

**Report of the 17th Session of the IALA ANM Committee**

**17 to 21 October 2011**

***Executive Summary***

* 37 members attended this meeting of the ANM Committee, 5 for the first time;
* The Committee considered 44 input papers;
* The Committee produced:
* draft revised Recommendation O-113;
* two proposals for workshops (one a revision);
* a draft Guideline on Technical Features and Technology relevant for simulation of AtoN for review by EEP18;
* a draft Guideline on the use of Audible Signals as AtoN for review by EEP18;
* a draft revised Recommendation O-104 for review by EEP18;
* 7 other liaison notes.
* A draft new guideline on the use of audible signals as aids to navigation was approved for sending to EEP for input by ANM18.
* Significant progress was made in developing a new supplementary guideline to Guideline 1058 to provide technical detail on ensuring appropriate components and quality for AtoN features used in simulation equipment;
* A draft revised guideline on the use of Off-Station Signals for Major Floating Aids to Navigation was approved for sending to EEP for input by ANM18;
* Items are beginning to be identified for the 2014 – 2018 Work Programme (section 11);
* Inter-sessional work is planned, by correspondence, on Recommendation O-139, virtual AtoN, e-Navigation developments and the draft Guideline on Daymarks, from EEP;
* Working Group 1 (WG1) has a number of tasks that relate to the development of e-Navigation and it is essential that there be an effective liaison between this group and WG1 of the e-NAV committee;
* The Committee marked the half century achieved by the Secretary and designed a new IALA tie based on the RAL swatch (Annex H);
* Changes to the Work Programme were proposed (Annex G):
* An increased number of tasks are now planned to run for the remainder of the Work Programme to take into account developments at IMO and in other bodies.

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Report of the 17th Session of the IALA ANM Committee

# General

The 17th meeting of the **ANM Committee** was held from 17 to 21 October, 2011 at IALA, with Phil Day as Chairman and Roger Barker as Vice Chairman. The Secretary for the meeting was Mike Hadley.

Apologies were received from:

|  |  |  |
| --- | --- | --- |
| **NAME** | **ORGANIZATION** | **COUNTRY** |
| Jakob Bang | DaMSA | Denmark |
| Christian Rissone | ITU |  |
| Michael Skov | DaMSA | Denmark |

The Chairman opened the meeting by introducing himself and the acting Vice Chairman, whom he thanked for stepping in at relatively late notice. He then extended a warm welcome to all the participants to ANM17, particularly those attending for the first time.

The Chairman then asked the members to introduce themselves

## Administrative Announcements

Mike Hadley provided information on health and safety other administrative details.

The Chairman thanked the Secretariat for the information provided.

The Chairman then ran through the programme for the week (Paper ANM17/1/2 refers). Jean-Luc Fontan then briefed the meeting’s social programme before the Chairman reviewed the week ahead.

## Approval of the Agenda

The agenda (paper ANM17/1/1 rev4) was reviewed and adopted.

# Review of Action Items from ANM16

All action items were reviewed; paper ANM17/2/1 rev1 refers.

## Action Items – IALA Secretariat

It was noted that all were complete, with the exception of Action 32 (The Secretariat is requested to consider the provision of previous results of Annual Questionnaires on the IALA Committee website.). It was explained that, although there was no problem ‘in principle’, discussions needed to take place between the Secretary and Jorge Teles and that account had to be taken of the overall plan to revise the website.

Action items

The Secretariat is requested to consider the provision of previous results of Annual Questionnaires on the IALA Committee website.

Jorge Teles is requested to discuss the mechanics of incorporating the previous results of Annual questionnaires with Gwénola Josse.

## Action Items – ANM Committee Members

The Chairman then ran through the action items arising from ANM16 attributed to the Committee members. The following points were noted:

Action 36. Raven Kurtz has found it impossible to provide an official English translation of the recommendation and so the action is closed.

Action 37. Jakob Bang provided the following statement.

In order to gather some information about the topic, we posted an e-mail to committee members on the 6th of September 2011 and asked for information about experienced difficulties in loading AIS data into the IWRAP Mk2 model.

We only received 3 replies to the question, and based on these few answers it is difficult to conclude how comprehensive the difficulties are. In DaMSA we have not experienced any difficulties. We extract data from our AIS database in csv-format (Comma Separated Values File format), and the IWRAP program accept this format without any problems.

Bjørn from Norway described some problems they have discovered, and we have sent their description to Gatehouse, the company who develops the IWRAP Mk2 program. Additional information about loading data into the model, can be found in the help menu in the IWRAP model, and also the at IALA IWRAP Wiki site at this web address: <http://www.ialathree.org/iwrap>, which contains valuable information about IWRAP.

Action 39. Marek Ledochowski will include ePelorus in his report at ANM18.

Action 43 remains open.

Action items

The Chairman and Vice Chairman of the ANM Committee are requested to progress the development of the Marine Spatial Planning questionnaire.

# Review of input papers

The list of input papers (ANM17/3/1 rev4) was noted.

The input papers were reviewed, briefly. It was noted that some papers do not require a reaction from the Committee and that the priority of some may need to be judged against the requirements of the Work Programme. Particular attention was paid to the Information Papers.

# Reports from other bodies

The Secretary reviewed the reports of the 51st session of the Council. Jean-Charles Leclair the report from IMO MSC89 and the report from IMO NAV57. The Chairman reviewed the outcome of PAP20 and the IALA Strategy documents

## IALA Council 51st session

ANM17/4/1 refers.

From the report, the Committee noted:

* The comments and decisions regarding ANM16;
* Approval of the Model Course on Aids to Navigation - Level 2, Technician - Mooring;
* Fixed and Floating Aids Workshop;
* Approved changes to the Committee’s Work Programme;
* Discussion about the IALA Risk Management Toolbox;
* Discussion about the IALA World-Wide Academy.

## Report of IMO MSC89

ANM17/4/2 refers.

From the report, the Committee noted the:

* Increase of acts of piracy;
* Slow implementation of LRIT;
* Decision of the Committee to open a new agenda item on the protection of the VHF data link and the suggestion for IALA to propose a revised text of the Resolution MSC.140(76);
* Approval of the ‘IMO Instruments Implementation Code (III Code)’, subject to the adoption by a future IMO Assembly, which contained an obligation for coastal States to monitor their coastal waters traffic, at least for statistical purposes;
* Decision to revise the General Provision on Ships’ Routing and the proposal to introduce the IALA Risk Management Tool in the new draft.

## Report of IMO NAV 57

ANM17/4/3 refers.

From the report, the Committee noted the:

* Development of e-Navigation;
* Creation of a correspondence group for the development of policy and new symbols for AIS AtoN;
* Decision not to introduce any VTMIS in the Polar Code developed by IMO.

## Report of PAP21

ANM17/4/4 refers.

From the report, the Committee noted the:

* Proposal supported to reallocate WG1 (Operations) and WG6 (portrayal for the e-NAV Committee to the ANM and VTS Committees respectively;
* Significant discussions concerning VTM; setting up of Correspondence Group to report to PAP and then the IALA Council;
* Update on the IALA World-Wide Academy;
* Review of 2010 – 2014 programme, including meeting dates, workshops / seminars programme;
* Review of workshop proposals;
* Advice on dealing with nations reservations and requests;
* Guidance on the holding of inter-sessional meetings;
* Request to provide IALA strategy a little earlier;
* Process for future handling of the Annual Questionnaire;
* Forwarding of draft revised IALA Committee Rules of Procedure and the revised IALA Document Quality Assurance Process to LAP.

# Reports from Rapporteurs

Where provided, presentations made during this agenda item form part of the output of the meeting and are on the FTP server.

## Risk Management and Risk Models (M1)

Jakob Bang was unable to be present but provided the following notes.

* In order to improve the information gathering on the item, a new questionnaire was sent to committee members. The questionnaire was activated 15 times, but only 6 members completed the questions. Based on these few answers we may conclude that IWRAP MKII is not a piece of software which is used in many administrations, and it is necessary to continue the promotion of the product. This can be achieved by for instance publication of modeling results from  the program, continue the workshop etc.
* A new version 3.4.0 of IWRAP MK II was released 12 September 2011, including the following new features:
* A Ship filter is added to the density plot, making it possible to specify which ships should be included or removed.
* A red arrow in each direction of a leg is now used to indicate that there is something to be done i.e. adding traffic or adding distributions.
* A red marker with a question mark is used to indicate if two legs cross without having a waypoint.
* DaMSA have used IWRAP MK II operational after an incident in August 2011, when a container vessel collided with an offshore lighthouse in Langelands Belt. The results of the modeling is attached this e-mail.

Roger Barker noted that, in IWRAP Mk2, progress is being made with the ability to input and see the results of mitigating measures for causation factors relating to AtoN.

## IALA Questionnaire (M2)

Jorge Teles gave a presentation on the 22 responses received to the 2011 IALA Annual Questionnaire.

It was noted that the results are available in .pdf form and via WEBGIS, from <http://websig.hidrografico.pt/iala/>. Members were invited to comment about the layout but asked to do so before 18 November.

The following had been noted

* Increase in:
* Small and major floating buoys lighted (not medium)
* Remote controlled lights (only intentions)
* Leading lights (only intentions)
* Led lights (strong tendency)
* Plastic buoys (strong tendency)
* Decrease in:
* Major/medium/small unlighted floating AtoN’s
* Sound signals:
* No clear trend.
* Performance indicators:
  + 17 countries use them (from 20) – 85%
* Risk management tools:
  + 10 countries use them (from 20) – 50%

Members were urged to complete the 2011 IALA Annual Questionnaire, when it is released.

Action item

Committee members are requested to comment to Jorge Teles on the layout of the analysis of the 2010 Annual Questionnaire, on <http://websig.hidrografico.pt/iala/> before 18 November 2010.

