**IALA COUNCIL
73rd session**

**8-10 June 2021
Video Conference**

10 – TECHNICAL ACTIVITIES

10.6 – S-200 Development

10.6.1 – Committee work on S-200

Note by the Secretariat

1. INTRODUCTION

Following Council approval for the participation of IALA in the IHO GI Registry, the committees continue working on developing S-200 product specification (PS) within its areas of responsibility. During the first half of 2021 Committee meetings, the relevant Task Groups have worked on various PS related issues.

This paper is intended to report to the Council on the development status of the S-200 PS series by the Committees.

2. UPDATES ON S-200 DEVELOPMENT

As the domain control body of the S-200 series, IALA is able to develop its own PS related to Aids to Navigation and can canvass other members in their domain for an opinion on the acceptability of any new proposal.

IALA's domain on the S-200 PS covers:

- Aids to Navigation (AtoN)
- Vessel Traffic Services (VTS)
- Positioning Systems
- Communication Systems
- AIS, ASM, VDES

The following table summarises the work of the committees;

Domain	PS	Title	Developer	Version
AtoN	S-201	AtoN information	ARM	1.0.0
Positioning	S-240	DGNSS almanac	ENG	1.0.0
	S-245, S-246, S-247	eLoran ASF, almanac, reference stations	ENG	1.0.0
Commu.	S-230	Application Specific Message (ASM)	ENAV	Planned
VTS	S-210	Inter VTS exchange	VTS	Started
	S-211	Port Call Message	IPCDMC	1.0.0
	S-212	VTS digital information service	VTS	0.6.4

IALA hosted a regular Technical Coordination meeting with IHO on 27 April 2021, and the report is attached in the annex.

And the secretariat presented the IHO HSSC 13, which was held on 4-7 May 2021 and updated the committee on the development of S-200.

3.   STRATEGY ON S-200

IALA has been closely involved in the development of e-navigation and the Common Maritime Data Structure (CMDS) necessary to support it. It is expected that IALA will continue to play a leading role in coordinating the specifications and data exchange formats that will underpin e-navigation services in the future. In order to meet these broad objectives, the product specifications should be promoted for testing and trials.

4.   THE COUNCIL IS REQUESTED TO

NOTE the information provided in this document.

Annex Report of the 5th IHO IALA TC Meeting

5th IHO IALA Technical Cooperation meeting
27 April 2021, Virtual meeting

Attendees: Omar Frits Eriksson, Jeff Wootton, Abri Kampfer, Yong Baek, Dave Lewald, Minsu Jeon, Eivind Mong, Sewoong Oh, Phil Day, Guttorm Tomren

Apologies: None

1. Introductions

The 5th Session of the IHO IALA Technical Cooperation meeting was held virtually on 27 April 2021.

2. Adoption of Agenda

The proposed agenda was agreed by the group (see annex A).

3. Opening thoughts

3.1. IALA

OFE welcomed and thanked all participants for their attendance. He also presented an update on the work of IALA in terms of technical service descriptions.

3.2. IHO

AK also expressed his thanks to all participants and underlined the importance of this joint meeting. He mentioned the challenges of virtual meetings for efficient conversation and thanked IALA for their continuous cooperation in developing the product specifications (PS).

4. Review of minutes and action items from the last meeting

MJ presented the minutes of the previous, 4th, joint technical cooperation meeting. An action item on registering all S-200 PSs was discussed on the GI registry agenda item.

5. S-100 and S-200 updates

5.1. S-100 PS general updates

Yong Baek briefed the participants on the IHO's S-100 based PS release status. S-100 Edition 5 will be prepared for HSSC approval in 2022. It was pointed out that all PS developed to date should be lined up for Edition 5 and IHO will inform IALA on the development and technical consequences of the update.

IALA will consider the developed PS and examine the impact of PS currently under development so that S-125 would be developed based on the upcoming Edition 5.

Action item 1: IHO to continue informing IALA on the S-100 upgrade to Edition 5.

5.2. IHO GI registry

JW gave a brief update on the new GI registry. Hydrographic dictionary terms have been updated in the registry and S-99 document guideline Edition 2 for the registry will be finished shortly.

A workshop for "GI registry for dummies" would be prepared in due course. The attendees noted that even when in draft, PS are publicly accessible in the registry.

IHO will inform IALA of the procedure to register PSs in the registry and the IALA secretariat will upload the instructions in the system.

Action item 2: IHO to inform IALA on how to register the draft S-200 Product Specifications in the registry.

