7th Nautical Information Provision Working Group (NIPWG) Meeting
25 – 29 November 2019 – Tallinn, Estonia

Annex A: List of Action items
Annex B: Agenda
Annex C: List of Attendees
Annex D: Updated NIPWG Work Plan

1. Opening and administrative arrangements

1.1 Opening remarks
Jens SCHRÖDER-FÜRSTENBERG opened NIPWG7 and by welcoming new and returning members.
Logistics and building safety were also discussed.

The NIPWG Chair welcomed the participants and thanked the Estonian Maritime Administration (EMA) for organising the meeting.

Kaidi KATUS, the Deputy Director General of EMA and head of Hydrography and Aids to Navigation Division, welcomed the participants. In her welcome speech, she highlighted the importance of the NIPWG work. She emphasized the importance of NIPWG work in providing products for the S-100 environment which may support the IMO e-Navigation concept.

2. Adoption of NIPWG7 Agenda
NIPWG <u>agreed and adopted</u> the NIPWG7 Agenda with slight modifications as circulated.

3. Adoption NIPWG6 Minutes
The meeting <u>approved</u> the Final Minutes of NIPWG6 with no modifications as circulated.

3.1 Corrections
None noted.

3.2 Review of Action Items from NIPWG6

Planned tasks for this Reporting Period						
Action Item	Actor	Task Description	Start Date	Target End Date	Percent Complete	Task Status
5/27	IB	Check why the only use of feature classes is not appropriate in S-128 and that information types should be implemented	03/2018	Nov 2019	100	Will be covered by 6/16, 6/17 & 6/18
6/01	JS-F	Inform HSSC on the renaming of S-123 to "Marine Radio Services"	02/2019	15 March 2019	100	
6/02	JS-F	Seek HSSC approval for adding the term "Marine" to the remaining Product Specifications under the remit of NIPWG	02/2019	15 March 2019	100	
6/03	KHOA	Submit change proposal to the S-100WG to add curved functions in S-100	02/2019	Nov 2019	On going	To be investiged to produce SVG symbols

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		based SVG				without the curved functions in S-100. Report to the NIPWG8
6/04	KHOA	Develop and test S-126 symbols in night and dusk ECDIS modes	02/2019	Nov 2019	On going	KHOA is developing general guidance for colours and symbols for S-100 PSs. Once it is completed, S-12X portrayal will be updated accordingly. Report to the NIPWG8
6/05	JS-F	Submit a paper to NCWG requesting the template on the provision of symbols for portrayal	02/2019	30 May 2019	100	
6/06	KHOA	Investigate the usefulness of the provision of S-126 symbols in ECDIS side menu and the viability of highlighting selected items by colour patterned areas on the chart that are presented on the screen. That includes keeping a list of use cases showing and testing inter alia complementary data sets	02/2019	Nov 2019	On going	Refer to the action 6/04 comments
6/07	BS&WdT	Draft a description of S-126 (based on the proposed S-97 template) and to provide the first set of features which could be used	02/2019	Nov 2019	100	Continuing of 5/14 and 5/15
6/08	JS-F	Update for work plan to consider implementation issues	02/2019	Feb 2019	100	
6/09	JS	Change Dynamic and Static definitions to only include final sentences with no graphics	02/2019	31 March 2019	100	
6/10	JS	Inform the S-129PT on outcome of Static and Dynamic discussions	02/2019	31 March 2019	100	
6/11	JS	Provide the definitions to the HDWG using their drafted submission template and report back to NIPWG7	02/2019	Nov 2019	100	Continuation of 5/06

