

Please comment by 2 November

**Report of the 19th Session of the IALA EEP Committee**

**15 to 19 October 2012**

***Executive Summary***

* 48 members from 22 countries attended this meeting of the EEP Committee; 6 members attended for the first time;
* The Committee considered 106 input papers (a record for any Committee);
* The Committee produced 25 output documents, comprising:
  + a draft Guideline on Daymarks;
  + a draft Guideline on Bird Deterrents;
  + a draft Guideline on Safety Management for AtoN activities;
  + a draft Guideline on The Management of Surplus Property;
  + a draft Guideline on the Application of AIS on buoys;
  + draft revised Recommendation E-141 on Standards for Training and Certification for AtoN personnel;
  + draft revised L2 WWA Technician Training Overview;
  + 9 Level 2 Model courses;
  + 4 Liaison Notes;
  + updates to the NAVGUIDE.
* Considerable inter-sessional work, by correspondence, is planned;
* It is necessary to defer the holding of the workshop on Arctic Engineering until a host can be determined (agenda item 8.6);
* Changes have been proposed to the Work Programme, at EEP19/output/2.

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| EEP Committee  19th Session | 19 October 2012 |

**Report of the 19th Session of the IALA EEP Committee**

# General

The 19th meeting of the Engineering, Environment and Preservation of Historic Lighthouses (EEP) Committee was held from 15 to 19 October 2012 at IALA. The Chairman was Ómar Frits Eriksson, the Vice Chairman was David Jeffkins and the Secretary for the meeting was Mike Hadley.

The Chairman welcomed all participants to the Committee meeting, especially those attending for the first time. He then introduced the Secretary-General, Gary Prosser.

The Secretary-General added his welcome to those returning to the Committee and those attending for the first time. He remarked that the preceding week had seen a most successful workshop on ‘Short range AtoN in the e-Navigation era’ in Brest and expressed his thanks to CETMEF and, in particular, Michel Cousquer for the organisation that had made this possible. He felt that it was a good prelude to the meeting.

He said that with a record number of input papers and a demanding chairman, he did not wish to take up the Committee’s time. Having remarked at the continuing progress being made by IALA and the much appreciated output from the Committee and apologising for not being able to remain with the Committee for the full week, the Secretary-General wished the Committee a successful and productive week.

Individual committee members were then asked to introduce themselves before the Chairman ran through the plan for the week and the social programme.

Finally, the Chairman expressed his congratulations at the appointment of Mike Card as the Deputy Secretary-General of IALA, which was accompanied by a round of applause.

## Administrative Announcements

Mike Hadley gave details on health and safety and administrative matters.

The Chairman thanked the Secretary for the information provided.

## Apologies

The Chairman then listed those that had sent their apologies for not attending. They were:

|  |  |  |
| --- | --- | --- |
| **Name** | **Organisation** | **Country** |
| Panos Chiotis | Hellenic Navy Lighthouse Service | Greece |
| Wayne Danzik | United States Coast Guard | USA |
| Kalina Dilova | Bulgarian Ports Infrastructure Co | Bulgaria |
| Leif Arne Larsen | NCA | Norway |
| Carmen Martinez | Puertos del Estado | Spain |
| Chris Proctor | Sealite Propriety Ltd. | Australia |

The Chairman said that he wished to record the Committee’s thanks to Carmen Martinez for her considerable contribution over the past years; he said that she would be sorely missed.

## Approval of the Agenda

The agenda, at EEP19/1/1 rev1 was approved.

# Review of action items from EEP18

Input paper EEP19/2 rev1 refers. Action items for the IALA Secretariat from EEP18 were reviewed and noted as complete, with the following exceptions or comments:

**Actions 17 & 18**

The Secretariat is requested to consider a method of incorporating the Historic Lighthouse Database into the Heritage webpage and to submit this as an input paper to EEP19.

These actions are awaiting implementation on the revised website, although a Heritage section is shown on the existing website. It has been confirmed that a Heritage section forms part of the user specification for the revised website.

**Action 42**

The Secretariat is requested to make EEP15/11/5 from the Japan Coast Guard available on the IALA Wiki site.

This action was completed during EEP19.

The Chairman thanked the Secretariat and requested that all Action Items attributed to Committee members be dealt with in the Working Groups.

# Review of input papers

EEP19/3/1 rev6 refers.

The Chairman reviewed the list of input papers, allowing those authors who wished to introduce their papers. It was then confirmed which Working Group (WG) would be dealing with the individual papers.

The Chairman then thanked the Committee members for the tremendous effort in providing so many input papers.

# Reports from other bodies

## IALA Council 53rd Session (June 2012)

EEP19/37 refers.

The meeting noted:

* that a separate paper requesting changes to the current programme will be required;
* the changes to the IALA meeting programme;
* the specific comments about the EEP Committee;
* the proposal to allow the WWA Board to approve model training courses.

## PAP23 (April 20112)

EEP19/34 refers.

The Committee noted the:

* concerns about technical competence within Committees with regard to the IHO registry;
* increasing evidence of cross-Committee collaboration / co-operation;
* discussion on he necessary correlation between Tasks and strategy;
* significance being accorded the IALA Dictionary;
* progress being made with the World-Wide Academy and accreditation, plus the willingness of all Committees to help with its work;
* need to prepare for the 2014 – 2018 Work Programme;
* ANM Committee’s offer to broaden the scope of the Annual Questionnaire.

## IMO MSC97 (November 2012)

EEP19/101 refers.

The Committee noted the:

* New agenda items for the NAV Sub-Committee:
  + Revision of the Guidelines for the onboard operational use of shipborne automatic identification systems (AIS);
  + Performance standards for multi-system shipborne navigation receivers.
* Specific recommendations made for the EEP Committee.

It was also noted that there is an intention to have an expert present the topics of the IHO S-100 GI registry to EEP20.

Action item

The Secretariat is requested to invite Dr Nick Ward to make a presentation on the IHO S-100 GI registry to EEP20.

## NAV58 (July 2012)

EEP19/44 refers.

The Committee noted the specific recommendations made for the EEP Committee.

# Reports from Rapporteurs

## Developments in Aids to Navigation (M1\*)

Adrian Wilkins reported on a commercial fuel cell that uses ammonia as its fuel. The proton exchange system separates ammonia into nitrogen and hydrogen, with the hydrogen powering the fuel cell. It provides 1.2 Kw units power at remote telecom sites and requires refuelling and servicing once per month. Details can be found at diverse-energy.com/powercube.php.

## Developments in Renewable Energy Sources (M2\*)

There was nothing to report. However, it was commented that there are national differences in support for solar power, with the visible difference at the borders of Germany and Denmark being quoted as an example.

It was also said the members may find the website [www.bluenergy-ag.net/English/tech\_wind.html](http://www.bluenergy-ag.net/English/tech_wind.html) of interest.

## Developments in Battery Technology (M3\*)

There was nothing to report. However, it was commented that super capacitors are not likely to usable size for provision of power over long periods (30 – 40 days) for the foreseeable future., due to leakage.

## Developments in New Light Sources (M4\*)

EEP18/5/4 refers.

Malcolm Nicholson used his paper to brief the Committee.

## IALA Certification Process (M5\*) (Discontinued after C52)

## CIE-IALA Liaison (M6\*)

EEP18/5/6 refers.

Malcolm Nicholson highlighted the main points of his report.

The Chairman thanked Malcolm Nicholson for his two reports and also for the considerable amount of inter-sessional work that he had undertaken.

## IALA Dictionary

The Chairman explained the basic procedure for maintaining the dictionary. He also explained that the dictionary will remain in its present format for the foreseeable future. He then encouraged members to contribute with new terms for inclusion as well as revision of existing terms.

# Presentations

Five presentations were made during the opening plenary session. The associated PowerPoint files and a video file are available on the IALA ftp site and the Committee website.

## IALA World-Wide Academy – Stephen Bennett

Stephen Bennett, noting that a WWA Board meeting had taken place during the preceding week and that two Bard members were present, updated the Committee about the activities of the WWA, including the development of a close relationship with IMO through activities involving capacity building, and the imminent placing of a website contract for the WWA, which will be the pilot for a revised IALA website. The WWA website is expected to be operational during December 2012 and the revised IALA website during January 2013. The accreditation process was then outlined, together with the provision of information about a register of experts. The presentation concluded with a look to the future, including the intention to hold a one-month AtoN management level 1 training course, at IALA, in January 2014.

## Humidity in lighthouses – Nicolas Fady

The presentation began with an overview of AtoN in France, introducing 4 different types of fixed AtoN: pile, turret, lighthouse and others. Of the 130 lighthouses in France, some 50% are sited on the Brittany coast. The challenges faced by these old buildings, chief amongst which is humidity, were identified and the need to develop a national policy for their monitoring and maintenance. The processes arising from drawing up the policy were stated, including establishing a method for monitoring and maintenance, the drafting of a guideline for diagnosing humidity, the creation of training and modelling specific studies of humidity to optimise the guideline. Each of these points was then explained further. The presentation ended with a statement that approximately 30% of fixed AtoN in France have now been visited, that training is evolving, the guideline is available from the internet and that work is continuing on the modelling.

## Goniospectroradiometery

Aivar Usk presented on the topic "Application of goniospectroradiometry for verification of boundary resolution of sector lights ", introducing key issues and the ways they were solved at the Optronics Laboratory of Cybernetica AS at verification of boundary uncertainty of high precision LED projector sector lights. To enhance the resolution of spectroradiometric scanning of the sector boundaries beyond the 40 measurements per degree achievable by the goniometric stand, a 2-dimensional sensor positioning stage was integrated with the measurement system, allowing it to achieve resolutions down to 0.1 minutes of arc and beyond. The new measurement system is still in the final stages of development.

## Revival of the fixed and flashing light character

Aivar Usk presented the topic ‘Time to Revisit the Fixed and Flashing (F.Fl.) Rhythmic Character?’, highlighting the fact that while this IALA recommended flash character offers certain benefits in conspicuity, it has not been used by most AtoN authorities. Potential benefits were outlined to provoke discussion, with the goal to share the positive experiences and provide guidance to AtoN authorities for utilization of such benefits on the wider scale. It was shown that while very few AtoNs in Europe utilize the F.Fl. rhythmic character with the exception of less than 20 long range fixed lights, over 270 AtoN employing the F.Fl. character are listed in Japan. It has also been introduced on the lightships of Trinity House after changing to LED lights. A demonstration of a green sector light module operated at F.Fl.G 5s with 1s flash and 1% of the fixed luminous intensity followed. It was concluded that the FFL mode of operation does have its advantages and is worth further field-testing in order to provide more detailed guidance for its application.

## New pile beacons installation in Papua New Guinea – Adam Hay

The presentation began with the restoration since 2004 of over 200 AtoN, largely marking international shipping routes. During this work attention had turned to the needs of domestic shipping, giving rise to the ‘Channel Marker Rehabilitation Project, which covered existing and new sites and which started in 2011.

The presentation contained some striking ‘before’ and ‘after’ photographs and showed the large sea area covered by the project. It then went into a detailed explanation of the design the required shallow water piles, which had to have a quick construction time, reduced time on site during installation to reduce the impact on the environment and require minimal maintenance, with no exposed mild steel and with a robust corrosion protection system.

Pre construction site assessments and environmental assessments were described before the outlining of the method of construction and installation.

In response to a question, Adam Hay said that the steel piles were protected by a marine epoxy paint system, Denso tape and a 25-year sacrificial anode. He also said that no particular attention had been paid to the radar reflective properties of the piles as they are to be used by small craft.

## Project MonaLisa video

The 8-9 minute video was shown by the Chairman and its background explained. The reaction of the Committee was positive and it sparked a short discussion about whether the concepts being put forward by the project could mean the end of physical AtoN. The consensus view was that it did not. However, there was some concern about where control would lie (vis a vis the master) if the concepts were implemented.

# Establish Working Groups

The Chairman proposed that four Working Groups (WG) be established, as outlined below:

|  |  |
| --- | --- |
| Working Group | Working Group Chair |
| WG1 AtoN infrastructure design and maintenance | Adrian Wilkins |
| WG2 Heritage, conservation and civil engineering | Bob McIntosh |
| WG3 Environment, quality assurance, training and publications | David Jeffkins |
| WG4 Light and vision | Malcolm Nicholson |

It was agreed that WGs 1 and 2 would meet on Tuesday, WGs 3 & 4 on Wednesday and that the first two sessions on Thursday would be available to all WG to finalise their work.

It was also agreed that a breakout group to work specifically on the draft Guideline on Daymarks, consisting of Frank Hermann, Malcolm Nicholson, Greg Hansen, Yves-Marie Blanchard and Fernando Romero be formed.

The Chairman described an optical experiment that would be conducted during the week, thanks to co-operation from the Secretary-General and his wife, and then wished everyone a productive meeting and looked forward to the output it would produce.

# Working Group 1 – AtoN InfrastRuctUre Design & Maintenance

Working Group 1 was asked to respond to input papers EEP19/6, EEP19/7, EEP19/8, EEP19/9, EEP19/10, EEP19/35, EEP19/53, EEP19/54 and EEP19/63 through to EEP19/86.

## ****AtoN Engineering**** (Task 2\*)

### **Lightning Protection (Activity 2.1.2)**

Further inter-sessional review was undertaken on the draft Guideline, which was commenced at EEP17 and then reviewed at EEP18.

The WG members responsible for that inter-sessional review continued work on the document during EEP19. The main text of the document (EEP19/WG1/WP4) is considered to be complete but further work on the risk assessment aspects will be completed inter-sessionally, in order to complete the document at EEP20.

Action Item

The Secretariat is requested to forward the draft Guideline on Lightning Protection (EEP19/WG1/WP4) to EEP20.

