submission of inputs to the next meeting. This will be very strict and is set to two weeks before the meeting start in order to give members time to read inputs and discuss them in their own organisation. Only one exemption will be made for documents to the Committee as output from an IALA event held in the period of two weeks before the Committee meeting (output from another Committee meeting or from an IALA workshop or seminar). This is to avoid unwanted waiting time.

He introduced the file share system to be used by Working Groups during the meeting. He highlighted the fact that all documents will be removed after one month. Output documents (real output and working documents for the next meeting) should be submitted to the Secretary directly.

Finally he introduced input and output templates in the new IALA branding and new style sheets for drafting new Recommendations and Guidelines. Recommendations and Guidelines already under development or revision can be finalised in the old style.

The list of input papers is automatically generated by the IALA web site when downloading one or more documents. Input papers are numbered in line with the agenda.

The input papers were reviewed and appointed to the working groups with the following remarks:

- Four new late input documents were received as output of the ENG Committee meeting the week before: ARM4-3.3.5, ARM4-3.3.6, ARM4-3.3.7 and ARM4-9.4.3. Besides on the IALA web they are also available on the file share system.
- ARM4-3.2.1 and ARM4-3.2.2 were presented by the secretary. The Dictionary Working Group of PAP requested the ARM Committee members to translate new terms into the French and Spanish language. The request is for two members per language. Youki Mallette and Gaëlle Nassif volunteered for the French language, Raul Escalante for the Spanish language.
- ARM4-3.3.3 and ARM4-3.3.4 on the e-Navigation road map will be reviewed by the Committee Chair and Vice-Chair.

4. REPORTS FROM OTHER BODIES

4.1 IALA Council

The Committee noted the following Council report:

- 61th Session, Dakar, Senegal, 8 – 11 December 2015, paper ARM4-4.1.1 refers.

There were two ARM specific issues approved: the revised Work Programme and the organisation of the AIS AtoN Developments workshop in the Republic of Korea.

The Chair also informed about the approval of the new IALA Document Structure.

4.2 IALA Policy Advisory Panel

The Committee noted the PAP30 report, paper ARM4-4.2.1 refers. Also here the new IALA Document Structure was highlighted but also the underlying topics for each proposed IALA Standard and the mapping of the current IALA Recommendations and Guidelines into the new structure.

The report of PAP31 was not available yet.

4.3 FAROS

ARM4-4.3.1 refers.

The final report of this EU research project will be further discussed in WG3 during ARM5.

5. REPORTS FROM RAPPORTEURS

5.1 Marine Spatial Planning

Rapporteur: George Detweiler

The rapporteur was not able to attend this meeting.

5.2 e-Navigation - shore side

Rapporteur: Gerry Brine

Paper ARM4-5.1 (presentation) refers.

The rapporteur highlighted the following shore-side aspects on the developments of e-navigation:

1. Implementation activities in IALA with the focus on what and how.
2. Maritime Service Portfolios in relation to the IMO e-navigation strategy.
3. The role of IALA in e-navigation including the road map on e-navigation from the ENAV Committee.
4. Status of Resilient PNT to compliment GNSS.
5. Highlights from IMO NCSR3.
6. Developments of the VDES concept.
7. IHO's S-100 Geospatial Information Registry.

5.3 e-Navigation – shipborne side

Rapporteur: Harry Duggan instead of Harold McClenahan

Paper ARM4-5.2 (presentation) refers.

The rapporteur analysed what the Human Element is, and compared the traditional navigator and the new developments in technology. He demonstrated a Situational Awareness Experiment. Attention was given to the new edition of the Bridge Procedures Guide and the International measures on the human elements. Information was given on the Bridge Team Command and Control system, introduced by Cruise Companies.

6. PRESENTATIONS

6.1 Update of IALA activities

Michael Card, Deputy Secretary General, gave a brief overview of the current activities in IALA. He briefed the Committee on the Council Strategy Group and their activities on the status change.

He informed that the seven proposed IALA top level Standards are approved by Council.

He informed that the SG and DSG visited the Russian Federation and discussed Arctic matters. A workshop on this issue will be organised in 2017 as a co-operative action between IALA and IHO. Russia will play a supporting role.

PAP held two meetings since ARM3 where the IALA Standards and the underlying topics with their Recommendations and Guidelines were discussed.

The IMO Assembly meeting was attended by the SG who also joined the NCSR meeting together with Mahdi Al Mosawi, the IALA Secondment Officer.

6.2 IALA World-Wide Academy (WWA)

Paper ARM4-6.1 (presentation) refers.

The presentation was made by Gerardine Delanoye.

After a brief introduction of the WWA an overview was given of the Training Courses. The role of Capacity Building was explained and an overview of all WWA activities since ARM3 was presented.

6.3 VTS2016

Bin Amirudin Alimuddin gave a presentation on the upcoming VTS2016 Symposium to be held 8 – 12 August 2016 in Kuala Lumpur, Malaysia. The Symposium web-site was demonstrated including the registration process.

The Chairman thanked all speakers for the presentations which are available on the ARM4 page in the Committee section of the IALA web-site.

7. ESTABLISH WORKING GROUPS

The Chairman informed that the work of the IALA Risk Management Tools Steering Group will be continued as Working Group 3 in the ARM Committee. The WG3 meeting was scheduled on Wednesday 20 April 14:00.

The Chairman outlined the procedure to be followed by working groups, including the associated paperwork, after which WG1 and WG2 were established and their tasks outlined. WG3 members, include the members of the previous Risk Management Steering Group. A list of working group participants is at Annex C.

Working Group (WG)	Working Group Chairman / Vice Chairman
WG1 – Navigational Requirements	Roger Barker / Jorge Teles
WG2 – Continuous Improvement	Gerry Brine / Guttorm Tomren
WG3 – Risk Management	Omar Frits Eriksson / Roger Barker

8. WORKING GROUP 1 – NAVIGATIONAL REQUIREMENTS (WG1)

The WG commenced its work by reviewing the agenda items and tasks assigned. The Chair provided clarification on what work needed to be developed at ARM 4.

8.1 Contribute to develop a standard for the provision of AtoN (Task 1.1.1.)

Task Leader: Roger Barker

The WG, in cooperation with WG2, started to identify the connection between the existing Recommendations and Guidelines and the draft Standards. This work will be the basis for further work at ARM5 regarding the adaptation of current documentation to the new IALA structure.