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6/12	MK	Provide a red line version of S-49 and to create initial draft of a NIPWG letter and send it to JS-F	02/2019	31 July 2019	100	Continuation of 5/07
6/13	JS-F	Draft a paper/NIPWG letter outlining the "P" in NIPWG	02/2019	15 Feb 2019	100	
6/14	NIPWG	Review letter and provide comments to JS-F	16 Feb	28 Feb 2019	100	
6/15	JS-F	Submit respective NIPWG submission to HSSC	02/2019	15 Mar 2019	100	
6/16	KHOA	Update S-128 to S-100 ed. 4	02/2019	Nov 2019	100	
6/17	NIPWG	Check S-128 for the usefulness of Catalogue items and report any issues detected to KHOA to improve the data model	02/2019	Aug 2019	100	
6/18	KHOA	Check S-128 for the usefulness of the Catalogue data for up-to-date synchronization of S-100 products	02/2019	Nov 2019	100	
6/19	JC&SV	Check the usefulness of S-124 in NIORD and include examples of challenges		Nov 2019	100	Ex 5/19
6/20	**Decision**	Prod Specs under the remit of NIPWG are under 2 year revision cycle				
6/21	JS-F	Address the availability of S-122 datasets to HSSC and IRCC respectively	02/2019	15 March 2019	100	
6/22	Spain, Canada, Netherlands and Germany (and other Countries as appropriate)	Provide comments on experiences made during the test of S-122/S-123 data production	02/2019	Nov 2019	100	
6/23	EA	Continue collecting feedback on both product specifications		permanent		Ex 5/08
6/24	JS-F	Include in the NIPWG report to HSSC concerns about product specification/S-100 version conflicts and possible inconsistencies	02/2019	15 March 2019	100	
6/25	JS-F	Reply to IALA that S-125 should only contain additional information to S-101 which is of navigational significance	02/2019	28 Feb 2019	100	

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6/26	BS	Review and contribute to S-97 as appropriate	02/2019	permanent		
6/27	NIPWG	Monitor progressn on MRN developments	02/2019	permanent		
6/28	JS-F	Invite NCWG to provide a set of SVG symbols for further use (textual description of each possible feature)	02/2019	20 May 2019	100	
6/29	NIPWG	HOs are invited to consider the incorporation of ballast water management area information into their nautical publications if appropriate	02/2019	permanent		
6/30	JS-F	Provide updated diagram to NIPWG for review	02/2019	02/2019	100	
6/31	JS-F	Provide the consolidated NIPWG position to HSSC for further consideration	02/2019	15 Mar 2019	100	See also 6/15
6/32	VZ	Re-evaluate potential interoperability and encoding concerns relative to S-122 and S-121	02/2019	Permanent		
6/33	JLE	Get back to JS-F with use cases on proposed S-101 data model amendments	02/2019	30 March 2019	100	
6/34	JS-F	Provide a redline version to S-101 Project Team	04/2019	30 April 2019	100	
6/35	JS-F	Provide redline version of M-3 amendment to HSSC	02/2019	15 Mar 2019	100	

4   NIPWG status of work overview

The meeting took note of the presentation on the status of the NIPWG work. This overview was initiated to familiarise new members and to refresh experienced members with the main objectives of the group and the current work status.

Discussion: There was a clarification of terminology offered by Dave LEWALD that members need to start using. NIPWG has traditionally talked about route planning or back of bridge" and operational use or "front of bridge". The meeting agreed to use the IMO terms of Route Planning (for "back of bridge) and Route Monitoring (for front of bridge).

6   Council and HSSC related information

The meeting took note of the report.

7   S-100 related information

7.1   Presentation of the outcome of the recent TSM meeting

The Meeting took note of the presentation for the results of the Test Strategy Meeting.

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Discussion: The meeting considered Data Naming Convention S-97 to enable multiple product exchange sets.

5   Project and concepts

The Meeting took note of the presentations.

5.1   Digitised Norwegian SDs & Port Information

The meeting took note of the report and discussed the potential reuse of the concept for provision of information in non-SOLAS environments.

5.3   Taiwan University activities related to NIPWG work

The Meeting took note of the report.

21   S-12X (Harbour Infrastructure) discussions

21.1   S-12X Product Specification description

NOAA introduced the motivation to initiate a discussion based on NIPWG Letter 6-2019 and its associated White Paper on starting the assessment of needed information to produce a potential product specification on Harbour Infrastructure.

Discussion: The Meeting took note of the discussion.

21.2   IHMA discussion input papers

The Meeting took note of the provided papers.

Discussion: Port facilities currently have a unique identifier established as a hierarchy of port, berth and position. Ports and terminals need to have an incentive to provide accurate standard information.