### **Plastic buoys questionnaire (Activity 2.1.1)**

Input paper EEP19/7 refers.

The WG noted the buoy questionnaire summary and that additional input had been provided at the Brest workshop. WG members volunteered to continue summarizing the results inter-sessionally. The complete questionnaire will be reviewed inter-sessionally with a view to placing it on the ftp server and IALA Wiki site, in order that the information be more widely available.

Action Item

Jörg Unterderweide and Sipke Hoekstra are requested to summarize existing Plastic Buoy Questionnaire results and incorporate them into the Guideline on Plastic Buoy Design for EEP20.

EEP Committee members are requested to review the Plastic Buoy Questionnaire inter-sessionally and forward comments to Sipke Hoekstra by 15 March 2013.

### **Protection of AtoN from bird fouling (Activity 2.4.1)**

Input paper EEP19/35 refers.

The draft Guideline, as forwarded from EEP18 to the Council for approval was returned with a request to review and reformat the document. The request asked that the document provide a more general overview of the issue, rather than an emphasis on individual case studies.

This prompted further inter-sessional review of the draft Guideline and an input document was provided for review at EEP19. This resulted in a final, re-formatted version of the document (EEP19/output/4), deemed ready for forwarding for approval.

This guideline was compiled using general information available through case studies, reports and documents provided by various IALA members, detailing their bird deterrent trials. The WG noted the valuable contributions to this document from Australia, Brazil, Denmark, Japan, Papua New Guinea and Sweden.

Action Item

The Secretariat is requested to forward the Draft Guideline on Bird Deterrents (EEP19/output/4) to the IALA Council for approval.

### **Hydrostratic Design of Buoys as an AtoN Platform (Activity 2.1.4)**

Input paper EEP19/8 refers.

Due to the significant review provided by technical experts during the Brest workshop, it was identified that the guideline required a more in depth review, with a view to updating technical input. The WG continued the review during EEP19 and the text of the document (EEP19/WG1/WP2) was completed, although new illustrations are still required. Inter-sessional review by EEP members is requested, with a view to forwarding the document to EEP20 for final approval.

Action item

EEP Committee members are requested to provide inter-sessional comments on the draft guideline on the Hydrostratic Design of Buoys, (EEP19/WG1/WP2) to Adrian Wilkins by 15 March 2013.

Adrian Wilkins is requested to incorporate some additional drawings and illustrations into draft guideline on the Hydrostratic Design of Buoys, (EEP19/WG1/WP2) by 15 March 2013.

When available, the Secretariat is requested to forward the draft guideline on the Hydrostratic Design of Buoys, (EEP19/WG1/WP2) to EEP20.

### **Mooring Design Software**

The WG noted with appreciation the offer made by Mobilis, at the workshop in Brest, to provide their mooring design software (CALMAR) free of charge for use by IALA members. The WG also noted the significance of this offer, considering the sophisticated nature of the software, but also noting that some feedback is needed from WG members before the software can be provided by IALA as a design tool.

WG members from the UK, Germany, Canada, the Netherlands and France agreed to trial the software inter-sessionally and to provide their review and comments on its performance to Michel COUSQUER from CETMEF, who offered to collate and summarize comments and provide the result as input to EEP20.

Action item

WG1 members from the UK, Germany, Canada, the Netherlands and France who have volunteered to trial the CALMAR software are asked to provide their review of its performance to Michel Cousquer of CETMEF before EEP20.

Michel Cousquer is requested to provide a written summary of all comments received on trials of the CALMAR software at EEP20.

## ****Power Systems and Energy Storage (Task 4\*)****

Task completed at EEP16.

## ****Remote Control and Monitoring (Task5\*)****

Liaison continues with the e-NAV Committee.

## ****Risk Assessment Techniques in AtoN Design and Maintenance (Task 11\*) (Activity 11.1.1)****

Input paper EEP19/10 refers.

It was agreed that the input paper provided a general summary of the contents suitable for this guideline and it was agreed that, with the depth of the topic and the short amount of time allowed, it was not possible to create a comprehensive guideline inter-sessionally.

The contents were reassembled into a guideline format (EEP19/WG1/WP3) so that the document could be reviewed inter-sessionally and further developed at EEP20.

Action item

EEP Committee members are requested to review inter-sessionally EEP19/WG1/WP3, with a view to further developing the document at EEP20.

The Secretariat is requested to forward EEP19/WG1/WP3 to EEP20.

## ****e-Navigation across Committees (Task 13\*)****

### **Operational aspects of installing AIS AtoN on buoys and beacons (Activity 2.1.3)**

Input paper EEP19/6 refers

The WG noted the considerable work by industrial members at the Brest workshop.

A final review and proofing was undertaken and the document (EEP19/output/3) considered ready for approval.

Action Item

The Secretariat is requested to forward the draft Guideline for Application of AIS on Buoys (EEP19/output/3) to the IALA Council for approval.

### **Effect of e-Navigation on conventional AtoN (Activity 13.2.1)**

Input paper EEP19/59 refers.

The WG noted that a concept for Maritime Service Portfolios is being developed which may impact on the provision of conventional aids to navigation. However, the WG agreed that this activity could not be progressed until there was significant additional information available on the proposed MSPs.

No further action on this item is required at the moment.

## ****Polar Engineering (Task14\*)**** (Activity 14.1.1)

Input papers EEP19/63 - EEP19/86 refer.

A summary of topics (EEP19/WG1/WP1, EEP19/WG1/WP5, EEP19/WG1/WP6 & EEP19/WG1/WP7) that may be suitable for incorporation into a Polar Engineering guideline was created by the WG. Whilst the list provides a framework on which to build the document, the WG identified that further meaningful input and work was required to further progress this activity.

The WG noted that the EEP Chairman had identified the possibility of a workshop on polar engineering and that the output document as described above and that the suite of documents provided by the Swedish authority will provide significant input for the proposed polar engineering workshop.

It was noted that it is necessary to defer the holding of the workshop on Arctic Engineering until a host can be determined.

Action Items

EEP Committee Members are requested to review inter-sessionally the summary (EEP19/WG1/WP1, EEP19/WG1/WP5, EEP19/WG1/WP6 & EEP19/WG1/WP7) and provide input and content for further development at EEP20.

The Secretariat is requested to forward EEP19/WG1/WP1, EEP19/WG1/WP5, EEP19/WG1/WP6 & EEP19/WG1/WP7 to EEP20.

## The use of Audible Signals as Aids to Navigation (*in conjunction with ANM*) (Task 15\*)

It was not considered appropriate to prepare a new Guideline on this subject. The Task is considered complete.

## Review of IALA Guidelines by WG1

The WG identified the role that it could play in further review of existing IALA documentation. It identified that review of old documents should be undertaken in coordination with the development of new documents, in order to ensure that the entire suite of IALA documents provided updated and comprehensive information to the end user.

Action Item

WG1 members are requested to identify IALA documents that could be reviewed by WG1 at EEP20 and advise Adrian Wilkins accordingly (EEP19/WG4/WP1 refers).

## Consider work for EEP after 2014

The WG were asked to consider additional work activities for inclusion in the post 2014 conference EEP work programme.

Some possible future work activities discussed were;

* Product specifications for complete AtoN installations or listings of product information and design provided by reputable national members – to be handled by the EEP committee.
* Work on standards and guidance for the specification and material testing for rotomoulded polyethylene buoys. Item of particular interest and importance. Request inter-sessional review and information from Industrial members on methods and standards of testing and quality control for input at EEP20.
* Guidance on problems associated with the migration to higher voltage supplies for long range AtoN sites.
* A number of national members have experienced early failure of AtoN products. It is proposed that more details of these failures are obtained with a view to proposing improved testing procedures by both Industrial members and National Authorities.

The Committee noted that at this time there are more new AtoN products available than there have ever been and that there is, inevitably, limited ‘product maturity’.

Action item

WG1 Members are asked to identify possible work activities for the 2014 -2018 Work Programme, for further discussion at EEP20. Those wishing to forward the information in writing should provide the information inter-sessionally to WG1 Chairman Adrian Wilkins by 15 March 2013.

Sipke Hoekstra is requested to forward details of polyethylene properties to Adrian Wilkins inter-sessionally for EEP20.

EEP Committee members are requested to identify unexpected / early AtoN equipment failure and provide input to EEP20.

## Anti Fouling on Buoys & Impressed Current Anti-Fouling

Input papers EEP19/20 & EEP19/42 refer.

WG1 has been requested to review these documents and consider incorporating the information contained into Guideline 1015 – Buoy Painting.

Action Item

WG Chairman Adrian Wilkins is requested to review the input documents (EEP19/20 & EEP19/42) inter-sessionally with a view to providing further feedback for discussion at EEP20.

# Working Group 2 – Heritage, Conservation & Civil Engineering

Working Group 2 was asked to respond to input papers EEP19/14, EEP19/15rev1, EEP19/16, EEP19/17, EEP19/18, EEP19/19, EEP19/21, EEP19/87, EEP19/104 & EEP19/105.

The WG Chairman welcomed all attendees to the working group and in particular to any new members of the working group. It was noted that Carmen Martinez from Puertos del Estado had advised the committee chairman that she was retiring and would therefore no longer be attending EEP meetings. The Chairman thanked Carmen for her efforts on Heritage matters which she had contributed to fully over the years since the beginning of the Panel for Preservation of Historic Lighthouses.

## Heritage and Conservation (Task 9\*)

### Maintain the IALA Lighthouse Conservation Manual (Activity 9.1.1)

A short discussion took place on the future of the Conservation Manual. It was suggested that a review of the manual and the additional guidelines published since then could form an important part of the future work programme for the next session 2014-2018. This might allow the publication of a revised version of the manual or at least an electronic copy which could be published on the website. There is renewed optimism within IALA that the new website would be in operation in early 2013 and that a heritage web page will be included. It is intended that this would allow improved member and public access to the manual. Malcolm Nicholson has produced a document (EEP19/WG4/WP1) that lists all Guidelines, Recommendations and Manuals that are currently under the auspices of the EEP Committee. This will allow easier tracking of the Working Group documents. Members of the working group were asked to review the content of the manual and the guidelines published since the original publication in 2006 and to consider the possible new work that may be required for next session.

Action item

WG2 members are requested to consider how the existing IALA Lighthouse Conservation Manual and recently published guidelines could be revised as part of a new work programme for 2014-2018.

### Produce a new guideline on the selection and display of historic artefacts (Activity 9.2.1)

IALA Guideline No. 1080 on the Selection and Display of Heritage Artefacts has now been published on the IALA website and is available for members to download. This activity is now complete.

### Produce new guideline on transfer of redundant lighthouses (Activity 9.3.1)

The Draft Guideline has now been retitled Guideline on the Management of Surplus Lighthouse Property. The document (EEP19/output/8) was reviewed section by section by the working group and is now considered ready for approval by the Council.

Action Items

The Secretariat is requested to forward EEP19/output/8 (Draft Guideline on the Management of Surplus Lighthouse Property) to Council for approval.

### Report on Case Studies (Activities 9.4.1 & 9.4.2)

Unfortunately no further progress has been achieved on the Case Study reports for group visits to the projects at Nakkehoved Lighthouse near Copenhagen and Cabo Mayor Lighthouse, Santander. No further information has been received on these case studies. It is felt that these reports are now unlikely to be published but Bob McIntosh will add the information available to IALA Wiki for information. The working group however hopes that when further Case Study reports are published that it will now be possible to publish these on the proposed Heritage page of the new IALA website.

Action Items

Bob McIntosh is requested to add the information available on the visit to Nakkehoved Lighthouse on to the IALA Wiki.

### Document History of Floating Aids to Navigation (Activities 9.5.1 & 9.5.2)

Adrian Wilkins has continued to develop his paper, the History of Floating Aids to Navigation, since the last meeting and the latest version was submitted as a late paper EEP19/15 rev1 with further information obtained from a variety of documents which his researches have uncovered. Committee Members are requested to provide Adrian Wilkins or Bob McIntosh with any information or further sources of information on the History of Floating Aids to Navigation before EEP20 to allow him to complete the coverage of the information.

Adrian Wilkins and Bob McIntosh are currently investigating possible funding options for the document possibly through IALA and the industrial members. Consideration will also be given to the options for electronic publishing.

Adrian Wilkins is requested to include all additional information received in the document and submit to EEP20 as a proposed final Version 1 of the document.

Action Items

EEP Committee Members are encouraged to read Adrian Wilkins papers on The History of Floating AtoN (EEP19/15 rev1) and are requested to provide Adrian Wilkins or Bob McIntosh with any information or sources of information on the History of Floating Aids to Navigation by December 2012.

Adrian Wilkins is requested to include any additional information received in The History of Floating AtoN and to submit a proposed final Version 1 of the document as an input paper to EEP20.

### Re-Issue Questionnaire on Complementary Uses of Historic Lighthouses (Activity 9.6.1)

It had been agreed at the end of the previous session that although the results of the questionnaire on Complementary Uses of Historic Lighthouses were useful and provided some useful information, particularly in relation to projects in various countries, it was felt that the 25% response was insufficient to make too many specific conclusions as to the scope of complementary uses in place at members lighthouses. It was agreed that some questions should be included to determine the extent of distribution of the IALA Lighthouse Conservation Manual and of its use by members. In addition it was felt it would be very useful from a building maintenance perspective to determine what problems members encounter with the their historic lighthouse buildings as this might give an indication of areas where solutions may be sought or exchanged and may indicate that there is a small number of common problems or a large number of different problems. It may not be possible to include this at this stage as it may divert the focus of the questionnaire away from its original aim. During EEP16 discussions it was suggested that absolutely precise numbers were not required for historic lighthouses or other number as this may result in those responding to the questionnaire having to put in a lot of extra effort. What is important to us is the scale of the numbers rather than absolutely accurate responses.