## Offshore man-made structures (M3)

Raven Kurtz made a presentation an overview of international developments in offshore renewable energy infrastructure (OREI), both in wind farms and non-wind farms. The questions raided by the marking of off-shore wind farms (OWF) and their impact on marine spatial planning and the use of simulation. The questions raised were stated to be:

* Requirement of fog signals;
* Use of AIS;
* Horizontal angel of lights;
* Lighting of inner structures;
* Unified numerical marking of structures for search and rescue reasons;
* Use of inverse illumination for short range marking;
* Use of RACON;
* Synchronisation and harmonisation of all signal- and warning lights;
* Use of simulations for different marking models.

Considerations during the spatoal planning process were given as:

* Indentifying a safe distance to TSS and major shipping routes.
* Identifying and committing to major shipping routes.
* Modifying existing Routeing Measures (TSS) and establishing new TSS in conjunction with OWF to improve the safety of navigation.
* Investigating and considering:
* safe navigational space between OWF (simulation);
* the risk of collision and pollution;
* existing and proposed traffic in the area;
* new conflict points (corners, crossing routes, increase of traffic density;
* different measures to improve the safety of navigation.

Attention was drawn to <http://en.wikipedia.org/wiki/List_of_offshore_wind_farms>, from which much of the information presented had been derrived.

In response to a query about whether Virtual AIS had been used to mark OWF it was said that use would be limited by the current cariage requirements, which preclude all vessels being able to see them or see them in a readily distinguishable form. Concern was expressed about the the use of Racons for marking OWF, as trials have indicted increased interference with radar.

## Development of e-Navigation within AtoN Authorities (M4)

Gerry Brine gave a presentation covering:

* e-Navigation Architecture – design and implementation guidance update;
* including the outcomes from:
* the e-NAV10 Committee meeting
* IMO NAV57
* e-Navigation developments in member countries

AMSA’s Under Keel Clearance Management (UKCM) system in the Torres Strait was covered in some detail and is considered one of the existing e-Navigation test beds.

* Proposed IMO Common Maritime Data Structure including AtoN metadata standards:
* Description of the IHO GI Registry, including the IALA domain
* Notification of the 2012 ‘e-Navigation Underway’ Conference.

In response to a query about the density of wave rider buoys used in the AMSA UKCM system, it was stated that there are two buoys at the entrance to the channel but that, in addition, there are also 5 fixed tide gauges, a current meter and an automatic weather station.

## Development of e-Navigation for AtoN users (M5)

No report was made.

## Development of mobile marine products for AtoN users (M6)

Marek Ledochowski said that he had had 8 responses from members, with some focus on portable pilot units (PPU). He had received comments on applications for iPad and iPhone but not, so far, on Android telephones. He said that he hoped to have more to report at future meetings.

The Chairman thanked the rapporteurs for their contributions and reminded the Committee that they have been asked to provide relevant input to the rapporteurs 8 weeks before each meeting.

Action item

Members are requested to provide relevant input to the Committee rapporteurs 8 weeks before each meeting.

Hendrik Eusterbarkey then indicated that, in relation to ongoing work on IALA Recommendation E-108, he had a RAL colour swatch for each member and asked that they ensure that they had received one before the end of the plenary session. He outlined the colour uses and the swatch limitations.

# Presentations

Copies of all presentations have been posted on the FTP server.

## IALA World-Wide Academy (WWA)

Jean-Charles Leclair asked that Committee members consider joining the IALA list of experts, which is being overhauled. In his presentation on the development of the WWA, Jean-Charles Leclair explained that, if the Council agrees, capacity building activities, in which training is an important part, will be included within the scope of the Academy. IALA has started to cooperate with other international organisations on the subject to improve harmonisation and co-operation of their respective actions regarding safety of navigation, an inter-organisations meeting will be held at the end of October at IALA Headquarters on the capacity building topic with the participation of IMO, IHO, WMO, IOC and IAEA. He then encouraged the Committee to look at their own work and personal expertise to see if they could provide a model course each. Having said that care is being taken that the work of the WWA does not impinge on the activities of Industrial members, that at EEP17 it had become clear that co-operation with industrial members, rather than conflict, was seen as the way forward by the President of the IMC, who had said that she felt that the roles of both parties naturally overlapped and that the Committees and the IMC should work together.

## IMO Correspondence Group on AIS AtoN

The aim of the presentation was to introduce the present situation of the IMO Correspondence Group of AIS Aids to Navigation (AIS-AtoN).

The 57th session of the NAV Sub-Committee of IMO decided to establish a Correspondence Group on AIS-AtoN in order to develop the first draft of IMO policy on AIS-AtoN. Cdr Hideki NOGUCHI of Japan Coast Guard was assigned as the Co-ordinator. At first, the Correspondence Group chose topics which the IMO policy would cover in its report. These were definition, application or usage, performance standards, operation/ management, monitoring, risk and limitation, portrayal and training.

At present, the Correspondence Group is discussing the definition of AIS-AtoN. There have been three proposals from the members. The first one comes from the US and CIRM and uses the IALA Recommendation A-126, quoting the types of AIS-AtoN and is based on the IALA Maritime Buoyage System. Canada proposed to use the definition of IALA Recommendation O-143 on virtual AtoN that widens the concept of AtoN from the conventional one, which normally provides positioning or point information to a new one which includes line, area and other objects. The proposal of Denmark is more a progressive one and defines a new type of AtoN, e-AtoN ‘*an electronically enhanced Aid to Navigation’.* The Correspondence Group is now waiting for the comments to these proposed definitions.

## Design and Review Methodology for Short-Range Aids to Navigation Systems

John Festarini summarised the services provided by the Canadian Coast Guard (CCG), gave an overview of the design and review methodology for Short-Range Aids to Navigation Systems, looked at Geographic Information Systems and what may lie in the future.

The CCG is responsible for:

* Aids to navigation;
* Icebreaking;
* Channel maintenance;
* Search and rescue;
* Environmental response;
* Marine communications and traffic management service;
* Support for other departments and agencies.

The CCG has almost 6000 fixed aids to navigation and 11,000 floating aids to navigation, which are maintained through various methods ranging from CCG (fixed 97% and floating 58%) external service providers, (fixed 3%, floating 41%), and various partnerships (fixed 0.3%, floating n/a)

Turning to its design methodology, it was explained that its purpose is to align system design and implementation with national policies and directives in a manner that can improve consistent application across the country. This is achieved by identifying and assessing the level of risk and then properly ascertaining the correct aids or combination of aids to mitigate those risks. Currently the goal is to have each system reviewed cyclically every 5 years. There been work started to develop a plan to create varying review periods based on the rate of change, key triggers and various other factors and the affects that they would have on the degree of risk navigating those waterways.

John Festarini then covered cyclical review, the inventory of site specific conditions, needs analysis, the evaluation of threats, operational analysis and cost benefit analysis.

With regard to GIS, he said that GIS is a tool that is being used across the country, this tool allows for easy data manipulation, layer enhancements and can be used to aid in visual comparisons. This tool aids in the design process and can be an effective tool when consulting with clients. The ease at which visual, aural or radar ranges can be plotted, moved and transferred on a chart makes this tool truly indispensable.

With an eye on the future it was said that the methodology was created in 1989 with marginal updates in 1993 and 2001. As part of looking to the future, the CCG is conducting a thorough review and update of the methodology in order to modernize it and better reflect the current reality of marine navigation. The review and update must take into consideration the current economic climate as resources are more limited than ever before; both people and assets and more formal cost benefit analysis techniques are to be included. Prioritizing high-risk systems will allow it to focus its attention on aids to navigation systems in areas of the country that need it the most. Finally, the merits of using virtual aids to navigation are being investigated. A generally accepted approach is to identify areas where users have the capability and equipment needed for virtual aids and overlaying them on top of traditional aids. Investigations are also taking place into various tools that have potential uses in aids to navigation system design, such as simulator tools that may aid in the training of new design officers, or the design of complex channels.

Following the presentation discussions ensued regarding the review methods used in a number of countries. There appeared to be a common approach to having a 5 year review together with ongoing assessment of local requirements as changes emerge.

The Chairman commented that in the current financial climate cost was something most organisations were having to give increased focus. The Canadian approach to cost benefit analysis would be of great interest once it is more mature.

The Chairman thanked all the presenters.

# Establish Working Groups

The Chairman outlined the procedure to be followed by working groups, including the associated paperwork, after which two working groups were established and their tasks outlined.

|  |  |
| --- | --- |
| Working Group (WG) | Working Group Chairman / Vice Chairman |
| WG1 – Navigational Requirements | Roger Barker / Jorge Teles |
| WG2 – Continuous Improvement | Gerry Brine / Bjorn Erik Krosness |

# 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 ANM 17 including working papers and potential output papers. For that purpose the 16 members of WG1 were assigned to the 6 tasks described below.

## Produce guidance for Aids to Navigation Authorities on the user requirements and practical applications of e-Navigation, from berth to berth. (Task 1\*)

Task Leader: Robert McCabe Assistant Task Leader: Marek Ledochowski

After the development of the architecture of the guideline (accomplished at ANM 16), the WG continued to develop its content, resulting in a working document (ANM17/WG1/WP1) that will be carried over into ANM18 for continued development and refinement.

Action Item

The IALA Secretariat is requested to forward ANM17/WG1/WP1 to ANM18.

WG members are requested to review ANM17/WG1/WP1 and be prepared to comment on it at ANM18.

## Develop Recommendations on AtoN standards and navigational requirements in risk control measures included in e-Navigation (this would include a revision (or a replacement) of the existing Recommendations and Guideline on risk management). (Task 2\*)

Task Leader: Scott Smith Assistant Task Leader: Johan Pettersson

The WG recommends rewording the task description to read: ‘Review and update the existing IALA Guideline 1018 to include the impact of advances in e-Navigation on risk control measures’.

The WG has produced two working documents (ANM17/WG1/WP2 and ANM17/WG1/WP3) that will be carried over into ANM18 for continued development and refinement. These documents identify the areas in need of updating in IALA Guideline 1018, which will be more fully developed over the next several sessions, taking into account developments from the IMO and the IALA e-Navigation committee.

Action Item

The Secretariat is requested to forward ANM17/WG1/WP2 to ANM18.