The group discussed how to harmonize the terms and definitions of Marine Aids to Navigation including PNT and VTS in the registry. IHO include the definitions of the hydro domain as default but they are subject to discussion and reconciliation. With this in mind, IALA will prepare a list of definitions on Marine AtoN and upload them on the registry for discussion.

Action item 3: IALA finish the working list of definitions of Aids to Navigation including PNT and VTS and discuss them with IHO to harmonize.

The IALA VTS committee is working on new portrayal symbol proposals for S-212 and also the portrayal of S-201 and S-101 should be harmonized. IALA therefore would like to apply for new domains for Marine AtoN and VTS which do not exist in the registry yet.

HSSC needs to decide to create new domains and IALA will examine the existing symbols in the registry in the hydro domain and send proposals if needed.

IALA would consider consolidating three Feature Data Dictionary (FDD) domains into one and is seeking more IDs for submitting organisations.

Action item 4: IHO to discuss new portrayal domain for AtoN and VTS in HSSC.

Action item 5: IALA to consider consolidating the three FDD domains into one and apply for more submitting organisation IDs for the registry.

5.3. S-127 Marine Traffic Management

EM, chair of S-127 work in IHO, explained the work of S-127, which is still in its early stage, and no producer has yet created data. NIPWG had a meeting in late March 202, and the meeting noted the possible use of the maritime connectivity platform (MCP).

The VTS area and description of the VTS area information belong to S-127.

5.4. S-131 Marine harbour infrastructure

The S-131 Task Group in NIPWG meets every 6 weeks. The TG is still at data model development phase and then the development of the PS will follow. There is cooperation with IHMA in defining supplementary information such as the location and the harbour layout.

IHO is informing IMO FAL on the development of S-131.

5.5. S-124 Navigational Warning

A correspondence group has been established to progress the work. S-124 group have completed defining the warning types. This type of information would be harmonized with S-125 type information. The work will continue on developing the feature catalogue, GML Schema, portrayal catalogue and etc.

Regarding the testbed activity, S-124 is a test case of the distribution of information. The attendees agreed that the S-124 specific portrayal catalogue should be developed.

5.6. S-200 IALA

MJ updated the developments of S-200 by IALA during the first months of 2021. S-240, S-246, S-247 have been finished as 1.0.0 for test purpose. All the PSs will be registered into the GI registry.

S-200 development summary table

Subdomain	Product Spec. number	Title	Developer (owner)	Current version
AtoN	S-201	AtoN information	ARM	1.0.0
Positioning	S-240	DGNSS almanac	ENG	1.0.0
	S-245, S-246, S-247	eLoran ASF, almanac, reference stations	ENG	1.0.0
Communications	S-230	Application Specific Message (ASM)	ENAV	Planned
VTS	S-210	Inter VTS exchange	VTS	Started
	S-211	Port Call Message	IPCDMC[1]	1.0.0
	S-212	VTS digital information service	VTS	0.6.4

5.7. S-125 Marine navigational service

DL updated the group on the work on S-125. He described a framework for what S-125 could provide and which technical services need to be drafted. The work will continue in IALA ARM.
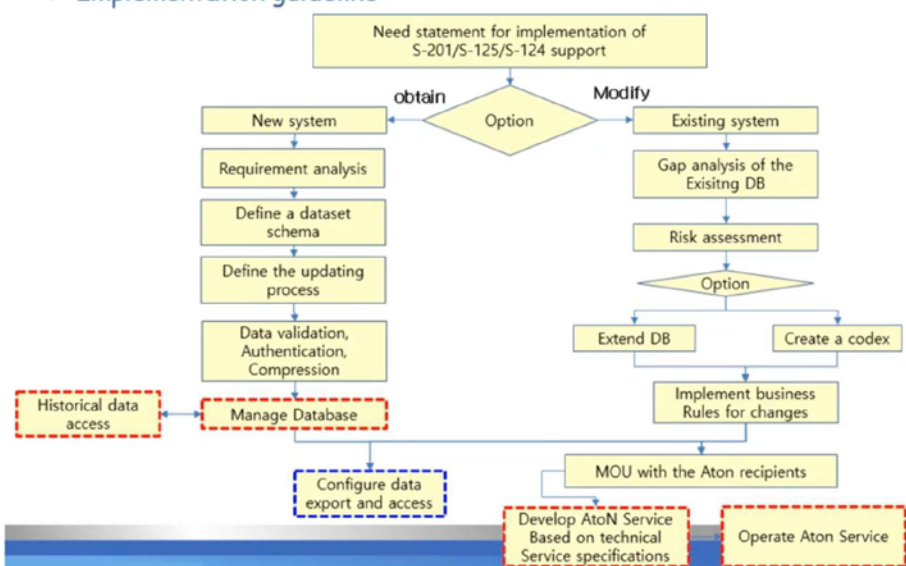
The S-125 data model will add information type to indicate Marine AtoN operating status and changes.