No discussion took place on this subject at EEP19 but Jo van der Eynden has agreed to review the questionnaire and seek further comment from working group members.

It has been suggested that due to the delays in updating the questionnaire it would be more appropriate to issue it at the beginning of the next session to allow the results to be correlated and published during the session.

Action Items

Jo van der Eynden is requested to review the questionnaire on Complementary Uses of Historic Lighthouses and seek further comment from WG2 members.

Jo van der Eynden is requested to submit a revised questionnaire on Complementary Uses of Historic Lighthouses to EEP20.

### Promote an international network for historic lighthouses (Activity 9.6.2)

This continues to be considered to be one of the most important work items within the heritage area of work, with the hope that the working group will be able to provide a platform for the exchange of information between IALA members, Heritage Groups and others responsible for the upkeep of historic lighthouses around the world. The holding of an International IALA Seminar which although principally held for the benefit of members does attract interest from outside bodies and many representatives from related organisations have been encouraged to participate and make presentations at our events in Kristiansand in 2000, Gothenburg in 2005 and Santander in 2009. Details of proposals for 2013 continue to be developed under work item 9.1.8.

After a discussion with the Secretariat about the Heritage web page it was agreed to take the information from EEP16/9/7 postings on Heritage at IALA Website and prepare a proposal for a Heritage Page on the website with the website provider. The Secretariat is now hopeful that this could be in place early in 2013, which may allow us to demonstrate it at EEP20. It is expected that the IALA Heritage webpage will encourage the exchange of information on all matters relating to the Heritage of our Historic Lighthouses.

The editor of the IALA Bulletin requested that the WG Chairman produce an article for the bulletin on a regular basis and we have called it ‘The Lighthouse Preservation Corner’. Articles have been published on the 200th Anniversary of the lighting of the Bell Rock, Scotland and the Hercules Tower, Spain and on the Portopi Lighthouse Museum, Spain, lighthouses in New Zealand and the maintenance project at the Ons Island lighthouse. More recently we have published articles on the Dalen Anniversary and the next issue of the bulletin will include an article on the removal of the 1st order lens at Tod Head Lighthouse, Scotland and an introductory article on the Athens Seminar in 2013. We wish to continue this success and ask that members of the working group will offer articles to allow ‘The Lighthouse Preservation Corner’ to continue to be published on a regular basis.

Paul Ridgway has volunteered that he is prepared to write something on preserved lighthouse tenders and light vessels. If EEP Committee members have any information on their lighthouse tenders or light vessels he would be interested to include this in his articles. It has been suggested that may be developed in a similar way as Adrian Wilkins booklet on the History of Floating Aids to Navigation for future inclusion on our website page. Bob McIntosh has confirmed to Paul Ridgway that his proposal is supported by the Heritage Working Group. This matter is on-going to EEP20

In addition Bob McIntosh will continue to circulate information relating to the Heritage and Conservation of Historic Lighthouses amongst those who have registered an interest and will include any new members or others who indicate that they wish to be updated on these matters.

During a general discussion period Eoghan Lehane of the Commissioners of Irish Lights gave a short presentation on an Interreg 4A project to improve 8 former lightkeeper’s cottages at 5 lighthouse sites with a view to them becoming holiday homes to cover the costs of maintenance and 5 visitor’s attractions with the co-operation of local groups. Vincent Guigueno showed some short videos of French Lighthouses including Cordouan in relation to Lighthouse Heritage. Christian Lagerwall of the Swedish Maritime Administration gave a short presentation the history of Daymarks and the working group agreed that it would be of great value for a record of the development and use of daymarks to be made. EEP Committee members are requested to pass on any information that they have in relation to their daymarks with photographs to Bob McIntosh or Christian Lagerwall. Once the scope of information is discovered then it will be possible to consider the preparation of a document. If there is sufficient information available this may be developed further as a future work item.

Action Items

WG2 members are requested to consider topics for future articles to be included in the IALA Bulletin within ‘The Lighthouse Preservation Corner’ and to provide these to Bob McIntosh.

Bob McIntosh is requested to meet editorial deadlines to ensure that articles are available for each edition of the IALA Bulletin wherever possible by passing suitable articles to the editor for inclusion in ‘The Lighthouse Preservation Corner’.

EEP Committee members are requested to submit any information they or their authorities have on preserved lighthouse tenders and light vessels to Bob McIntosh or Paul Ridgway.

Bob McIntosh is requested to continue to monitor the list of people who indicated an interest in Heritage and Conservation of Historic Lighthouses, to ensure that they are updated on developments.

EEP Committee members are requested to pass on any information that they have in relation to their daymarks with photographs to Bob McIntosh or Christian Lagerwall.

Bob McIntosh and Christian Lagerwall are asked to consider the possibility of producing a document on the history and development of daymarks.

### Seminar on Maintaining Historic Lighthouses (Activity 16.2.1)

A seminar steering group meeting took place in Athens in September 2012 and it proved very useful to members of the Steering Group to meet representatives from the host and the supporting organisations as well as viewing the venues.

The title of the seminar has been agreed as a Seminar on the Preservation of Lighthouse Heritage and will be held in Piraeus, Athens on the 3 to 7 June 2013. The event will be hosted by the Hellenic Navy Lighthouse Service and supported by the Hellenic Maritime Museum and the Aikaterini Laskaridis Foundation. Mr Panos Chiotis, of the Hellenic Navy Lighthouse Service, was unable to attend EEP19 but a Steering Group meeting was held with him via GoToMeeting and the details were finalised for the Seminar Brochure, which has now been published. The seminar fee has been set at €600.

Some work and discussion took place on the detailed programme of the event and a significant number of speakers have now been identified. A copy of the detailed programme has been published as EEP19/WG2/WP1. There is still however some space for additional presentations so WG2 members are requested to consider topics for presentations and individuals to present them at the seminar. Equally as important all committee members are asked to circulate the flyer within their organisation, particularly to those who have a level of responsibility or interest in the heritage of lighthouses and encourage them to attend.

Action Items

The Secretariat is requested to forward the detailed programme for the heritage seminar (EEP19/WG2/WP1) to EEP20.

WG2 members are requested to consider topics for presentations and individuals to present them at the seminar, and to submit their suggestions to Bob McIntosh as soon as possible.

Bob McIntosh is requested to collate responses in relation to Seminar topics and speakers and to circulate this to Steering Committee members.

EEP Committee members are asked to circulate the brochure within their organisations, particularly to those who have a level of responsibility or interest in the heritage of lighthouses, encouraging them to attend.

### Review and update NAVGUIDE Section 8.11 (Activity 12.4.1)

This item was completed at EEP18.

## Civil Engineering and Structures (Task 10\*)

### Produce guideline on anti-fouling techniques (marine growth) for floating aids, boat landings, etc. (Activity 10.1.1)

Information on anti-fouling of buoys has been passed to working group 1 for further development. The remainder of the information, EEP18/WG2/WP8 on Anti-fouling in relation to slipways, jetties etc., has been retained and it is proposed to publish this on the IALA Wiki site.

Action Item

Bob McIntosh is requested to publish the remaining information EEP18/WG2/WP8 on Anti-fouling in relation to slipways, jetties etc. on the IALA Wiki site.

### Expand Guideline No. 1076 on Building maintenance and conditioning in low energy environments and guidance on low power ventilation systems and avoiding condensation (Activity 10.2.1)

Nicolas Fady of CETMEF made a presentation on Humidity in Lighthouses during plenary and further discussion took place during the working group meeting. He has agreed to keep the working group up to date on any developments in the monitoring of the French Lighthouses.

Although no specific discussion took place on the current guideline, some of the discussions at EEP19 were relevant for possible inclusion in relation to CETMEF’s efforts in relation to monitoring humidity in their lighthouses.

In order to expand this guideline we will still require EEP Committee members to provide information on this type of problem in their authorities or to provide WG2 with a contact within their organisation who may be able to provide this type of information.

Action Items

EEP Committee members are requested to provide information on building maintenance and conditioning in low energy environments within their authorities or to provide contact details for an individual who may be able to provide this information to Bob McIntosh.

WG2 members are requested to consider options for developing Guideline No. 1076 when additional information becomes available.

Nicolas Fady is requested to update the EEP Committee on the work being carried out by CETMEF on humidity monitoring of their lighthouses at EEP20.

### Provide guidance on protection and repair of Aid to Navigation Structures in Natural Disaster Areas (Activity 10.3.1)

Bob McIntosh previously updated the paper, ‘The effect of Natural Disasters on AtoN Structures’ (EEP18/9/6) with information received from New Zealand and some additional documentation not previously included from Japan.

No time was available to discuss this matter specifically but it will be considered under the on-going work on the preparation of the Heritage (and Civil Engineering) page of the IALA Website.

Action item

Bob McIntosh is requested to continue to monitor the impact of Natural Disasters on Historic Lighthouses in particular and how the authorities have reacted to the problems.

### Revise Lighthouse Maintenance Guidance (Activity 10.2.2)

Input papers EEP19/104 & 105 refer.

On a previous work item by WG1 it was agreed that the US Parks guide on lighthouse maintenance covered a lot of ground on this topic and as it was freely available it was unnecessary to repeat this information. The possible use of links to documents such as this, through the Heritage (and Civil Engineering) page of the IALA Website, will also be investigated.

It was suggested at EEP18 that what could be useful to members would be to access specifications used by authorities for various aspects of lighthouse building maintenance, which could then be collated in a location where they could be accessed by the members. This would allow them to compare their existing specifications with those in use by other authorities, which may provide options for improvement.

Committee members are therefore encouraged to submit examples of their building maintenance specifications to determine if there is sufficient interest in this subject to set up an index of similar or different specifications for the members to make use of.

Bob McIntosh submitted copies of Paint and Painting Specifications EEP19/104 & 105 currently in use by the Northern Lighthouse Board in Scotland. Each country has different ideas in relation to what is the most appropriate system for painting lighthouses so it would be useful if other authorities could submit their specifications for comparison. If EEP Committee members think it is worthwhile these can be added to the Heritage/Civil Engineering Web page.

Action Item

EEP Committee members are requested to submit examples of their building maintenance specifications to Bob McIntosh or as input to EEP20.

# Working Group 3 – Environment, Quality Assurance, TRAINiNG & Publications

Working Group 3 was asked to respond to input papers EEP19/22 rev1, EEP19/23, EEP19/24, EEP19/25, EEP19/26, EEP19/36, EEP19/38 rev1, EEP19/39, EEP19/40, EEP19/45, EEP19/46, EEP19/47, EEP19/48, EEP19/50, EEP19/51, EEP19/52, EEP19/55, EEP19/56, EEP19/57, EEP19/58, EEP19/62, EEP19/88, EEP19/91, EEP19/92, EEP19/93, EEP19/94, EEP19/95 and EEP19/98.

The detailed work programme for Working Group 3 was reviewed and the specific tasks progressed.

## **Knowledge Sharing / Knowledge Management, taking into account open source software** (Task 1\*)

### Develop procedures for informal sharing of information between members (Activity 1.1.1)

The objective of this work item is to develop procedures for informal sharing of information between members.

It was proposed that procedures for informal sharing of information between members would reside in the IALA Wiki and would describe the process for adding and updating content.

A short video was added to the IALA Wiki front page to show users how to create a new account and add content to the site. Further inter-sessional work is planned to provide additional instructions and information for adding content to the IALA Wiki site.

David Jeffkins will continue to further develop procedures for adding content to the IALA Wiki in consultation with Omar Frits Eriksson.

Action Item

David Jeffkins is requested to further develop procedures in consultation with Omar Frits Eriksson for updating and adding new content to the IALA Wiki.

### Develop and populate the IALA Wiki with information on Aids to Navigation (AtoN) not included in official IALA documents (Activity 1.2.1)

The objective of this work item is to populate the IALA Wiki with information on AtoN that is not included in official IALA documents. Information will be added as it becomes available.

The IALA Wiki has recently been moved to a new IALA server and can be found at [*http://www.iala-aism.org/wiki/ialawiki*](http://www.iala-aism.org/wiki/ialawiki)

The IALA Wiki was reviewed and members viewed a recent example where the Wiki was used for developing new guidance on buoy design and information on bird deterrents and mercury was also viewed.

Committee members are requested to continue use the IALA Wiki for developing IALA guidance documentation and posting relevant AtoN engineering documentation and information.

Action Item

EEP Committee members are requested to review the IALA wiki (http://www.iala-aism.org/wiki/ialawiki) and use it for developing IALA guidance documentation and posting relevant AtoN engineering documentation and information.

## **Environment and Safety** (Task 6\*)

### Develop new Guideline on methods for determining and reducing carbon footprint of AtoN services (Activity 6.1.1)

The objective of this work item is to provide advice to members for determining the carbon footprint of delivering their aids to navigation services and some potential options for reducing emissions.

No additional input papers have been received on this topic.

The working group agreed that the previous information supplied by Trinity House would be able to be incorporated into the revised edition of IALA Guideline 1036 on environmental considerations in aids to navigation engineering.

Adam Hay is co-ordinating updates to IALA Guideline 1036 on environmental considerations in aids to navigation engineering. Committee members are requested to send any relevant information on evaluating the carbon footprint of their AtoN activities and initiatives that they have implemented to reduce emissions to Adam Hay for inclusion in the revised Guideline.

Action Item

EEP Committee members are requested to send any relevant information on evaluating the carbon footprint of their AtoN activities and initiatives that they have implemented to reduce emissions to Adam Hay for inclusion in the revised Guideline 1036 on environmental considerations in aids to navigation engineering.

### Revise NAVGUIDE content for guidance on safe handling and management of mercury (Activity 6.1.2)

The objective of this work item is to review the existing guidance in the NAVGUIDE for the safe handling and management of mercury.