The Secretariat is requested to forward ANM17/WG1/WP3 to ANM18.

## Develop guidance on the application of maritime surface picture (e.g. AIS traffic data) for analysis in risk assessment and the provision of Aids to Navigation (Task 3\*)

Task Leader: Roger Barker Assistant Task Leader:

Pursuant to the overall workload management of the group, this task was put on hold for this session and will be resumed at ANM18.

Action Item

The Secretariat is requested to forward ANM17/WG1/WP4 to ANM18.

The Secretariat is requested to forward ANM17/WG1/WP5 to ANM18.

## Develop guidance for AtoN Authorities in the use of Virtual Aids to Navigation assessing their use and contribution to safety of navigation (Task 4\*)

Task Leader: Hideki Noguchi Assistant Task Leader: Khalil Al Balushi

The WG worked in the review and update of IALA Recommendation O-143, resulting in working document ANM17/WG1/WP6 which will be revised at next session. The WG also produced a working paper (ANM17/WG1/WP7) with a comprehensive analysis of IALA Guideline 1062, to be further developed at ANM18. It is proposed that this task be extended until ANM20 to take account of the outcome form workshops.

Action Item

The IALA Secretariat is requested to forward ANM17/WG1/WP6 to ANM18.

The IALA Secretariat is requested to forward ANM17/WG1/WP7 to ANM18

Committee members are requested to consider the issue of temporary & permanent VAtoN and be prepared to discuss it at ANM18.

## Consider the IMO Wreck Removal Convention and its implications for AtoN Authorities and States. Develop a Recommendation for IALA Members including guidance on marking ‘floating wreckage’, taking into account existing IALA guidance (Task 5\*)

Task Leader: Jorge Teles Assistant Task Leader: Owen James

The WG developed a draft Recommendation (ANM17/WG1/WP8), which will be revisited at ANM 18 to incorporate the plenary positions on the following subjects:

1. Appropriateness of prescribing the type of MBS mark to be used, with specific regard to a special (yellow) or the emergency wreck marking (blue and yellow).
2. As it pertains to the use of virtual AtoN, the perceived need for symbology difference for fixed versus floating hazards and obstructions (wreckage).
3. Requirements for position monitoring and position integrity, as they pertain to drifting hazards and obstructions, when marking with a virtual AtoN.

Action item

The Secretariat is requested to forward ANM17/WG1/WP8 to ANM18.

## Review IALA Recommendation O-139 on the Marking of Man-made Off-shore structures (Task 12\*)

Task Leader: Raven Kurtz Assistant Task Leader: Mats Horstrom

An exhaustive review of this Recommendation identifying several areas of note mainly related to the former recommendations O-114, O-116, O-117 and O-131 was made. This task will ensure that all provisions listed in those references have been appropriately considered and incorporated into O-139.

Receipt was acknowledged of paper ANM17/8/3 from e-NAV10. The contents will be taken into account during the revision of IALA Recommendation O-139.

A working document has been developed (ANM17/WG1/WP9) and will be forwarded to ANM18 for further work.

It was noted that a previous document had been submitted to IMO (SN/Circ.62 1971) and that consideration would need to be made about the current document, when finalised.

Action Item

The IALA Secretariat is requested to forward ANM17/WG1/WP9 to ANM18.

The IALA Secretariat is requested to forward SN/Circ.62 to ANM18.

## Input Papers reviewed by Working Group 1

### 8.7.1 ANM17/8/11 PIANC letter WG 161 – Interaction between offshore wind farms and maritime navigation.

This document asks for the designation of an IALA expert to be part of the PIANC WG 161 and a draft response was prepared (ANM17/output/6).

Action item

The IALA Secretariat is requested to respond to PIANC, based on the Liaison Note (ANM17/output/6).

The IALA Secretariat is request to forward ANM17/WG1/WP10 to ANM18

### 8.7.2 ANM17/8/12 ToR for PIANC WG 161

The Terms of Reference for the PIANC WG 161 state that the objective of the PIANC WG is to develop recommendations and guidelines on:

* The distance between offshore installations and navigation routes;
* The required manoeuvring space in the vicinity of offshore wind farms.

This paper, which does not require an output, was duly noted.

## Additional documents received by Working Group 1

The Korean delegate introduced a new document (ANM17/WG1/WP11), concerning a request to review and update IALA guideline 1033, in order to incorporate provisions for specific WIG AtoN.

This document will be sent to ANM18 for consideration as the whether it could be fitted into the existing Work Programme or be input to the 2014 ~ 2018 Work Programme.

Action item

The IALA Secretariat is requested to forward ANM17/WG1/WP11 to ANM18.

## Working papers

Eleven working papers were produced and will be forwarded to ANM18.

# Working Group 2 – Continuous Improvement (WG2)

The WG contained 18 members of which three were attending an IALA Committee meeting for the first time.

Work commenced with a review of the tasks assigned to WG2 and the related input papers submitted. The Chairman and Vice-Chairman provided clarification on what work needed to be completed at ANM 17. This included working papers for input to ANM 18 and potential output papers (either Recommendations and Guidelines for Council approval or liaison notes to other Committees).

The Chairman advised that the priority outputs for the WG2 at ANM 17 were to:

* Finalise Recommendation O-113 on the marking of fixed bridges over navigable waters (Task 10).
* Provide to EEP Committee an updated draft Recommendation O-104 of 1998, for off station Signals for Major Floating Aids to Navigation and extended to considerations of Buoys of Primary Navigation Significance (BPNS) and so called Superbuoys (Task 11).
* Finalise a draft Guideline for forwarding to the EEP Committee on the use of audible signals as aids to navigation and on their future – (Task 14)
* Achieve good progress on Task 9 - Develop guidance for AtoN Authorities on level of service and changing user requirement; such as need for landfall lights and unlit AtoN.

The WG established new or reconvened existing specialist task groups, each with a dedicated Task Leader, to progress individual agenda Items. New task leaders were required for the following tasks due to the absence of Kiru Coopoo:

* Review ANM Recommendations & Guidelines (Task 16) – John Festarini;
* Review IALA Recommendation O-104 of 1998, for off station Signals for Major Floating Aids to Navigation and extended to considerations of Buoys of Primary Navigation Significance (BPNS) and so called Superbuoys (Task 11) – Robert Trainor.

## Co-ordinate a limited review of the IALA NAVGUIDE, to incorporate amended Recommendations and Guidelines and other necessary updates (Task 6\*)

Task Leader: John Festarini Assistant Task Leaders: Robert Trainor/Martin Bransby

The following input papers were provided:

|  |  |
| --- | --- |
| ANM17/9/11 | Liaison note from e-NAV10 on NAVGUIDE |
| ANM17/917 | Liaison note from EEP17 on the NAVGUIDE |

The liaison notes from the other committees on timing of their input were reviewed and reflected in the updating of the action plan and the timetable for the revision of the NAVGUIDE. Editing responsibilities for the ANM chapters were allocated and a number of sections were reviewed and edited as appropriate.

A liaison note was prepared for distribution to all IALA Committees together with the action plan and timetable, requesting Committee Chairs provide photographs and other graphical input to the IALA Secretariat for consideration for inclusion in the NAVGUIDE.

Action item

The Secretariat is requested to forward ANM17/output/7 (the liaison note on the NAVGUIDE, to all other Committees and the Secretariat for their information/action.

The Secretariat is requested to forward ANM17/output/8 (the timetable for the NAVGUIDE), to all other Committees and the Secretariat for their information/action.

The Secretariat is requested to forward ANM17/output/9 (the action plan for the NAVGUIDE), to all other Committees and the Secretariat for their information/action.

Committee members, as nominated in ANM17/output/9 are requested to carry out the tasks allocated to them.

## Develop guidance on issues derived from revision of the MBS, such as the clarification of auxiliary marks, including examples of those debated during the consultation and drafting process (Task 7\*)

Task Leader: Bjoern Erik Krosness Assistant Task Leader: TBC at ANM 18

Although this task is scheduled to be undertaken during Sessions 18-20 the Working Group Chair and Vice–Chair clarified with the Committee Chair that the scope of this task was to:

* Ensure other IALA documentation which referenced the MBS had been updated as appropriate.
* Determine how best to provide guidance to IALA members on various issues raised on the MBS consultation process noting that the MBS was not being revised.

The following input paper was provided:

|  |  |
| --- | --- |
| ANM 17/9/8 | 2010 IALA MBS booklet |

Informal comments were provided by Spain and will be addressed in undertaking the task.

Action item:

The Secretariat is requested to provide an electronic copy of the MBS Guidelines as an input paper to ANM18.

## Produce Quality Management and Training guidance for AtoN services and service providers in an e-Navigation environment, in support of the IALA World-Wide Academy. Review IALA Guideline 1052. (Task 8\*)

Task Manager: Martin Bransby Assistant Leader: Robert Trainor

Progress on this task is tied to a large extent with the development of e-Navigation. The work during ANM 17 was confined to reviewing the following input papers received from EEP Committee:

|  |  |
| --- | --- |
| ANM 17/9/12 | Example Level 2 model course |
| ANM 17/9/13 | Overview for IALA model course on Lights |
| ANM 17/9/14 | Model course E-141-2 Senior Management training |

The Dean of the World Wide Academy Jean-Charles Leclair provided a briefing on the progress achieved with development of these model courses and how they would be implemented.

A liaison note (ANM17/output/12) was prepared providing comments on the content of the senior AtoN Manager’s model course (ANM17/output/19). The outline of the Lights model course was considered appropriate and this was noted in the liaison note.

Action item:

The Secretariat is requested to forward ANM17/output/12 (Liaison note on Model course E-141-2 Senior Management training to the EEP Committee and Jean-Charles Leclair.

The Secretariat is requested to forward ANM17/output/19 (the amended course document for Model course E-141-2 Senior Management training) to the EEP Committee and Jean-Charles Leclair.

