IALA POLICY ADVISORY PANEL

Report of the 39th session of the IALA Policy Advisory Panel (PAP)

19 - 21 February 2020

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Executive Summary

The 39th session of PAP was held at IALA Headquarters from 19 to 21 February 2020.

The PAP was updated on the latest decisions made at Council that have an impact on the work of the Committees.

The work programme, cross-Committee cooperation and the results of Committee participant surveys were discussed.

The outcomes of the recent Workshop on the Future of Marine Radiobeacon DGPS/DGNSS were considered by the PAP.

The PAP agreed that the ARM and VTS committees review the AtoN and VTS related elements of the IMO IMSAS Auditors Manual with a view to PAP40 considering to prepare a proposal for an amendment to the IMO.

Progress was reviewed with respect to the preparation of the IALA Workshop on Cyber Security and the coordination of Cyber Security measures across the technical committees was discussed.

The IALA position on MASS was considered by the panel and a Workshop proposal 'Marine Aids to Navigation in the Autonomous World', to be held in Tokyo, Japan, back to back with ENAV27 was finalised for Council approval.

Initial preparations and the roadmap for the review and update of the IALA Standards at the 2022 General Assembly was considered.

The PAP agreed to hold a discussion at PAP40 on the drivers and trends document to ascertain any future impact on the structure of the technical committees

An update was provided on the IGO project and the forthcoming IALA Diplomatic Conference in Kuala Lumpur, Malaysia.

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Report of the 38th Session of the IALA Policy Advisory Panel

GENERAL

The 39th meeting of the Policy Advisory Panel (PAP) was held from 19 to 21 February 2020 at IALA Headquarters, with IALA Deputy Secretary-General Omar Frits Eriksson as Chair and Kevin Gregory as Secretary.

1.   INTRODUCTION

1.1   Welcome by the Secretary-General and Deputy Secretary-General

1.1.1   Welcome by the Secretary-General

The Secretary-General welcomed all members to PAP39 and provided an update on the highlights of IALA activities since the last PAP meeting.

The four-day workshop on Ranging Mode (R-mode), which took place in St Germain-en-Laye in the second week of September agreed on the way forward to achieve standardization and implementation of R-Mode as a terrestrial trans-national navigation system capable of backing up the Global Navigation Satellite System for vessels operating in coastal waters.

Another milestone in this area was achieved in November when the World Radiocommunication Conference completed its allocation of frequencies for the VHF Data Exchange System (VDES) to also enable data communications ship-to-satellite and satellite-to-ship on a global basis. With this allocation, VDES now has the potential to provide secure global access to the Maritime Services in the context of e-Navigation and other valuable maritime services for all ships.

Resilient positioning, navigation and timing continues to be a major strategic concern of IALA. The Northern Lighthouse Board has hosted a successful workshop on the future of DGNSS in Edinburgh between 17 to 31 January 2020.

At Council 70 in December, a Strategy White paper, developed at a workshop held during Council 69, was approved. The paper takes a longer-term perspective on trends and developments in the maritime sector which are likely to have an impact on IALA. The eight core areas range from digitalization and increased connectivity to cyber security, the development of autonomous ships, the growth of cruise shipping in remote regions, and increased competition for the use of the world's seas and oceans. Digitalization in the Maritime sector was a clear winner.

The work of PAP on the IALA position document on the development of Marine Aids to Navigation services was much appreciated by the Council who decided to make it a high-level management document alongside the Strategy White Paper.

The action plan for the change of status project has progressed to a stage allowing the convening of the Diplomatic Conference in order to consider the draft text of the Convention that will govern the Intergovernmental Organization, once established. I am very grateful to the Government of Malaysia for its offer to host the Conference in Kuala Lumpur.

The World-Wide Academy (WWA) continues to succeed with its intensive programme of assisting lesser developed countries. This focuses increasingly on how the proper implementation of the seven IALA Standards enables effective compliance with the legal responsibilities coastal States have, as Contracting Parties to the SOLAS Convention, to provide Marine Aids to Navigation and Vessel Traffic Services.

Following on from the WWA Seminars on Safety of Navigation held in Marrakech in February 2018 and in Istanbul in March 2019 a third seminar will take place in Kuala Lumpur, Malaysia on 24 February 2020. This is the day immediately preceding the Diplomatic Conference. The aim is to provide information and advice to coastal States on the structure, nature and scope of the seven IALA Standards.

Preparations continue for the first, combined VTS-ENAV Symposium – on the theme of "Enhanced Maritime Safety and Connectivity" – and the accompanying Industrial members' exhibition due to take place in Rotterdam in May 2020.

This will be a useful forum to explain and discuss further the drafting work achieved by the VTS Committee in updating the International Maritime Organization's Guidelines for Vessel Traffic Services. The IMO aims to complete the revision of the relevant instrument – Assembly Resolution A.857(20) – by 2021. The first and important presentation during NCSR7 in January 2020 in London went extremely well thanks to the preparation by the Committee, correspondence group and the Secretariat.

It will be the task of the ENG Committee to consider all nominations received for the selection of the 2020 Heritage Lighthouse of the Year. Submissions must be received not later than 28 February 2020 by e-mail. This will allow the Committee to select three nominations and forward them in good time, together with its chosen recommendation, to the Council, which will make the final decision at its June 2020 session. The celebration of the 2019 Lighthouse of the Year was a great success.

With the latest reorganization the IALA and WWA staff now consist of 12 full time employed members and four consultants (three in the WWA section and one for Communication). Marie-Hélène Grillet and Virginia Marshall will retire in 2020.

Marie-Hélène will be replaced by Audrey Guinault who has been part of the IALA team since 2015 and we have recruited a new administrative staff with Spanish language skills, Rocio Puerta, to replace Audrey as administrative assistant.

There has been great interest for the vacant position of Technical Officer, and I hope the successful candidate can start before or during the next series of Committee meetings.

The membership of IALA has grown to 306, including three new National members as well as new Industrial and Associate members. This is the net result after termination of 6 membership for non-payments and 15 resignations.

1.1.2   Welcome from the Deputy Secretary-General

The Deputy Secretary-General welcomed all members to the meeting. The Deputy Secretary-General reminded all participants of the key objectives of the Policy Advisory Panel which are contained within the IALA Basic Documents:

1   Consider and advise the Council and the Secretariat on policy and strategy matters concerning the development and harmonisation of Marine Aids to Navigation systems, with specific emphasis on the Strategic Vision.

2   Co-ordinate the work of the Committees and provide a forum for Committee Chairs to share progress, challenges and operations of the Committees to provide a collegiate delivery of the various work plans with the Secretariat.

3   Carry out such other work as the Council may from time to time require.

1.2   Administration and safety briefing

The administration and safety briefing was given by Kevin Gregory.

1.3   Approval of agenda

The agenda (input paper PAP39-1.3.1) was approved. The approved Agenda is provided in ANNEX A.

1.4   Apologies and Introductions

Christina Schneider, the Chair of the Legal Advisory Panel and Thomas Southall, PAP Secretary, submitted apologies for absence to PAP39.

2. REVIEW OF ACTION ITEMS FROM THE LAST MEETING

2.1 Review of Action Items from PAP 38

Input paper PAP39-2.1 refers.

The list of action items was reviewed from PAP38. All of the action items for the Secretariat have been completed and relevant updates will be provided during the meeting, as appropriate. Updates with respect to other action items were provided as follows by PAP members:

- Action item 6, the ENG Chair has prepared an input paper for the information of the other committees. The other Committee Chairs agreed to develop similar documents for their respective Committees.

- Action item 5 and 7, work progresses under the ARM Committee.

- Action item 4 is in hand and will be progressed at ENG11.

3. REVIEW OF INPUT PAPERS TO PAP38

Members noted the input paper list to PAP39. A list of input papers is provided in ANNEX C.