The existing guidance on mercury in the NAVGUIDE was reviewed and considered to be adequate.

Jean-Charles Leclair investigated the progress of a United Nations ad hoc working group on mercury hazards. There was a concern that any new legally binding instrument on mercury may make its use in lighthouse applications extremely difficult. Stephen Bennett reported that he understood that there were no plans at this point in time to totally prohibit the use of mercury.

Input paper EEP19/26 a safe work instruction for mercury in rotating optics was reviewed and the information was posted on the IALA Wiki site for members.

This work item is now complete.

### Develop new Guideline on treating legionella and coli bacteria in water supplies of destaffed stations (Activity 6.1.3)

The objective of this work item is to provide advice to members on treating legionella and coli bacteria in water supplies of destaffed lighthouse stations.

Simon Millyard advised that Trinity House is in the process of revising their documentation and procedures pertaining to potable water supplies on lighthouse estates in regard to bringing them into a more useful pragmatic document.

Simon Millyard agreed to share the revised documents when they are completed and will submit as input to EEP20 if they are available.

Action Item

Simon Millyard is requested to provide a copy of the revised Trinity House documentation on the management of potable water on lighthouse estates once completed and submit to EEP20 if available.

### Develop new Guideline on safety management for AtoN activities (Activity 6.1.4)

The objective of this work item is to provide advice to members on safety management for AtoN repair and maintenance activities.

Input paper EEP19/22 rev1 draft guideline on safety management for AtoN activities was reviewed and updated to include additional information on leading indicators for measuring safety performance. The updated draft Guideline EEP19/output/16 is to be forwarded to Council for approval.

Action Item

The Secretariat is requested to forward EEP19/output/16 (draft Guideline on Safety Management for AtoN Activities) to Council for approval.

### Revise Guideline 1036 IALA Green Guide (Activity 6.3.1)

The objective of this work item is to provide guidance to members on environmental issues in the provision of AtoN.

The working group continued to review Guideline 1036 environmental consideration in aids to navigation engineering.

It was noted that it may be beneficial to also include information on the following topics in the revised 1036 Guideline:

* effects of global warming on rising sea levels and the impact on the provision of AtoN services;
* information on methods for determining carbon footprint and techniques to reduce emissions.

An amended version of Guideline 1036 environmental consideration in aids to navigation engineering was produced and provided as working paper EEP19/WG3/WP1 (draft revised Guideline 1036 environmental consideration in aids to navigation engineering).

Adam Hay agreed to co-ordinate further updates to the document prior to EEP20.

Committee members were requested to review EEP19/WG3/WP1 and provide comments to Adam Hay by Jan 2013.

Action Item

The Secretariat is requested to forward EEP19/WG3/WP1 (draft revised Guideline 1036 environmental consideration in aids to navigation engineering) to EEP20.

EEP Committee members are requested to review EEP19/WG3/WP1 (draft revised Guideline 1036 environmental consideration in aids to navigation engineering) and provide comments to Adam Hay by January 2013.

Adam Hay is requested to co-ordinate updates to EEP19/WG3/WP1 (draft revised Guideline 1036 environmental consideration in aids to navigation engineering) and submit it as input to EEP20.

## ****Aids to Navigation Training, IALA WWA**** (Task 7\*)

This objective of this task is to assist in the development of IALA guidance documents and training material for the IALA World Wide Academy (The Academy).

Stephen Bennett, Programme Managerfor the WWA, gave a short presentation on the proposed process for updating existing Level 2 model courses and also highlighted that The Board of The Academy has responsibility for issuing all model courses approved by Committees and formally endorsed by the Council.

### Develop new Model Course for the accreditation of level 1 AtoN training (Activity 7.1.1)

This task was completed at EEP17. E-141/1 for AtoN Managers and E-141/2 (Level 1+ model course to be delivered by the Academy to executives in Competent Authorities and senior managers in AtoN service providers in target regions) were published in 2011. The overview document on Level 2 Technician Training (IALA WWA.L2.0) was output from EEP-18 and published in June 2012.

The working group reviewed input documents EEP19/51 and EEP19/52 that contained some minor text edits to Recommendation E-141 Standards for Training and Certification of AtoN Personnel which were accepted. It was also recommended to add some additional text to allow the Competent Authority some discretion in choosing the qualification level of staff to undertake Level 1 training.

The revised version of E-141 Standards for Training and Certification of AtoN Personnel is to be sent to the Council for approval.

Action Item

The Secretariat is requested to forward EEP19/output/14 (E-141 Standards for Training and Certification of AtoN Personnel) to the Council for approval.

### Develop Model Course for level 2 technician training (Activity 7.1.2)

The working group reviewed the syllabus (Part B) of IALA WWA.L2.0 (Model course overview on Level 2 Technician Training). It was agreed that the titles and order of some modules and syllabus elements could be improved. The Academy agreed and undertook to conduct such a review, which would be forwarded as an input to EEP20.

Action item

The WWA is requested to review the titles and order of model course modules and syllabus elements and provide an input to EEP20

The Working group reviewed a Liaison Note from the Academy on the proposed way ahead for Level 2 Model Courses. The Committee agreed with the proposed approach and Liaison Note EEP19/output/17 is to be sent to the Academy.

Action Items

The Secretariat is requested to forward EEP19/output/15 (IALA WWA.L2.0 Model Course overview on Level 2 Technician Training) to the Academy for amendment.

The Secretariat is requested to forward EEP19/output/17 (EEP-19 Liaison Note to the Academy) to the Academy.

### Input papers related to Level 2 Technician Model Courses

The Working group reviewed 19 input papers related to Level 2 model courses. These covered 11 courses, which had kindly been drafted as a result of output requests from EEP18. One of these (Radionavigation and DGNSS) had been output from e-Nav (EEP19 input papers 40, 47, 58 and 62).

A total of nine new model courses were endorsed by the Committee and will be sent to the Academy for approval.

Action Items

The Secretariat is requested to forward EEP19/output/6(Level 2 model course on Radionavigation and DGNSS IALA WWA L2.9.1-9) to the Academy for approval.

The Secretariat is requested to forward EEP19/output/18 (Level 2 model course on Introduction to AtoN IALA WWA L2.1.1-2) to the Academy for approval.

The Secretariat is requested to forward EEP19/output/19 (Level 2 model course on an Introduction to buoyage IALA WWA L2.1.3-4) to the Academy for approval.

The Secretariat is requested to forward EEP19/output/20 (Level 2 model course on buoy cleaning IALA WWA L2.1.8) to the Academy for approval.

The Secretariat is requested to forward EEP19/output/21 (Level 2 model course on maintenance of plastic buoys IALA WWA L2.1.12) to the Academy for approval.

The Secretariat is requested to forward EEP19/output/22 (Level 2 model course on maintenance of steel buoys IALA WWA L2.1.13) to the Academy for approval.

The Secretariat is requested to forward EEP19/output/23(Level 2 model course on power sources on buoys IALA WWA L2.1.14) to the Academy for approval.

The Secretariat is requested to forward EEP19/output/24(Level 2 model course on AtoN Service Craft and Buoy Tenders IALA WWA L2.6.1-2) to the Academy for approval.

The Secretariat is requested to forward EEP19/output/25(Level 2 model course on Radar Beacons IALA WWA L2.7.1-2) to the Academy for approval.

### Level Two Model Courses to be input to EEP20

The Working Group reviewed the remaining 15 Level 2 model courses and prioritised them as inputs to EEP20 and EEP21 (EEP19/WG3/WP1). Volunteers to draft 13 Level 2 model courses for review at EEP20 were identified. Details are shown in the following list of Action Items.

Action Items

Simon Millyard and Yousef Al-Rahbi are requested to develop a course for 1.5; 1.6 on Buoy handling; safe working practices; deployment and retrieval and submit as input to EEP20.

Simon Millyard is requested to develop course 1.11 on an introduction to remote monitoring of AtoN and Module 8.1-8.5 on AIS and submit as input to EEP20.

Stephen Bennett is requested to develop course 1.9 on an introduction to buoy positions and develop further EEP-19 input 56 into a on 3.1-3.4 on lights used in marine lanterns and submit as input to EEP20.

David Jeffkins is requested to develop a model course 2.5; 2.6 on mains AC power systems and petrol and diesel generators. He is also requested to develop model course 10.1-10.2 on the principles of remote monitoring and its parameters and submit as input to EEP20.

Michel Cousquer is requested to develop model courses 2.4 on wind generators and 2.7 on lightning protection.

Michel Cousquer is requested to develop a model course on Module 5 (5.1-5.5) on paintings and coatings and submit as input to EEP20.

In conjunction with Malcolm Nicholson and Frank Hermann, Christian Lagerwall is requested to develop course 3.10 on range, sector and leading lights and submit as input to EEP20.

In conjunction with Malcolm Nicholson and Frank Hermann, Adrian Wilkins, liaising as required with Stephen Bennett, is requested to develop course 3.5 to 3.8 on lamp changers; self-contained lanterns, rotating beacons and focal height, alignment and classical lenses and submit as input to EEP20.

Bob McIntosh is requested to develop a model course on Module 11, elements 11.1-11.6 on structures and materials and submit as input to EEP20.

EEP Committee members are requested to co-ordinate the development of these Level 2 technician Model Courses with Stephen Bennett (stephen.bennet[t@iala-aism.org](mailto:t@iala-aism.org)).

## ****Product Procurement**** (Task 8\*)

### Maintain and develop product templates (Activity 8.2.1)

The objective of this work item is to maintain and develop the existing product templates and develop new guidance on the procurement of AtoN equipment and systems.

Following the IALA Council’s decision to discontinue the Product Certification Program, IALA Guideline 1034 on Product Certification has been withdrawn and references in other IALA guidance documents updated.

The Product Certification Templates have been re-titled as Product Templates and retained for the purpose of procuring and comparing manufacturers’ products.

It is proposed that the AtoN product templates be connected to an existing Guideline rather than creating a new Guideline on product. David Jeffkins agreed to review the existing Guidance documents to identify a suitable Guideline that could be amended for this purpose.

Action item

David Jeffkins is requested to review existing Guidance documents to identify a suitable location for linking the product templates and submit as input to EEP20.

### Develop IALA product guide database schema (Activity 8.3.1)

This work item was completed at EEP16.

### Develop new Guideline and XML schema for AtoN product data exchange (Activity 8.3.2)

This work item was moved to WG1 at EEP18 and was completed. It has been removed from the WG3 detailed work programme.

## Quality Management (Task 12\*)

### Contribute to the review of Recommendation O-132 on quality management for aids to navigation authorities (Activity 12.1.1)

This work item was completed at EEP18.

### Review Guideline 1052 on quality management in aids to navigation service delivery (Activity 12.1.2)

This work item was completed at EEP18.

### Review NAVGUIDE (Activity 12.1.3)

The objective of this work item is to assist the ANM Committee in updating the IALA NAVGUIDE. The IALA Council have agreed to only a limited review of the NAVGUIDE being required during this work period as a substantial review was completed during the last work period.

The NAVGUIDE review was continued with a number of changes recommended. The following suggested amendments were forwarded to ANM in Liaison Notes EEP19/output/09 and EEP19/output/11.

* Chapter 3.2.3, a colour region chart for lights from IALA Recommendation E200 attached in EEP19/output/12 is required to be added;
* Chapter 3.2.4, removed the ultra quick and interrupted ultra quick characters from Table 9. EEP19/output/10 contains an updated table;
* It was also noted that the list of figures in Annex C requires updating.

An action plan was developed for the remaining EEP sections of the NAVGUIDE and section co-ordinator were identified EEP19/output/13.

Committee members are requested to review the action plan and relevant sections of the NAVGUIDE and provide comments on any proposed changes and new graphical material e.g. photos, illustrations etc. to the section co-ordinators identified in EEP19/output/13.

Action Items

The Secretariat is requested to forward the Liaison note on NAVGUIDE updates (EEP19/output/9) to the ANM Committee.

The Secretariat is requested to forward the Liaison note on NAVGUIDE updates (EEP/output/11) to the ANM Committee.

The Secretariat is requested to forward comments on sections 3.2.3 of the NAVGUIDE (EEP19/output/12) to the ANM Committee.

The Secretariat is requested to forward comments on sections 3.2.4 of the NAVGUIDE (EEP/output/10) to the ANM Committee.

The Secretariat is requested to forward the EEP NAVGUIDE Action Plan (EEP/output/13) to the ANM Committee.

EEP Committee members are requested to review the action plan and relevant sections of the NAVGUIDE and provide comments on any proposed changes and new graphical material, e.g. photos, illustrations etc., to the section co-ordinators identified in EEP19/output/13 in time for EEP20.

### Develop Guideline on Key Performance Indicators (Activity 12.2.1)

The objective of this work item is to develop a draft guideline on key performance indicators to assist members with measuring the performance of their AtoN activities.

Input papers EEP19/25 and EEP19/26 on key performance indicators and a draft guideline on cost engineering and asset management from the Brest workshop on short range AtoN in the e-navigation era were reviewed.

A separate guideline on key performance indicators was drafted (EEP19/WG3/WP2). Richard Moore, Jorg Unterderweide and Errol Joppich agreed to further develop this draft guideline and submit it as input to EEP20. Committee members are requested to review working paper EEP19/WG3/WP3 and provide comments to Richard Moore and Errol Joppich by Jan 2013.

The paper on cost engineering will be updated to provide guidance to members on methods for assessing their AtoN services to ensure that the most cost effective service is being delivered. This working paper EEP19/WG3/WP3 will be forwarded to EEP20 for further work.

EEP Committee members were requested to review working paper EEP19/WG3/WP3 and provide comments as input to EEP20.

Action Items

The Secretariat is requested to forward working paper EEP19/WG3/WP2 to EEP20.