## Review and update Guideline 1004 for AtoN Authorities on level of service and changing user requirement; such as the need for landfall lights and unlit AtoN (Task 9\*)

Task Leader: Bjoern Erik Krosness Assistant Task Leader: John Festarini

The task prepared a scoping document to guide its work that identifies the objectives of the guideline and the range of issues that need to be examined in order to ensure it provides relevant information to AtoN authorities in an environment of increasing stakeholder scrutiny and financial constraints.

John Festarini’s presentation at ANM17 on the methodology for the Canadian Coast Guard’s risk assessment model that is provided in the Annex to the current Guideline was an important input to the WG’s consideration.

The key conclusion reached was that the current guideline was inconsistent in terms of varying levels of detail and duplication of other relevant IALA guidelines such as the risk management guideline. There was a need to focus at the higher level issue of level of service and the planning and review statements and processes that enable Competent Authorities to determine appropriate levels of service.

Action item

ANM members are requested to canvass their organisations and stakeholders about the utility of IALA guideline 1004 and provide input inter-sessionally Bjoern Erik Krosness in time for consideration at ANM18.

The Secretariat is requested to forward the scoping paper (ANM17/WG2/WP1) and the draft revised guideline (ANM17/WG2/WP2) to ANM 18.

## Develop and update of IALA Recommendations O-113 on the Marking of fixed bridges over navigable waters, also considering the marking of overhead power lines (Task 10\*)

Task Leader: John Festarini Assistant Task Leader: Christine Clark-Maudsley

The following input paper was provided:

|  |  |
| --- | --- |
| ANM 17/9/1 | Draft Revised Recommendation O-113 |

The draft guideline was given a final quality review. The diagrams were improved with the help of the IALA Secretariat. The task description needs to be amended to reflect previous agreement by the Committee to exclude guidance on the marking of overhead power lines which was proposed be the subject of a separate task in the 2014-2018 work program.

Action item

The Secretariat is requested to forward ANM17/output/3 (Recommendation O-113 on the Marking of fixed bridges over navigable waters) to the IALA Council, to approve.

## Review IALA Recommendation O-104 of 1998, for off station Signals for Major Floating Aids to Navigation and extended to considerations of Buoys of Primary Navigation Significance (BPNS) and so called Superbuoys (Task 11\*)

Task Leader: Robert Trainor Assistant task leader:

In the absence of the task leader Kiru Coopoo the review of the current guideline continued. A key issue was to examine the continued relevance of the references to the Lisbon Agreement Concerning Manned Lightships not on their Station of 1930 in the current version.

The term superbuoys was considered to be unhelpful and revised wording reflecting large buoys not primarily used for navigation purposes was inserted. A reference was inserted regarding the option for AIS AtoN on buoys to issue a message to indicate when the buoy is off-station.

A draft Guideline (ANM17/output/18) for review by the EEP Committee and an associated liaison note (ANM17/output/17) were produced.

Action item

The Secretariat is requested to forward ANM17/output/17 (liaison note on draft revised Recommendation O-104) to the EEP Committee.

The Secretariat is requested to forward ANM17/output/18 (draft revised Recommendation O-104)) to the EEP Committee.

## Co-operate with the other committees in the project for AtoN Status / information exchange and associated metadata (Task 13\*)

Task Leader: Gerry Brine Assistant Task Leader: Martin Bransby

This task involves reviewing e-NAV Committee documentation and undertaking a gap analysis and preparing appropriate input from ANM to e-NAV.

The following input paper was provided:

|  |  |
| --- | --- |
| ANM 17/9/7 | e-navigation Architecture ‘PictureBook’ Information Paper e-NAV 140 |

The document was reviewed and a liaison note to the e-NAV Committee prepared (ANM17/output/10).

Action item

The Secretariat is requested to forward ANM17/output/10 (liaison note on e-navigation Architecture ‘PictureBook’) to the e-NAV Committee.

The Secretariat is requested to forward ANM17/output/11 (the marked-up e-navigation Architecture ‘PictureBook’ information paper) to the e-NAV Committee.

## Examine the use of Audible Signals as aids to navigation and develop an IALA Guideline on their future – in conjunction with the EEP Committee (Task 14\*)

Task Leader: Robert Trainor Assistant Task Leader: John Festarini

This new guideline will allow the amount of detail in the NAVGUIDE to be significantly reduced.

A scoping document developed at ANM 16 provided the basis for the development of the draft guideline developed at ANM 17 (ANM17/output/16). An associated liaison note (ANM17/output/15) was produced..

Action item

The Secretariat is requested to forward ANM 17/output/15 (liaison note on Audible Signals as AtoN) to the EEP Committee.

The Secretariat is requested to forward ANM 17/output/16 (draft guideline on Audible Signals as AtoN) to the EEP Committee.

## Review ANM Recommendations & Guidelines (Task 16\*)

Task Leader: John Festarini Assistant Task Leader:

This task involves undertaking a cyclical review of all ANM Guidelines and Recommendations during each 4-year work programme. Specific document reviews already in the work programme form part of the performance of this task.

An updated plan for the review of ANM Recommendations and Guidelines was produced (ANM17/WG2/WP3). No progress in reviewing actual documents was possible at ANM 17.

Action item

The Secretariat is requested to forward (ANM17/WG2/WP3) to ANM 18.

## Develop a supplementary Guideline to 1058 providing technical detail for simulator providers and procurers of simulation to ensure appropriate components and quality for AtoN features (Task 18\*)

Task Leader: Peter Sorensen Assistant Task Leader: Peter Jensen

The following input papers were received:

|  |  |
| --- | --- |
| ANM 17/9/5 | Technical Features and Visualisation Technology Relevant for Simulation of AtoN |
| ANM 17/9/9 | Liaison note from EEP on Simulation in the Design of AtoN rev1 |

The liaison note from EEP regarding the limitations of simulators in relation to representing AtoN characteristics/colours was reviewed there was broad concurrence with the comments. It was noted that the comments reiterated previous advice from EEP. The comments were taken into account in revising the draft Guideline.

A liaison note to EEP Committee was prepared (ANM17/output/4).

Action item

The Secretariat is requested to forward ANM17/output/4 (Liaison Note on Simulation in the Design of AtoN) to EEP 18.

The Secretariat is requested to forward ANM17/output/5 (Updated draft guideline on Simulation in the Design of AtoN) to EEP 18.

The following additional input and information papers were also reviewed:

|  |  |  |
| --- | --- | --- |
| Paper # | Topic | Proposed action |
| ANM 17/9/6, ANM 17/9/10, ANM 17/9/15 | EEP are developing a guideline on the Design of Daymarks in AtoN and requested ANM input on various aspects. | Liaison Note to EEP.  ANM 17/output/6 |
| ANM17/INF/1 | Use of IALA AtoN Categories | Nil |

In response to ANM17/9/10, a response to EEP was developed as a liaison note but it was decided that this needed further work (ANM17/WG2/WP4). A liaison note about progress being made was drafted (ANM17/output/20)

Action item

The Secretariat is requested to forward ANM17/WG2/WP4 (comments on EEP paper on the design of daymarks) to the ANM18.

The Secretariat is requested to forward ANM17output/20 (Liaison note to EEP on the design of daymarks) to EEP18.

# Develop a Recommendation for navigational safety matters within Marine Spatial Planning (Task 15\*)

Due to the close proximity of EfficienSea Underway 2012 to the dates proposed in ANM16/output/4 and internal ANM work not being sufficiently mature, a revised proposal for a workshop on Marine Spatial Planning (ANM17/output/2) was produced.

Action item

The Secretariat is requested to forward ANM17/output/2 (Revised marine spatial planning workshop proposal) to Council for approval.

# Future Work Programme (2014 – 2018)

It was noted that the Council are beginning to gather items for inclusion in the 2014 – 2018 Work Programme. Proposals arising during the meeting will be raised at PAP22. Points noted were:

* Marking of overhead power cables;
* Revision of Guideline 1033 to include WIG;
* Develop guidance on portable marine devices;
* Consolidation of Recommendations and Guidelines.

Action item

The Committee are requested to further consider potential items for the 2014 – 2018 before ANM18.

The Chairman is requested to raise the potential items for the 2014 – 2018 Work programme at PAP22.

# Review of output and working papers

WG Chairmen outlined the work undertaken and both expressed their thanks to their WG members for much hard work and the progress made. The output and working papers were reviewed and their disposition agreed.

In discussion the following points were made:

It would be necessary to run Tasks 1 and 2 on up to ANM20, in order to keep track of changes occurring in other forums, including IMO and e-NAV, ensuring that these are reflected in the relevant documents.

It was agreed to reword Task 2 to read: ‘Review and update the existing IALA Guideline 1018 to include the impact of advances in e-Navigation on risk control measures’.

Regarding Task 4, there was a discussion about the issues surrounding permanent versus temporary use of virtual AIS AtoN. It was also noted that the task needed to incorporate the developments that take place regarding virtual AtoN at IMO.

With regard to Task 5, the following positions were adopted:

* The prescription of the type of MBS mark to be used, should be broad enough to allow the costal authority to choose between special marks, isolated danger or emergency wreck marking buoys;
* A reference should be included about the need to develop symbology for moving AtoN.
* A reference should be included stating that costal authorities need to have special care with position monitoring and position integrity, as it pertains to drifting hazards and obstructions, especially when marking them with a virtual AtoN.

It was emphasised that the important part of Task 12 is to ensure that the now superseded recommendations were covered in the revision of IALA Recommendation O-139.

It was decided that if IALA does decide to send a representative to PIANC WG161, it should be with the status of observer.

Working Group 2 developed 19 output papers and 4 working papers including:

* Recommendation 0-113 on the marking of fixed bridges over navigable waters was approved for submission to Council. The task description was amended to reflect that the issue of marking of overhead powerlines was considered and ANM agreed that this issue should be the subject of separate guidance proposed to be submitted as a potential item for the 2014-2018 work program.
* Significant progress was made in developing a new supplementary guideline to Guideline 1058 to provide technical detail on ensuring appropriate components and quality for AtoN features used in simulation equipment.
* A draft new guideline on the use of audible signals as aids to navigation was approved for sending to EEP for input by ANM18.
* A draft revised guideline on the use of Off-Station Signals for Major Floating Aids to Navigation was approved for sending to EEP for input by ANM18.