4. REPORTS FROM OTHER BODIES

4.1 IALA

4.1.1 IALA Council

Input paper PAP39-4.1.1 refers.

Council 70 was held between the 10 – 13 December 2019 in New Caledonia. The report of Council 70 was considered in general by the PAP.

The Council Strategy Group met and the Chair made a presentation on two projects related to inland waterways which may be considered as of interest and inspiration to IALA. A major component of the meeting was the development of the drivers and trends document. The Secretariat was requested, by the Councillor of Sweden, to consider means as to how to strengthen the position of IALA on environmental matters and to provide input to Council 71.

The PAP recalled that work had already taken place in this regard in the form of the new Recommendation on sustainability as well as taking environmental considerations into account in the general drafting of IALA documentation.

Consideration may also be given to the benefits that e-Navigation and Vessel Traffic Services may give to the environment through efficiency savings such as reducing ships fuel consumption as well as in the provision of guidance to enable the assessment of the environmental footprint of AtoN authorities and how to manage AtoN in environmentally sensitive areas.

All submissions to Council 70 from the Committees were approved with the exception of two liaison notes to ITU WP5B on AMRD and ITU Recommendation M.1371-5. Papers PAP39-4.1.1.1 and PAP39-4.1.1.2 refer.

These documents will be submitted as an input to the ENAV and ARM Committees for further discussion. The Councillors from Canada, Norway and Finland undertook to submit input papers to PAP, ENAV and ARM describing their concerns. No input to PAP was received and the PAP noted that the ITU has now concluded their consideration of the AMRD topic but that there was still a window to make an input on matters related to M.1371-5.

The Council requested that the VTS Committee consider guidance for the transition period after the adoption of the revised Resolution A.857(20) on Guidelines for Vessel Traffic Services. The VTS Committee has already commenced a mapping exercise of IALA documentation that required updating to give effect to the revised Resolution. Specific consideration may be given to providing advice to VTS Competent Authorities and VTS

Authorities of the implications of the revised Resolution, possibly for promulgation following the approval of the revised Resolution by MSC102.

Action item:

*That the **IALA Secretariat** reminds the Council Members from Canada, Norway and Finland to submit input paper(s) to the ENAV and ARM Committees related to the papers returned from Council 70 related to submissions to the ITU on AMRD and ITU Recommendation M.1371.5.*

*The **ENG Committee** is to give consideration as to the possible means for IALA to strengthen its involvement in environmental issues and to provide feedback to PAP40.*

4.2   IMO

4.2.1   IMO Assembly and Council

IMO Council 123 and Assembly 31 were held between the 25 November to 6 December 2020.

The Assembly was attended by some 1700 registered delegates and the new IMO Council was elected. The reform of the IMO was the main area of interest for IALA.

The reforms included the expansion of the IMO Council from 40 to 52 members reflecting a growth in membership. The term of Council members is to be extended from two to four years with the election criteria being maintained (categories A, B and C). New guidelines were approved for the conduct of Council election campaigns.

New draft guidelines were approved for NGOs in consultative status which cause no concern for IALA.

Additionally, new principles to facilitate the transparency of the work of the IMO were further developed.

4.2.2   IMO MSC

The MSC has not met since the last PAP due to it being an IMO Assembly year.

MSC 102 is being held in May 2020 where the revised IMO Resolution on Guidelines for Vessel Traffic Services will also be considered.

Japan, Norway and Singapore also plan to submit a new work programme item for the inclusion of VDES within the SOLAS Convention. If agreed, this may have consequential implications for IALAs work which will be further considered at ENAV25.

4.2.3   IMO NCSR

Input document PAP39-4.2.3 refers.

NCSR7 was held between the 15 to 24 January 2020. IALA submitted two documents related to the revised IMO Resolution A.857(20) on Guidelines for VTS and an information paperrelated to 3GPP.

A summary of the report was provided related to developments in Maritime Services and a possible update to the e-Navigation Strategy Implementation Plan and the likely contribution IALA may make to this work.

4.2.4   IMO FAL

The FALs subgroup, Experts Group on Data Harmonization (EGDH) held their first meeting on 4 – 8 November 2019 and David Lewald attended on behalf of IALA. A verbal report was provided to the PAP with respect to bringing ship reporting issues into the e-Navigation domain and on the work of the EGDH which will meet twice a year. The main challenge is foreseen as the harmonisation of MSC and FAL work items, particularly the S-100 versus the FAL datasets which may be a challenge as will the general implementation of single window reporting mechanisms.

The value of IALA participation in FAL and the associated Experts Group was confirmed, and it was suggested that this attendance should continue.

*That the **IALA Secretariat** places coordination with the IMO FAL Committee and associated Experts Group on data harmonization on the agenda for the next IALA/IHO Technical Coordination Meeting.*

4.3 IHO

4.3.1 Technical Coordination Meeting

Input document PAP39-4.3.1 refers.

The meeting was held on the 16 October 2019 with representatives from the IALA and IHO Secretariat. The PAP reviewed the annex to input paper PAP39-4.3.1 which summarised the outcomes of the meeting. Specific reference was made to the S-201 registry where further coordination between the IHO and IALA would be beneficial with reference to the agreement and harmonisation of AtoN related definitions.

4.4 ITU

4.4.1 WRC 19

Input document PAP39-4.4.1 refers.

WRC19 was held between the 28 October and 22 November 2019. IALA was represented by Stefan Bober. The key outcomes of WRC19 were summarised with the following being the particular areas of interest for IALA:

- Satellite component of VDES,
- AMRD frequency allocations in both group A and B,
- Frequency allocation for NAVDAT in the MF and HF bands.

WRC19 considered the inclusion of agenda items for WRC23 related to service allocation for VDES R-Mode and the digitalization of VHF voice communication. These proposals were not endorsed with WRC27 thought to be a more realistic timeframe.

Phil Day offered thanks for the work undertaken on AMRD between the technical committees, the Secretariat and the ITU.

Monica Sundklev raised issues related to operational representation and consideration of such matters at the ITU. It was suggested that this matter be discussed by the VTS Committee to determine if any further action was required by IALA.

4.4.2 VDES and VDES R-Mode

At WRC19, satellite frequencies were allocated for VDES and there seems to be reasonable level of interest in VDES development, not the least in the space segment.

A Danish project, MARIOT, aims at establishing a commercial satellite constellation for providing Maritime Internet of Things World-Wide using VDES technology.

The PAP noted that the Japan Coast Guard is contemplating an input paper for MSC on including VDES in SOLAS chapter V, proposing that AIS carriage requirements can be fulfilled by carrying VDES which includes AIS.

Very recently information has surfaced, indicating that there are several previously unknown patents on VDES related matters in existence and there is a compelling need to look into these and resolve any IPR issues relating to IALA publications. It seems that the patents originate from China, US, and South Korea.

Action item:

*That the **ENAV committee** is to investigate the relevance of recently discovered VDES related patents and develop an action plan for how to mitigate the effect of these on IALA publications.*

4.5 Other (PIANC, CIRM, IMPA, & IHMA etc.)

4.5.1 e-Navigation Underway

Input document PAP39-4.5.1 refers.

e-Navigation Underway North America was held between the 12 and 13 November in Tampa, Florida, USA. This year's conference was hosted by the Radio Technical Commission for Maritime Services (RTCM). The theme of the conference was 'enabling e-Navigation today and tomorrow, building the infrastructure and reaping the benefits'.

IALA gave a presentation on the importance of implementing harmonized, global e-Navigation standards using the IMO and IALA guidance documents.

The conference was attended by 57 participants and generated nine conclusions and recommendations. Many conclusions were related to connectivity and data, standardisation and harmonisation of e-Navigation aspects, including ship reporting and Cyber Security.