The Secretariat is requested to forward working paper EEP19/WG3/WP3 to EEP20.

EEP Committee members are requested to review working paper EEP19/WG3/WP2 on key performance indicators and provide comments to Errol Joppich, Jorg Unterderweide and Richard Moore by January 2013.

EEP Committee members are requested to review working paper EEP19/WG3/WP3 and provide comments as input to EEP20.

# Working Group 4 – Light & Vision

WG4 was asked to respond to input papers EEP19/27, EEP19/29, EEP19/31, EEP19/32, EEP19/33, EEP19/90 & EEP19/97.

## **Visual perception of lights and daymarks** (Task 3\*)

### Gather conspicuity documents in a suite of documents

The input paper (EEP19/27) was reviewed. The group broadened the scope to cover all IALA documentation from EEP the point of view of both external and internal users, with the goal of simplifying searching for information as well as unifying the document structure. A working paper spread sheet has been produced and Working Group Chairs were requested to review the documentation that they were responsible for and update the spread sheet with when the documents need to be reviewed and what updates are required with a view to inform the next work programme.

Action Items

All EEP Working Group Chairmen are requested to review the documentation that they are responsible for and update the spreadsheet with when the documents need to be reviewed and what updates are required and provide this information to Malcolm Nicholson in time for EEP20.

The Secretariat is requested to forward working paper EEP19/WG4/WP1 to EEP20

### Provide guidance on vertical divergence of lights, focal plane height, sector lights, daymark design, surface colours

#### Consider providing guidance on focal plane height of AtoN

A discussion was held on how best to provide IALA members with information on vertical divergence and it was decided that the present Guideline could be supplemented with further information.

Action Items

Aivar Usk is requested to provide an input paper to EEP20 on the use of inclinometers to monitor heel angle of buoys.

Malcolm Nicholson is requested to provide an input paper to EEP20 on the vertical divergence of fixed lights.

#### Revise Guideline 1041 on Sector Lights to include new work on this subject

The working group considered the input papers from EEP18 on sector light measurement and installation procedures. A working paper has been produced combining these inputs to update the guideline.

Action items

The Secretariat is requested to forward working paper EEP19/WG4/WP2 to EEP20

The Secretariat is requested to forward Liaison Note EEP19/output/5 to the ANM Committee

#### Develop new guideline on ‘Daymarks for Aids to Navigation’

During the Brest Workshop a number of amendments were made to the Guideline with a view to finalising the document at EEP19. During EEP19 a small group led by Frank Hermann continued to work on the document. Final editing took place during WG4 and it is now considered complete and ready to be sent to the IALA Council for approval.

This is the first time IALA has produced a comprehensive Guideline on the provision of Daymarks and it has taken a considerable amount of effort from EEP members, especially Frank Herman who led the task.

Action Item

The Secretariat is requested to forward EEP19/output/7 to Council for Approval

#### Revise Recommendation E108 on Surface Colours to include measurement of surface colours.

Malcolm Nicholson will lead the inter-sessional work. It is expected that a draft revised E-108 will be submitted as input paper for final review at EEP20.

Action Item

Malcolm Nicholson and Frank Hermann are requested to work inter-sessionally and submit a proposed revised version of Recommendation E-108 for final review at EEP20.

#### Illumination of Structures

Following the input paper (EEP19/90) from Korea a discussion took place on how best to proceed with updating IALA Guideline 1061 on Light Applications – Illumination of Structures. A previous input paper from Malcolm Nicholson was reviewed and the group started a working paper on updating the guideline.

Action Items

Ju-Seop HAN is requested to submit an input paper to EEP20 on the Design Process of Illuminating Structures in Korea.

Frank Hermann is requested to provide a presentation on software used to calculate luminance values for illuminating structures at EEP20.

EEP Committee members who have had experience of illuminating structures are requested to submit input papers to EEP20 on design methodology.

The Secretariat is requested to forward working paper EEP19/WG4/WP3 to EEP20

### Review and Update NAVGUIDE Sections 3.1 & 3.2

Input papers (EEP19/29, 31, 32 & 33) were considered and the requested updates were sent to WG3 for inclusion in the updated NAVGUIDE. A liaison note to ANM was prepared and provided to WG3.

## Workshops & seminars

Input paper EEP19/96 refers.

A very successful workshop on ‘Short range AtoN in the e-Navigation era’ was held in Brest between 8 – 12 October, 2012.

# Future Work Programme

At the opening plenary, the Committee was asked what their problems were, with a view to establishing items for the 2014 – 2018 Work Programme. Suggestions included:

* reviewing and maintaining documentation with the guidance in some being strengthened;
* reliability of new products, in a fast developing AtoN market: have they been sufficiently tested; are they fit to market;
* a perceived need for AtoN authorities to test new equipment before it is installed;
* how to integrate AtoN with e-Navigation, although the members of the EEP will be facing incorporating e-Navigation services into AtoN;
* perhaps more than ever before, there is a need for a forum for AtoN engineering experts to exchange views, ideas and experience;
* cost effective maintenance.

At the closing plenary the Chairman said that he had created a page on the IALA Wiki for ‘EEP Committee Future Work Items’. One new item, dealing with accountability had been posted has been posted by Tamotsu Ikeda.

Action item

The Committee members are requested to consult their organisations and provide items for inclusion in the 2014 – 2018 work programme at EEP20, entering them on the EEP Committee possible future work items page of the IALA Wiki.

# Review of output and working papers

WG Chairmen introduced their reports and output documents, the dispositions of which were agreed, as indicated above. Each thanked their WG members, with Frank Hermann receiving a round of applause on completion of the draft Guideline on Daymarks.

Stephen Bennett expressed his gratitude for the considerable support provided assistance to the WWA.

During this agenda item the Chairman explained the IMO thinking on AIS AtoN, which excludes specific mention of the term ‘synthetic’.

The Chairman expressed his satisfaction for what had been achieved to the WG Chairmen, their sub-group Chairs and the Working Groups for producing another significant output. He reminded Committee members that a prioritised list of remaining model courses is now available at IALA WWA.Level2.Tech.0 (EEP19/WG3/1) and, starting with the highest priority courses first, asked the delegates to consider which courses they could contribute to.

# Any Other Business

## CIE

It was agreed that part of the Monday afternoon of EEP20 could be devoted to liaison with CIE, which by coincidence is meeting in Paris at the same time. It was proposed that the Chairs of CIE Directors of Division 1, 2 & 4, plus Division members be invited to arrive at 1530 and be asked to make a presentation or presentations and also to be made aware of the work of the IALA and, in particular, the EEP Committee. The plan would then be to hold a social gathering at the end of the day’s work for informal contact. If necessary, EEP Committee member presentations would be held over until the Tuesday morning.

Action item

Malcolm Nicholson is requested to seek to arrange a visit to IALA by CIE personnel (Division Directors and members) for a meeting with the EEP Committee on the afternoon of Monday 15 April 2013.

## Proposed change of definition

It was suggested that, arising from the recent workshop in Brest, the description of buoyant beacon is out-dated and that the term now in common use is articulated beacon. The Committee agreed that this term be changed in the dictionary, as follows:

Buoyant Articulated beacon

The terms **resilient** **beacon, buoyant beacon** and elastic **beacon** have been used with this meaning, but their continued use is not recommended {{languages|Buoyant **beacon**}}

It was also noted that in the definition there is mention of a light being fitted to such a beacon, which is not necessarily the case.

Action item

The Chairman of the EEP Committee is requested to bring the matter of the buoyant beacon to the attention of the dictionary editors.

# Date and venue of next meeting

It is intended that EEP20 will meet between 15 and 19 April 2013 at IALA.

# Review of session report

The report of the meeting (EEP19/output/1) was reviewed and approved by the Committee and the proposed changes to the Work Programme (EEP19/output/2) were reviewed and accepted.

Action item

The Secretariat is requested to forward the EEP19 Committee report (EEP19/output/1) to Council to note.

The Secretariat is requested to forward the proposed changes to the EEP Work Programme (EEP19/output/2) to Council to approve.

# Closing of the Meeting

The Chairman acknowledged the enthusiastic way in which a heavy workload had been tackled and he also thanked the Committee for its efforts during the meeting. He then thanked the Secretary and asked that the Committee’s gratitude be passed to the Secretariat for their cheerful and courteous support.

He concluded by saying that all were invited to EEP20 and wished everyone a safe journey home.

# 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. Developments in lighthouse conservation

Reports from members on the status of lighthouse conservation are at Annex G.

1. Agenda

**19th Meeting of the Engineering, Environmental & Preservation of Historic Lighthouses Committee**

The 19th meeting of the **EEP Committee** will be held from 15 – 19 October, 2012 at IALA, St Germain en Laye, France.

The opening plenary will commence at 1300 on Monday, 15 October and the closing plenary will end at approximately 1300 on Friday, 19 October.

Committee Chair, Vice-Chair and Working Group Chairpersons are requested to meet at 0930 on Monday, 15 October.

Change from EEP18

**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 – 53nr Session, June 2012
   2. PAP23, April 2012
   3. Report MSC97
   4. Report NAV58
5. Reports from Rapporteurs:
   1. Developments in Aids to Navigation (M1\*)
   2. Developments in Renewable Energy Sources (M2\*)
   3. Developments in Battery Technology (M3\*)
   4. Developments in New Light Sources (M4\*)
   5. IALA Certification Process (M5\*) (Task removed at C52)
   6. CIE-IALA Liaison (M6\*)
   7. IALA Dictionary (M7\*)
6. Presentations
   1. Brief on WWA Stephen Bennett
   2. Humidity in lighthouses Nicolas Fady
   3. Goniospectroradiometry Aivar Usk
   4. Revival of fixed and flashing light character Aivar Usk
   5. New pile beacon installations in Papua New Guinea Adam Hay
   6. Project MonaLisa video Ómar Frits Eriksson
7. Establish Working Groups
8. Working Group 1 – AtoN infrastructure design and maintenance (WG1)
   1. **AtoN Engineering (Task 2\*)**
   2. **Power Systems and Energy Storage** (Task 4\*)
   3. **Remote Control and Monitoring** (Task 5\*)
   4. **Risk Assessment Techniques in AtoN Design and maintenance** (Task 11\*)
   5. **e-Navigation across Committees** (Task 13\*)
   6. **Polar Engineering** (Task 14\*)
   7. The use of Audible Signals as aids to navigation (*in conjunction with ANM*) (Task 15\*)
   8. **Workshops and Seminars** (Task 16\*)
9. **Working Group 2 –** Heritage, Conservation and Civil Engineering (WG2)
   1. **Heritage and Conservation** (Task 9\*)
   2. **Civil Engineering and Structures** (Task 10\*)
   3. **Workshops and Seminars** (Task 16\*)
10. **Working Group 3 -** Environment, quality assurance, training and publications (WG3)
    1. Knowledge Sharing / Knowledge Management, taking into account open source software (Task 1\*)
    2. **Environment and safety** (Task 6\*)
    3. **Aids to Navigation Training, IALA WWA** (Task 7\*)
    4. **Product Certification** (Task 8\*) (Task removed at C52)
    5. **Quality Management** (Task 12\*)
    6. **Workshops and Seminars** (Task 16\*)
       1. Workshop WWA / AtoN training (February 2013)
11. **Working Group 4 – Light and Vision (WG4)**
    1. **Engineering – Visual Aids (Task 2\*)**
    2. **Visual perception of lights and daymarks** (Task 3\*)
    3. **Workshops and Seminars** (Task 16\*)
12. Future Work Programme (2014 – 2018)
13. Review of output and working papers
14. Any other business
15. Date and venue of next meeting
16. Review of session report
17. List of Participants

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1. Working Group Participants
2. AtoN infrastructure design and maintenance

|  |  |  |
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|  | Name | Organisation / Country |
|  | Adrian Wilkins (Chairman) | Pharos Marine / England |
|  | Adam Hay (Rapporteur) | Nawae Construction / Papua New Guinea |
|  | Michel Cousquer | CETMEF / France |
|  | Peter Dobson | Trinity House / England |
|  | Ju-Seop Han | KAAN / Republic of Korea |
|  | Smail Hidouche | CETMEF / France |
|  | Sipke Hoekstra | North Sea Directorate / Netherlands |
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|  | Mariano Luis Marpegan | Hidrovia / Argentina |
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|  | Richard Moore | Canadian Coast Guard |
|  | Joaquim Pessoa | Portuguese Lighthouse Authority |
|  | Jørgen Royal Petersen | Danish Maritime Authority |
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|  | Frank Hermann | German Traffic Technologies Centre |
|  | Greg Hansen | AMSA / Australia |
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|  | Malcolm Nicholson | GLA R&RNAV / UK |
|  | Fernando Romero | Mediterraneo Senales Maritimas / Spain |

1. Heritage, conservation and civil engineering

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|  | Name | Organisation / Country |
|  | Bob McIntosh (Chair) | Northern Lighthouse Board / Scotland |
|  | Hilde Andresen | Norwegian Coastal Administration |
|  | Jo van der Eynden | Norwegian Lighthouse Museum |
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1. Environment, quality assurance, training and publications

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|  | David Jeffkins (Chair) | AMSA / Australia |
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1. Light and Vision

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|  | Malcolm Nicholson (Chairman) | GLA R&RNAV / UK & Ireland |
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|  | Jørgen Royal Petersen | Danish Maritime Authority |
|  | Philippe Renaudin | CETMEF / France |
|  | Manuel Santos | Direcção de Faróis / Portugal |
|  | Aivar Usk | Cybernetica AS / Estonia |
|  | Moray Waddell | Northern Lighthouse Board / Scotland |
|  | Liang Yang | China MSA |