Despite detailed review of several input papers and significant plenary discussion, further work is required inter-sessionally to consider a number of issues in regard to the visual range of daymarks and how to balance the need to provide adequate guidance to engineers designing and constructing daymarks and retaining sufficient flexibility for Competent Authorities to determine the navigational requirements on a case by case basis.

A practical demonstration of the use of the RAL colour swatches was made by comparing a selected colour against the colours of two different graphics media, which was followed by the first showing of a new RAL design for an IALA tie.

The Committee Chairman then thanked all involved in the production of the output documents and the hard work that had gone into producing them.

# Any Other Business

## Addition of e-NAV WG1 (Operations)

It was noted that the e-NAV Committee is not, for the moment, proposing to change its structure. However, the Committee retains concerns about the essential nature of the liaison with the e-NAV Committee about user requirements.

## Data models

This topic was added to the work to be undertaken by Working Group 2 and is covered under agenda item 9.

## MBS Guidance in polar waters

It was noted that WG2 will be starting work on Task 7 at ANM18.

## Workshop – Virtual AtoN (January 2013)

A proposal for a workshop was produced (ANM17/output/13).

Action item

The Secretariat is requested to forward ANM17/output/13 (Proposal for a Virtual AtoN workshop) to the Council for approval.

## Conflict between aviation and marine marking of offshore wind turbines

Following the Chairman’s involvement in ICAO’s Visual Aids Working Group earlier in the year, it was proposed that a letter be drafted for consideration by the Secretary-General. The text is contained in a liaison note (ANM17/output/14).

Action item

The Secretariat is requested to forward ANM17/output/14 (Liaison note – proposed text of letter to ICAO) to the Secretary-General for consideration.

## Legal standing of IALA documents

It was suggested that the Legal Advisory Panel (LAP) be asked to comment on whether there is a need for a disclaimer in IALA documents.

Action item

The Chairman is requested to raise this issue at PAP22.

# Date and venue for next meeting

It is intended that ANM18 will meet between 23 and 27 April, 2012 at IALA.

# Review of session report

The report was reviewed and then approved by the Committee.

Action item

The Secretariat is requested to forward ANM17/output/1 (Report of ANM17) to the Council for approval.

# Closing of the Meeting

Noting that it had been a successful and very productive week the Chairman thanked all ANM Committee members for their hard work, which had produced such an impressive output. He said that he very much appreciated the positive approach taken at the meeting, indicated that this had much to do with the friendly atmosphere within the Committee. He also noted that it had not lost sight of the important social element of the meeting. Finally, thanks were expressed to the Secretary and the IALA staff for their cheerful and efficient support.

There being no further business, the Chairman then wished everyone a safe journey home and wished everyone well for the coming months before declaring the meeting closed.

# List of Annexes

1. Agenda

A copy of the agenda is at Annex A.

1. Participants

A list of participants is at Annex B.

1. Working Group Participants

A list of working group participants is at Annex C.

1. Input Papers

A list of input papers is at Annex D.

1. Output and Working papers

A list of output and working papers is at Annex E.

1. Action Items

A list of action items is at Annex F.

1. Revision of the Work Programme

An updated ANM Committee Work Programme for 2010-2014 is at Annex G. Changes proposed at ANM17 have been highlighted.

1. A design for an IALA – RAL tie is at ANNEX H
2. ANM17 Committee Agenda

**17th Meeting of the Aids to Navigation Management Committee**

The 17th meeting of the **ANM Committee** will be held from 17 - 21 October, 2011, at IALA.

The opening plenary will commence at 1400 on Monday, 17 October, 2011, and the closing plenary will end at approximately 1300 on Friday, 21 October, 2011.

Committee Chair, Vice-Chair and working group Chairpersons are requested to meet at 1000 on Monday, 17 October, 2011.

Work items / Tasks being addressed during this meeting are listed in the final table of Annex G of the report of the previous meeting, which was included in the initial invitation to this meeting.

Changes from ANM16.

**AGENDA**

1. Approval of the agenda
2. Review of action items from last meeting
3. Review of input papers
4. Reports from other bodies:
   1. IALA Council – 51st Session, June 2011
   2. IMO – MSC89, May 2011
   3. IMO – NAV57, June 2011
   4. PAP21 – April 2011
5. Report from rapporteurs:
   1. Risk Management and Risk Models (M1\*)
   2. IALA Questionnaire (M2\*)
   3. Offshore manmade structures (OREI) (M3\*)
   4. Development of e-Navigation within AtoN Authorities (M4\*)
   5. Development of e-Navigation for AtoN users (M5\*)
   6. Development of mobile marine products for AtoN users (M6\*)
6. Presentations:
   1. World-Wide Academy Jean-Charles Leclair
   2. IMO CG on AIS AtoN Hideki Noguchi
   3. Methodology on the design and review of AtoN systems John Festarini
7. Establish Working Groups
8. Working Group 1 – Navigational Requirements
   1. Produce guidance for Aids to Navigation Authorities on the user requirements and practical applications of e-Navigation, from berth to berth. (Task 1\*)
   2. Develop Recommendations on AtoN standards and navigational requirements in risk control measures included in e-Navigation (this would include a revision (or a replacement) of the existing Recommendations and Guideline on risk management (1018)). (Task 2\*)
   3. Develop guidance on the application of maritime surface picture (e.g. AIS traffic data) for analysis in risk assessment and the provision of Aids to Navigation (Task 3\*)
   4. Review and update guidance for AtoN Authorities, including Guideline 1062, in the use of Virtual Aids to Navigation assessing their use and contribution to safety of navigation (Task 4\*)
   5. Consider the IMO Wreck Removal Convention and its implications for AtoN Authorities and States. Develop a Recommendation for IALA Members including guidance on marking ‘floating wreckage’, taking into account existing IALA guidance (Task 5\*)
   6. Review IALA Recommendation O-139 on the Marking of Man-made Off-shore structures (Task 12\*)
9. Working Group 2 – Continuous Improvement
   1. Co-ordinate a limited review of the IALA NAVGUIDE to incorporate amended IALA Recommendations and Guidelines and other necessary updates (Task 6\*)
   2. Develop guidance on issues derived from revision of the MBS, such as the clarification of auxiliary marks, including examples of those debated during the consultation and drafting process (Task 7\*)
   3. Produce Quality Management and Training guidance for AtoN services and service providers in an e-Navigation environment, in support of the IALA World-Wide Academy. Review IALA Guideline 1052 (Task 8\*)
   4. Review and update guidance for AtoN Authorities on level of service and changing user requirement; such as need for landfall lights and unlit AtoN (Task 9\*)
   5. Develop and update of IALA Recommendation O-113 on the Marking of fixed bridges over navigable waters, also considering the marking of overhead power lines (Task 10\*)
   6. Review IALA Recommendation O-104 of 1998, for off station Signals for Major Floating Aids to Navigation and extended to considerations of Buoys of Primary Navigation Significance (BPNS) and so called Superbuoys (Task 11\*)
   7. Co-operate with the other committees in the project for AtoN Status / information exchange and associated metadata (Task 13\*)
   8. Examine the use of Audible Signals as aids to navigation and develop an IALA Guideline on their future – in conjunction with the EEP Committee (Task 14\*)
   9. Review ANM Recommendations & Guidelines for updating (Task16\*)
   10. Update IALA Guideline 1058 on the use of simulation as a tool for waterway design and AtoN planning (Task17\*)
   11. Develop a supplementary Guideline to 1058 providing technical detail for simulator providers and procurers of simulation to ensure appropriate components and quality for AtoN features (Task 18\*)
   12. Review IALA Recommendation O-130 on Categorisation and Availability Objectives for Short Range Aids to Navigation (Task 19\*)
10. Develop a Recommendation for navigational safety matters within Marine Spatial Planning (Task 15\*)
11. Future Work Programme (2014 – 2018)
12. Review of output and working papers
13. Any Other Business
    1. Addition of e-NAV WG1 (Operations)
    2. Data models
    3. MBS Guidance in polar waters
    4. Workshop – VAtoN (January 2013)
14. Date and venue of next meeting
15. Review of session report
16. ANM17 Participants

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1. Working Group Participants
2. Navigational Requirements

|  |  |  |
| --- | --- | --- |
|  | Name | Organisation / Country |
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|  | Jorge Teles (Vice Chairman) | Direcção de Faróis / Portugal |
|  | Khalil Al Balushi | AMNAS / Oman |
|  | Ian Burgess | Tideland Signal / UK |
|  | Jean-Luc Fontan | Direction des Affaires Maritimes / France |
|  | Aigars Gailis | Maritime Administration / Latvia |
|  | Mats Höström | STA / Sweden |
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|  | Lang Rongwei | China MSA |
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|  | Wim Verhagen | RWS / the Netherlands |

1. Continuous Improvement

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Organisation / Country** |
|  | Gerry Brine (Chairman) | AMSA / Australia |
|  | Bjorn Erik Krosness  (Vice Chairman) | NCA / Norway |
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|  | Johan Westerlund | Sjöfartsverket / Sweden |

1. List of input papers

All papers are posted on the FTP server

Items highlighted are not on the Committee website.