The conference clearly showed the need for IALA to participate in the broader digital agenda, also outside of the AtoN area. The main need for IALA may be in the field of creating harmonised solutions for the benefit of global shipping.

A meeting has taken place with Republic of Korea and the Danish Maritime Authority and considered that the term 'digital@sea' may possibly be used as a new brand to replace the current 'e-navigation underway' to enable broader digital issues to be encompassed. This would be subject to further discussion and approval by the e-Navigation Underway Coordination Group.

4.5.2 3GPP

Coordination with 3GPP has continued with liaison activities and a submission by IALA to IMO NCSR7. NCSR7 subsequently requested IALA to continue to provide information and relevant updates on 3GPP matters to the joint IMO-ITU Experts Group. 3GPP have also designated an official Liaison Officer, Ms Koo, for joint IALA/3GPP matters.

4.5.3 FERNS

Input document PAP39-4.5.3 refers.

The FERNS met between the 4 and 8 November in Seoul, the Republic of Korea and included a visit to an e-Loran testbed, IALA participated as an Observer. Updates were given by the Member States which included reports on the Loran-C/Chayka programmes and the associated coordination of operational and technical matters. Coordination of other radio navigation services in the Far East were also considered and the following were highlighted in particular to the PAP:

- An update on the development of KPS (Korea Positioning System),
- A plan on maritime precise positioning and navigation service in the Republic of Korea,
- The introduction of e-Navigation in Russia,
- Radio navigation service and R-Mode development,
- The new generation of high-precision and anti-jamming GLONASS equipment.

5.   COORDINATION

5.1   Progress reports

5.1.1   ENAV

Input document PAP39-5.1.1 refers.

The 24th meeting of the ENAV Committee was held between the 7 and 11 October 2019 at IALA Headquarters. NOGUCHI Hideki was the Chair of the Committee and Jorge Arroyo Vice Chair.

91 Participants from 26 countries and four Sister organisations participated in ENAV24, 15 for the first time. There were two observers.

This was the third meeting for the 2018-2022 Work Programme and the Committee considered 61 input papers and produced 21 output papers from three Working Groups.

Key outputs included:

The completion of a new Recommendation on the provision of VTS and AtoN Maritime Services in the context of e-Navigation.

The completion of a new Guideline on a template for the review of emerging technologies for possible use by IALA members.

The following liaison notes were prepared:

- To Council to approve the following submissions to:
    - the IHO on web service-based S-100 data exchange; and
    - the IMO Navigation, Communications and Search and Rescue Sub Committee (NCSR) on 3GPP in the maritime domain.
- To the ARM Committee on AMRD and ITU related matters.
- To the ARM Committee and Steering Committee of the IALA Cyber Security Workshop on suggested workshop themes.
- To the ENG Committee on VDES R-Mode related matters.
- To the Policy Advisory Panel on the ENAV document structure.

Based on the Work Programme 2018 – 2022 the ENAV Task Plan was reviewed and updated.

Issues related to portrayal of e-Navigation services would benefit from a review and, in particular, the identification of Committee participants with expertise in this field noting that portrayal was a cross-standard and cross-Committee topic area and that coordination would be beneficial.

The input paper PAP39-5.1.1 on ENAV documentation architecture was considered by the PAP. Views were expressed which included that a review of the general documentation structure may be beneficial to examine the documentation architecture stemming from the historic and current Committee structures and the relationship of documentation between standards, recommendations and guidelines. Furthermore, it was suggested that a document structure should be configured so as to enable users, who may not be fully familiar with the work of IALA, to be able to easily identify, use and interpret them.

All standards are thematic in nature and are cross-Committee. Some documents may be multi-disciplinary, and, in such cases, a coordinating Committee would be identified.

The download statistics for the 'top 20' IALA publications were reviewed. The statistics were for the period since the document was uploaded to the IALA website.

The PAP concluded that further action with respect to document PAP39-5.1.1 was not required at this stage and that a a revised documentation architecture may be considered and implemented during the 2022 – 2026 work period.

Action item:

*The **IALA Secretariat** should refine the methodology used for the analysis download statistics and to provide an update to PAP40.*

*That the **IALA Secretariat** together, with the Committee Vice-Chairs, establish an intersessional correspondence group with the purpose of maintaining the currency of inter-related documents across committees.*

5.1.2 VTS

The 47th meeting of the VTS Committee was held from 23 to 27 September 2019 at IALA Headquarters with Monica Sundklev as Chair and Dirk Eckhoff as Vice-Chair. The Secretaries for the meeting were Thomas Southall and Kevin Gregory.

94 Participants from 26 countries, three Sister organisations participated in VTS47. 19 participants attended for the first time.

This was the third meeting for the 2018-2022 Work Programme and the VTS Committee considered 55 input papers and produced 24 output papers of three Working Groups.

Key outputs included:

- Finalisation of the revision of IMO Guidelines for Vessel Traffic Services – The Committee completed the revision of the IMO Guidelines for VTS (Resolution A.857(20)) and forwarded the document to the IALA Council for approval before submission to the IMO Navigation, Communications and Search and Rescue Sub-Committee (NCSR) (Task 1.1.1).

The Committee was very grateful for the valuable input provided by a representative from the IMO Secretariat.

- Completion of the revised Recommendation R0119 on the Implementation of Vessel Traffic Services and its associated Guideline on the Establishment of Vessel Traffic Services – The Committee completed the separation of the existing Recommendation V-119 into a new shorter Recommendation and an associated Guideline in conformance with the new IALA document structure.

- Completion of a new Guideline on VTS Training for Deck Officers – The Committee completed a new Guideline to assist maritime training institutes and other interested stakeholders in the training of Deck Officers in VTS related matters.

The following liaison notes were prepared:

- To Council to request a new Work Programme item on the updating of key IALA documentation to coincide with the adoption of the revised IMO Guidelines on Vessel Traffic Services (revised Resolution A.857(20)).

- To the Legal Advisory Panel to obtain advice on the revisions to Chapter 4 of the IALA VTS Manual.

Changes of Working Group Chairs and Vice Chairs within the Committee has impacted upon some work items.

These issues have also impacted upon the progress made with the VTS Manual 2020 edition. The structure of the VTS Manual has been changed to provide a more appropriate link with each IALA Standard and the associated recommendations, guidelines and model courses.

The recent work on the revisions to the Resolution A.857(20) has taken a lot of Committee attention. Work on this is now complete and the Committee may return to other business which will include the consequential amendments to relevant IALA documentation.

Positive use of intersessional correspondence group meetings have been made to progress items including the VTS Manual and the update to Recommendation R0103.

5.1.3   ENG

Input document PAP39-5.1.3 refers.

The 10th meeting of the ENG Committee (ENG10) was held from 30 September to 4 October 2019 in IALA HQ.

The session was attended by 82 participants from 28 countries. 11 participants attended for the first time and there was one observer.

Working in four working groups, the Committee considered 66 input papers and produced 25 output documents. The work of the Committee is diverse ranging from heritage to radio navigation issues.

The Committee finalised the following draft Recommendations:

- Revised Recommendation R0111(E-111) on Port Traffic Signals
- Draft Recommendation on the Design and Operation of Marine Aids to Navigation

The Committee finalised the following Guidelines:

- Draft Guideline G1148 Determination of Required Luminous Intensity
- Draft Guideline on the Maintenance of AtoN Structures
- Draft Guideline on the SBAS Maritime Service

The Committee finalised the following Model Course:

- IALA Model Course L1.1 on Marine Aids to Navigation Manager Training

The following liaison notes were prepared:

- Liaison Notes to ARM10 on Port Traffic Signals, mooring buoy light divergence and wreck marker buoy release
- Liaison to RTCM regarding collaboration with SC104 and SC134
- Liaison Notes to LAP on the draft IALA Recommendation on Sustainability in the Provision of Marine Aids to Navigation and patent issues related to R-Mode

Information was also provided on the work of the *IPCC intergovernmental panel on climate change* and introduced Committee participants to their newly published document on The Ocean and Cryosphere in a Changing Climate. A copy of the report can be obtained from the following link https://report.ipcc.ch/srocc/pdf/SROCC_FinalDraft_FullReport.pdf .