8.2 Develop guidance for AtoN authorities on Disaster Recovery (Task 2.1.1.)

Task Leader: Jean-Luc Fontan

The draft Guideline was finalized. It will now go through a final revision at ARM5. The WG also developed a draft Recommendation to stand together with the Guideline. Working papers ARM4-12.2.1 and ARM4-12.2.2 refers.

8.3 Develop guidance for AtoN authorities on the use of Marine Spatial Planning (Task 3.1.1.)

Task Leader: Ernst Bolt

Work continued on the development of the Guideline, resulting in a mature working paper to be reviewed by the VTS and ENG Committees and to be completed during ARM5.

Action item:

The **Committee Secretary** is requested to forward the draft Guideline on MSP (ARM4-12.1.6) and the liaison note (ARM4-12.1.7) to the VTS and ENG Committees to review and comment.

The WG also developed a draft Recommendation ARM4-12.2.4 to stand together with the Guideline. A draft input of the Guideline on MSP for the IALA Dictionary was made (ARM12-2-5) to be completed during ARM5.

8.4 Develop guidance on the Marking of Wrecks as defined by the Nairobi Wreck Convention (Task 1.1.3)

Task Leader: Arthur Marques

This task was started at ARM4. The WG developed a draft Guideline, Working paper ARM4-12.2.6 refers.

8.5 Develop guidance on the use of mobile AtoN (Task 1.1.6)

Task Leader: Harry Duggan

This task was started at ARM4. The WG developed a draft Guideline, Working paper ARM4-12.2.7 refers.

8.6 Input Papers reviewed by Working Group No. 1

The Working Group reviewed several input papers together with WG2.

- ARM4-3.3.5 on the use of Retroreflective Material was analysed and a draft Liaison Note was produced. The WG considers that any change to the MBS will have to be postponed to the next revision of the MBS. ARM4-12.1.10 refers.
- ARM4-3.3.6 and ARM4-3.3.7 on the Selection of Rhythmic Characters of lights were analysed and a draft Liaison Note was produced. ARM4-12.1.8 and ARM4-12.1.9 refers.
- ARM4-8.4.2 on the usability evaluation of e-navigation MSP 2 was noted, and will be taken into consideration on future developments.

Action items:

The **Committee Secretary** is requested to forward the liaison note on Retroreflective Material (ARM4-12.1.10) to the ENG Committee to action.

The **Committee Secretary** is requested to forward the liaison note on the Selection of Rhythmic Characters of lights (ARM4-12.1.8) and the annex (ARM4-12.1.9) to the ENG Committee to action.

8.7 PIANC WG developments on the interaction between shipping routes and windfarms

JC Cornillou presented a report of the work being done at the PIANC working group, which was of much interest to the work being done by the committee, especially for the MSP task.

9. WORKING GROUP 2 – CONTINUOUS IMPROVEMENT (WG2)

The WG was very productive, producing 10 output papers for submission to PAP and the other Committees and 4 working papers for input to ARM5.

The Chair provided a brief overview of the objectives for this meeting and the input papers were reviewed.

The Chair advised that the priority tasks for the WG2 at ARM4 were:

- Review the alignment of existing IALA documents falling within ARM's remit against the new IALA document structure following further revisions at the recent PAP31 meeting. Further, there was a requirement to test the appropriateness of these recent changes by reworking examples of existing Recommendations to align to new criteria, for further consideration by the IALA Secretariat.

- To progress the development of guidance on the use of pictograms on AtoN (Task 1.1.4)
- To progress the development of guidance on the Management of AtoN in Environmentally Protected Areas. (Task 2.5.1)
- To progress the updating and revision of the IALA NAVGUIDE including use of IALA-Wiki. (Task 4.2.2)

9.1 Develop guidance on the management of AtoN in environmentally protected areas (Task 2.5.1)

Task Leader: Gaelle Nassif

Assisted by: Youki Mallette; Kim Yeong-jae

Task has continued at ARM4. One input paper was submitted, ARM4-9.2.1. ARM members were requested to provide input on issues and best practice prior to ARM4 to enable the scope of the guideline to be accurately specified early in the drafting process. 12 responses were received from ARM members which have proved to be very helpful in progressing this task.

The draft of the guideline was further developed. ARM4-12.2.8 refers.

Action item:

ARM Members are requested to provide comments on the draft of the proposed guideline to the task leader prior to ARM5 (gaelle.nassif@cerema.fr).

9.2 Provide guidance on how to support the new document structure implementation (Task 4.2.6)

Task Leader: Cathrine Steenberg

Assisted by: Gerry Brine, Dave Merrill

The outcome of further deliberations at the PAP31 meeting on the proposed new IALA document structure was communicated by the IALA DSG Michael Card to the Chairs and Vice-Chairs during ARM4. In particular ARM was asked to evaluate more streamlined criteria for IALA Recommendations by revising the existing Recommendation O-130.

The Chair and Vice-Chair prepared an e-mail to DSG summarising the outcome of ARM's consideration of the proposed approach to developing Recommendations and attaching the reworked existing Recommendation example.

The spreadsheet categorizing existing Recommendations and Guidelines on how well they align with the new document structure was also consequently revised. ARM4-12.2.9 refers.

The WG also prepared a response to several queries from Mike Hadley regarding his work in revising existing Recommendations and Guidelines to align with the principles of the new IALA documentation structure. The WG2 Chair will email these directly to Mike Hadley.

9.3 Coordinate a limited review of the IALA NAVGUIDE to incorporate amended Recommendations and Guidelines and other necessary updates via IALA Wiki (Task 4.2.2)

Task leader: Dave Merrill

Assisted by: Johan Westerlund; Youki Mallette, Martin Bransby; Andrey Oleynikov; Amadou Ndiaye

The following input papers were received

- ARM4-9.4.2 Liaison Note from ENAV regarding NAVGUIDE updating
- ARM4-9.4.3 Liaison note from ENG4 regarding status of NAVGUIDE updating

Inputs were considered and liaison notes the Secretariat (ARM4-12.1.11), ENAV and WWA (ARM4-12.1.13) and ENG (ARM4-12.1.12) were prepared.

Good progress was made in reviewing and updating the NAVGUIDE. The tracking table for the NAVGUIDE was updated (ARM4-12.2.10). IALA Wiki training was provided as required to task group members to facilitate efficient updating of documents in ARM4 and in future ARM meetings. The WG members would like to thank David Hayes (GLAs of UK and Ireland) for his essential assistance in providing training.