Action Item 7/01 (BvS) – Ben will send completed IHMA standards to Jens. Dec. 2019.

Action Item 7/02 (JS-F) – Jens will send completed standards (see action item 7/01) to the WG as a NIPWG letter. Dec. 2019.

8   (S-126) Physical Environment

The meeting took note and discussed the presentations.

Discussion: The history of S-126 was delivered. A request was made to take S-126 off of the hold status and the meeting agreed to approach HSSC with a recommendation to restart the work. Norway and Canada expressed an interest that the work should be restarted by NIPWG.

9   Creating New Product Specifications

The meeting took note of the paper and the solution developed by NOAA.

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Discussion: The Meeting felt the recently proposed solution from the S-101PT to model MARPOL areas as an ADMARE will meet near-term requirements and that it was best to put this aside for the immediate future.

23   Order of future Product Specification developments

The meeting took note and discussed the papers for S-126 (Marine Physical Environment) and S-12X (Marine Harbor Infrastructure) provided in response to NIPWG letter 6/2019.

Discussion: The meeting concluded after extensive discussions and careful consideration of pros and cons that both Prod Specs should be developed in parallel. Once approved by HSSC, the focus will be on the development of the respective data models.

Action Item 7/03 (JS-F) – Jens will send the report and recommendation to initiate the S-126 and Marine Harbour Infrastructure Product Specification parallel development process and to request a number for S-12X (Marine Harbour Infrastructure) to HSSC. Mar. 2020.

Action Item 7/04 (JS-F) – Jens will draft a NIPWG letter to address contributions of the Marine Harbour Infrastructure Product Specification data model to different NIPWG members. Jun 2020.

20   Provision of S-122 and S-123 based test data sets

The meeting took note of the papers provided by member states testing the product specifications.

Discussion: The meeting noted that there were challenges meeting organizational responsibilities. The meeting also noted the different approaches using existing production system and GIS applications.

Action Item 7/05 (WdT) will provide a paper on the approach to encode S-122 data in HPD ver 3.1. (Sep, 2020)

Action Item 7/06 (JS-F) Jens will provide a paper on the approach to encode S-122 data in HPD ver 4.X. (Sep, 2020)

Action Item 7/07   NIPWG member states to report on testing of the NIPWG Prod. Spec. data set production in their current production environment and to provide a short report on their activities to NIPWG 8. (Sep, 2020)

Action Item 7/08 (YG) Yves to provide the WEND WG with the German paper on the creation of the S-123 dataset for their consideration on the WENS principles. (Jan, 2020)

35   (S-125) Navigational Services

The meeting took note of the paper.

Discussion: The meeting appreciates the IALA initiative to start the S-125 development in 2020.

10   Catalogue of Nautical Products (S-128)

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The meeting took note of the papers provided.

Discussion: S-100 and IMO involvement. Mix of content contributions from various stakeholders. Appropriate management of the Catalogue of Nautical Information to ensure the most current information is in the Products Specifications. Have HSSC address the importance of the Prod. Spec. Use the capability to provide information on what Prod. Spec. is available along the intended route.

Action Item 7/09 PRIMAR and the Canadian Coast Guard, in cooperation with FURUNO, to draft a paper to be provided to the IHO Secretariat to raise awareness of management issues for the following:

1. **Maintaining currentness of products in the Catalogue.**

2. **Use of S-128 with respect to the S-100 Implementation Plan.**

3. **Possible impact on carriage requirements of S-100 based products to the WEND WG.**

Jan, 2020.

Action Item 7/10 (JS-F) Jens will draft a NIPWG letter to inform the WG on the availability of the S-128 ver. 0.7.5 Prod. Spec. on the NIPWG website and require feedback to the Chair. Dec 2019.

Action Item 7/11 NIPWG will review the S-128 Prod. Spec. ver. 0.7.5 as provided to NIPWG 7. Feb. 2020.

Action Item 7/12 (EA) Elena will compile comments and provide the consolidated list to KHOA. The list will include additional items as described in the document, NIPWG 7-10.2. Mar. 2020.

Action Item 7/13 (WC) KHOA to provide the next version of S-128 for NIPWG endorsement through correspondence or by NIPWG 8. Jun. 2020.