IALA BATT/LITE will be held in Australia in 2021 and could be an opportunity to introduce themes related to environment matters and sustainability.

5.1.4   ARM

The 10th Session of the ARM Committee was held at IALA Headquarters from 14 to 18 October 2019.

The session was attended by 79 participants from 22 countries and two sister organisations. 10 participants attended for the first time and there were five observers.

The Committee continued the work for the 2018-2022 work period. Working in three working groups, the Committee considered 52 input papers including presentations and produced 52 output and working documents.

The Committee completed the development of the S-201 Aids to Navigation Information Product Specification representing the culmination of seven years' work.

The Committee finalised liaison notes to:

- The China MSA and ENG Committee on AtoN provision in cold climates,
- China MSA on meteorological and hydrological monitoring in port waters,
- The ENG Committee on self-deploying wreck marker buoys,

- The PAP on Cyber Security, and

- The ENAV Committee on Maritime Resource Names.

At ARM10 plenary task 1.5.10 Mobile AtoN and associated virtual AtoN was discussed. It was agreed to include mobile AtoN in this work and to progress this element within the MBS. It is foreseen that the next edition of the IALA MBS will be prepared for the next General Assembly in 2022. The MBS itself should remain a simple to use document bearing in mind it is used by a wide audience, including mariners, and could be supported by guidelines covering more in depth operational and technical matters.

A further major element of work was an update to the IALA Risk Management Toolbox. Once this is complete, the relevant IMO SN Circular will be updated which will further serve to highlight the IALA Risk Management Toolbox to a global audience.

With respect to the proposal for self-deploying wreck marker buoys. It was considered that this was outside of the scope of IALA as such a solution would be a carriage requirement under the scope of the IMO.

The Terms-of-Reference for the ARM Committee was also reviewed and updated.

5.1.5 IMC

Malcolm Nicholson, IMC representative to PAP, distributed the report of PAP38 to the industrial members and no feedback or matters for consideration at PAP39 were raised. The IMC mid-term Assembly will be held between the 5 and 6 October 2020 at IALA Headquarters.

The Dean of the IALA World-Wide Academy will also provide a presentation at the forthcoming Assembly to explore means of future cooperation.

5.1.6 LAP

LAP20 considered the input from the ARM Committee related to polar regions and decided to study the MBS and other international instruments before reporting back to ARM.

The issue of patents was also considered, and advice was provided to the IALA Secretariat with respect to the issues identified.

Work was undertaken by LAP on the regulatory section of the VTS Manual and a new draft has been provided to the VTS Committee.

The question of whether EGNOS may be considered as an AtoN was reviewed and the LAP determined that it may, for IALA purposes, be considered as an AtoN.

5.1.7 WWA

The Dean of the IALA World-Wide Academy (WWA) provided a general update to the PAP.

Omar Frits Eriksson gave a presentation covering the WWAs activities. The three main areas of work for the WWA are - Education and Training, Capacity Building and Research and Development.

The WWA is seeking to achieve IALA Strategic Goal 2 - *All coastal states have contributed to an efficient global network of Marine Aids to Navigation through capacity building and the sharing of expertise.*

The PAP was briefed on the WWA method of categorisation of coastal States and noted that there will still some 26 states at priority one – being in the greatest need of assistance and that the majority of these states were in Africa.

Technical Missions were conducted to a number of states in need at the strategic, tactical and operational levels. There will be an increasing level of review missions to follow up on the recommendations made during the initial technical needs assessment missions.

All WWA activities are sponsored by a range of countries and organisations and no funds are drawn from IALA member contributions. The current budget of the WWA is circa €1 million.

Accredited Training Organisations delivering the AtoN model courses are supported by the WWA with training materials, examinations and lecturer support.

The new WWA Master plan sets two strategic goals for the WWA:

- All coastal States can fulfil the obligations related to Marine Aids to Navigation placed upon them in SOLAS Chapter V

- All coastal States can claim conformance with the relevant IALA Standards

The new WWA Master Plan for the period 2020-2024 has now been finalised and published.

Work on the development of a VTS strategy, particularly related to the quality of VTS training, is underway.

5.2 S1010 AtoN Planning and Requirements

5.2.1 IMSAS

Input document PAP39-5.2.1 refers.

Recognising the framework and procedures for the IMO IMSAS, the IALA Secretariat proposed an amendment of the IMO IMSAS auditor's manual sections related to AtoN and VTS.

The timeline for submission to the IMO MSC102 would preclude the consideration of this by the spring 2020 technical committees.

The PAP agreed that the ARM and VTS committees review their respective guidelines on IMSAS and the IMO IMSAS Auditors Manual with a view to considering a proposal to the IMO for amendments at a later date.

Action item:

*That the **IALA Secretariat** makes the latest version of the IMO IMSAS Auditors Manual input to the VTS and ARM committees and to make any proposals for amendments to PAP40 for further consideration.*

*That the **IALA Secretariat** places the IMO IMSAS Auditors Manual on the agenda for PAP40.*

5.3 S1020 AtoN Design and Delivery

PAP received no input documents related to this Standard.

5.4 S1030 Radionavigation Services

5.4.1 Workshop on the Future of Marine Radiobeacon DGPS/DGNSS

Input document PAP39-5.4.1 refers.

The workshop on the Future of Marine Radiobeacon DGPS/DGNSS was held between the 27 and 31 January 2020 at the Northern Light House Board Headquarters, Edinburgh, Scotland.

The workshop was very well attended by 49 participants from 22 countries.

The workshop participants considered the various presentations that were made and through discussion, it was noted that:

- IALA recognizes the important need to inform the mariner, in a clear and timely manner, if GNSS becomes unreliable;

- National competent authorities should take decisions based upon the volume of traffic and degree of risk and the need to ensure that integrity information is provided;

- contemporary GNSS stand-alone services do not provide integrity information to the users;

- satellite-based augmentation services (SBAS) provides system integrity information, but use the same frequency band as GNSS and are therefore equally susceptible to jamming and spoofing;

- current implementations of Receiver Autonomous Integrity Monitoring (RAIM) are considered inadequate due to the current lack of maritime specific RAIM algorithms;

- while the IALA maritime radiobeacon DGNSS concept improves positional accuracy somewhat, its main utility today is the provision of real-time integrity information;

- the IALA DGNSS concept is globally harmonized and compatible with most shipborne GNSS receivers but there are uncertain levels of use;

- the IALA DGNSS frequency allocation is recognised as a significant asset in global harmonisation;

- many DGNSS service providers are facing difficulties in continuing their services with ageing equipment requiring significant investments;

- some service providers have decided to discontinue their DGNSS services, while others have upgraded their equipment, but the majority have not made up their mind yet and are seeking guidance; and

- several different architectures are available and can modernise DGNSS implementation in a more cost-effective way.

Consequently, the workshop agreed that IALA should consider:

- encouraging IALA members to ensure that GNSS integrity information is provided in their area of responsibility;

- encouraging IALA members who discontinue their DGNSS services, to seek alternative ways of informing mariners, in a clear and timely manner, if GNSS becomes unreliable; and

- identifying alternative new and innovative ways of providing GNSS integrity information to mariners and find ways to speed up their development, including:

    o harmonized maritime GNSS user integrity algorithms;

    o encourage the development of MSR test specification and its introduction on all vessels; and

    o the introduction of R-Mode and other solutions for mitigating GNSS vulnerabilities.

- how best to coordinate this work with other international bodies to achieve globally harmonized solutions.