1. Approval of the agenda

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Title / Author (if required) | Presented by: | Posting |
| ANM17/1/1 rev4 | Agenda | Phil Day (PD) | Meeting |
| ANM17/1/2 | Programme for week (to be issued after the Chairman’s Meeting) | PD | Meeting |

1. Review of action items from last meeting

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Title / Author (if required) | Presented by: | Posting |
| ANM17/2/1 rev1 | Action Items from ANM16 | PD/TCM | 2 |

1. Review of input papers

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Title / Author (if required) | Presented by: | Posting |
| ANM17/3/1 rev4 | List of Input Papers (this will be finalised after the Chairman’s Meeting) | PD/TCM | Meeting |

1. Reports from other bodies

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Title / Author (if required) | Presented by: | Posting |
| ANM17/4/1 | IALA COUNCIL 51st Session | TCM | 2 |
| ANM17/4/2 | MSC89 report | TCM | 1 |
| ANM17/4/3 | NAV57 report | TCM | 1 |
| ANM17/4/4 | PAP21 report | PD | 1 |

1. Reports from rapporteurs

| Number | Title / Author (if required) | Rapporteur | Posting |
| --- | --- | --- | --- |
| ANM17/5/ | Risk Management and Risk Models (M1) | Jakob Bang |  |
| ANM17/5/ | IALA Questionnaire (M2) | Jorge Teles |  |
| ANM17/5/ | Offshore manmade structures (OREI) (M3) | Raven Kurtz |  |
| ANM17/5/ | Development of e-Navigation within AtoN Authorities (M4) | Gerry Brine |  |
| ANM17/5/ | Development of e-Navigation for AtoN users (M5) | Rob McCabe |  |
| ANM17/5/ | Development of mobile marine products for AtoN users (M6) | Marek Ledochowski |  |

1. Presentations
2. Establish Working Groups
3. Working Group 1 – Navigational Requirements
   1. Produce guidance for Aids to Navigation Authorities on the user requirements and practical applications of e-Navigation, from berth to berth (Task 1)
   2. Develop Recommendations on AtoN standards and navigational requirements in risk control measures included in e-Navigation (this would include a revision (or a replacement) of the existing Recommendations and Guideline on risk management (1018). (Task 2\*)
   3. Develop guidance on the application of maritime surface picture (e.g. AIS traffic data) for analysis in risk assessment and the provision of Aids to Navigation (Task 3\*)
   4. Develop guidance for AtoN Authorities in the use of Virtual Aids to Navigation assessing their use and contribution to safety of navigation (Task 4\*)
   5. Consider the IMO Wreck Removal Convention and its implications for AtoN Authorities and States. Develop a Recommendation for IALA Members including guidance on marking ‘floating wreckage’, taking into account existing IALA guidance (Task 5\*)
   6. Review IALA Recommendation O-139 on the Marking of Man-made Off-shore structures (Task 12\*)

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| --- | --- | --- | --- |
| Number | Title / Author (if required) | WG | Posting |
| ANM17/8/1 | Modification to Guideline 1033 Rev1 | 1 | 1 |
| ANM17/8/2 | Task 1 Draft Guideline on User Requirements and Practical Applications of e-Navigation from Berth to Berth | 1 | 1 |
| ANM17/8/3 | Task 3 Draft Guideline on AtoN Analysis | 1 | 1 |
| ANM17/8/4 | Task 4 1081 Ed1 VAtoN Review April 2011 | 1 | 1 |
| ANM17/8/5 | Task 4 O-143 Ed1 Virtual Aids to Navigation Review April 2011 | 1 | 1 |
| ANM17/8/6 | Task 5 Recommendation on the marking of floating wreckage | 1 | 1 |
| ANM17/8/7 | Task 12 Draft revision of Recommendation O-139 | 1 | 1 |
| ANM17/8/8 | Development of e-Navigation within AtoN Authorities (PowerPoint) | 1 | 1 |
| ANM17/8/9 | Development of e-Navigation within AtoN Authorities | 1 | 1 |
| ANM17/8/10 | Excel file to accompany ANM17/8/9 | 1 | 1 |
| ANM17/8/11 | PIANC letter WG 161 - Interaction between offshore wind farms and maritime navigation | 1 | 2 |
| ANM17/8/12 | ToR for PIANC WG 161 | 1 | 2 |
| ANM17/8/13 | Liaison note from e-NAV10 on the Use of AIS for Marking of Man-Made Offshore Structures | 1 | 3 |

1. Working Group 2 – Continuous Improvement
   1. Co-ordinate a limited review of the IALA NAVGUIDE to incorporate amended IALA Recommendations and Guidelines and other necessary updates (Task 6\*)
   2. Develop guidance on issues derived from revision of the MBS, such as the clarification of auxiliary marks, including examples of those debated during the consultation and drafting process (Task 7\*)
   3. Produce Quality Management and Training guidance for AtoN services and service providers in an e-Navigation environment, in support of the IALA World-Wide Academy. Review IALA Guideline 1052. (Task 8\*)
   4. Develop guidance for AtoN Authorities on level of service and changing user requirement; such as need for landfall lights and unlit AtoN (Task 9\*)
   5. Develop and update of IALA Recommendations O-113 on the Marking of fixed bridges over navigable waters, also considering the marking of overhead power lines (Task 10\*)
   6. Review IALA Recommendation O-104 of 1998, for off station Signals for Major Floating Aids to Navigation and extended to considerations of Buoys of Primary Navigation Significance (BPNS) and so called Superbuoys (Task 11\*)
   7. Co-operate with the other committees in the project for AtoN Status / information exchange and associated metadata (Task 13\*)
   8. Examine the use of Audible Signals as aids to navigation and develop an IALA Guideline on their future – in conjunction with the EEP Committee (Task 14\*)
   9. Review ANM Recommendations & Guidelines for updating (Task16\*)
   10. Update IALA Guideline 1058 on the use of simulation as a tool for waterway design and AtoN planning (Task17\*)
   11. Develop a supplementary Guideline to 1058 providing technical detail for simulator providers and procurers of simulation to ensure appropriate components and quality for AtoN features (Task 18\*)
   12. Review IALA Recommendation O-130 on Categorisation and Availability Objectives for Short Range Aids to Navigation (Task 19\*)

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| --- | --- | --- | --- |
| Number | Title / Author (if required) | WG | Posting |
| ANM17/9/1 | Task 10 Draft revised Recommendation O-113 | 2 | 1 |
| ANM17/9/2 | Task 11 Draft revised O-104 Off Station Signals for Major Floating Aids rev1 | 2 | 1 |
| ANM17/9/3 | Task 14 Use of audible signals scoping paper | 2 | 1 |
| ANM17/9/4 | Task 16 Master List of Guidelines and Recommendation | 2 | 1 |
| ANM17/9/5 | Task 18 Technical Features and Visualisation Technology Relevant for Simulation of AtoN | 2 | 1 |
| ANM17/9/6 | Comparable Range of Daymarks and Lights | 2 | 1 |
| ANM17/9/7 | e-Navigation Architecture 'PictureBook' Information Paper e-NAV-140 | 2 | 1 |
| ANM17/9/8 | 2010 IALA MBS booklet | 2 | 1 |
| ANM17/9/9 | Liaison note from EEP on simulation in the Design of AtoN rev1 | 2 | 1 |
| ANM17/9/10 | Draft Guideline on Daymarks for AtoN | 2 | 3 |
| ANM17/9/11 | Liaison note from e-NAV10 on NAVGUIDE | 2 | 3 |
| ANM17/9/12 | Example Level 2 Model Course | 2 | 3 |
| ANM17/9/13 | Lights overview for IALA model course | 2 | 3 |
| ANM17/9/14 | Model Course E 141 - 2 Senior Management Training  Superseded by ANM17/9/14 rev1 | 2 | 3 |
| ANM17/9/14 rev1 | Model Course E 141 - 2 Senior Management Training | 2 | Meeting |
| ANM17/9/15 | Ambiguous Daymarks and Objects Conflicting with AtoN Daymarks | 2 | Late |
| ANM17/9/16 | Liaison note from EEP on Simulation in the Design of AtoN | 2 | Late |
| ANM17/9/17 | Liaison note from EEP on the NAVGUIDE | 2 | Late |
| ANM17/9/18 | Liaison Note to from EEP on WWA AtoN Training | 2 | Late |

1. Develop a Recommendation for Marine Spatial Planning with emphasis on Navigational safety (Task 15\*)

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| --- | --- | --- | --- |
| Number | Title / Author (if required) | WG | Posting |
| ANM17/10/1 |  |  |  |

1. Future Work Programme

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Title / Author (if required) | WG | Posting |
| ANM17/11/1 |  |  |  |

1. Review of output and working papers
2. Any Other Business
   1. Addition of e-NAV WG1 (Operations)
   2. Data models
   3. MBS Guidance in polar waters

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Title / Author (if required) | WG | Posting |
| ANM17/13/1 | IHO GI Registry + IALA Domain + IMO – Flipchart Drawing | 2 | 1 |

**Information Papers**

|  |  |  |
| --- | --- | --- |
| **Number** | **Title / Author (if required)** | **Posting** |
| ANM17/INF/1 | Use of IALA AtoN Categories | 1 |
| ANM17/INF/2 | Meeting dates 2010 – 2014, following Council 51 | 1 |
| ANM17/INF/3 | Rules of Procedure for IALA Committees (2010-2014), following Council 51 | 1 |
| ANM17/INF/4 | IALA Document Quality Assurance Process, following Council 51 | 1 |
| ANM17/INF/5 | Liaison note to Council on IALA e-NAV strategy | 3 |