Action item:

The **Committee Secretary** is requested to forward the liaison notes on the update of the NAVGUIDE to the IALA Secretariat (ARM4-12.1.11), the ENAV Committee and the WWA (ARM4-12.1.13) and the ENG Committee (ARM4-12.1.12).

9.4 Amend IALA Dictionary as appropriate including harmonisation of definition of AtoN (Task 4.2.5)

Task Leader: Dave Merrill Assisted by: Martin Bransby; Youki Mallette; Gaelle Nassif; Johan Westerlund

Work continued on this task during ARM4. Two dictionary proposals in relation to managing AtoN in environmentally sensitive areas were prepared using the new Dictionary template for forwarding to the Secretariat. ARM4-12.1.14 refers.

Task to be undertaken over the 2014-2018 work programme.

Action item:

ARM members are requested to provide changes or new definitions to the IALA Dictionary to the task leader prior to ARM5 (david.merrill@uscq.mil).

The **Committee Secretary** is requested to pass on the change requests to the Dictionary Working Group (DWG) (ARM4-12.1.14).

9.5 Develop Guideline Use of Pictograms on AtoN (Task 1.1.4)

Task Leader: Minsu Jeon Assisted by: Luo Donggen; Andrey Oleynikov

Work continued on this task during ARM4. Two input papers were received ARM4-9.2.1 and ARM4-9.2.2. The document structure has been drafted and progress made in populating the various sections with text and also in designing pictograms for the nine categories referred to in the MBS and this design work will continue out- of-session. Task is scheduled to be completed at ARM7. ARM4-12.2.11 refers.

Action item:

ARM members are requested to provide input on issues and best practices on the use of pictograms prior to ARM5 to the Committee Secretary (wim.vdh@iala-aism.org).

9.6 Consider the need for new guidance for authorities on the use of e-Navigation services (Task 2.1.3)

Task Leader: Martin Bransby Assisted by: Gerry Brine; Johan Westerlund

Work started on this task during ARM4 with a scoping document being prepared and discussed with the Chair/Vice-Chair. The scoping plan will guide further work at ARM 5. The task is scheduled to be completed at ARM7.

9.7 Input Papers reviewed by Working Group 2

The following input papers, not directly linked to ARM work program tasks, were also reviewed:

- ARM4-3.1.1 S-201 AtoN Information Product Specification Covering note and S-201 AtoN Information Product Specification

Task Leader: Martin Bransby Assisted by: Johan Westerlund

The document was given a high level review and it was concluded that more time was necessary to provide detailed feedback. One concern was that it was important for the document to make it clear that the wide range of AtoN information data fields spanning both navigation and AtoN maintenance operations aspects are currently not mandatory.

A liaison note to ENAV (ARM4-12.1.3) was prepared.

Action item:

*The **Committee Secretary** is requested to forward the Liaison Note on S-201 AtoN Information Product Specification (ARM4-12.1.3) to the ENAV Committee.*

- ARM4-3.1.3 regarding portrayal of sector lights in ENC charts versus paper charts.

Task Leader: Johan Westerlund

Assisted by: Martin Bransby; Guttorm Tomren

Input paper was discussed within the ARM Committee and supported. The ENAV Committee is requested to note the concerns of NCA and liaise with IHO on this matter to ensure that sector lights and other forms of visual AtoN's are adequately portrayed by default in ENC in the future.

Action item:

*The **Committee Secretary** is requested to forward the Liaison Note on Portrayal of sector lights in ENC charts (ARM4-12.1.4) to PAP and the ENAV Committee.*

*The **SG** is requested to liaise with IHO on the portrayal of sector lights in ENC charts (ARM4-12.1.2).*

- ARM4-3.3.4 Draft IALA e-Navigation Road Map

Task Leader: Christian Herrlich

The road map was reviewed and it was felt to be a comprehensive snapshot of the range of tasks that IALA needed to accomplish in developing and implementing e-Navigation.

A Liaison Note to ENAV was prepared commending their efforts and recommending IALA closely monitor progress on e-Navigation services by other organisations and ensuring transparency for IALA Committees of such progress to ensure implications for IALA's work are assessed. ARM4-12.1.15 refers.

Action item:

*The **Committee Secretary** is requested to forward the Liaison Note on the Draft IALA e-Navigation Road Map (ARM4-12.1.15) to ENAV.*

10. WORKING GROUP 3 – RISK MANAGEMENT

The WG commenced its work by agreeing on the draft agenda. After a round of introduction, the chair introduced the background and historical development of the IALA Risk Management Toolbox. He explained that in order to streamline the organization for developing IALA documents, it has been decided that the management of the IALA Risk Management Toolbox shall reside within the ARM committee, and that the former IALA Risk Management Toolbox steering group shall be merged into the new WG3 of ARM.

The dean of the WWA, Jean-Charles Leclair, who has been acting as the secretary for the steering group for many years, took the opportunity to thank the steering group members for their significant contribution to IALA.

The working group dealt with three input papers: ARM4-10.1.1 Report from SG38, ARM4-10.1.2 SQUART rev0, and ARM4-10.1.3 PAWSA Implementation Plan.

The future organisation of WG3 was discussed. It was agreed that Omar Frits Eriksson should chair the group for the time being. Roger Barker accepted the role as vice-chair. The Committee chair, who was present, endorsed this and appointed both candidates. It was pointed out that all deliverables from the WG shall be treated as all other documents, produced by the committee.

The working group dealt with nine action items from the last meeting of the IALA Risk Management Toolbox Steering Group (SG38) of which six were completed, and the rest were ongoing.

10.1 Development of IWRAP Mk2

Per Engberg from Gatehouse provided an overview of the development of IWRAP since the SG38 meeting. This included the introduction of elements of 3D graphics and some functions to facilitate the modelling of road bridges over waterways within IWRAP. The recently introduced film making function in IWRAP was demonstrated with an example from Singapore Strait.

Action items:

Per Engberg from Gatehouse was asked to issue a new software version of IWRAP mk3 before July 1st 2016.

Per Engberg was asked to continue to liaise with Gatehouse and Pr. Peter Friis-Hansen on developing a consequence module for IWRAP Mk2 and report on progress at ARM5.

10.2 SQUART (Simplified Qualitative Risk Management Tool)

Stephen Bennet, the vice-dean of the WWA made a presentation of SQUART (input paper ARM4-10.1.2 refers). The intention is to add this method to the IALA Risk Management Toolbox, subject to approval by the ARM committee and the IALA Council.