1. List of Input Papers

**All papers are posted on the FTP server and the Committee website**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Number | Title / Author (if required) | Presented by / WG | Posting |
| EEP18/output/1 rev6 | Report of EEP18 |  | At meeting |
|  | EEP input paper template | All | 1 |
| EEP19/1 rev1 | Agenda | OFE / TCM | At meeting |
| EEP19/2 rev1 | Action Items from EEP18 | OFE / TCM | At meeting |
| EEP19/3 | Papers’ List (Finalised at pre-meeting) | OFE/TCM | 1 |
| EEP19/4 | Programme for the week (Finalised at pre-meeting) | OFE/TCM | 1 |
| EEP19/5 | Draft revised Guideline 1012 | 1 | 1 |
| EEP19/6 rev1 | Draft Guideline on the Application of AIS on Buoys rev1 - Post Brest | 1 | V late |
| EEP19/7 | Plastic Buoy Questionnaire - summary | 1 | 1 |
| EEP19/8 | Draft Guideline on Hydrostatic Buoy Design | 1 | 1 |
| EEP19/9 | AtoN Metadata Product Specification - Review | 1 | 1 |
| EEP19/10 | Risk Assessment Techniques in AtoN Design and Maintenance | 1 | 1 |
| EEP19/11 | Liaison Note from ANM on Simulation in the Design of AtoN | 1 | 1 |
| EEP19/12 | Draft Guideline on Technical Features and Technology Relevant for Simulation of AtoN | 1 | 1 |
| EEP19/13 | Liaison Note all committees on draft GSMD guideline | 1 | 1 |
| EEP19/14 | Draft Guideline on the Transfer of Redundant Lighthouses | 2 | 1 |
| EEP19/15 rev1 | History of Floating Aids to Navigation | 2 | At meeting |
| EEP19/16 | Buoy History | 2 | 1 |
| EEP19/17 | Buoy History - van Wallenburgh | 2 | 1 |
| EEP19/18 | Athens Seminar Meeting minutes- 15Apr12 | 2 | 1 |
| EEP19/19 | Revised Preservation of Historic Aids to Navigation - NAVGUIDE | 2 | 1 |
| EEP19/20 | Anti-fouling responses Floating Aids | 1 | 1 |
| EEP19/21 | Anti-fouling responses slipways - jetties | 2 | 1 |
| EEP19/22 rev1 | Draft Guideline - Safety Management for AtoN Activities | 3 | 3 |
| EEP19/23 | IALA Green Guide (review) | 3 | 1 |
| EEP19/24 | Draft IALA Model Course on surface preparation - Technicians Level 2 | 3 | 1 |
| EEP19/25 | Key Performance Indicators | 3 | 1 |
| EEP19/26 | Management of Mercury | 3 | 1 |
| EEP19/27 | Visual Signalling Documents | 4 | 1 |
| EEP19/28 | Draft Guideline on Daymarks for AtoN (see also EEP19/97) | 4 | 1 |
| EEP19/29 | NAVGUIDE review of sections 3.1 and 3.2 -edited | 4 | 1 |
| EEP19/30 | Liaison note to all committees on the NAVGUIDE | 4 | 1 |
| EEP19/31 | NAVGUIDE 2014 Action Plan | 4 | 1 |
| EEP19/32 | NAVGUIDE 2014 Timetable | 4 | 1 |
| EEP19/33 | Liaison note from ANM on updating the NAVGUIDE reflecting changes in E 110 | 4 | 1 |
| EEP19/34 | Report of PAP23 | OFE/TCM | 1 |
| EEP19/35 | Draft Guideline on bird deterrents – for review | 1 | 1 |
| EEP19/36 | L2 Model Course Intro to AtoN - buoyage 1.1 - 1.4 Rev 1 Jun 1 | 3 | 1 |
| EEP19/37 | Report of 53rd session of the IALA Council | All | 1 |
| EEP19/38 | IALA WWA L2 Model Course Service Craft and Buoy Tenders 6.1-6.2 Rev 0 Jul 12 | 3 | 1 |
| EEP19/39 | Liaison Note from WWA on Level 2 Model Course Module 9 | 3 | 1 |
| EEP19/40 | IALA WWA L2 Model Course Module 9 Radionavigation Rev 0 July 12 | 3 | 1 |
| EEP19/41 | Note on Revision of Recommendation E-108 | 2 | 1 |
| EEP19/42 | Report on Development of an electrochemical anti-fouling system fo Buoys in Korea | 2 | 1 |
| EEP19/43 rev2 | Revised Meeting programme for 2012 | All | At meeting |
| EEP19/44 | Report of NAV58 | OFE / TCM | 2 |
| EEP19/45 | Draft Model Course - Power sources on Buoys - Technicians Level 2 | 3 | 2 |
| EEP19/46 | Draft Model course - Maintenance of steel buoys | 3 | 2 |
| EEP19/47 | IALA WWA L2 Model Course Module 9 Radionavigation | 3 | 2 |
| EEP19/48 | Liaison Note from WWA to e-Nav and EEP on Level 2 Model Course Module 9 | 3 | 2 |
| EEP19/49 | Draft Guideline on the Application of AIS on Buoys | 1 | 2 |
| EEP19/50 | Draft Model course Maintenance of Plastic Buoys | 3 | 2 |
| EEP19/51 | Revised draft E-141 Ed2 Standards for Training and Certification of AtoN Personnel | 3 | 2 |
| EEP19/52 | AMSA comment on E-141 Ed2 Standards for Training and Certification of AtoN Personnel | 3 | 2 |
| EEP19/53 | Cover note Buoy Design | 1 | 2 |
| EEP19/53A | Buoy stability | 1 | 2 |
| EEP19/53B | Centre of Gravity | 1 | 2 |
| EEP19/53C | Metacentric height | 1 | 2 |
| EEP19/54 | Draft Buoy design (see also EEP19/99) | 1 | 2 |
| EEP19/55 | IALA WWA L2 Model Course Module 7 Racons | 3 | 3 |
| EEP19/56 | IALA WWA L2 Model Course Lights | 3 | 3 |
| EEP19/57 | IALA WWA L2 draft Model Course Module 1.8 Buoy Cleaning | 3 | 3 |
| EEP19/58 | Liason note to from e-NAV on WWA L2 Model Course Module 9 Radionavigation | 3 | 3 |
| EEP19/59 | Liaison note from e-NAV on e-Navigation | 1 | 3 |
| EEP19/60 | Liaison Note to PAP VTS EEP ANM - e-Navigation Portrayal Guideline | 1 | 3 |
| EEP19/61 | Draft IALA Guideline on Harmonised Portrayal of e-Navigation Information | 1 | 3 |
| EEP19/62 | WWA L2 Model Course Module 9 Radionavigation | 3 | Late |
| EEP19/63 | Polar engineering - information paper from SMA covering EEP19/64 - EEP19/86 | INF | Late |
| EEP19/64 | Main Report\_Impact of ice on Swedish offshore lighthouses\_1983 | INF | Late |
| EEP19/65 | Extreme Ice Forces On A lighthouse In The Bothnian Bay | INF | Late |
| EEP19/66 | Evaluation of Extreme Ice Forces on a Lighthouse in Bothnian Bay 1985 part 1 | INF | Late |
| EEP19/67 | EEP19-67 Evaluation of Extreme Ice Forces on a Lighthouse in Bothnian Bay 1985 part 2 | INF | Late |
| EEP19/68 | Evaluation of Extreme Ice Forces on a Lighthouse in Bothnian Bay 1985 part 3 | INF | Late |
| EEP19/69 | Ice Force Studies in the Bothnian Bay Phase 2 1989-94 | INF | Late |
| EEP18/70 | Ice force Studies in the Bothnian Bay R4816 | INF | Late |
| EEP19/71 | Ice force Studies in the Bothnian Bay R4816 contents | INF | Late |
| EEP19/72 | Ice force Studies in the Bothnian Bay R4816 1, Introduction | INF | Late |
| EEP19/73 | Ice force Studies in the Bothnian Bay R4816 2, Study objectives | INF | Late |
| EEP19/74 | Ice force Studies in the Bothnian Bay R4816 3. Previous studies. | INF | Late |
| EEP19/75 | Ice force Studies in the Bothnian Bay R4816 4. Methodology | INF | Late |
| EEP19/76 | Ice force Studies in the Bothnian Bay R4816 5. Ice force sensing panel | INF | Late |
| EEP19/77 | Ice force Studies in the Bothnian Bay R4816 6. Modified procedure for transformation of tructural response signals to ice force time-histories | INF | Late |
| EEP19/78 | Ice force Studies in the Bothnian Bay R4816 7. Global response data | INF | Late |
| EEP19/79 | Ice force Studies in the Bothnian Bay R4816 8. Local ice force data | INF | Late |
| EEP19/80 | Ice force Studies in the Bothnian Bay R4816 9. An improved model for characterization of ice forces on offshore structures | INF | Late |
| EEP19/81 | Ice force Studies in the Bothnian Bay R4816 Appendix 1, Ice force studies in the Bothnian Bay, phase 2 | INF | Late |
| EEP19/82 | Ice force Studies in the Bothnian Bay R4816 Appendix 2. Ice force studies in the Botnian Bay, phase 2 | INF | Late |
| EEP19/83 | Ice force Studies in the Bothnian Bay R4816 Appendix 3. An ice-structure interaction model based on observations in the Gulf of Bothnia | INF | Late |
| EEP19/84 | Ice force Studies in the Bothnian Bay R4816 Appendix 4. Ice force studies in the Bothnian Bay, phase 2. | INF | Late |
| EEP19/85 | Ice force Studies in the Bothnian Bay R4816 Appendix 5. Ice force studies in the Bothnian Bay, phase 2 | INF | Late |
| EEP19/86 | Ice force Studies in the Bothnian Bay R4816 Appendix 6. Ice force studies i the Bothnian Bay, phase 2 | INF | Late |
| EEP19/87 | Draft Guideline on The Managing of Surplus Property | 2 | Late |
| EEP19/88 | IALA Green Guide review by Sweden | 3 | Late |
| EEP19/89 rev1 | Draft Information Paper (AtoN AIS Implementation in Korea) | 1 | At meeting |
| EEP19/90 | Light Applications for illumanation of structures in Korea | 4 | V late |
| EEP19/91 | IALA WWA Level 2 Model Course - AIS AtoN & Repeaters - Technicians Level 2 | 3 | V late |
| EEP19/92 | IALA WWA Level 2 Model Course - AIS Base Station - Technicians Level 2 | 3 | V late |
| EEP19/93 | IALA WWA Level 2 Model Course - AIS Installation & Configuration - Technicians Level 2 | 3 | V late |
| EEP19/94 | IALA WWA Level 2 Model Course - AIS Maintenance & Testing Technicians Level 2 | 3 | V late |
| EEP19/95 | IALA WWA Level 2 Model Course - AIS Principles of Operation - Technicians Level 2 | 3 | V late |
| EEP19/96 | Draft report of Brest workshop | INF | V late |
| EEP19/97 | Draft Guideline on Daymarks for AtoN - ex-Brest | 4 | V late |
| EEP19/98 | Draft Guidelline on Cost Engineering of Short Range AtoN and Asset Management | 3 | V late |
| EEP19/99 | Draft Guideline on Hydrostatic design of buoys - ex-Brest | 1 | V late |
| EEP19/100 | Overview of AIS documentation 2012 | INF | V late |
| EEP19/101 | Report of MSC97 | OFE / TCM | At meeting |
| EEP19/101 | CIE-IALA Liaison | INF | At meeting |
| EEP19/103 | Developments in New Light Sources | INF | At meeting |
| EEP19/104 | NLB Paint specification | 2 | At meeting |
| EEP19/105 | NLB Painting specification | 2 | At meeting |
| EEP19/106 | Liaison note from WWA - Level 1 & 2 model courses | 3 | At meeting |

1. List of Output and Working Papers

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

| Number | Title | Status |
| --- | --- | --- |
| EEP19/output/1 | Draft Report of EEP18 | To Council to note |
| EEP19/output/2 | Information paper to Council – Changes to the Work Programme | To Council to approve |
| EEP19/output/3 | Draft Guideline on the Application of AIS on Buoys | To Council to approve |
| EEP19/output/4 | Draft Guideline on Bird Deterrents | To Council to approve |
| EEP19/output/5 | Liaison note to ANM on sector lights | To ANM19 |
| EEP19/output/6 | L2 Model Course Module 9 Radionavigation | To WWA to approve |
| EEP19/output/7 | Draft Guideline on Daymarks for AtoN | To Council to approve |
| EEP19/output/8 | Draft Guideline on The Management of Surplus Property | To Council to approve |
| EEP19/output/9 | Liaison note to ANM on updating the NAVGUIDE reflecting changes in E 110 | To ANM19 |
| EEP19/output/10 | NAVGUIDE Update Section 3 2 4 edited | To ANM19 |
| EEP19/output/11 | Liaison Note to ANM on the NAVGUIDE Updates | To ANM19 |
| EEP19/output/12 | NAVGUIDE Update Section 3.2 | To ANM19 |
| EEP19/output/13 | EEP NAVGUIDE 2014 Action Plan | To ANM19 |
| EEP19/output/14 | Draft revised E-141 Ed2 Standards for Training and Certification of AtoN Personnel | To Council to approve |
| EEP19/output/15 | Revised L2 Overview IALA WWA.L2.0 | To WWA to approve |
| EEP19/output/16 | Draft Guideline on Safety Management for AtoN Activities | To Council to approve |
| EEP19/output/17 | Liaison Note to WWA on L2 Model Course Updates | To WWA to note |
| EEP19/output/18 | L2 Model Course Module 1.1-1.2 on an Introduction to AtoN | To WWA to approve |
| EEP19/output/19 | L2 Model Module 1.3-1.4 Intro to AtoN - buoyage 1.3 - 1.4 | To WWA to approve |
| EEP19/output/20 | L2 Model Course Module 1.8 Buoy Cleaning | To WWA to approve |
| EEP19/output/21 | L2 Model course Module 1.12 Maintenance of Plastic Buoys | To WWA to approve |
| EEP19/output/22 | L2 Model course Module 1.13 Maintenance of steel buoys | To WWA to approve |
| EEP19/output/23 | L2 Model course Module 1.14 Power sources on Buoys - Technicians | To WWA to approve |
| EEP19/output/24 | L2 Model Course Module 6 Service Craft and Buoy Tenders | To WWA to approve |
| EEP19/output/25 | L2 Model Course Module 7 Racons | To WWA to approve |