Taking into consideration some of these key findings, a draft guideline was prepared, and participants produced the framework and key points to cover in each section. The draft Guideline will be forwarded to the ARM and ENG committees for further development.

The PAP reviewed the conclusions of the Workshop and thanked the Steering Committee of the Workshop for their successful coordination and planning.

It was noted many of the attendees were from organisations that had elected to maintain their DGNSS infrastructure and services and that the ARM Committee may have a more balanced representation of views when the conclusions of the Workshop and draft Guideline is considered further.

The PAP considered that there may be benefit in giving further consideration to the IALA guidance or possible future events related to SBAS and integrity monitoring in general terms.

Action item:

*That the **IALA Secretariat**, in conjunction with the ENG Committee update the DGNSS questionnaire to include method of obtaining corrections (SBAS).*

5.4.2   SBAS

An overview was provided to the PAP of SBAS provision worldwide based upon the new IALA Guideline G1152 on SBAS Maritime Service along with the related IALA guidance on the subject area.

5.5   S1040 Vessel Traffic Services

5.5.1   Revision of IMO Resolution A.857(20)

The revised IMO Resolution A.857(20) on Guidelines were successfully presented at NCSR7, subject to minor revisions, and will now go to MSC102 for approval prior to Assembly 32 for adoption. The IMO schedule provides a good time window for the VTS Committee to finalise the necessary consequential amendments to

the relevant IALA documentation. Of note, this is the first time that the IALA Standards are referenced in an IMO instrument.

5.6   S1050 Training and Certification

5.6.1   AtoN and VTS Training Delivery Worldwide

A number of Accredited Training Organisations are delivering training on a frequent basis and additional languages are now being planned, specifically Spanish, Portuguese and Arabic in addition to the existing English and French provision. The Level 1.1 AtoN Manager qualification is also available via distance learning.

With respect to VTS training, the WWA is developing a strategy to increase the interaction with VTS ATOs as a part of the new Master Plan in conjunction with the VTS Committee. The current task is to map and understand the provision of VTS training world-wide.

5.7   S1060 Digital Communication Technologies

PAP received no input documents related to this Standard.

5.8   S1070 Information Services

5.8.1   IALA S200 development

An update to PAP was provided on IALAs role in S-200. IALA has been approved by the IHO as a Submitting Organisation and Domain Controller. The IALA domain covers:

- AtoN,
- VTS,
- Positioning Systems,
- Communications (such as AIS ASM).

The current range of finalised and under development S-200 product specifications were reviewed. A further product specification related to R-Mode is under consideration. Information was provided on the version control methodology and the development/review cycles for product specifications. In particular, the PAP discussed the relationship between the S-200 and S-100 series related to AtoN information.

The IALA strategy, including the establishment of an S-200 Experts Group for S-200, was outlined to the PAP and it was suggested that a presentation on this be given to each Technical Committee.

Consideration is being given to the development of an input to NCSR8 on a proposal for a new Maritime Service (MS17) on AtoN but careful consideration needs to be given to the preparation bearing in mind the deadline for document submitting and the associated IALA Committee (ARM lead) and Council approval process.

Action item:

*That the **IALA Secretariat** delivers a presentation to each Technical Committee related to role of IALA and the IALA Strategy for the S-200 product specifications.*

5.8.2   Cyber Security

Input document PAP39-5.8.2 refers.

The cross-Committee workshop on cyber security to be held in Quebec, Canada 26-30 October 2020 was introduced. However, recognising the cross-Committee nature of the subject, it was suggested that there is need for the provision of coordinated IALA guidance on the topic to ensure that it is consistent and appropriate for each technical area.

A file share for the collation of cyber security-related information and documentation has been created.

The workshop is generating a good level of interest and it should be made clear to potential participants as to the aims, objectives and expectations of the workshop being to consider the key principles that IALA guidance should cover. The Steering Committee should finalise the technical programme to ensure that it is

appropriately focussed to deliver the desired output to enable the development of guidance specific to the technical areas considered by IALA.

Although shipboard focussed, the guidelines produced by organisations such as ICS and BIMCO may be considered to ascertain the approach taken and to identify potential areas of best practice.

The PAP considered it important that there was representation at the workshop by industrial members to ensure that their views are considered.

With respect to the coordination of cyber security matters in IALA, it was suggested that the ARM Committee takes the lead in the coordination of the preparation of IALA guidance documents (a Recommendation and an associated Guideline) on cyber security related issues. All committees may then feed their input into the ARM Committee for inclusion into the IALA guidance.

Action item:

*That the **IALA Secretariat** invites a representative of the Industrial Members Committee to join the Steering Committee for the Cyber Security Workshop.*

*That the **IALA Secretariat** organizes the 3rd meeting of the Steering Committee for the IALA Workshop on Cyber Security on Tuesday 17 March 2020 at 1700 CET and includes confirmation of the finalized Workshop dates.*

*That the **IALA Secretariat** provides details of the Cyber Security file sharing system to the members of PAP.*

5.8.3   Maritime Resource Name (MRN)

An update on MRN was provided to the PAP by means of a presentation. The ARM Committee is continuing work on MRN related guidance including a Recommendation on MRN and a Guideline on MRN registry and maintenance. The present Guideline G1143 on Unique Identifies for Maritime Resources is also being updated by the ARM Committee.

5.9   Committee work programme and structure

5.9.1   Committee work programme 2018-22

Input document PAP39-5.9.1 refers.

The Work Programme has been updated to reflect the progress made at the autumn 2019 technical committees. The Work Programme was presented to Council 70 who noted the document and the progress to date. It was suggested that all documents referred to in the Work Programme should include the date of publication and that the term 'Marine Aids to Navigation' is used consistently (i.e. [Marine] only in square brackets used if the document title does not yet include the term 'Marine' in the title before 'Aids to Navigation').

Dirk Eckhoff expressed the view that in some cases there may be ambiguity when referencing AtoN as to whether it is a visual AtoN or another type of AtoN (such as VTS) and that this may need greater clarity in the future.

Action item:

*That the **IALA Secretariat** adds the date of publication to all documents referred to in the Work Programme and confirms the consistent use of 'Marine Aids to Navigation' in the respective document titles.*

5.9.2   Structure of committees

The current Committee structure was presented to the PAP. A discussion was held as to whether there may be a need for guidance related to the establishment and management of intersessional correspondence groups and it was considered that there was not a compelling need at this stage but that it should be ensured that Committee participants are made aware of what progress has been made intersessionally.

5.9.3   Committee meeting and event dates

Input documents PAP39-5.9.3 and PAP39-5.9.3.1 refer.

The proposed dates for meetings during 2021 were considered by the PAP. For ENAV24 and the proposed workshop on MASS-related issues, it was noted that for budgeting purposes, these events would need to be held in Japan before the end of March 2021.

The PAP reviewed the programme and proposed modifications which would be double-checked by the Secretariat for potential conflicts before finalisation.

The Committee events plan was reviewed and updated as appropriate.

Action item:

*That the **IALA Secretariat** reviews the modifications to the preliminary dates for meetings in 2021 for potential conflicts before finalization.*

5.10   Operations/Administration

5.10.1   IALA Dictionary

Input documents PAP39-5.10.1 and PAP39-5.10.1.1 refer.

The IALA Dictionary Management Procedure was introduced by Minsu Jeon which included the terms of reference for the Dictionary Management Group and the introduction of MRN principles to the numbering of dictionary definitions.

The PAP approved in principle the Dictionary Management Procedure subject to the refinement and finalisation of the precise MRN system with a view to evaluation at PAP40.

Action item:

*That the **IALA Secretariat** creates an information paper to all technical committees explaining the new Dictionary Management Procedure and the expectations of committees.*

*That **PAP Members** provide their feedback on the Dictionary Management Procedure to PAP40.*

5.10.2   File Sharing (Pydio)

An update on the file sharing system (Pydio), used at IALA, was provided and included confirmation that documents from previous meetings will no longer be deleted but stored in a dedicated folder within each Committee area.