The SQUART method has been subject to several verification exercises, the latest one conducted in Turkey on two adjacent areas in Aegean Sea (Izmir and Aliaga regions) on 18-19 and 21-22 January 2016 respectively, by Tuncay Cehreli together with Dr. Serdar Kum from the Maritime Faculty of the Istanbul Technical University. This resulted in a few improvement suggestions, which now have been incorporated.

The Norwegian Coastal Administration did also recently assess SQUART and provided their comments to IALA. The WG discussed the merits and scientific foundation for SQUART, and it was found that the SQUART description could benefit from underlining the need for the analyst to carefully consider his/her interpretation of the criteria used when assigning values to the risk matrix probability and impact dimensions.

Action items:

Stephen Bennet, the vice-dean of the WWA, was asked to draft a new IALA Guideline / Model Course on the SQUART method and submit this as an input to ARM5.

Stephen Bennet, the vice-dean of the WWA, was asked to provide a paper on the need to update IMO Circular 296 to reflect the fact that the IALA Risk Management Toolbox soon will have SQUART as a new toolbox component.

10.3 PAWSA implementation Guide

WG3 reviewed input paper ARM4-10.1.3 on the PAWSA Implementation Guide and endorsed it in principle, and it was agreed that an associated IALA guideline should be written.

Action item:

Stephen Bennet, the vice-dean of the WWA, was asked to draft a new IALA Guideline / Model Course on the PAWSA based on ARM4-10.1.3 and submit this as an input to ARM5.

10.4 Training Seminar on IALA Risk Management Tools

The WWA has, over the last 5-6 years conducted a yearly training seminar on the IALA Risk Management Toolbox. The WG agreed that this should continue. The WG thanked Gerardine Delanoye, IALA WWA Programme Manager, for her hard work in organising these training seminars.

Gerardine Delanoye is the IALA WWA point of contact for matters relating to the IALA Risk Management Toolbox and will support the ARM committee on this matter as much as practically possible.

10.5 Any other business

Tuncay Cehreli, the chair of the VTS committee advised that the VTS committee will introduce the Risk Management Toolbox as a new monitoring item to its work program.

Ernst Bolt provided information on the work done on comparing the IWRAP algorithms with those used in SAMSON.

Ernst Bolt also provided information on a new EU project proposal named OPEN-RISK. The project is aimed at developing new methods for risk evaluation in open source.

The WG3 chair provided an update on the status of the SAFEMOP EU project proposal (H2020). This project is aimed at developing new innovative solutions within shipbuilding and risk management. IALA is a project partner and the draft project idea has been endorsed by the EU commission. The project consortium has been invited to submit a full project proposal in August 2016.

The complexity of the IALA Risk Management Toolbox and the need for a simple “Beginners Guide” was discussed.

Action items:

Ernst Bolt was asked to forward the report on comparison between IWRAP and SAMSON to ARM5.

Ernst Bolt was asked to keep the Committee informed on the development of the OPEN-RISK project proposal.

Omar Frits Eriksson and **Knud Benedict** were asked to continue to contribute to the full SAFEMOP project proposal on behalf of IALA and report on progress at ARM5.

WG3 members are invited to provide contributions to a simple “Beginners Guide to the IALA Risk Management Toolbox” as input to ARM5.

Action item:

The **Committee Secretary** is requested to forward all working papers as listed in Annex E to ARM5 for further development.

11. REVIEW OF CURRENT WORK PROGRAMME (2014 – 2018)

Input papers ARM4-11.1 and ARM4-11.2 refers.

The ARM Committee has recently created WG3 to incorporate the former Risk Management Steering Group activities. Consequently the ARM Committee has reviewed the current Work Programme of the Committee during ARM4 to include tasks associated with WG3. The updated version will be available as ARM4-11.3 and the Status overview ARM4-11.4 on the ARM4 section of the IALA web.

Action item:

The **Committee Secretary** is requested to forward the updated version of the current Work Programme (ARM4-11.3) including the liaison note (ARM4-12.1) to Council for approval and make the Work Programme input for ARM5.

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	Yellow	Red	
TD#1 – Requirements for AtoN systems								
1.1.1	Contribute to standards generated by Secretariat	4	7					
1.1.2	Workshop on AIS AtoN (real and virtual)	2	4	5				Initiated ARM2
1.1.3	Guideline on the marking of wrecks as defined by the Nairobi Wreck Convention	4	7					
1.1.4	Guideline on the use of pictograms on AtoN	3	5	7				Commenced ARM3
1.1.5								Task merged with 1.1.4 ARM3
1.1.6	Guideline on the use of mobile AtoN	4	7					
1.2.1	Populate S-100 as requested by ENAV Committee	1	7					Commenced ARM1
TD#2 – Management for AtoN services								
2.1.1	Develop guidance for AtoN authorities on disaster recovery	1	4	5				Commenced ARM1
2.1.2	Contribute to standards generated by Secretariat	4	7					
2.1.3	Consider guidance for authorities on the use of enavigation services	4	7					
2.5.1	Develop guidance on the management of AtoN in environmentally protected areas	2	7					Commenced ARM2
TD#3 – Marine Spatial Planning								
3.1.1	Develop guidance for AtoN authorities on the use of Marine Spatial Planning	1	4	5				Commenced ARM1
3.4.1	Oversee development of Risk Management Toolbox	4	7					
3.4.2	Develop guidance on PAWSA	4	7					Task cancelled ARM3
3.4.3	Develop guidance on SQUART	4	7					Task cancelled ARM3
3.4.4	Develop guidance on use of IWRAP	5	7					Commenced ARM1
3.4.5	Training / workshop / seminar in association with WWA	5	7					Task cancelled ARM3
3.4.6	IALANET	5	7					Task cancelled ARM3
TD#4 – International coordination and liaison								Commenced ARM1
4.1.1								New task ARM3 Commenced ARM3
4.2.1								New task ARM3 Commenced ARM3
4.2.2	Coordinate a limited review of the IALA Navguide to incorporate amended guidelines and recommendations and other necessary updates via wiki	1	7					Commenced ARM1
4.2.3								Task cancelled ARM3
4.2.4								Task cancelled ARM3
4.2.5	Amend IALA dictionary as appropriate including harmonisation of definition of AtoN	1	7					Commenced ARM1
4.2.6	Map existing ARM documentation to 7 overarching standards	3	7					New task ARM3 Commenced ARM3
4.2.7	Rewrite ARM documentation to meet new document structure in conjunction with IALA assistance	3	7					New task ARM3 Commenced ARM3

12. REVIEW OF OUTPUT AND WORKING PAPERS

The Working Group Chairmen reported on the work carried out by their Working Groups.

