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**1st IALA-IHO Technical Coordination Meeting, 27-28 June 2018**

**Report**

**Participants:** IALA: Michael Card, Dave Lewald, Minsu Jeon, Gingee Jeon IHO: Abri Kampfer, Tony Pharaoh, Jeff Wootton, David Wyatt.

1. **Adoption of Agenda**

The proposed agenda was agreed. [Annex]

1. **Opening remarks – IHO**

Abri welcomed the IALA participants, remarking on the close relationship between the organisations and invited IALA to join IHO technical meetings more regularly. He explained the new structure of IHO, with an Assembly and Council and two main committees: the Hydrographic Services and Standards Committee (HSSC), and the Inter Regional Coordination Committee (IRCC). And, then he explained the Technical side of IHO and main topics of the committees. And he emphasized that the role of Quality Assurance WG is getting more important.

*A.I. Dave is requested to have a discussion to include the working item on the development of Aton Performance indicator in next ARM.*

1. **Opening remarks – IALA**

Michael welcomed the opportunity to coordinate with IHO in technical cooperation, and expressed his appreciation for IHO in organizing this meeting. He recalled the long-standing cooperation between both organizations and in particular the adoption by IALA of the S-100 framework. Then he introduced the Strategic Vision and Stands of IALA. Dave Lewald, IALA ARM Vice Chair, with his role in USCG which covers/deals the AtoN and MSI matters will be beneficial for both organizations.

1. **Development Status Update for S-100, S-101, & S-201**
   1. **IHO S-100 series**

Tony made a presentation on the development status of S-100 series. S-100 (Ed. 4) is finalized during the S-100WG meeting in Singapore in May 2018. Data streaming function which IALA ENAV Committee suggested to the 2nd S-100WG meeting was accepted. It was emphasized that the Data Quality Working Group (DQWG) has been working a lot on data validation in S-100 series. Some parts of S-101 needs more works to be done such as portrayal catalogue, but the official version S-101 (Ed 1.0.0) will be published/issued by the end of 2018, and it will be revised in due course. IALA recognized the timeline of the development and taking into account for the S-201 development. The website ([www.iho.org.xxx](http://www.iho.org.xxx)) represents the development status of S-100 series, and it was agreed to share and square the content between both organizations.

*A.I. Minsu is requested to build a link the IHO website to IALA S-200 webpage and update the profile of S-200 series and managers*

It was noted that IHO had developed a converter of S-57 to S-101. It is available on the IHO website, and it will be useful for the development of S-201. And the beta version of GI registry has launched on the website (registry.iho.int/main/main.do).

* 1. **IALA S-201 and Test bed**

The S-201 has been developed in IALA ENAV committee, and with the new structure of the Committees, it will be transferred to IALA ARM. Dave invites the previous participants and IHO to join ARM in Oct 2018. The latest version of S-201 is 0.0.7 for review.

Dave emphasized one of the important function would be utilization. When there are changes in the data, Lighthouse Authorities should be able to issue only the corrected content and promulgate to the stakeholders.

It was noted that IALA and Korea signed an MOU on technical cooperation and an S-201 testbed will be developed; a joint harmonization and portrayal group could be needed; datasets needed to be fixed for implementation. There was an idea to connect AtoN remote monitoring systems with S-201. It will be the first trial of Internet of Things in AtoN. Moreover, using MRN on AIS and VDES will be investigated.

*A.I. Dave is requested to invites the ENAV S-200 WG participants and IHO to join ARM meeting in Oct.*

1. **Harmonization of S-100 and S-200 PS and allocation of S number domains**

S-211 has been allocated to Port Call Messages, IALA will bring it to ARM Committee to discuss further. It was agreed that further discussion with IHMA is required to bring S-211 to initial maturity.