1. Date and venue of next meeting
2. Review of session report
3. List of Output and Working Papers

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

|  |  |  |
| --- | --- | --- |
| **Number** | **Title** | **Status** |
| ANM17/output/1 | Draft Report | To Council to note |
| ANM17/output/2 | Revised Marine Spatial Planning workshop proposal | To Council for approval |
| ANM17/output/3 | Draft revised Recommendation O-113 | To Council for approval |
| ANM17/output/4 | Liaison Note to EEP on Simulation in the Design of AtoN | To EEP18 |
| ANM17/output/5 | Draft Guideline on Technical Features and Technology Relevant for Simulation of AtoN | To EEP18 |
| ANM17/output/6 | Liaison note to Secretariat – PIANC WG165 | To Secretary-General for consideration |
| ANM17/output/7 | Liaison note to all Committees on the NAVGUIDE | To VTS34, e-NAV11, EEP18 & Secretariat |
| ANM17/output/8 | NAVGUIDE 2014 Timetable | To VTS34, e-NAV11, EEP18 & Secretariat |
| ANM17/output/9 | NAVGUIDE 2014 Action Plan | To VTS34, e-NAV11, EEP18 & Secretariat |
| ANM17/output/10 | Liaison note to e-Nav on e-Navigation Architecture 'PictureBook' Information Paper e-NAV-140 | To e-NAV11 |
| ANM17/output/11 | Navigation Architecture 'PictureBook' Information Paper e-NAV-140\_MB edits and comments. | To e-NAV11 |
| ANM17/output/12 | Liaison note to EEP & Dean of IALA WWA on Senior Management course | To EEP18 & Jean-Charles Leclair |
| ANM17/output/13 | Virtual AtoN workshop proposal. | To Council for approval |
| ANM17/output/14 | Liaison note on the conflict between aviation and marine marking of offshore wind turbines | To Secretary-General |
| ANM17/output/15 | Liaison note to EEP on the Use of Audible Signals as Aids to Navigation | To EEP18 |
| ANM17/output/16 | Draft Guideline on the Use of Audible Signals as Aids to Navigation | To EEP18 |
| ANM17/output/17 | Liaison note to EEP on ‘Off Station’ Signals for Major Floating Aids | To EEP18 |
| ANM17/output/18 | Draft revised Recommendation O-104 on ‘Off Station’ Signals for Major Floating Aids | To EEP18 |
| ANM17/output/19 | Draft Model Course E141-2 Senior Management Training | To EEP18 & Jean-Charles Leclair |
| ANM17/output/20 | Liaison note to EEP - Daymarks | To EEP18 |

Working papers are documents that will remain within the Committee for further review.

|  |  |  |
| --- | --- | --- |
| Number | Title | Status |
| ANM17/WG1/WP1 | Task 1 Draft Guideline on User Requirements and Practical Applications of e-Navigation from Berth to Berth | To ANM18 |
| ANM17/WG1/WP2 | Task 2 Risk Management | To ANM18 |
| ANM17/WG1/WP3 | Task 2 Draft revised Guideline1018 on Risk Management | To ANM18 |
| ANM17/WG1/WP4 | Task 3 Draft Guideline on AIS Analysis | To ANM18 |
| ANM17/WG1/WP5 | Task 3 Maximizing the Potential of AIS | To ANM18 |
| ANM17/WG1/WP6 | Task 4 Guideline 1062 on the Establishment of AIS as an AtoN Annex 1 | To ANM18 |
| ANM17/WG1/WP7 | Task 4 Draft revised Recommendation O-143 on VAtoN | To ANM18 |
| ANM17/WG1/WP8 | Task 5 Draft Recommendation on the marking of wrecks | To ANM18 |
| ANM17/WG1/WP9 | Task 6 Review of Recommendation O-139 on the marking of man-made offshore structures | To ANM18 |
| ANM17/WG1/WP10 | Comments about PIANC documents | To ANM18 |
| ANM17/WG1/WP11 | Request for revision to IALA Guidelines from Korea - WIG | To ANM18 |
|  |  |  |
| ANM17/WG2/WP1 | Level of Service Review plan | To ANM18 |
| ANM17/WG2/WP2 | Draft revised Guideline on level of service | To ANM18 |
| ANM17/WG2/WP3 | Documents Managed by ANM | To ANM18 |
| ANM17/WG2/WP4 | Liaison Note to EEP on the Design of Daymarks | To ANM18 |
|  |  |  |

1. Action Items

Action Items for Secretariat

1. The Secretariat is requested to consider the provision of previous results of Annual Questionnaires on the IALA Committee website. 6
2. The IALA Secretariat is requested to forward ANM17/WG1/WP1 to ANM18. 12
3. The Secretariat is requested to forward ANM17/WG1/WP2 to ANM18. 12
4. The Secretariat is requested to forward ANM17/WG1/WP3 to ANM18. 12
5. The Secretariat is requested to forward ANM17/WG1/WP4 to ANM18. 13
6. The Secretariat is requested to forward ANM17/WG1/WP5 to ANM18. 13
7. The IALA Secretariat is requested to forward ANM17/WG1/WP6 to ANM18. 13
8. The IALA Secretariat is requested to forward ANM17/WG1/WP7 to ANM18 13
9. The Secretariat is requested to forward ANM17/WG1/WP8 to ANM18. 13
10. The IALA Secretariat is requested to forward ANM17/WG1/WP9 to ANM18. 14
11. The IALA Secretariat is requested to forward SN/Circ.62 to ANM18. 14
12. The IALA Secretariat is requested to respond to PIANC, based on the Liaison Note (ANM17/output/6). 14
13. The IALA Secretariat is request to forward ANM17/WG1/WP10 to ANM18 14
14. The IALA Secretariat is requested to forward ANM17/WG1/WP11 to ANM18. 14
15. The Secretariat is requested to forward ANM17/output/7 (the liaison note on the NAVGUIDE, to all other Committees and the Secretariat for their information/action. 15
16. The Secretariat is requested to forward ANM17/output/8 (the timetable for the NAVGUIDE), to all other Committees and the Secretariat for their information/action. 15
17. The Secretariat is requested to forward ANM17/output/9 (the action plan for the NAVGUIDE), to all other Committees and the Secretariat for their information/action. 16
18. The Secretariat is requested to provide an electronic copy of the MBS Guidelines as an input paper to ANM18. 16
19. The Secretariat is requested to forward ANM17/output/12 (Liaison note on Model course E-141-2 Senior Management training to the EEP Committee and Jean-Charles Leclair. 16
20. The Secretariat is requested to forward ANM17/output/19 (the amended course document for Model course E-141-2 Senior Management training) to the EEP Committee and Jean-Charles Leclair. 17
21. The Secretariat is requested to forward the scoping paper (ANM17/WG2/WP1) and the draft revised guideline (ANM17/WG2/WP2) to ANM 18. 17
22. The Secretariat is requested to forward ANM17/output/3 (Recommendation O-113 on the Marking of fixed bridges over navigable waters) to the IALA Council, to approve. 17
23. The Secretariat is requested to forward ANM17/output/17 (liaison note on draft revised Recommendation O-104) to the EEP Committee. 18
24. The Secretariat is requested to forward ANM17/output/18 (draft revised Recommendation O-104)) to the EEP Committee. 18
25. The Secretariat is requested to forward ANM17/output/10 (liaison note on e-navigation Architecture ‘PictureBook’) to the e-NAV Committee. 18
26. The Secretariat is requested to forward ANM17/output/11 (the marked-up e-navigation Architecture ‘PictureBook’ information paper) to the e-NAV Committee. 18
27. The Secretariat is requested to forward ANM 17/output/15 (liaison note on Audible Signals as AtoN) to the EEP Committee. 18
28. The Secretariat is requested to forward ANM 17/output/16 (draft guideline on Audible Signals as AtoN) to the EEP Committee. 18
29. The Secretariat is requested to forward (ANM17/WG2/WP3) to ANM 18. 19
30. The Secretariat is requested to forward ANM17/output/4 (Liaison Note on Simulation in the Design of AtoN) to EEP 18. 19
31. The Secretariat is requested to forward ANM17/output/5 (Updated draft guideline on Simulation in the Design of AtoN) to EEP 18. 19
32. The Secretariat is requested to forward ANM17/WG2/WP4 (comments on EEP paper on the design of daymarks) to the ANM18. 19
33. The Secretariat is requested to forward ANM17output/20 (Liaison note to EEP on the design of daymarks) to EEP18. 20
34. The Secretariat is requested to forward ANM17/output/2 (Revised marine spatial planning workshop proposal) to Council for approval. 20
35. The Secretariat is requested to forward ANM17/output/13 (Proposal for a Virtual AtoN workshop) to the Council for approval. 21
36. The Secretariat is requested to forward ANM17/output/14 (Liaison note – proposed text of letter to ICAO) to the Secretary-General for consideration. 22
37. The Secretariat is requested to forward ANM17/output/1 (Report of ANM17) to the Council for approval. 22

Action Items for Members

1. Jorge Teles is requested to discuss the mechanics of incorporating the previous results of Annual questionnaires with Gwénola Josse. 6
2. The Chairman and Vice Chairman of the ANM Committee are requested to progress the development of the Marine Spatial Planning questionnaire. 6
3. Committee members are requested to comment to Jorge Teles on the layout of the analysis of the 2010 Annual Questionnaire, on http://websig.hidrografico.pt/iala/ before 18 November 2010. 8
4. Members are requested to provide relevant input to the Committee rapporteurs 8 weeks before each meeting. 9
5. WG members are requested to review ANM17/WG1/WP1 and be prepared to comment on it at ANM18. 12
6. Committee members are requested to consider the issue of temporary & permanent VAtoN and be prepared to discuss it at ANM18. 13
7. Committee members, as nominated in ANM17/output/9 are requested to carry out the tasks allocated to them. 16
8. ANM members are requested to canvass their organisations and stakeholders about the utility of IALA guideline 1004 and provide input inter-sessionally Bjoern Erik Krosness in time for consideration at ANM18. 17
9. The Committee are requested to further consider potential items for the 2014 – 2018 before ANM18. 20
10. The Chairman is requested to raise the potential items for the 2014 – 2018 Work programme at PAP22. 20
11. The Chairman is requested to raise this issue at PAP22. 22
12. Revision of the ANM Work Programme

Approved by the IALA Council – December 2009

(Changes made/suggested at ANM17 are highlighted in yellow)

The ANM Committee deals with high level management aspects of AtoN. In the work of the Committee, the following general aspects are to be taken into consideration:

* Strategic focus for IALA;
* Harmonized use of Definitions and Terms; and
* Concepts associated with Risk Assessment / Management.