The output documents listed at Annex E were reviewed and agreed.

The Committee Secretary was requested to forward the output documents, as indicated earlier in the report.

The Chairman then thanked the Chairs, Vice Chairs and members of the working groups for all their efforts during the week.

The Committee Chairman marked the retirement of Gerry Brine and thanked him for his 10 years of work for the Committee. The current Vice Chair of WG2 was asked to become the new Chair of WG2, Johan Westerlund was asked to become the Vice Chair of WG2 from ARM5. The task of Rapporteur for “e-Navigation – shore side” will be fulfilled by Martin Bransby.

13. ANY OTHER BUSINESS

13.1 PIANC meeting

In parallel with ARM4 a PIANC WG 161 meeting on 19 and 20 April took place which was complementary with the Marine Spatial Planning work of WG 1.

13.2 IALA Questionnaire

The IALA Secretariat will be taking responsibility for the IALA Questionnaire.

Action items:

Jorge Teles is requested to pass the data to the Secretariat (complete).

The **Secretariat** is requested to prepare the Questionnaire for the 2018 IALA Conference.

13.3 NAVGUIDE

Following the discussion with the Secretariat it was agreed that the NAVGUIDE update will be complete by October 2017 and will be published into pdf format for Council approval. The Secretariat will thereafter take responsibility for publication during the 2018 Conference.

Action item:

The **Secretariat** to consider the format and future access to the NAVGUIDE Wiki.

Members are requested to provide photographs for the NAVGUIDE.

14. REVIEW OF SESSION REPORT

The report of the meeting (ARM4-14) was reviewed and approved by the Committee on the 22th April 2016. Deadline for comments and corrections can be submitted until 12 May 2016.

Action Item:

The **Committee Secretary** is requested to forward summary of the report of ARM4 (ARM4-14) after completion (deadline 12 May 2016) to the IALA Council, to note.

15. DATE AND VENUE OF NEXT MEETING

The **Workshop on AIS AtoN (real and virtual) Developments and their uses** will be held from 19 – 21 October 2016 at the Best Western Premier Seoul Garden Hotel, Seoul, Republic of Korea.

ARM5 will be from 24 – 28 October 2016 at the Best Western Premier Seoul Garden Hotel, Seoul, Republic of Korea as guest of the Korean Ministry of Oceans and Fisheries.

ARM6 will likely be in Seattle, USA as guest of the US Coast Guard. Date to be determined.

16. CLOSING OF THE MEETING

The Chairman again expressed his thanks for all the hard work done during the meeting.

The Chairman then asked if there were any final comments that members wished to make; there were none, at which he wished everyone a pleasant and safe journey home.

17. LIST OF ANNEXES

- 1 Agenda
 A copy of the agenda is at Annex A.
- 2 Participants
 A list of participants is at Annex B.
- 3 Working Group Participants
 A list of working group participants is at Annex C.
- 4 Input Papers
 A list of input papers is at Annex D.
- 5 Output and Working papers
 A list of output and working papers is at Annex E.
- 6 Action Items
 A list of action items is at Annex F.
- 7 Format of Standards, Recommendations and Guidelines
 A note by the Secretariat is at Annex G.



4th Meeting of the AtoN Requirements and Management Committee (ARM)

The 4th meeting of the **ARM Committee** will be held from 18 – 22 April 2016, at IALA, St Germain en Laye, France.

The opening plenary will commence at 1300 on Monday 18 April, and the closing plenary will end at approximately 1300 on Friday 22 April.

Committee Chair, Vice-Chair and Working Group Chairpersons are requested to meet at 0900 on Monday 18 April.

Agenda

1. Introduction
 - 1.1. Administration and Safety Briefing
 - 1.2. Approval of agenda
 - 1.3. Apologies and introductions
 - 1.4. Programme for the week
2. Review of action items from last meeting
 - 2.1. Review of action items from ARM3
 - 2.2. Final Report from ARM3 - for reference
3. Review of input papers
4. Reports from other bodies:
 - 4.1. Report from IALA Council, 61th Session, December 2015
 - 4.2. Report from IALA Policy Advisory Panel, PAP30, November 2015
 - 4.3. Report from the FAROS project
5. Reports from rapporteurs
 - Marine Spatial Planning George Detweiler
 - e-Navigation shore side Gerry Brine
 - e-Navigation shipborne side Harold McClenahan
6. Presentations (15 minutes)
 - Update IALA activities Michael Card
 - Update WWA activities Gerardine Delanoye
 - VTS2016 Malaysia representative

7. Establish Working Groups
8. WG1 - Navigational requirements
 - 8.1. Contribute to standards generated by the Secretariat (Task 1.1.1)
 - 8.2. Develop guidance on the marking of wrecks as defined by the Nairobi Wreck Convention (Task 1.1.3)
 - 8.3. Develop guidance for AtoN authorities on disaster recovery (Task 2.1.1)
 - 8.4. Develop guidance for AtoN authorities on the use of Marine Spatial Planning (Task 3.1.1)
 - 8.5. Develop guidance on the use of mobile AtoN (Task 1.1.6)
 - 8.6. Consider guidance for authorities on the use of enavigation services (Task 2.1.3 shared with WG2)
9. WG2 - Continuous improvement
 - 9.1. Contribute to standards generated by the Secretariat (Task 2.1.2)
 - 9.2. Develop guidance on the use of pictograms on AtoN (Task 1.1.4)
 - 9.3. Develop guidance on the management of AtoN in environmentally protected areas (Task 2.5.1)
 - 9.4. Coordinate a limited review of the IALA NAVGUIDE to incorporate amended recommendations and guidelines and other necessary update via IALA Wiki (Task 4.2.2)
 - 9.5. Amend IALA Dictionary as appropriate including harmonisation of definition of AtoN (Task 4.2.5)
 - 9.6. Populate S-100 as requested by the ENAV Committee (Task 1.2.1)
 - 9.7. Map existing ARM documentation to standards generated by Secretariat (Task 4.2.6)
 - 9.8. Rewrite ARM documentation to meet new document structure in conjunction with IALA assistance (Task 4.2.7 shared with WG1)
10. WG3 - Risk management
 - 10.1. IWRAP Steering Group
11. Review of Current Work Programme (2014 – 2018)
12. Review of output and working papers
 - 12.1. Output papers
 - 12.2. Working papers
13. Any Other Business
14. Review of session report
15. Date and venue of next meeting
16. Close of the meeting

Attention: The ARM Committee will organise a workshop on “AIS AtoN (real and virtual) developments and their uses” in conjunction with the Communications Working Group of the ENAV Committee.