Investigations have been made with respect to alternative file sharing solutions. A potential solution of Google Documents was identified. One of the main constraints in a file sharing system was the number of simultaneous users required for the purposes of IALA technical committees.

It was suggested to continue to use Pydio for the spring 2020 technical committees whilst tests are carried out with other providers such as Google Documents. The aim is to have a new file sharing solution available for the autumn technical committees.

It was noted that Google Documents would need users to have a valid Google account to access the documents. A further issue to consider may be accessing Google Documents on locked or restricted laptops (such as those issued by Government agencies).

5.10.3   Committee surveys

Input document PAP39-5.10.4 refers.

The PAP considered the summary of comments received in surveys about the Committee meetings held during the autumn of 2019 with the feedback being generally positive in nature. The feedback related to the administration and operations of the meeting was discussed.

The feedback related to sustainability matters, particularly the use of plastic cups, was noted and will be considered by the Secretariat.

It was suggested that any known disruptions to public transport such as the RER network planned works be notified to Committee participants to enable advance planning.

With respect to the introduction of input papers at opening plenary, it is the expectation that Committee participants should have pre-read the papers before attending the Committee and that introductions may not always be necessary in the interests of time and at the discretion of the Chair.

The number of presentations is at the discretion of the Chair but should be kept to a reasonable number so as to not adversely affect the prompt start of the Working Groups. The option for lunchtime or Working Group based presentations may also be considered at the discretion of the Chairs.

5.10.4 Secretariat services and resources

A new Technical Officer will be appointed shortly and the Committee Secretary roles for technical committees will be split between the new appointee and Tom Southall.

It was also suggested to change the name associated with the contact@iala-aism.org to something more descriptive such as 'IALA Contact' or 'IALA Secretariat'.

Action item:

*That the **IALA Secretariat** investigates changing the name associated with the contact@iala-aism.org and secgen@iala-aism.org to something more descriptive such as 'IALA Contact' or 'IALA Secretariat' and 'IALA SecGen'.*

5.10.5 Communications

Two printed bulletins will be published per year along with four e-bulletins. Industrial members are encouraged to place advertisements. Additionally, IALA members and Committee participants are encouraged to submit articles of interest, particularly those with both an AtoN and human interest and success stories related to the use of IALA guidance documents.

5.10.6 Committee websites

Committee websites continue to be updated with relevant information about their work. PAP members are encouraged to provide further information and updates on the work of their Committee that may be suitable for publication on the website. PAP members noted that some issues were still encountered when using the IALA website with certain browsers.

Action item:

*That the **IALA Secretariat** investigates and prepares a list of which browsers support the IALA website and provides feedback to PAP40.*

*That the **IALA Secretariat** reviews and considers what information is hosted behind a username and password and what is publicly available.*

5.10.7 Committee reports

The structure of the Committee reports was found to be generally fit for purpose although an internal review will be conducted to review whether any processes may be streamlined to reduce the administrative workload and allow increased attention to the technical content as a result.

5.10.8 Chair / participant guidance

Work continued the preparation of guidance for new chairs and participants to enable them to effectively contribute to the work and administration of the committees.

5.10.9 IALA patent policy

This matter was considered under an earlier agenda item.

5.11 Other

5.11.1 IALA AtoN Questionnaire

Input document PAP39-5.11.1 refers.

The IALA questionnaire was distributed in November 2019 and 18 responses have been received. It is foreseen that in the region of 25 responses would be required for a satisfactory statistical analysis.

Action item:

*That the **PAP Members** remind their Committee participants of the need to complete the IALA Questionnaire 2019 and return it to the Secretariat.*

5.11.2 IALA VTS Questionnaire

It has not been possible to develop the VTS Questionnaire further and volunteers from the VTS Committee to manage the questionnaire have not been forthcoming. The main issue is related to the ongoing management and ownership of the servers containing the questionnaire data.

5.11.3 IALA VTS Manual

Development work continues with the VTS Manual although it is slightly behind schedule. It is foreseen that the text will be completed during VTS48, but this may require final editorial checks by the Secretariat before being issued for publication and printing before the VTS/ENAV Symposium.

5.11.4 IALA NAVGUIDE

The update work for the NAVGUIDE was on track with coordinators appointed by each technical committee and a specific file sharing site has been established. The PAP suggested that consideration be given to the appointment of a single Editor to oversee the finalisation of the NAVGUIDE.

Action item:

*That the **IALA Secretariat** investigates and the appointment of an Editor to oversee the finalization of the next version of the NAVGUIDE.*

5.11.5 IALA VTS-ENAV Symposium

Preparations on track and the Steering Committee met prior to PAP39.

6. STRATEGY AND POLICY

6.1 Drivers and trends

6.1.1 Strategy white paper

Input document PAP39-6.1.1 refers.

The PAP were briefed on the strategy white paper that was prepared by the Council with a view to influencing and developing a new drivers and trends document for 2020. The PAP noted that the drivers and trends do not contain environmental related issues and were mindful of the comments made by the Councillor of Sweden at Council 70 for IALA to consider means as to how to strengthen the position of IALA on environmental matters. The PAP also discussed the benefits of engaging the next generation of AtoN managers and users to secure their engagement and views on longer term trends.

The PAP agreed to allow time on the PAP40 agenda for a more comprehensive discussion with a view to providing input to Council 72 (December 2020).

Action items:

*That the **IALA Secretariat** places the future structure of the technical committees, taking into account the document on drivers and trends for 2020, to be on the PAP40 agenda.*

*That **PAP Members** provide input to PAP40 on the future structure of the technical committees taking account the document on the drivers and trends for 2020.*

6.1.2   PAP Cross-Committee Coordination

Areas of cross-Committee coordination were discussed by PAP members and will be kept under review, these included:

- Next generation VTS,
- Digital voice radio,
- e-Racon,
- VDES R-Mode,
- Dynamic hotspot detection,
- MRN,
- Maritime Services,
- Complementary use of AtoN,
- Development of S-200 product specifications.

6.1.3   IALA Position on the Development of AtoN Services

Input document PAP39-6.1.3.1 refers.

PAP members were requested to consider the IALA Position on the Development of AtoN Services and to provide their comment and suggestions for new subjects and topics for discussion at PAP40.

Action item:

That **PAP Members** *review the IALA Position on the Development of AtoN Services and provide input to PAP40 with comment and suggestion for potential new subjects and topics.*

6.1.4   Revision of IALA Standards

Input document PAP39-6.1.4 refers.

The next opportunity for the revision of Standards would be to coincide with approval at the 2022 General Assembly. Preliminary changes included the addition of Heritage and Legacy to S1020 (AtoN Design and Delivery) and to add model courses to S1050 (Training and Certification).

The PAP expressed concerns with respect to the proposed manner of including Model Courses within the scope of the S1050 and requested that the Secretariat give further consideration as to how they may be incorporated.

Action item:

The **IALA Secretariat** *to prepare a roadmap for the update of the IALA Standards for consideration at PAP40.*

The **IALA Secretariat** *to give consideration as to if and how the Model Courses may be incorporated into the IALA Standard framework.*

That **PAP Members** *consider, through the technical committees as appropriate, any changes or additions to the IALA Standards and to provide input to PAP40.*

6.1.5   IALAs involvement in MASS

Input documents PAP39-6.1.5.1 and PAP39-6.1.5.1.1 refer.

The PAP was briefed on the outcomes of a recent International Meeting on MASS organised by the Japan Coast Guard held in Tokyo in February 2020. The purpose of the meeting was to consider the provision of guidance as to how shore-based infrastructure may need to be considered to accommodate the safe and efficient navigation of MASS. The meeting made several recommendations related to MASS and the work of IALA.