1. **S-125 Navigation Services (enhanced List of Lights)**

The IHO’s Nautical Information Provisions Working Group (NIPWG) has designated S-125 as the Navigation Services Product Specification (PS) with the intention that it would contain information regarding Aids to Navigation (AtoN). Work on this PS by NIPWG has been halted for various reason (IHO possibly expand on this). NIPWG has questioned the usefulness of the S-125-PS considering the IALA work on the S-201 ATON-PS. Specifically, the questioned raised is will S-125 still be needed and how would it be different from S-201.

IALA’s work on the AtoN S-201-PS originally began in 2011 and is now a mature model ready for release of v1.0. It is envisioned that the S-201-PS will eventually contain all data necessary for a HO to completely encode all required attributes for an AtoN within the S-101 ENC dataset or perform as a standalone data set layer for use by HO’s and AtoN Authorities where it is impractical to incorporate the AtoN into the ENC (ex. USA use of the buoy layer ENC for river buoys on their inland river system).

Within IALA it has been envisioned that the S-125-PS would be a derivative of S-201 and be the public facing dataset which would be the digital equivalent of the List of Lights (and indeed an enhanced version of the information currently available in the L/L). Additionally, it has been envisioned that the S-125-PS could be expanded to include attributes to necessary to digitally populate the portions of the Notice to Mariners which relate to AtoN (e.g. Discrepancies, Proposed Changes, Advance Notice of Changes, and Temporary Changes). In this manner, charts could be amended without rendering an update to the S-101 ENC by the HO.

Therefore, it is proposed by IALA that their ARM Committee draft the S-125-PS and submit to NIPWG for their consideration/comment. The development of S-125 would occur with frequent liaison notes back and forth between the two bodies (especially in the requirements identification phase). The final product would be adopted and maintained by NIPWG with routine consultation between IHO & IALA.

*A.I. Dave prepares an input of S-125 to next ARM citing envisioned use cases, etc.*

1. **IHO – IALA Working Group (WG) Liaison Protocols**

The IHO organs of most relevance to IALA are the S-100 WG and the Nautical Information Provision WG (NIPWG). IHO invited IALA experts to join the meeting. From IALA, Dave Lewald, Guttorm Tomren, Eivind Mong be will accredited participants to those IHO meetings.

IALA invited IHO experts, Jeff and Julia Powell to attend the IALA ARM and VTS to present the conceptual top level introductory presentation and GI Registry presentation if applicable. IHO HSSC allocated IALA slot on the agenda, Minsu will attend future HSSC meetings as the IALA representative, and present the MRN initiative at the next HSSC meeting in May 2019.

*A.I. Minsu to represent IALA at future IHO HSSC meetings*

1. **IHO GI Registry**

Jeff briefed the development status of GI Registry and asked IALA to update the profile of domains and managers.

1. **MRN Overview and next step**

Minsu made a presentation on the value and use of MRN. IALA and IHO agreed to cooperate on MRN and establish a common mechanism. It was considered that an identifier allocation convention should be needed for harmonized structure. And, both organizations recognized joint task to develop a document on adaptation of MRN into S-100 for IMO HGDM or NCSR in due course.

Tony noted that MRN is a vital part of the development of S-100.

Tony advised that IHO may run out of S-100 code numbers soon, and the solution can be to add MRN (in front?) to identify clearly.

*A.I. Minsu is requested to participate the next IHO S-100 WG, Mar 2019 and present the development status of MRN*

*A.I. David will initiate an MRN Correspondence Group, to include Tony and Minsu, to provide input to IALA ARM-8 in October 2018 and IALA S-100 WG in Denmark in March 2019*

1. **Input to IMO-IHO HGDM**

Both organizations noted the importance of reaching a common understanding on the development and implementation of the concept of Maritime Service Portfolios (MSP) for the benefit of the safety and efficiency of navigation in the e-navigation environment.

IALA and IHO will reconfirm the way forward of the meeting, have a preparatory meeting for HGDM 2 from 24 Sep 2018 tentatively, at IALA HQ.