Action Item 7/14 NIPWG members are requested to check S-128 against their catalog of products. Sep. 2020

11 (S-124) Navigational Warnings (WWNWS)

The meeting took note of the papers provided.

Discussion: The meeting noted the clarification to be requested at NCSR 7 on portrayal limitations imposed by IMO guidelines. The meeting also took note of the portrayal investigations into features not visualized.

The meeting noted Denmark's investigation on the usefulness of S-124 in their NIORD system and the problems they encountered regarding the transfer of the data into the NtM system that this is not an appropriate way to use S-124 data for NtM because of the different levels of detail.

Action Item 7/15 (EM) – Eivind to report back the outcome of the S-124 portrayal investigations. Sep, 2020.

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36   U.S. intention to discontinue paper chart production

The meeting took note of the paper.

Discussion: The meeting discussed the potential use of the Waterway Concept to replace chart references in N-Pubs. With regard to issuing notice of changes to AtoN, the example of the List of Lights format wherein AtoN is associated with a geographic location vice a numbered chart was considered. Also of note is that Canada informed the group that it is looking into a similar approach to discontinue paper chart production.

Action Item 7/16 (DL) – Dave to provide an update on the progress within the U.S. to discontinue paper chart production and provide an input paper to describe the dissemination of Marine Safety Information using the Waterway Concept. Sept, 2020.

38   Data quality for safe navigation

The meeting took note and discussed the paper.

Discussion: The difficulty of this topic was recognized as well as the potential impact on the HO to provide values of bathymetric quality information for isolated dangers.

Action Item 7/17 NIPWG to provide feedback to Jens on the DQWG presentation. End of Dec, 2019.

Action Item 7/18 (JS-F) – Jens to provide consolidated feedback on the DQWG presentation. Early Jan, 2020.

37   Marine Resource Names

The meeting took note and discussed the paper.

Discussion: S-100 says to use MRNs. S-100 WG is drafting a guideline for the use of MRNs within IHO products and Prod. Specs.

Action Item 7/19 (EM) – Update NIPWG on progress and status of the MRN usage guideline. Sep, 2020.

Action Item 7/20 (DL) – Inform NIPWG 8 on the development of IALA's MRN domain management guideline (Ver 2.0). Sep, 2020.

41   IHO Registry

The meeting took note of the presentation.

Discussion: The meeting received an update on the infrastructure development and the intended release of the new version.

44   Report of and cooperation with various HSSC WG

The meeting took note of the presentation and the report.

Discussion: The invitation of the NCWG to consider incorporation of emergency contact information in case of natural disasters will be covered as a meeting item 57.2.

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45   IMO's e-Navigation

The meeting took note of the presentation.

43   Harmonisation of NtM XML Structure

The meeting took note and discussed the papers.

Discussion: The Norwegian experience mapping the XML in accordance with the common XML developed during the XML workshop. The missing functionality of providing tables was successfully addressed.

Action Item 7/21 (SE) – Initiate the continuation of the XML-based NtM generation. Jan, 2020.

46   Architectural display of S-100 related products

The meeting took note and discussed the papers.

Discussion: It was confirmed that the diagram is a living document which can only reflect the latest status of the S-100 based product specification composition in ECDIS. The group decided the diagram should reflect the new terms Route Planning (formerly back-of-bridge) and Route Monitoring (formerly front-of-bridge).

Action Item 7/22 (JS-F) – Update the "Architectural display of S-100 related products" diagram and contribute to the NIPWG review. Feb, 2020.

47   KHOA S-100 Portrayal Harmonization Project

The meeting took note and discussed the papers.

Discussion: Recommendation for KHOA to conduct trials on screens that follow the minimum ECDIS performance standard for pixel size.

Action Item 7/23 Member states to provide input on how they expect NIPWG Prod. Spec. data to be used within their national waters. Sep, 2020

Action Item 7/24 NIPWG members should prepare for a 1 day workshop (based on 7/23 use case information) during NIPWG 8.   Sep, 2020.

Action Item 7/25 (HP & EM) Provide KHOA with feedback on display requirements related to the provision of S-100 based products on future ECDIS. Jan, 2020.