5.8. S-201 AtoN

SO explained the S-201 PS. There were a number of improvements of S-201 during the first half of 2021. The ARM committee discussed expansion of S-201 data model and the implementation guideline also has been developed which is an annex of the main document.

S-201 testbed has been improved and open for all the members to try it out, the group will continue the work by intersessional meetings.

6. MRN

The IALA MRN Guideline G1143 has been revised and the revision is due to be approved in June 2021.

Action item 6: IALA to send the latest MRN guideline G1143 to IHO.

7. Cooperation

7.1. IHO IALA joint workshop

The joint workshop was originally meant to be held in 2020 but due to the COVID situation, the group agreed to postpone the event one more year to 2022. The host, Norway, is still in favour of hosting this event physically and the group underlined that the programme needs to be refined in due course.

IALA WWA will examine the possibility of hosting a kind of training event on S-100/200 and IHO agreed to support the event depending on the time of the event.

7.2. IMO matters

The group noted that IHO is sending a paper to FAL and ARM is planning to send a paper to FAL on ship reporting when the document is approved.

8. Any other business

The group discussed the role of S-100 in the MASS environment, which requires machine to machine interface. IHO S-101 project team have started looking at the development of MASS in terms of data quality indicators and implementation of data quality.

Regarding the overlays of information on ECDIS, implementation standards, AIS symbology on ECDIS, ITU and IEC, IHO is moving to develop an interoperability standard S-98 on controlling the ECDIS screen. IHO prepared a document on ECDIS performance standards and sent it to IMO. The group agreed that it should be focused on the mariner's point of view.

With regard to the type of approval of ECIDS, the group discussed what could be the scope of the approval. Competent authorities need to make sure that information and messages are sent and received, and that associated approvals cover S-101 and other PSs such as S-124, S-125 and etc. The group recognised that it is still early to say what the scope will be and the outcome of the revision of the performance standards will cover the answer.

The MBS has been reviewed and is still subject. to approval. It will be shared with IHO when the document is approved.

Action item 7: IALA to send the new MBS to IHO when it is approved.

Action item 8: IALA to send the new Recommendation on Rhythmic characters of lights on AtoN to IHO when it is approved in June 2021.

9. Next meeting

It was an excellent opportunity and necessary to work together between two organisations in developing PSs and related topics and developments.

IALA ARM would be a good chance for the next meeting and the next meeting could be held in November 2021. The date could be confirmed in September 2021.

List of Action items

Action item 1: IHO to continue informing IALA on the S-100 upgrade to Edition 5.

Action item 2: IHO to inform IALA on how to register the draft S-200 Product Specifications in the registry.

Action item 3: IALA finish the working list of definitions of Aids to Navigation including PNT and VTS and discuss them with IHO to harmonize.

Action item 4: IHO to discuss new portrayal domain for AtoN and VTS in HSSC.

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Action item 6: IALA to send the latest MRN guideline G1143 to IHO.

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ANNEX A   5TH IHO-IALA COORDINATION MEETING, 27 APRIL 2021, 1200 UTC, VIRTUAL MEETING

Time (UTC)	Subject	
1200	**Opening**	
	Introductions	
	Adoption of agenda	
	Opening Thoughts (IALA)	Omar
	Opening Thoughts (IHO)	Abri
	Review of minutes and action items from last meeting	
1220	**S-100/200 updates**	

	S-100 general
	   1. S-100 in general
	   2. GI registry
	       • DCB and SO
	       • Proposals on terms/definitions of AtoN	

	PS development updates
	   3. S-127 Traffic management
	   4. S-131
	       • relation with S-211 and S-212
	   5. S-124
	   6. S-200 in general
	   7. S-125
	   8. S-201
	       • Portrayal (new symbols and SVG)
	       • Testbed	

1320	**MRN**	
	IALA G1143 on MRN edtion 2.0 Country code	
1340	**Coorperation**	
	IHO IALA joint workshop (postponed)	
	IMO related	
	Any other	
	Any other business	
	Date and venue next meeting	
	Adjourn	