Date: 19 – 21 October 2016, Venue: Seoul in the Republic of Korea.

This workshop will be followed by the ARM5 Committee meeting 24 – 28 October 2016 on the same location in the Republic of Korea.

ANNEX B

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Apologies were received from the following.

Name	Organisation	Country
George Detweiler	US Coast Guard	USA
Marek Ledochowski	Maritime Office Gdynia	Poland
Harold McClenahan	Commissioners of Irish Lights	Ireland
Johan Pettersson	Swedish Transport Agency	Sweden
Ivan Vargas	Pharos Marine Automatic Power	

New Members

Name	Organisation	Country
Luo Donggen	China MSA	Pep. Rep. China
Harry Duggan	Commissioners of Irish Lights	Ireland
Se Uk Lee	Ministry of Oceans and Fisheries	Rep. Korea
Hernando Ramirez Garcia	Tideland Signal Corporation	USA
Tieu Long Tran	Vietnam Maritime Safety Authority South	Vietnam
Trung Kien Dong	Vietnam Maritime Safety Authority North East	Vietnam

Working Group 1

Navigational Requirements

	Name	Organisation / Country
1	Roger Barker (Chairman)	THLS / England & Wales
2	Jorge Teles (Vice Chairman)	Direcção de Faróis / Portugal
3	Bin Amirudin Alimuddin	Malaysia Marine Department / Malaysia
4	Ernst Bolt	Ministry of Infrastructure and the Environment / The Netherlands
5	Jakob Bang	DMA / Denmark
6	Joris Brouwers	Ministry of Infrastructure and the Environment / The Netherlands
7	Artur Dias Marques	Portuguese Hydrographic Office / Portugal
8	Aigars Gailis	Maritime Administration of Latvia / Latvia
9	Nick Cutmore	IMPA
10	Trung Kien Dong	Vietnam Maritime Safety / Vietnam
11	Luo Donggen	China MSA / Peoples Republic of China
12	Harry Duggan	Commissioners of Irish Lights / Ireland
13	Jean Luc Fontan	Direction des Affaires Maritimes / France
14	Raul Escalante	Hidrovia SA / Argentina
15	Mats Hörström	Swedish Transport Agency / Sweden
16	Youngjin Kim	Ministry of Oceans and Fisheries / Republic of Korea
17	Risto Lang	Finnish Transport Agency / Finland
18	Hernando Ramirez Garcia	Tideland / USA
19	Gerhard Mueller-Hagen	Federal Waterways & Shipping Administration / Germany
20	Jean-Charles Cornillou	CEREMA / France
21	Catherine Ratsivalaka	CEREMA / France
22	Lang Rongwei	China MSA / Peoples Republic of China
23	Tieu Long Tran	Vietnam Maritime Safety / Vietnam

Working Group 2

Continuous Improvement

	Name	Organisation / Country
1	Gerry Brine (Chair)	AMSA / Australia
2	Guttorm Tomren (Vice Chairman)	NCA / Norway
3	David Merrill	US Coast Guard / USA
4	Minsu Jeon	Korea Association of AtoN / Republic of Korea
5	David Hayes	Trinity House / UK
6	Youki Mallette	Canadian Coast Guard / Canada
7	Cathrine Steenberg	Force Technology / Denmark
8	Gaëlle Nassif	CEREMA / France
9	Andrew Oleynikov	Department of Navigation and Oceanography / Russia
10	Yeong Jae Kim	Ministry of Maritime Affairs / Republic of Korea
11	Johan Westerlund	SMA / Sweden
12	Martin Bransby	General Lighthouse Authorities / UK
13	Luo Donggen	China MSA / Peoples Republic of China
14	Christian Herrlich	Federal Waterways & Shipping Administration / Germany
15	Tamotsu Ikeda	Japan Aids to Navigation Association / Japan
16	Amadou Ndiaye	Port Autonome de Dakar / Senegal

Working Group 3

Risk Management

	Name	Organisation / Country
1	Omar Frits Eriksson (Chairman)	DMA / Denmark
2	Phil Day	Northern Lighthouse Board / Scotland
3	Michael Skov	DMA / Denmark
4	Roger Barker	THLS / England & Wales
5	Ernst Bolt	Ministry of Infrastructure and the Environment / The Netherlands
6	Stephen Bennett	IALA - WWA
7	Jean-Charles Leclair	IALA - WWA
8	Gerardine Delanoye	IALA - WWA
9	Tuncay Cehreli *)	DGCS / Turkey
10	Jakob Bang	DMA / Denmark
11	Knud Benedict	Hochschule Wismar / Germany
12	Jorge Teles	Direcção de Faróis / Portugal
13	Michael Card	IALA
14	Per Christian Engberg *)	GateHouse A/S / Denmark
15	Guttorm Tomren	NCA / Norway
16	Catherine Ratsivalaka	CEREMA / France
17	Cathrine Steenberg	Force Technology / Denmark
18	Mahdi Al Mosawi	IALA
19	Wim van der Heijden	IALA