48   S-127 and S-101 data model harmonisation

The meeting took note and discussed the papers.

Discussion: Proposed amendments to S-101 to harmonize data model components will be made through S-100 register.

Action Item 7/26 (JS-F) – Insert amendments aiming to harmonise S-101 and S-127 data model elements to the register. Jan, 2020.

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49   Revisions of resolutions and standards under the remit of NIPWG

The meeting took note and discussed the papers.

Discussion: The new definitions for Underkeel Clearances were submitted using the new protocol. The NIPWG work on this is concluded.

The work on S-49 revision is complete. The red-line version is ready to be sent forward to HSSC for endorsement and consequently approval by member states.

Action Item 7/27 (MK) – Provide the consolidated red-line version of amended S-49 to Jens. Jan, 2020.

Action Item 7/28 (JS-F) – Provide the red-line version of amended S-49 to HSSC 12 for endorsement. Mar, 2020

50   ToR review

The Meeting reviewed and discussed the current ToR.

Discussion: The group agreed that no amendments are needed.

53   Work plan for the NIPWG

The Meeting reviewed and completed the NIPWG work plan.

57   Any other business

57.1   Nomination and election of the Vice Chair

Discussion: The group elected Stefan ENGSTRÖM to be Vice Chair of the NIPWG.

57.2   Provision of Emergency contacts in NPUBS

Discussion: The meeting noted that emergency information is provided in N-Pubs and there is no action required.

Action Item 7/29 (JS-F) – To consider if it is appropriate to comment on the proposal submitted by the council to the Assembly on resolution 1/2005. Jan, 2020.

57.3   Survey of S-122/S-123 production (HSSC11/39)

Discussion: The meeting is of the opinion that it is premature to conduct a survey.

Action Item 7/30 (JS-F) – Chair to inform HSSC that a survey on S-122/S-123 data production is premature. Mar, 2020.

57.4   Review of draft minutes

The meeting reviewed and adopted the draft Minutes of NIPWG7. The final Minutes will be prepared by the Secretary servicing this Meeting in close co-operation with all participants.

The meeting renewed the request to deliver the meeting papers at least 3 weeks before the meeting. Papers submitted after that deadline will be handled as Information (INF) papers.

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The meeting agreed that submitters of INF papers could not expect that the submitted topic will be discussed during that meeting. Exceptions due to papers discussing urgent matters are on Chair group's decision.

59   Date and place of next meeting

NIPWG 8 will be held in Brest (France), 21 – 25 September 2020

Annex A: List of Action Items

Planned tasks for this Reporting Period						
Action Item	Actor	Task Description	Start Date	Target End Date	Percent Complete	Task Status
7/001	EA	Continue collecting feedback on both product specifications		Permanent		Ex 5/08, 6/23, see also 7/12
7/002	VZ	Re-evaluate potential interoperability and encoding concerns relative to S-122 and S-121	02/2019	Permanent		Ex 6/32
7/003	KHOA	Submit change proposal to the S-100WG to add curved functions in S-100 based SVG	02/2019	September 2020	On going	Ex 6/03 Be investigating to produce SVG symbols without the curved functions in S-100. Report to the NIPWG8
7/004	KHOA	Develop and test S-126 symbols in night and dusk ECDIS modes	02/2019	September 2020	On going	Ex 6/04 KHOA is developing general guidance for colours and symbols for S-100 PSs. Once it's completed, S-12X portrayal will be updated accordingly. Report to the NIPWG8
7/005	KHOA	Investigate the usefulness of the provision of S-126 symbols in ECDIS side menu and the viability of highlighting selected items by colour patterned areas on the chart that are presented on the screen. That includes keeping a list of use cases showing and testing inter alia complementary data sets	02/2019	September 2020	On going	Ex 6/06 Refer to the action 6/04 comments (see above)