Work Programme 2010 – 2014

| Task | Estimated number of sessions | Comments | Strategy element(s) |
| --- | --- | --- | --- |
| 1. Produce guidance for Aids to Navigation Authorities on the user requirements and practical applications of e-Navigation, from berth to berth. | 1 - 7 | *ANM take the lead.*  *Together with e-NAV & VTS Committees & derived from IMO e-Navigation Strategy.* | *5.6, 5.7, 13.6* |
| 1. Develop Recommendations on AtoN standards and navigational requirements in risk control measures included in e-Navigation (this would include a revision (or a replacement) of the existing Recommendations and Guideline on risk management (1018)).   Review and update the existing IALA Guideline 1018 to include the impact of advances in e-Navigation on risk control measures | 1 - 7 | *ANM take the lead.*  *Together with the e-NAV, EEP & VTS Committees.* | *5.7, 8.2, 10.7* |
| 1. Develop guidance on the application of maritime surface picture (e.g. AIS traffic data) for analysis in risk assessment and the provision of Aids to Navigation. | 2 – 5 | *ANM take the lead.*  *In conjunction with the e-NAV & VTS Committee.* | *8.2, 10.7, 13.5* |
| 1. Review and update guidance for AtoN Authorities, including Guideline 1062, in the use of Virtual Aids to Navigation assessing their use and contribution to safety of navigation. | 1 – 47 | *In collaboration with the other committees and the IHO.* | *5.5* |
| 1. Consider the IMO Wreck Removal Convention and its implications for AtoN Authorities and States. Develop a Recommendation for IALA Members including guidance on marking ‘floating wreckage’, taking into account existing IALA guidance. | 1 – 3 | *Together with EEP and e-NAV Committees & LAP* | *5.5* |
| 1. Co-ordinate a limited review of the IALA NAVGUIDE to incorporate amended Guidelines and Recommendations and other necessary updates. | 1 – 7 | *In conjunction with other IALA Committees / ad hoc groups.* |  |
| 1. Develop guidance on issues derived from revision of the MBS, such as the clarification of auxiliary marks, including examples of those debated during the consultation and drafting process. | 4 – 6 | To include the principles of marking harbours / ports, e.g.:   1. Breakwater / Entrance lights, including:    * when the one breakwater / entrance light may not be opposite the other, but extend further out to sea (as a protruding point)    * when should a breakwater light be red / green and when can it be a white light    * a long breakwater needs to be marked halfway 2. Quay / jetty lights, including when lights are required to be on both sides of a jetty 3. Other points of interest 4. Bridge markings 5. Port Traffic Signals 6. Principles of marking inland waterways with a combination of fixed and floating AtoN. |  |
| 1. Produce Quality Management and Training guidance for AtoN services and service providers in an e-Navigation environment, in support of the IALA World-Wide Academy. Review IALA Guideline 1052. | 3 – 57 | *In conjunction with the other Committees.* | *5.6, 7.1, 10.8, 13.6*  *18.1* |
| 1. Review and update guidance for AtoN Authorities on level of service and changing user requirement; such as need for landfall lights and unlit AtoN. Review IALA Guideline 1004. | 2 – 5 | *In conjunction with the EEP Committee.* | *5.4, 5.6, 5.7, 13.6* |
| 1. Develop and update IALA Recommendation O-113 on the Marking of fixed bridges over navigable waters, also considering the marking of overhead power lines. | 1 – 3 | *In conjunction with the other Committees.* |  |
| 1. Review IALA Recommendation O-104 of 1998, for off station Signals for Major Floating Aids to Navigation and extended to considerations of Buoys of Primary Navigation Significance (BPNS) and so called Superbuoys. | 2 – 4 |  |  |
| 1. Review IALA Recommendation O-139 on the Marking of Man-made Off-shore structures.    1. Marking of off-shore renewable energy installations (OREI) and the minimum distance that OREIs can be positioned from a TSS and / or shipping route    2. Synchronisation of lights, sectoring of lights, marking & numbering of individual units within an OREI, exit marks etc. | 1 – 6 | *Recommendation O-139 was last revised in 2008, ANM recognises that this is a rapidly evolving issue in the competition for sea space and anticipates that the matter will need to be revisited. In conjunction with ICAO.* |  |
| 1. Co-operate with the other committees in the project for AtoN Status / information exchange and associated metadata. | 3 – 5 | *In conjunction with the other Committees and stakeholders*. *Lead is e-NAV.* | *13.3* |
| 1. Examine the use of Audible Signals as aids to navigation and develop an IALA Guideline on their future. | 2 – 4 | *Together with the EEP Committee.* |  |
| 1. Develop a Recommendation for Marine Spatial Planning with emphasis on Navigational safety. | 2-6 | *Current developments of off shore renewable energy on an unprecedented scale have highlighted that AtoN authorities often do not have an overriding say on the location of Construction at sea. Planning authorities often lack an understanding of navigational safety and shipping issues with emphasis on the natural environment. It is considered necessary to have a Recommendation that can be referred to by planning authorities to assist in correcting this issue.* | *New item from conference recommendation* |
| 1. Review ANM Recommendations & Guidelines for updating | 1-7 | *To ensure Recommendations & Guidelines remain current ANM will regularly review content.* |  |
| 1. Update IALA Guideline 1058 on the use of simulation as a tool for waterway design and AtoN planning | 1-2 | *Simulation is a fast developing method of cost effective planning/testing prior to AtoN implementation. It has great potential for current off shore renewable developments. The current Guideline needs updating to support the AtoN authority planning activity* |  |
| 1. Develop a supplementary Guideline to 1058 providing technical detail for simulator providers and procurers of simulation to ensure appropriate components and quality for AtoN features | 2-6 | *The supplementary Guideline is seen as providing a better understanding of the potential use of simulation in AtoN planning.* |  |
| 1. Review IALA Recommendation O-130 on Categorisation and Availability Objectives for Short Range Aids to Navigation | 2-4 | *Arising from EEP query about synchronised / sequenced light systems.* | *10.8* |

Monitoring Items

|  |  |  |  |
| --- | --- | --- | --- |
| Task | Duration | Comment | Strategy element(s) |
| M1 Risk Management and Risk Models | Continuous |  |  |
| M2 IALA Questionnaire | Annual |  |  |
| M3 Offshore manmade structures (OREI) | Continuous |  |  |
| M4 Development of e-Navigation within AtoN Authorities | Continuous | In conjunction with M5 |  |
| M5 Development of e-Navigation for AtoN users | Continuous | In conjunction with M4 |  |
| M6 Development of mobile marine products for AtoN users | Continuous | e.g. Apps, email alerts, charting solutions |  |

Deferred Items

|  |  |  |  |
| --- | --- | --- | --- |
| Task | No. of sessions | Comment | Strategy element(s) |
| D1 None at this time |  |  |  |

**Aids to Navigation Management Committee Work Plan 2010 - 2014**

| Task | Session | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 1. Produce guidance for Aids to Navigation Authorities on the user requirements and practical applications of e-Navigation, from berth to berth. | X | X | X | X | X | X | X |
| 1. Develop Recommendations on AtoN standards and navigational requirements in risk control measures included in e-Navigation (this would include a revision (or a replacement) of the existing Recommendations and Guideline on risk management). | X | X | X | X | X | X | X |
| 1. Develop guidance on the application of maritime surface picture (e.g. AIS traffic data) for analysis in risk assessment and the provision of Aids to Navigation. |  | X | X | X | X |  |  |
| 1. Review and update guidance for AtoN Authorities, including Guideline 1062, in the use of Virtual Aids to Navigation assessing their use and contribution to safety of navigation. | X | X | X | X | X | X | X |
| 1. Consider the IMO Wreck Removal Convention and its implications for AtoN Authorities and States. Develop a Recommendation for IALA Members including guidance on marking ‘floating wreckage’, taking into account existing IALA guidance. | X | X | X |  |  |  |  |
| 1. Co-ordinate a limited review of the IALA NAVGUIDE to incorporate amended guidelines and recommendations and other necessary updates. | X | X | X | X | X | X | X |
| 1. Develop guidance on issues derived from revision of the MBS, such as the clarification of auxiliary marks, including examples of those debated during the consultation and drafting process. |  |  |  | X | X | X |  |
| 1. Produce Quality Management and Training guidance for AtoN services and service providers in an e-Navigation environment, in support of the IALA World-Wide Academy. Review IALA Guideline 1052. |  |  | X | X | X |  |  |
| 1. Review and update guidance for AtoN Authorities on level of service and changing user requirement; such as need for landfall lights and unlit AtoN. Review IALA Guideline 1004. |  | X | X | X | X |  |  |
| 1. Develop and update IALA Recommendations O-113 on the Marking of fixed bridges over navigable waters, also considering the marking of overhead power lines. | X | X | X |  |  |  |  |
| 1. Review IALA Recommendation O-104 of 1998, for off station Signals for Major Floating Aids to Navigation and extended to considerations of Buoys of Primary Navigation Significance (BPNS) and so called Superbuoys. |  | X | X | X |  |  |  |
| 1. Review IALA Recommendation O-139 on the Marking of Man-made Off-shore structures.    1. Marking of off-shore renewable energy installations (OREI) and the minimum distance that OREIs can be positioned from a TSS and / or shipping route    2. Synchronisation of lights, sectoring of lights, marking & numbering of individual units within an OREI, exit marks etc. | X | X | X | X | X | X |  |
| 1. Co-operate with the other committees in the project for AtoN status / information exchange and associated metadata. |  |  | X | X | X |  |  |
| 1. Examine the use of Audible Signals as aids to navigation and develop an IALA Guideline on their future. |  | X | X | X |  |  |  |
| 1. Develop a Recommendation for Marine Spatial Planning with emphasis on navigational safety. |  | X | X | X | X | X |  |
| 1. Review ANM Recommendations & Guidelines for updating. | X | X | X | X | X | X | X |
| 1. Develop and update IALA Guideline 1058 on the use of simulation as a tool for waterway design and AtoN planning. | X | X |  |  |  |  |  |
| 1. Develop a supplementary Guideline to 1058 providing technical detail for simulator providers and procurers of simulation to ensure appropriate components and quality for Aton features. |  | X | X | X | X | X |  |
| 1. Review IALA Recommendation O-130 on Categorisation and Availability Objectives for Short Range Aids to Navigation. |  | X | X | X |  |  |  |

1. IALA RAL Tie