Working Papers are documents that will remain within the committee for further review

|  |  |  |
| --- | --- | --- |
| Number | Title | Status |
| EEP19/WG1/WP1 | Proposed Table of Contents for Guideline on Design and Construction of AtoN in Cold Regions | To EEP20 |
| EEP19/WG1/WP2 | Draft Guideline on Hydrostatic Buoy Design | To EEP20 |
| EEP19/WG1/WP3 | Risk Assessment on IALA guideline header | To EEP20 |
| EEP19/WG1/WP4 | Draft revised Guideline 1012 Ed6 on Lightning Protection | To EEP20 |
| EEP19/WG1/WP5 | Extreme Ice Forces On A lighthouse In The Bothnian Bay | To EEP20 |
| EEP19/WG1/WP6 | Ice Force Studies in the Bothnian Bay Phase 2 | To EEP20 |
| EEP19/WG1/WP7 | Main Report on impact of ice on Swedish offshore lighthouses-1983 | To EEP20 |
|  |  |  |
| EEP19/WG2/WP1 | Heritage seminar Technical Programmme\_18Oct12 | To EEP20 |
|  |  |  |
| EEP19/WG3/WP1 | L2 Course schedule Oct 12 | To EEP20 |
| EEP19/WG3/WP2 | Draft Guideline on KPI | To EEP20 |
| EEP19/WG3/WP3 | Cost Engineerig | To EEP20 |
|  |  |  |
| EEP19/WG4/WP1 | EEP Document Ownership Master | To EEP20 |
| EEP19/WG4/WP2 | Draft revised Guideline 1041 on Sector Lights | To EEP20 |
| EEP19/WG4/WP3 | Draft Guideline on the Illumination of Structures | To EEP20 |

1. Action Items

Action Items for the IALA Secretariat

1. The Secretariat is requested to invite Dr Nick Ward to make a presentation on the IHO S-100 GI registry to EEP20. 8
2. The Secretariat is requested to forward the draft Guideline on Lightning Protection (EEP19/WG1/WP4) to EEP20. 11
3. When available, the Secretariat is requested to forward the draft guideline on the Hydrostratic Design of Buoys, (EEP19/WG1/WP2) to EEP20. 12
4. The Secretariat is requested to forward EEP19/WG1/WP3 to EEP20. 13
5. The Secretariat is requested to forward the draft Guideline for Application of AIS on Buoys (EEP19/output/3) to the IALA Council for approval. 13
6. The Secretariat is requested to forward EEP19/WG1/WP1, EEP19/WG1/WP5, EEP19/WG1/WP6 & EEP19/WG1/WP7 to EEP20. 14
7. The Secretariat is requested to forward EEP19/output/8 (Draft Guideline on the Management of Surplus Lighthouse Property) to Council for approval. 15
8. The Secretariat is requested to forward the detailed programme for the heritage seminar (EEP19/WG2/WP1) to EEP20. 18
9. The Secretariat is requested to forward EEP19/output/16 (draft Guideline on Safety Management for AtoN Activities) to Council for approval. 22
10. The Secretariat is requested to forward EEP19/WG3/WP1 (draft revised Guideline 1036 environmental consideration in aids to navigation engineering) to EEP20. 23
11. The Secretariat is requested to forward EEP19/output/14 (E-141 Standards for Training and Certification of AtoN Personnel) to the Council for approval. 23
12. The Secretariat is requested to forward EEP19/output/15 (IALA WWA.L2.0 Model Course overview on Level 2 Technician Training) to the Academy for amendment. 24
13. The Secretariat is requested to forward EEP19/output/17 (EEP-19 Liaison Note to the Academy) to the Academy. 24
14. The Secretariat is requested to forward EEP19/output/6(Level 2 model course on Radionavigation and DGNSS IALA WWA L2.9.1-9) to the Academy for approval. 24
15. The Secretariat is requested to forward EEP19/output/18 (Level 2 model course on Introduction to AtoN IALA WWA L2.1.1-2) to the Academy for approval. 24
16. The Secretariat is requested to forward EEP19/output/19 (Level 2 model course on an Introduction to buoyage IALA WWA L2.1.3-4) to the Academy for approval. 24
17. The Secretariat is requested to forward EEP19/output/20 (Level 2 model course on buoy cleaning IALA WWA L2.1.8) to the Academy for approval. 24
18. The Secretariat is requested to forward EEP19/output/21 (Level 2 model course on maintenance of plastic buoys IALA WWA L2.1.12) to the Academy for approval. 24
19. The Secretariat is requested to forward EEP19/output/22 (Level 2 model course on maintenance of steel buoys IALA WWA L2.1.13) to the Academy for approval. 24
20. The Secretariat is requested to forward EEP19/output/23(Level 2 model course on power sources on buoys IALA WWA L2.1.14) to the Academy for approval. 24
21. The Secretariat is requested to forward EEP19/output/24(Level 2 model course on AtoN Service Craft and Buoy Tenders IALA WWA L2.6.1-2) to the Academy for approval. 24
22. The Secretariat is requested to forward EEP19/output/25(Level 2 model course on Radar Beacons IALA WWA L2.7.1-2) to the Academy for approval. 24
23. The Secretariat is requested to forward the Liaison note on NAVGUIDE updates (EEP19/output/9) to the ANM Committee. 26
24. The Secretariat is requested to forward the Liaison note on NAVGUIDE updates (EEP/output/11) to the ANM Committee. 26
25. The Secretariat is requested to forward comments on sections 3.2.3 of the NAVGUIDE (EEP19/output/12) to the ANM Committee. 26
26. The Secretariat is requested to forward comments on sections 3.2.4 of the NAVGUIDE (EEP/output/10) to the ANM Committee. 26
27. The Secretariat is requested to forward the EEP NAVGUIDE Action Plan (EEP/output/13) to the ANM Committee. 26
28. The Secretariat is requested to forward working paper EEP19/WG3/WP2 to EEP20. 27
29. The Secretariat is requested to forward working paper EEP19/WG3/WP3 to EEP20. 27
30. The Secretariat is requested to forward working paper EEP19/WG4/WP1 to EEP20 27
31. The Secretariat is requested to forward working paper EEP19/WG4/WP2 to EEP20 28
32. The Secretariat is requested to forward Liaison Note EEP19/output/5 to the ANM Committee 28
33. The Secretariat is requested to forward EEP19/output/7 to Council for Approval 28
34. The Secretariat is requested to forward working paper EEP19/WG4/WP3 to EEP20 29
35. The Secretariat is requested to forward the EEP19 Committee report (EEP19/output/1) to Council to note. 30
36. The Secretariat is requested to forward the proposed changes to the EEP Work Programme (EEP19/output/2) to Council to approve. 30

Action Items for the WWA

1. The WWA is requested to review the titles and order of model course modules and syllabus elements and provide an input to EEP20 24
2. Stephen Bennett is requested to develop course 1.9 on an introduction to buoy positions and develop further EEP-19 input 56 into a on 3.1-3.4 on lights used in marine lanterns and submit as input to EEP20. 25

*Action Items for Members*

1. Jörg Unterderweide and Sipke Hoekstra are requested to summarize existing Plastic Buoy Questionnaire results and incorporate them into the Guideline on Plastic Buoy Design for EEP20. 11
2. EEP Committee members are requested to review the Plastic Buoy Questionnaire inter-sessionally and forward comments to Sipke Hoekstra by 15 March 2013. 11
3. The Secretariat is requested to forward the Draft Guideline on Bird Deterrents (EEP19/output/4) to the IALA Council for approval. 12
4. EEP Committee members are requested to provide inter-sessional comments on the draft guideline on the Hydrostratic Design of Buoys, (EEP19/WG1/WP2) to Adrian Wilkins by 15 March 2013. 12
5. Adrian Wilkins is requested to incorporate some additional drawings and illustrations into draft guideline on the Hydrostratic Design of Buoys, (EEP19/WG1/WP2) by 15 March 2013. 12
6. WG1 members from the UK, Germany, Canada, the Netherlands and France who have volunteered to trial the CALMAR software are asked to provide their review of its performance to Michel Cousquer of CETMEF before EEP20. 12
7. Michel Cousquer is requested to provide a written summary of all comments received on trials of the CALMAR software at EEP20. 12
8. EEP Committee members are requested to review inter-sessionally EEP19/WG1/WP3, with a view to further developing the document at EEP20. 13
9. EEP Committee Members are requested to review inter-sessionally the summary (EEP19/WG1/WP1, EEP19/WG1/WP5, EEP19/WG1/WP6 & EEP19/WG1/WP7) and provide input and content for further development at EEP20. 14
10. WG1 members are requested to identify IALA documents that could be reviewed by WG1 at EEP20 and advise Adrian Wilkins accordingly (EEP19/WG4/WP1 refers). 14
11. WG1 Members are asked to identify possible work activities for the 2014 -2018 Work Programme, for further discussion at EEP20. Those wishing to forward the information in writing should provide the information inter-sessionally to WG1 Chairman Adrian Wilkins by 15 March 2013. 14
12. Sipke Hoekstra is requested to forward details of polyethylene properties to Adrian Wilkins inter-sessionally for EEP20. 14
13. EEP Committee members are requested to identify unexpected / early AtoN equipment failure and provide input to EEP20. 14
14. WG Chairman Adrian Wilkins is requested to review the input documents (EEP19/20 & EEP19/42) inter-sessionally with a view to providing further feedback for discussion at EEP20. 15
15. WG2 members are requested to consider how the existing IALA Lighthouse Conservation Manual and recently published guidelines could be revised as part of a new work programme for 2014-2018. 15
16. Bob McIntosh is requested to add the information available on the visit to Nakkehoved Lighthouse on to the IALA Wiki. 16
17. EEP Committee Members are encouraged to read Adrian Wilkins papers on The History of Floating AtoN (EEP19/15 rev1) and are requested to provide Adrian Wilkins or Bob McIntosh with any information or sources of information on the History of Floating Aids to Navigation by December 2012. 16
18. Adrian Wilkins is requested to include any additional information received in The History of Floating AtoN and to submit a proposed final Version 1 of the document as an input paper to EEP20. 16
19. Jo van der Eynden is requested to review the questionnaire on Complementary Uses of Historic Lighthouses and seek further comment from WG2 members. 17
20. Jo van der Eynden is requested to submit a revised questionnaire on Complementary Uses of Historic Lighthouses to EEP20. 17
21. WG2 members are requested to consider topics for future articles to be included in the IALA Bulletin within ‘The Lighthouse Preservation Corner’ and to provide these to Bob McIntosh. 18
22. Bob McIntosh is requested to meet editorial deadlines to ensure that articles are available for each edition of the IALA Bulletin wherever possible by passing suitable articles to the editor for inclusion in ‘The Lighthouse Preservation Corner’. 18
23. EEP Committee members are requested to submit any information they or their authorities have on preserved lighthouse tenders and light vessels to Bob McIntosh or Paul Ridgway. 18
24. Bob McIntosh is requested to continue to monitor the list of people who indicated an interest in Heritage and Conservation of Historic Lighthouses, to ensure that they are updated on developments. 18
25. EEP Committee members are requested to pass on any information that they have in relation to their daymarks with photographs to Bob McIntosh or Christian Lagerwall. 18
26. Bob McIntosh and Christian Lagerwall are asked to consider the possibility of producing a document on the history and development of daymarks. 18
27. WG2 members are requested to consider topics for presentations and individuals to present them at the seminar, and to submit their suggestions to Bob McIntosh as soon as possible. 18
28. Bob McIntosh is requested to collate responses in relation to Seminar topics and speakers and to circulate this to Steering Committee members. 18
29. EEP Committee members are asked to circulate the brochure within their organisations, particularly to those who have a level of responsibility or interest in the heritage of lighthouses, encouraging them to attend. 19
30. Bob McIntosh is requested to publish the remaining information EEP18/WG2/WP8 on Anti-fouling in relation to slipways, jetties etc. on the IALA Wiki site. 19
31. EEP Committee members are requested to provide information on building maintenance and conditioning in low energy environments within their authorities or to provide contact details for an individual who may be able to provide this information to Bob McIntosh. 19
32. WG2 members are requested to consider options for developing Guideline No. 1076 when additional information becomes available. 19
33. Nicolas Fady is requested to update the EEP Committee on the work being carried out by CETMEF on humidity monitoring of their lighthouses at EEP20. 19
34. Bob McIntosh is requested to continue to monitor the impact of Natural Disasters on Historic Lighthouses in particular and how the authorities have reacted to the problems. 20
35. EEP Committee members are requested to submit examples of their building maintenance specifications to Bob McIntosh or as input to EEP20. 20
36. David Jeffkins is requested to further develop procedures in consultation with Omar Frits Eriksson for updating and adding new content to the IALA Wiki. 21
37. EEP Committee members are requested to review the IALA wiki (http://www.iala-aism.org/wiki/ialawiki) and use it for developing IALA guidance documentation and posting relevant AtoN engineering documentation and information. 21
38. EEP Committee members are requested to send any relevant information on evaluating the carbon footprint of their AtoN activities and initiatives that they have implemented to reduce emissions to Adam Hay for inclusion in the revised Guideline 1036 on environmental considerations in aids to navigation engineering. 21
39. Simon Millyard is requested to provide a copy of the revised Trinity House documentation on the management of potable water on lighthouse estates once completed and submit to EEP20 if available. 22
40. EEP Committee members are requested to review EEP19/WG3/WP1 (draft revised Guideline 1036 environmental consideration in aids to navigation engineering) and provide comments to Adam Hay by January 2013. 23
41. Adam Hay is requested to co-ordinate updates to EEP19/WG3/WP1 (draft revised Guideline 1036 environmental consideration in aids to navigation engineering) and submit it as input to EEP20. 23
42. Simon Millyard and Yousef Al-Rahbi are requested to develop a course for 1.5; 1.6 on Buoy handling; safe working practices; deployment and retrieval and submit as input to EEP20. 25
43. Simon Millyard is requested to develop course 1.11 on an introduction to remote monitoring of AtoN and Module 8.1-8.5 on AIS and submit as input to EEP20. 25
44. David Jeffkins is requested to develop a model course 2.5; 2.6 on mains AC power systems and petrol and diesel generators. He is also requested to develop model course 10.1-10.2 on the principles of remote monitoring and its parameters and submit as input to EEP20. 25
45. Michel Cousquer is requested to develop model courses 2.4 on wind generators and 2.7 on lightning protection. 25
46. Michel Cousquer is requested to develop a model course on Module 5 (5.1-5.5) on paintings and coatings and submit as input to EEP20. 25
47. In conjunction with Malcolm Nicholson and Frank Hermann, Christian Lagerwall is requested to develop course 3.10 on range, sector and leading lights and submit as input to EEP20. 25
48. In conjunction with Malcolm Nicholson and Frank Hermann, Adrian Wilkins, liaising as required with Stephen Bennett, is requested to develop course 3.5 to 3.8 on lamp changers; self-contained lanterns, rotating beacons and focal height, alignment and classical lenses and submit as input to EEP20. 25
49. Bob McIntosh is requested to develop a model course on Module 11, elements 11.1-11.6 on structures and materials and submit as input to EEP20. 25
50. EEP Committee members are requested to co-ordinate the development of these Level 2 technician Model Courses with Stephen Bennett (stephen.bennett@iala-aism.org). 25
51. David Jeffkins is requested to review existing Guidance documents to identify a suitable location for linking the product templates and submit as input to EEP20. 25
52. EEP Committee members are requested to review the action plan and relevant sections of the NAVGUIDE and provide comments on any proposed changes and new graphical material, e.g. photos, illustrations etc., to the section co-ordinators identified in EEP19/output/13 in time for EEP20. 26
53. EEP Committee members are requested to review working paper EEP19/WG3/WP2 on key performance indicators and provide comments to Errol Joppich, Jorg Unterderweide and Richard Moore by January 2013. 27
54. EEP Committee members are requested to review working paper EEP19/WG3/WP3 and provide comments as input to EEP20. 27
55. All EEP Working Group Chairmen are requested to review the documentation that they are responsible for and update the spreadsheet with when the documents need to be reviewed and what updates are required and provide this information to Malcolm Nicholson in time for EEP20. 27
56. Aivar Usk is requested to provide an input paper to EEP20 on the use of inclinometers to monitor heel angle of buoys. 28
57. Malcolm Nicholson is requested to provide an input paper to EEP20 on the vertical divergence of fixed lights. 28
58. Malcolm Nicholson and Frank Hermann are requested to work inter-sessionally and submit a proposed revised version of Recommendation E-108 for final review at EEP20. 28
59. Ju-Seop HAN is requested to submit an input paper to EEP20 on the Design Process of Illuminating Structures in Korea. 29
60. Frank Hermann is requested to provide a presentation on software used to calculate luminance values for illuminating structures at EEP20. 29
61. EEP Committee members who have had experience of illuminating structures are requested to submit input papers to EEP20 on design methodology. 29
62. The Committee members are requested to consult their organisations and provide items for inclusion in the 2014 – 2018 work programme at EEP20, entering them on the EEP Committee possible future work items page of the IALA Wiki. 29
63. Malcolm Nicholson is requested to seek to arrange a visit to IALA by CIE personnel (Division Directors and members) for a meeting with the EEP Committee on the afternoon of Monday 15 April 2013. 30
64. The Chairman of the EEP Committee is requested to bring the matter of the buoyant beacon to the attention of the dictionary editors. 30
65. Developments in Lighthouse Conservation