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7/01	BvS	Send completed IHMA standards to Jens		December 2019		
7/02	JS-F	Send completed standards (see action item 7/01) to the WG as a NIPWG letter		December 2019		
7/03	JS-F	Send the report and recommendation to initiate the S-126 and Marine Harbour Infrastructure Product Specification parallel development process and to request a number for S-12X (Marine Harbour Infrastructure) to HSSC		March 2020		
7/04	JS-F	Draft a NIPWG letter to address contributions of the Marine Harbour Infrastructure Product Specification data model to different NIPWG members		June 2020		
7/05	WdT	Provide a paper on the approach to encode S-122 data in HPD ver 3.1		September 2020		
7/06	JS-F	Provide a paper on the approach to encode S-122 data in HPD ver 4.X.		September 2020		
7/07	all	Report on testing of the NIPWG Prod. Spec. data set production in their current production environment and to provide a short report on their activities to NIPWG 8.		September 2020		
7/08	YG	Provide the WEND WG with the German paper on the creation of the S-123 dataset for their consideration on the WENS principles.		January 2020		
7/09	PRIMAR CCG FURUNO	PRIMAR and the Canadian Coast Guard, in cooperation with FURUNO, to draft a paper to be provided to the IHO Secretariat to raise awareness of management issues for the following: 1. Maintaining currentness of products in the Catalogue. 2. Use of S-128 with respect to the S-100 Implementation Plan. 3. Possible impact on carriage requirements of S-100 based products to the WEND WG.		January 2020		

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7/10	JS-F	Draft a NIPWG letter to inform the WG on the availability of the S-128 ver. 0.7.5 Prod. Spec. on the NIPWG website and require feedback to the Chair		December 2019	
7/11	all	Review the S-128 Prod. Spec. ver. 0.7.5 as provided to NIPWG 7		February 2020	
7/12	EA	Compile comments and provide the consolidated list to KHOA. The list will include additional items as described in the document, NIPWG 7-10.2.		March 2020	
7/13	WC	Provide the next version of S-128 for NIPWG endorsement through correspondence or by NIPWG 8		June 2020	
7/14	all	Check S-128 against their catalog of products		September 2020	
7/15	EM	Report back the outcome of the S-124 portrayal investigations		September 2020	
7/16	DL	Provide an update on the progress within the U.S. to discontinue paper chart production and provide an input paper to describe the dissemination of Marine Safety Information using the Waterway Concept		September 2020	
7/17	all	Provide feedback to Jens on the DQWG presentation		December 2019	
7/18	JS-F	Provide consolidated feedback on the DQWG presentation		January 2020	
7/19	EM	Update NIPWG on progress and status of the MRN usage guideline		September 2020	
7/20	DL	Inform NIPWG 8 on the development of IALA's MRN domain management guideline (Ver 2.0)		September 2020	
7/21	SE	Initiate the continuation of the XML-based NtM generation		January 2020	
7/22	JS-F	Update the "Architectural display of S-100 related products" diagram and contribute to the NIPWG review		February 2020	
7/23	all	Provide input on how they expect NIPWG Prod. Spec. data to be		September 2020	

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		used within their national waters				
7/24	all	Prepare for a 1 day workshop (based on 7/23 use case information) during NIPWG 8.		September 2020		
7/25	HP EM	Provide KHOA with feedback on display requirements related to the provision of S-100 based products on future ECDIS		January 2020		
7/26	JS-F	Insert amendments aiming to harmonise S-101 and S-127 data model elements to the register.		January 2020		
7/27	MK	Provide the consolidated red-line version of amended S-49 to Jens		January 2020		
7/28	JS-F	Provide the red-line version of amended S-49 to HSSC 12 for endorsement		March 2020		
7/29	JS-F	Consider if it is appropriate to comment on the proposal submitted by the council to the Assembly on resolution 1/2005		January 2020		
7/30	JS-F	Inform HSSC that a survey on S-122/S-123 data production is premature		March 2020		

Variance Details:

Xxxxx

Corrective Actions:

Xxxxx

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Annex B: Agenda

Agenda (as conducted)

7th Meeting of the Nautical Information Provision Working Group (NIPWG)
25 – 29 November 2019, Tallin, Estonia