*) using GoToMeeting

ANNEX D LIST OF INPUT PAPERS

All papers are posted on the Committee section of the IALA website

	Document number	Agenda item	Title
1	ARM4-1.2	1.2	Agenda
2	ARM4-1.4	1.4	Programme for the week
3	ARM4-2.1	2.1	Actions items ARM3
4	ARM4-2.2	2.2	(ARM3-13) Report of ARM3
5	ARM4-3.1.1	3.1	(ENAV18-9.1.1) S-201 AtoN Information Product Specification Covering note
6	ARM4-3.1.2	3.1	(ENAV18-9.1.2) S-201 AtoN Information Product Specification - draft 0.0.1
7	ARM4-3.1.3	3.1	(ENAV18-14.1.22) Liaison note to ARM on Portrayal of Sector Lights
8	ARM4-3.2.1	3.1	Dictionary amendment proposal form
9	ARM4-3.2.2	3.1	(DWG2-2 2) IALA Dictionary Working Group for Committees 20160301
10	ARM4-3.3.1	3.1	WWA liaison note
11	ARM4-3.3.2	3.1	ARM5 arrangement in Seoul v3
12	ARM4-3.3.3	3.1	(ENAV18-14.1.24) Liaison Note to all IALA Committees and PAP post plenary
13	ARM4-3.3.4	3.1	(ENAV18-14.1.30) draft IALA e-navigation Road Map post plenary
14	ARM4-3.3.5	3.1	(ENG4-11.1.14) Liaison Note to ARM re use of Retroreflecting Material on AtoN Marks in the MBS
15	ARM4-3.3.6	3.1	(ENG4-11.1.16) Liaison note ENG4 to ARM4 on Draft Guideline on Selection of Rhythmic Characters review
16	ARM4-3.3.7	3.1	(ENG4-11.2.25) Draft Guideline on Selection of Rhythmic Characters of Lights on AtoN
17	ARM4-3.4.1	3.1	(ENAV18-14.1.3) Liaison Note to VTS ARM on Future Work identified in Accseas post plenary
18	ARM4-3.4.2	3.1	(ENAV18-14.1.4) Liaison Note to VTS ARM on the FAROS project version 2 post plenary
19	ARM4-4.1.1	4.1	(C61-22.1) C61 Final Report
20	ARM4-4.2.1	4.2	pap30_18_1_report_pap30
21	ARM4-4.3.1	4.3	(ENAV18-10.6) Final public summary of FAROS Project
22	ARM4-4.4	4.4	IMO NCSR3 report
23	ARM4-8.2.1	8.2	(ARM3-11.2.3) WG1_ WP3_draft recommendation on wreckage
24	ARM4-8.3.1	8.3	(ARM3-11.2.1) WG1_ WP1_arm3_disaster_recovery
25	ARM4-8.4.1	8.4	(ARM3-11.2.2) WG1_ WP2_arm3_msp_output_week_548
26	ARM4-8.4.2	8.4	(ENAV18-6.7) Usability Evaluation of e-Navigation MSP 2(NAS)_YU

	Document number	Agenda item	Title
27	ARM4-9.2.1	9.2	(ARM3-11.2.5) WG2-Scoping paper for pictogram
28	ARM4-9.2.2	9.2	(ENAV18-14.1.23) Liaison note to ARM on pictograms
29	ARM4-9.3.1	9.3	(ARM3-11.2.4) EPA Questionnaire and draft guideline
30	ARM4-9.4.1	9.4	(ARM3-11.2.7) NAVGUIDE 2015 tracking table
31	ARM4-9.4.2	9.4	(ENAV18-14.1.1) Liaison Note to ARM on NAVGUIDE Chapter 4 amendment
32	ARM4-9.4.3	9.4	(ENG4-11.1.13) Liaison Note to ARM re NAVGUIDE
33	ARM4-9.7.1	9.7	(ARM3-11.2.6) Mapping of ARM documentation
34	ARM4-10.1.1	10.1	Report IWRAP SG 38
35	ARM4-10.1.2	10.1	SQUART Rev 0
36	ARM4-10.1.3	10.1	PAWSA Implementation Guide
37	ARM4-11.1	11	(ARM3-10.2) ARM3 draft output work program
38	ARM4-11.2	11	Status report ARM4

Presentations given by rapporteurs and presenters

All presentations are posted on the Committee section of the IALA website

Document number	Agenda item	Title
ARM4-5.1	5	e-navigation shore side
ARM4-5.2	5	Human elements
ARM3-6.1	6	IALA WWA brief

ANNEX E LIST OF OUTPUT DOCUMENTS, E-MAILS AND WORKING PAPERS

Output documents are submitted for review/action by a body other than the Committee initiating the document.

Number	Title	Status
ARM4-14	Report ARM4	To Council to note
ARM4-11.3	Work Programme 2014-2018 update ARM4	To Council to approve
ARM4-11.4	Status report ARM4	To ARM5
ARM4-12.1.1	Liaison to Council on amended Work Plan 2014-2018	To Council to approve
ARM4-12.1.2	Liaison to SG on Portrayal of Aid to Navigation	To IALA SG to action
ARM4-12.1.3	Liaison to ENAV on S-201 PS	To ENAV to action
ARM4-12.1.4	Liaison to ENAV on portrayal of sector lights in S-201	To ENAV to action
ARM4-12.1.5	Liaison to ENG on NAVGUIDE update	To ENG to note
ARM4-12.1.6	Draft Guideline on Navigational Safety within MSP 20 APR 2016-1	To VTS and ENG to action
ARM4-12.1.7	Liaison to VTS and ENG on draft Guideline on MSP	To VTS and ENG to action
ARM4-12.1.8	Liaison to ENG on draft Guideline on Rhythmic Characters	To ENG to action
ARM4-12.1.9	Annex to liaison on the draft Guideline on Selection of Rhythmic Characters of lights on AtoN mb comments and edits	To ENG to action
ARM4-12.1.10	Liaison to ENG on Retroreflective Materials	To ENG to action
ARM4-12.1.11	Liaison to Secretariat on ENG NAVGUIDE update	To ENG to action
ARM4-12.1.12	Liaison to ENAV on NAVGUIDE update	To ENAV to note
ARM4-12.1.13	Liaison to ENG and WWA on NAVGUIDE update	To ENG and WWA to action
ARM4-12.1.14	Dictionary amendment proposal form ARM4 - WG2 – EPA	To DWG to action
ARM4-12.1.15	Liaison to ENAV on RoadMap ENAV	To ENAV to action

e-Mails are submitted for answer/review/action to external parties and other Committees.

Number	Title	Status

Working papers will remain within the Committee for further review during ARM5.

Number	Title
ARM4-12.2.1	(ARM4-8.3.1) WG1-WP1 draft Recommendation on Disaster Recovery
ARM4-12.2.2	(ARM4-8.3.1) WG1-WP1 draft Guideline on Disaster Recovery
ARM4-12.2.3	Draft Guideline on Navigational Safety within MSP 20 APR 2016-1
ARM4-12.2.4	Draft Recommendation on MSP Feb2016
ARM4-12.2.5	Draft Dictionary input from Guideline on MSP
ARM4-12.2.6	(ARM4-8.2.1) WG1- WP3 draft Guideline on Wreckage
ARM4-12.2.7	Draft Guideline on Mobile AtoN
ARM4-12.2.8	Draft Guideline on EPA 2016-04-21
ARM4-12.2.9	(arm4_9_7_1)_mapping_of_arm_documentation
ARM4-12.2.10	(arm4_9_4_1)_navguide_2015_tracking_table
ARM4-12.2.11	Draft Guideline on Uses of Pictogram
ARM4-12.2.12	(ARM4-4.3.1) Final public summary of FAROS Project