A key objective of WG2 is the sharing of information in regards to Lighthouse Conservation initiatives within member countries. The following is a summary report provided at EEP19.

**Australia**

AMSA continues to place high importance on maintaining and utilising its historic buildings.

The following upgrade work has recently been completed:

* Cape Leeuwin, Western Australia (1896) – This stone tower has had the internal barrel stripped of remaining paint to assist in moisture control.

Minor projects:

* New brass lantern room vents have been recast and fitted to Swan Island light (1845) in Bass Strait, Tasmania;
* Chance brass makers plaques have been manufactured to match originals to replace those missing from various AMSA lights;

Official lighthouse openings to the general public:

* Tasman Island (1906) located in Storm Bay, Tasmania will be opened to visitors on 14th April 2012. Access will be via helicopter for paying guests with all proceeds going to Rotary International for use on local charity projects;
* AMSA will be celebrating the 150th anniversary of the Gabo Island lighthouse in Victoria in August 2012. Brochures and models for this event are underway and these will be inserted into the local newspaper as a free handout. The local school will also receive one per child.

AtoN artefacts update:

* The original Chance Bros 3rd Order rotating lens from Double Island Point in Queensland was returned to AMSA and is now in safe storage in our store facility in Canberra;
* 15 pallets of artefacts have be returned from storage in Tasmania. This included a complete Chance Bros 2nd Order lens assembly, a Chance Bros 7’1” lantern room, clock cases, clockworks and kerosene components;
* An AGA L500 lantern has been refurbished and is now on display in the AMSA HQ Foyer;
* Digitising of the AMSA employment (ex-light keepers) and photographic records continues as part of a project between AMSA and the non-profit group Lighthouses of Australia.

**France**

From 7 March to 4 November 2012, Paris will be the capital city of French lighthouses. The Musée national de la Marine (French Maritime Museum), located at the Trocadéro, is holding a major exhibition about lighthouses, the first one in Paris, since the XIXth century Universal Expositions. From Fresnel and his lens to the factories of Paris where metal towers and optics are produced and the myth of the lighthouse keeper, France has a passionate relationship with lighthouses. They are a heritage of our coast which is known all around the world. Lighthouses are now in a phase of transition, after the departure of the lighthouse keepers. Conversion will however allow around 150 buildings that mark the landscape of the French coast to be preserved. Now they have become heritage sites, lighthouses are opening their doors to visitors, who are fascinated by their history and architecture.

Exhibition - Over 1,000 m2, the public is invited to discover the lights of the sea: understanding the history and functioning of the lighthouses, finding out about the men who created or served them and showing an interest in the culture that they have influenced. The lighthouse exhibition is formed around three main focal points: an historical and scientific approach, information about the professions and the men linked to the lighthouses, and their mythical and artistic meaning. With 650 objects on display, the circuit is punctuated by audio-visual material and light installations. One of the issues of the exhibition was to “denationalise” French Lighthouse History, strongly tied up with Augustin Fresnel (1788-1827). As I did in previous books and papers, my idea was to show that the British Isles were ahead in the field of lighthouse management at the beginning of the XIXth century; building sea towers and sophisticated reflectors. Thanks to Neil Jones, archivist, we borrowed objects from Trinity House, and explain what is the British model, based on light dues. We are very honoured to display Scottish artefacts in the exhibition, including the models of Eddystone and the French optics from the National Museums of Scotland (NMS). I discover these incredible models when I met with Alison Morrison-Low in January 2011 during the Shining Lights exhibition. This moment in Edinburgh has had a powerful effect on my views on lighthouses and museums. Many ideas came out of my visit of Shining Lights, for example the “timeline” map, showing when or where the coasts of France were lighted.

Thanks to NLB and NMS, we also introduced to the public the story of Scottish Lighthouses with a map – with pictures by Ian Cowe – and a showcase about Robert Stevenson and the Bell Rock. The marvellous Bell Rock painting belonging to NLB is one of the major paintings to be seen. I am also very proud of the NLB flag and the hat of a Scottish keeper that I was presented with last summer, while travelling to the Shetlands.

Lighthouse Heritage question has significantly changed in France since 2009 and the “Grenelle de la Mer”, a multilateral meeting about maritime and coastal policies. Several resolutions of the “Grenelle” acknowledged the importance of lighthouses as a major heritage of the country. Since, a plan had been approved to transfer the property of isolated stations (cape, islands) to the Conservatoire du Littoral, a public body, which is able to organize and manage their alternative use.

Almost 80 buildings had been listed by the Ministry of Culture, as only one, Cordouan was a national monument since 1862.

A network of LH “managers” had been set up, with an annual meeting and an information website ([www.pharesdefrance.fr](https://webmail.nlb.org.uk/owa/redir.aspx?C=63d7003cce39463fb5aba04167c59253&URL=http%3a%2f%2fwww.pharesdefrance.fr" \t "_blank)).

Project is under review to upgrade the National Lighthouse Museum in Ouessant.  
Many initiatives had been taken to inform the public about the history of French Lighthouses, including a major exhibition in the National Museum of the Navy (Paris March-November 2012) and a website dedicated to Cordouan ([www.phare.cordouan.culture.fr](https://webmail.nlb.org.uk/owa/redir.aspx?C=63d7003cce39463fb5aba04167c59253&URL=http%3a%2f%2fwww.phare.cordouan.culture.fr" \t "_blank), to be opened in the next weeks).

Many partners of these initiatives are eager to participate in a world lighthouse heritage initiative that could be taken by IALA.

**Ireland – “All Island Lighthouse Trail Project”**

As a result of technological progress, much of Ireland’s lighthouse estate is, or will soon be, surplus to operational requirements. Many of the surplus lighthouse properties are very suitable for alternative use for tourism purposes. The properties are of important heritage value and are central in chronicling the maritime history of the island of Ireland. Also significantly, lighthouses are located in some of the most scenic coastal locations on the island and lend themselves very well to tourism.

The Commissioners of Irish Lights has developed the concept of a flagship tourism product of an “All Island Lighthouse Trail” around the coast of Ireland, which is instantly recognisable and marketed both nationally and internationally. The primary objective is to develop a high-quality cultural tourism product using surplus properties together with on-site interpretation that will be designed to inform and engage the visitor and present the unique stories and history of each location. The concept has the support of the key national tourism agencies in Ireland and Northern Ireland.

The Commissioners of Irish Lights has submitted a Business Plan funding application to the Special EU Programmes Body to undertake a cross border development of properties in northwest region of the Republic of Ireland and Northern Ireland under an European Union INTERREG IVA programme. If successful, it would provide the necessary funding to implement Phase 1 of the All Island Lighthouse Trail project at 5 sites, three in Northern Ireland and two in the Republic of Ireland. The Commissioners of Irish Lights is the lead partner in delivering the Phase 1 project. Operational partnerships will be developed with third parties, local authorities and local community organisations to operate the various facilities when market ready.

The main rationale for the funding application is (a) the preservation and conservation of maritime and lighthouse heritage through development of a new sustainable economic model, and (b) the re-invention of lighthouses as visitor attractions and specialist self-catering accommodation that can contribute to local communities in terms of jobs and niche tourism. The proposed developments comprise a mix of high quality themed visitor accommodation at 4 lighthouses, enhancement of existing visitor facilities at one lighthouse and the provision of visitor access/facilities at three other lighthouses. A further key component of the overall project is the provision of on-site interpretation and the creation of on-line interpretation or “Learning Zone”.

This project presents an opportunity to secure the future of these historic maritime properties by developing alternative uses that will benefit local communities, visitors, tourism and national identity.

**Norway**

The first plan for maintenance and management of listed lighthouse stations is now finished and presented to the heritage authorities. It is a plan for the lighthouse of Slettnes in Finmark. Plans for nine more lighthouses are in the making, and the lighthouse administration is also working on a maintenance manual for listed buildings.

At Ryvingen lighthouse on the south coast, the new standard for information boards designed for our listed lighthouses were presented this summer, with coverage on national television. A book about the history of Ryvingen has also been published by the lighthouse museum at Lindesnes. Information boards have also been placed at Lyngør and Homlungen lighthouses, and at Lista lighthouse both information boards and a small exhibition for the engine room is being produced.

The pilot for the documentation and presentation of "maritime cultural landscapes" on the internet is soon ready for presentation. A technological platform for geo-tagging of verbal information, documents, photography and film has been developed, and 12 short, informative films have been made to present different sides of the maritime heritage around Lindesnes lighthouse.

Kystverket have established an annual meeting place between the administration and the local lessees in the different regions. The meetings covers different topics like maintenance and heritage questions etc. The lighthouse administration also has annual meetings with the 4 largest national NGOs with an interest in the alternative use of lighthouses.

Kystverket has also given priority to making digital copies of historical documents and drawings accessible, and the network of lighthouse museums also have a project on tracing information on Norwegian lighthouses and other AtoN in foreign archives.

Both the lighthouse administration and the lighthouse museums were present in Brest, France during the world’s biggest maritime festival this summer. Kystverket was presenting modern technology for traffic surveillance (VTS), and Lindesnes lighthouse museum presented a small exhibition of Norwegian lighthouses at the French lighthouse museum in Ouessant. A successful tour of 7 Breton lighthouses was organised by our French colleagues Vincent Guigueno and Nicolas Fady.