1	Opening and administrative arrangements	JS-F OH	
	Opening address on behalf of the Estonian HO	KK	
2	Agenda		
	Adoption of the Agenda	JS-F	7-2
3	Minutes of NIPWG6	TL	7-3
3.1	Amendments to the minutes	TL	
3.2	Review of Action Items from NIPWG6	TL	
4	NIPWG status of work (overview)	JS-F	7-4
6	Council and HSSC related information		
6.1	General overview of Council and HSSC decisions affecting NIPWG (status of actions items assigned to NIPWG)	YG	oral
6.2	Discussion of Council	JS-F	Oral
6.3	Summary of the discussion at the Council on the Roadmap for the S-100 Implementation Decade (2020-2030)	YG	Doc. C3-03.6A CL54_2019_ EN_v1
7	S-100 related information		
7.1	Outcome of the S-100WG TSM meetings	HP	7-7.1
5	Projects and concepts		
5.1	Digitised NO SDs& Port Information	BB	7-5.1 Annex
5.3	Taiwan University activities related to NIPWG work	S-JC	7-5.3
21	S-12x (Harbour Infrastructure) discussions		

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21.1	S-12x Product Specification description	TL	7-21.1
21.2	IHMA input paper	BvS	7-21.2
			7-21.2 a
			7-21.2 b
8	S-126 (Marine Physical Environment) discussions		
8.1	S-126 Product Specification description	BS	7-8.1
8.2	Status report S-126 symbol development	WC	7-8.2
8.3	Themes and development progress	BS	7-8.3
8.4	Discussion of the papers	JS-F	
	Visit of VTS Tallinn (during forenoon on Tuesday)	OH	
23	Order of future Product Specification developments		
23.1	Discussion of how to approach HSSC best	JS-F	
9	Creating New Product Specifications		
9.1	Discussion on the S-100WG paper concerning adding MARPOL information to the appropriate WG	JS-F	HSSC11-05.1G
20	Provision of S-122 and S-123 based test data sets		
20.1	Collection of source material, Data model extension, Development of portrayal proposals	all	7-20.1a
			7-20.1b
			7-20.1c
			7-20.1d
35	(S-125) Navigational Services		
35.1	Status of work and gap discussion	EM	7-35.1
10	(S-128) Catalogue of Nautical Products		
10.1	Presentation of the work status	HC	7-10.1
			ProdSpec draft 0.0.1
10.2	Completeness etc. of data sets possibly be provided by S-128	HP	7-10.2
10.5	Discussion on the paper	JS-F	
11	(S-124) Navigational Warnings (WWNWS)		
11.1	WWNWS-Correspondence Group report	EM	7-11.1

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11.2	Denmark Trial on S-124 for NtM/NIORD	AJ	7-11.2
36	US intention to discontinue paper chart production		
36.1	Reference to Discontinued Nautical Charts in Maritime Publications	DL	7-36.1 Annex
	Discussions of effects on NIPWG work	JS-F	
38	Data quality for safe navigation		
38.1	Input paper from DQWG on simplified approach to provide data quality based navigational decisions	JS-F	7-38.1 Comment form
38.2	Discussion on the paper	JS-F	
37	Marine Resource Names		
37.1	Discussion of the IALA guideline	EM, DL	7-37.1
41	IHO Registry		
41.1	Status of the IHO Registry and intended revision	JS-F	oral
44	Report of and cooperation with various HSSC WG		
44.1	DQWG, NCWG	YG	oral
45	IMO's e-Navigation		
45.1	Outcome of MSC101/ NCSR6	HP	oral
43	Harmonisation of NtM XML Structure		
43.1	NO Experiences in using NtM XML	EH	7-43.1 Annex A Annex B Annex C
43.2	Discussion of potential benefits and way forward	JS-F	oral
46	Architectural display of S-100 related products	JS-F	
46.1	Discussion of the developed structure	JS-F	7-46.1
46.2	Following discussion under item 6.3 and 7.1, roadmap for S-1xx under the remit of NIPWG (governance aspects, production and co-production aspects, qualification aspects, distribution…)	All	