ANNEX F ACTION ITEMS

Action Items for Secretariat

1. The **Committee Secretary** is requested to forward the draft Guideline on MSP (ARM4-12.1.6) and the liaison note (ARM4-12.1.7) to the VTS and ENG Committees to review and comment. 12
2. The **Committee Secretary** is requested to forward the liaison note on the Selection of Rhythmic Characters of lights (ARM4-12.1.8) and the annex (ARM4-12.1.9) to the ENG Committee to action. 12
3. The **Committee Secretary** is requested to forward the liaison notes on the update of the NAVGUIDE to the IALA Secretariat (ARM4-12.1.11), the ENAV Committee and the WWA (ARM4-12.1.13) and the ENG Committee (ARM4-12.1.12). 14
4. The **Committee Secretary** is requested to pass on the change requests to the Dictionary Working Group (DWG) (ARM4-12.1.14). 14
5. The **Committee Secretary** is requested to forward the Liaison Note on S-201 AtoN Information Product Specification (ARM4-12.1.3) to the ENAV Committee. 15
6. The **Committee Secretary** is requested to forward the Liaison Note on Portrayal of sector lights in ENC charts (ARM4-12.1.4) to PAP and the ENAV Committee. 15
7. The **SG** is requested to liaise with IHO on the portrayal of sector lights in ENC charts (ARM4-12.1.2). 15
8. The **Committee Secretary** is requested to forward the Liaison Note on the Draft IALA e-Navigation Road Map (ARM4-12.1.15) to ENAV. 15
9. The **Committee Secretary** is requested to forward all working papers as listed in Annex E to ARM5 for further development. 17
10. The **Committee Secretary** is requested to forward the updated version of the current Work Programme (ARM4-11.3) including the liaison note (ARM4-12.1) to Council for approval and make the Work Programme input for ARM5. 17
11. The **Secretariat** is requested to prepare the Questionnaire for the 2018 IALA Conference. 19
12. The **Secretariat** to consider the format and future access to the NAVGUIDE Wiki. 19
13. The **Committee Secretary** is requested to forward summary of the report of ARM4 (ARM4-14) after completion (deadline 12 May 2016) to the IALA Council, to note. 19

Action Items for Members

14. The **Committee Secretary** is requested to forward the liaison note on Retroreflective Material (ARM4-12.1.10) to the ENG Committee to action. 12
15. **ARM Members** are requested to provide comments on the draft of the proposed guideline to the task leader prior to ARM5 (gaelle.nassif@cerema.fr). 13
16. **ARM members** are requested to provide changes or new definitions to the IALA Dictionary to the task leader prior to ARM5 (david.merrill@uscg.mil). 14
17. **ARM members** are requested to provide input on issues and best practices on the use of pictograms prior to ARM5 to the Committee Secretary (wim.vdh@iala-aism.org). 14
18. **Per Engberg** from Gatehouse was asked to issue a new software version of IWRAP mk3 before July 1st 2016. 16
19. **Per Engberg** was asked to continue to liaise with Gatehouse and Pr. Peter Friis-Hansen on developing a consequence module for IWRAP Mk2 and report on progress at ARM5. 16
20. **Stephen Bennet**, the vice-dean of the WWA, was asked to draft a new IALA Guideline / Model Course on the SQUART method and submit this as an input to ARM5. 16

21. **Stephen Bennet**, the vice-dean of the WWA, was asked to provide a paper on the need to update IMO Circular 296 to reflect the fact that the IALA Risk Management Toolbox soon will have SQUART as a new toolbox component. 16
22. **Stephen Bennet**, the vice-dean of the WWA, was asked to draft a new IALA Guideline / Model Course on the PAWSA based on ARM4-10.1.3 and submit this as an input to ARM5. 16
23. **Ernst Bolt** was asked to forward the report on comparison between IWRAP and SAMSON to ARM5. 17
24. **Ernst Bolt** was asked to keep the Committee informed on the development of the OPEN-RISK project proposal. 17
25. **Omar Frits Eriksson** and **Knud Benedict** were asked to continue to contribute to the full SAFEMOP project proposal on behalf of IALA and report on progress at ARM5. 17
26. **WG3 members** are invited to provide contributions to a simple “Beginners Guide to the IALA Risk Management Toolbox” as input to ARM5. 17
27. **Jorge Teles** is requested to pass the data to the Secretariat (complete). 19
28. **Members** are requested to provide photographs for the NAVGUIDE. 19

ANNEX G STANDARDS, RECOMMENDATIONS, AND GUIDELINES

Note by the Secretariat dated 22 April 2016

1 BACKGROUND

The hierarchy and definitions of technical documents were agreed at Council session 59, December 2014, and a set of seven initial Standards was approved by Council at its 61st session, December 2015.

2 STANDARDS

IALA Standards form a framework, implementation of which by all coastal states will harmonize marine aids to navigation worldwide. IALA standards cover technology and services and are non-mandatory. The exact format of a Standard is ongoing work, but a Standard will list the Recommendations (normative Recommendations) that should be followed in order to claim compliance with that Standard. A Standard may also refer to non-normative Recommendations.

3 RECOMMENDATIONS and GUIDELINES

A simple reminder is that a Recommendation should state “what to do” and a Guideline should state “how to do it”.

Recommendations and Guidelines should refer to the IALA Dictionary for the definition of terms, and should carry a clause to this effect.

3.1 Recommendation

- A Recommendation is a short document, typically a few pages in length, recommending one or more essential practices
- Each essential practice should be described simply and clearly, in wording appropriate for management level, with minimum or no technical content
- An Annex may be used if supporting technical content is necessary, but it should not contain the recommended essential practice(s), which should be in the body text

This format description should be applied in a flexible manner to take account of the needs of the various Recommendations, the variety of technology with which we deal, and the fact of existing (legacy) documents where the format may not be ideal but will suffice for the present time.

3.2 Guideline

- A Guideline is a technical document describing how to carry out a specific practice
- A Guideline will generally be linked to a Recommendation, and contain best practice and technical detail, possibly amplified by figures, graphs, equations, and similar
- An Annex may be used if historical information, background, or other supplementary information is required

4 INTRODUCTION OF NEW NUMBERING SYSTEM

A new numbering system will be introduced to cover Standards, Recommendations, Guidelines, Manuals, and Model Courses. This will commence on 01 August 2018, following the expected approval of the first Standards by the General Assembly in 2018.



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