*AI. Minsu is requested to check the result of the ENAV inter-sessional WG meeting chaired by Jon Leon Ervick, 6 June 2018, Seoul and share the report with IHO*

*A.I. Mike is requested to invite IMPA and possibly other Maritime Services coordinating bodies*

The output of HGDM should be updated and revalidated. IALA is willing to volunteer the work within ENAV Committee, and it will be discussed in next PAP.

1. **Joint IHO-IALA PS Workshop (Preliminary Planning Session)**

IHO and IALA recognized the need to have a joint Workshop on S-100/200 to raise the awareness and understanding.

*A.I. Tony and Dave will plan the workshop details and inform both organizations*

1. **Conclusions on cooperation between IHO and IALA**

The two organisations should meet in an “IHO-IALA Technical Cooperation Meeting” at six month intervals to continue the coordination commenced in this two-day meeting. The next would be from 24 September 2018 when input to the IMO HGDM would be on the agenda (see above).

Additional action on coordination:

* Minsu will attend HSSC meetings
* David will attend NIPWG and S-100 WG, and will also represent IALA’s interests at these IHO WGs
* NIPWG may be able to attend IALA ARM meetings – to be confirmed
* IALA ARM Committee will establish a work plan for its S-100/S-200 activity
* The S-201 test bed will be important – Minsu will maintain contact with IHO here
* Minsu will take over as submitter in place of Nick Ward
  + Eivind Mong to be retained also as an IALA submitter
* S-211 needs more coordination work and IHMA is the organisation that should do this. IALA noted that S-211 should be considered within the VTS Committee
* IALA would much appreciate the NIPWG Chair attending the next IALA ARM Committee meeting, 22-26 October 2018

1. **Next meeting**

Michael on behalf of the IALA thanked IHO for arranging the meeting. Abri thanked all participants for a very useful meeting. And the 2nd IALA/IHO technical cooperation meeting would take place on or after 24 September 2018, or alternatively in late Nov or early Dec at IALA HQ.

Annex:

IHO-IALA Coordination Meeting

Monaco 27-28 June 2018

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| **Wednesday 27 June** | **Subject** | **Leader** |
| 0900-0915 | Introductions | All |
| 0915-0930 | Opening Thoughts (IHO) | IHO Secretariat |
| 0930-0945 | Opening Thoughts (IALA) | Michael Card – IALA, Deputy Secretary General |
| 0945-1030 | Development Status Update for S-100, S-101, & S-201 | S-100, S-101 – IHO  S-201 - IALA |
| 1030-1100 | Coffee |  |
| 1100-1230 | Harmonization of S-100 and S-200 PS and allocation of S number domains | Open Discussion |
| 1230-1400 | Lunch |  |
| 1400-1500 | S-201 Test Bed & S-125 Strategy Discussion | Minsu Jeon/Dave Lewald |
| 1500-1700 | IHO – IALA Working Group (WG) Liaison Protocols  <http://s100.iho.int/S100/productspecs>  <http://www.iala-aism.org/meetings-events/committees/> | All |
| 1700 | Adjourn |  |
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| **Thursday 28 June** | **Subject** | **Leader** |
| 0900-0915 | Greetings & Day 1 Thoughts/Reflections | All |
| 0915-1030 | MRN Overview | Minsu Jeon/Dave Lewald |
| 0930-1015 | MRN Next Steps | All |
| 1015-1045 | Input to IMO-IHO HGDM | All |
| 1045-1100 | Possible joint input IALA-IHO-IMPA | All |
| 1100-1130 | MSPs (Open Discussion) | All |
| 1130-1200 | Joint IHO-IALA PS Seminar (Preliminary Planning Session) | All |
| 1200-1215 | Closing Thoughts (IALA) | Michael Card – IALA, Deputy Secretary General |
| 1215-1230 | Closing Thoughts (IHO) | IHO Secretariat |
| 1230 | Adjourn |  |