The possible role of IALA was discussed by the PAP based on a presentation provided by Minsu Jeon. Views were expressed that as MASS development and the possible degrees of automation were still at an early stage it was not yet possible to clearly formulate a definitive IALA position. However, there would be value in IALA maintaining its engagement and following developments closely to assess and respond to any implications with respect to IALA standards or to any needs for additional/new guidance.

It was further suggested that there could be value in examining the implications of ships operating with levels one and two (degrees of automation) as opposed to the higher levels related to unmanned ships.

The Japan Coast Guard had submitted a proposal for a Workshop on MASS to be held in Tokyo, Japan back to back with ENAV27. The PAP reviewed the Workshop proposal and made updates as well as changed the name of the Workshop to 'Marine Aids to Navigation the autonomous world'.

Action item:

*The **IALA Secretariat** forwards the Japan Coast Guard Workshop proposal to the Council for approval.*

*The **IALA Secretariat** forwards the Japan Coast Guard Workshop proposal to the technical committees as an information paper.*

6.2   Challenges and Opportunities

PAP received no input documents related to this agenda item.

6.3   The IGO Project

6.3.1   Diplomatic Conference in Malaysia

Secretary-General Francis Zachariae updated the PAP on the progress of the IGO project. A presentation was given with respect to the status of the project and the plans and process for the forthcoming Diplomatic Conference taking place in Kuala Lumpur between the 25 and 28 February 2020 by the invitation of the Government of Malaysia.

Currently, some 200 participants from 56 countries are registered along with representatives from sister organisations IMO and IMSO. Should the Diplomatic Conference be successful, it is foreseen that the Government of France would open the Convention for signatures in Paris in November 2020. A total of 30 signatures are required to enable the Convention to enter into force and to enable IALA to become an IGO.

7.   ANY OTHER BUSINESS

7.1   Coronavirus advice and precautionary measures

The PAP was briefed on the advice that has already been issued by the IALA Secretariat. Additionally, a stock of hand sanitiser gel and masks will be maintained for participants to use if required. Contact is also being maintained with Argentina and Brazil as the host countries of ARM and ENG.

7.2   Discontinuance of paper charts by the United States

David Lewald briefed the PAP on the decision by the United States to discontinue the production of paper charts. Production of paper charts will end in 2024 and the necessary regulatory changes are currently being prepared. The printing of charts may still be possible drawing on the ENC datasets but further consideration is being given to the regulatory and practical implications of this.

8.   REPORT OF THE MEETING

The final report will be approved by correspondence.

9.   DATE AND VENUE OF NEXT MEETING

The next meeting is planned for 8 to 11 September at IALA Headquarters in Saint-Germain-en-Laye. The meeting will commence 1300 on Tuesday 8 September and conclude at 1200 on Friday 11 September 2020.

10.   CLOSING OF THE MEETING

Omar Frits Eriksson thanked all participants for their very valuable contribution to the meeting and wished all well in the Spring Committee season.

11.   LIST OF ANNEXES TO THE REPORT

1   Agenda
        A copy of the agenda is at ANNEX A.

2   Participants
        A list of participants is at ANNEX B.

3   Input papers
        A list of input papers is at ANNEX C.

4   Output papers
        A list of output papers is at ANNEX D.

5   Action items
        A list of action items is at ANNEX E.

ANNEX A   **AGENDA**

39th Meeting of the IALA Policy Advisory Panel (PAP39)

The 39th meeting of the Policy Advisory Panel will be held on 19 - 21 February 2020, at IALA Headquarters, Saint-Germain-en-Laye, France. The timings of the meeting are:

Wednesday	19/02/2020	1100-1700
Thursday	20/02/2020	0900-1700
Friday	21/02/2020	0900-1200

The objectives of the panel are to:
- Formulate advice for the IALA Council and Secretariat;
- Coordinate the work of the IALA committees to achieve the goals of the Strategic Vision; and
- Monitor work programmes for the committees for the period 2018-2022.

Agenda

1   Introduction

1.1	Welcome by Secretary-General and Deputy Secretary-General	FZ,OFE	
1.2	Administration and safety briefing	KG	
1.3	Approval of agenda	OFE	Approve
1.4	Apologies and introductions	OFE	Note

2   Review of action items from last meeting

2.1	Review of action items from PAP38	MJ	Note

3   Review of input papers

3.1	Review of input papers to PAP39	**KG**	Note

4   Reports from other bodies

4.1	**IALA**			
	4.1.1	IALA Council	MJ	Note

4.2	**IMO**			
	4.2.1	IMO Assembly & Council	FZ	Note
	4.2.2	IMO MSC	MJ	Note
	4.2.3	IMO NCSR	MJ	Note
	4.2.4	IMO FAL	MJ	Note

4.3	**IHO**			
	4.3.1	Technical coordination meeting	MJ	Note

4.4	**ITU**			
	4.4.1	WRC 19	MJ	Note
	4.4.2	VDES & VDES R-Mode	OFE	Discuss

4.5	Other (PIANC, CIRM, IMPA, & IHMA etc.)	MJ	Note

4.5.1	e-Navigation Underway		FZ	Note
4.5.2	3GPP		OFE	Note
4.5.3	FERNS		MJ	Note

5   Coordination

5.1   Progress reports

5.1.1	ENAV	HN	Note
5.1.2	VTS	MS	Note
5.1.3	ENG	SM	Note
5.1.4	ARM	PD	Note
5.1.5	IMC	MN	Note
5.1.6	LAP	CS	Note
5.1.7	WWA	OFE	Note

5.2   S1010 AtoN Planning and Requirements

5.2.1	IMSAS	MJ	Discuss

5.3   S1020 AtoN Design and Delivery
5.4   S1030 Radionavigation Services

5.4.1	Workshop on the Future of Marine Radiobeacon DGPS/DGNSS	OFE	Discuss
5.4.2	SBAS	MJ	Discuss

5.5   S1040 Vessel Traffic Services

5.5.1	Revision of IMO Resolution A.857(20)	MS	Note

5.6   S1050 Training and Certification

5.6.1	AtoN and VTS training delivery worldwide	OFE	Note

5.7   S1060 Digital Communication Technologies
5.8   S1070 Information Services

5.8.1	IALA S-200 development	MJ	Note
5.8.2	Cyber security	OFE	Discuss
5.8.3	Maritime Resource Name (MRN)	MJ	Discuss

5.9   Committee work programme and structure

5.9.1	Committee Work Programme 2018-22	MJ	Review
5.9.2	Structure of committees	MJ	Discuss
5.9.3	Committee meeting and event dates	AG	Note

5.10   Operations/Administration

5.10.1	IALA Dictionary	MJ	Discuss
5.10.2	File Sharing (Pydio)	KG	Discuss
5.10.3	Committee surveys	AG	Note
5.10.4	Secretariat services and resources	OFE	Note
5.10.5	Communications	AG and MJ	Discuss
5.10.6	Committee websites	KG	Discuss
5.10.7	Committee reports	KG	Discuss
5.10.8	Chair / participant guidance	KG	Discuss
5.10.9	IALA Patent Policy		Note

5.11   Other

5.11.1	IALA AtoN Questionnaire	MJ	Discuss
5.11.2	IALA VTS Questionnaire	MS	Discuss
5.11.3	IALA VTS Manual	MS	Note
5.11.4	IALA NAVGUIDE	MJ	Note
5.11.5	IALA VTS-ENAV Symposium	OFE	Discuss

6   Strategy and Policy

    6.1   Strategic Goals and Policies

        6.1.1   Drivers and trends   OFE   Discuss
        6.1.2   PAP Cross-committee coordination   All   Discuss
        6.1.3   IALA Position on the Development of AtoN Services   OFE   Discuss
        6.1.4   Revision of IALA Standards   MJ   Discuss
        6.1.5   IALA's involvement in MASS   MJ   Discuss

    6.2   Challenges and opportunities
    6.3   The IGO project

        6.3.1   Diplomatic Conference in Malaysia   FZ   Note

7   Any other business

8   Report of the meeting

9   Date and venue of next meeting

10   Closing of meeting

ANNEX B   LIST OF PARTICIPANTS

ARM Committee	**Chair**	Phil Day phild@nlb.org.uk
	Vice-Chair	R. David Lewald robert.d.lewald@uscg.mil
ENAV Committee	**Chair**	NOGUCHI Hideki hideki.noguchi@gmail.com
	Vice-Chair	Jorge Arroyo Jorge.Arroyo@uscg.mil
ENG Committee	**Chair**	Simon Millyard simon.millyard@thls.org
	Vice-Chair	Michel Cousquer Michel.Cousquer@cerema.fr
VTS Committee	**Chair**	Monica Sundklev monica.sundklev@transportstyrelsen.se
	Vice-Chair	Dirk Eckhoff dirk.eckhoff@wsv.bund.de
IMC		Malcolm Nicholson m.nicholson@sealite.com
Secretary-General		Francis Zachariae francis.zachariae@iala-aism.org
Deputy Secretary-General		Omar Frits Eriksson omar.eriksson@iala-aism.org
Technical Operations Manager		Minsu Jeon minsu.jeon@iala-aism.org
Education and Development Manager		Kevin Gregory kevin.gregory@iala-aism.org
Communication Officer		Audrey Guinault audrey.guinault@iala-aism.org

ANNEX C   LIST OF INPUT PAPERS

Meeting	Agenda Item	Input Paper Title	Source
PAP39-	1.3.1	Provisional Agenda Rev3	IALA Secretariat
PAP39-	2.1	Update on action items from PAP38	IALA Secretariat
PAP39-	4.1.1	Report Council 70	IALA Secretariat
PAP39-	4.1.1.1	Input Paper to ITU on AMRD (C70-11.2.4 (ARM10-3.19))	C70
PAP39-	4.1.1.2	Input Paper to ITU preliminary draft revision of ITU-R M.1371-5 (C70-11.2.5 (ARM10-3.20))	C70
PAP39-	4.2.3	Report on IMO NCSR7	IALA Secretariat
PAP39-	4.3.1	Report IHO IALA Technical 3rd Coordination Meeting	IALA Secretariat
PAP39-	4.4.1	ITU WRC-19 outcomes	IALA Secretariat
PAP39-	4.5.1	e-Navigation Underway NA	IALA Secretariat
PAP39-	4.5.3	FERNS 28 Report__final	IALA Secretariat
PAP39-	5.1.1	Liaison Note to PAP on ENAV documentation architecture (ENAV24-12.3.8)	ENAV24
PAP39-	5.1.3	ENG update	ENG Chair
PAP39-	5.1.6	IALA Patent Policy (LAP20)	LAP20
PAP39-	5.4.1	Report on the IALA Workshop on the Future of Marine Radiobeacon DGPS DGNSS	IALA Secretariat
PAP39-	5.8.2	Liaison note to PAP on Cyber Security (ARM10-13.3.2)	ARM10
PAP39-	5.9.1	Committees Work Programe 2018-2022	IALA Secretariat
PAP39-	5.9.3	Committee Events Plan	IALA Secretariat
PAP39-	5.9.3.1	Proposed meeting dates 2021	IALA Secretariat
PAP39-	5.10.1	Dictionary management	IALA Secretariat
PAP39-	5.10.1.1	Input to DWG - Dictionary Updates (ENG10-14.3.4)	ENG10
PAP39-	5.10.4	Committees Surveys	IALA Secretariat
PAP39-	5.11.1	IALA Questionnaire	IALA Secretariat
PAP39-	6.1.1	Drivers and Trends 2020	IALA Secretariat
PAP39-	6.1.3.1	IALA Position Document on the Development of Marine AtoN Services 2019 (C70-8.2.1.2)	IALA Secretariat
PAP39-	6.1.4	Standard update	IALA Secretariat
PAP39-	6.1.5.1	Input paper on MASS Workshop	Japan Coast Guard
PAP39-	6.1.5.1.1	MASS Workshop Proposal	Japan Coast Guard

ANNEX D   LIST OF OUTPUT PAPERS

Meeting	Agenda Item	OUTPUT PAPERS	Action
PAP39-	8.2	Commitee Events Plan PAP39 Comments	
PAP39-	8.3	Proposed meeting dates 2021 PAP39 comments	IALA Secretariat to finalise and publish
PAP39-	8.4	MASS Workshop Proposal PAP39 comments	To Council for approval and Committees for information

ANNEX E **ACTION ITEMS**

1. The **ENG Committee** is to give consideration as to the possible means for IALA to strengthen its involvement in environmental issues and to provide feedback to PAP40. 10

2. That the **ENAV committee** is to investigate the relevance of recently discovered VDES related patents and develop an action plan for how to mitigate the effect of these on IALA publications. 11

3. That **PAP Members** provide their feedback on the Dictionary Management Procedure to PAP40. 21

4. That the **PAP Members** remind their Committee participants of the need to complete the IALA Questionnaire 2019 and return it to the Secretariat. 23

5. That **PAP Members** provide input to PAP40 on the future structure of the technical committees taking account the document on the drivers and trends for 2020. 23

6. That **PAP Members** review the IALA Position on the Development of AtoN Services and provide input to PAP40 with comment and suggestion for potential new subjects and topics. 24

7. That **PAP Members** consider, through the technical committees as appropriate, any changes or additions to the IALA Standards and to provide input to PAP40. 24

8. That the **IALA Secretariat** reminds the Council Members from Canada, Norway and Finland to submit input paper(s) to the ENAV and ARM Committees related to the papers returned from Council 70 related to submissions to the ITU on AMRD and ITU Recommendation M.1371.5. 10

9. That the **IALA Secretariat** places coordination with the IMO FAL Committee and associated Experts Group on data harmonization on the agenda for the next IALA/IHO Technical Coordination Meeting. 11

10. The **IALA Secretariat** should refine the methodology used for the analysis download statistics and to provide an update to PAP40. 14

11. That the **IALA Secretariat** together, with the Committee Vice-Chairs, establish an intersessional correspondence group with the purpose of maintaining the currency of inter-related documents across committees. 14

12. That the **IALA Secretariat** makes the latest version of the IMO IMSAS Auditors Manual input to the VTS and ARM committees and to make any proposals for amendments to PAP40 for further consideration. 17

13. That the **IALA Secretariat** places the IMO IMSAS Auditors Manual on the agenda for PAP40. 17

14. That the **IALA Secretariat**, in conjunction with the ENG Committee update the DGNSS questionnaire to include method of obtaining corrections (SBAS). 18

15. That the **IALA Secretariat** delivers a presentation to each Technical Committee related to role of IALA and the IALA Strategy for the S-200 product specifications. 19

16. That the **IALA Secretariat** invites a representative of the Industrial Members Committee to join the Steering Committee for the Cyber Security Workshop. 20

17. That the **IALA Secretariat** organizes the 3rd meeting of the Steering Committee for the IALA Workshop on Cyber Security on Tuesday 17 March 2020 at 1700 CET and includes confirmation of the finalized Workshop dates. 20

18. That the **IALA Secretariat** provides details of the Cyber Security file sharing system to the members of PAP. 20

19. That the **IALA Secretariat** adds the date of publication to all documents referred to in the Work Programme and confirms the consistent use of 'Marine Aids to Navigation' in the respective document titles. 20

20. That the **IALA Secretariat** reviews the modifications to the preliminary dates for meetings in 2021 for potential conflicts before finalization. 21

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