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48	S-127 and S-101 data model		
48.1	Outcome of S-101PT discussion on NIPWG's data harmonisation submission	JS-F	7-48.1
48.2	S-127 generation from Nautical Textual Information	BS	7-48.2 Annex
47	KHOA S-100 Portrayal Harmonization Project		
47.1	KHOA S-100 portrayal harmonization project and discuss it for IHO symbols and colour guideline development	YB (remotely)	4-47.1
49	Revisions of resolutions and standards under the remit of NIPWG		
49.1	M-3 Resolutions revision	JS-F	oral
49.2	S-12 Standard revision	JS-F	oral
49.3	Update on the status of the new Underkeel Clearance definitions for the Hydrographic Dictionary (S-32)	JS	7-49.3
49.4	S-49 Mariners' Routeing Guide	MK	7-49.4 Annex A Annex B Presentation
50	ToR review	MK; JS-F	See NIPWG website
53	Work plan for the NIPWG (status of HSSC11 action items)	JS-F	
53.1	Prioritising of NIPWG work plan items (top three)	JS-F	oral
53.2	Items to be considered for the next Council / Assembly	JS-F	oral
57	Any other business		
57.1	Nomination and election of the Vice Chair	JS-F	oral
57.2	Provision of Emergency contacts in NPUBS	JS-F	oral
57.3	Survey of S-122/S-123 production (HSSC11/39)	JS-F	oral
57.4	Review of Minutes	TL	
59	Dates and places of next meeting(s)	JS-F	
	NIPWG8 21 – 25 September 2020 France/Brest		
	NIPWG9 India 2021 (**invitation expected**)		

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Table of names

AJ	Allan Jensen (DK)
BB	Bente Berggraf Ms. (NO)
BS	Briana Sullivan Ms. (U.S. / UNH)
BvS	Ben van Scherpenzeel (NL / IHMA)
DL	Dave Lewald (U.S./ Coast Guard)
EA	Elena Armanino (IT)
EH	Edvard Hands (NO)
EM	Eivind Mong (CA/ Coast Guard)
HC	HyunSoo Choi (ROK / KRISO)
HP	Hannu Peiponen (FI / FURUNO)
JS	Jason Strom (U.S. / NGA)
JS-F	Jens Schröder-Fürstenberg (GE)
KK	Kaidi Katus Ms. (EE)
MK	Mike Kushla (U.S. / NGA)
SE	Stefan Engström (FI)
S-JC	Shwu-Jing Chang Ms.(Taiwan / NTOU)
TL	Tom Loeper (U.S. / NOAA)
VZ	Virgil Zetterling (U.S. / Anthropocene Institute)
WC	Wonjin Choi (ROK / KHOA)
WdT	Wilfred den Toom (NL)
YB	Yong Baek (ROK / KHOA)
YG	Yves Guillam (IHO Secretariat)

Table of Acronyms

EAHC	East Asia Hydrographic Commission
HPD	Hydrographic Production Database
HSSC	Hydrographic Services and Standards Committee
M-3	Resolutions of the International Hydrographic Organization
S-49	Standardization of Mariners' Routeing Guides
S-12	Standardization of List of Lights and Fog Signals.
TSM	Test Strategy Working Group Meeting

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Annex C: List of Attendees

Participant	Country	Organization
Simon GITTINS	United Kingdom of Great Britain and Northern Ireland	UNITED KINGDOM HYDROGRAPHIC OFFICE
John Morten KLINGSHEIM	Norway	Norwegian Coastal Administration(NCA)
Bente BERGGRAF	Norway	NORWEGIAN HYDROGRAPHIC SERVICE
Clare LAIN	United Kingdom of Great Britain and Northern Ireland	UNITED KINGDOM HYDROGRAPHIC OFFICE
Stefan ENGSTRÖM	Finland	FINNISH TRANSPORT AGENCY HYDROGRAPHIC OFFICE
Briana SULLIVAN	United States of America	University of New Hampshire
Virgil ZETTERLIND	United States of America	Other
Eivind MONG	Canada	Other
Elena ARMANINO	Italy	ISTITUTO IDROGRAFICO DELLA MARINA
Wonjin CHOI	Republic of Korea	KOREA HYDROGRAPHIC AND OCEANOGRAPHIC AGENCY (KHOA)
Wilfred DEN TOOM	Netherlands	Hydrographic Service - Royal Netherlands Navy
Miguel angel LOBEIRAS DE LA CRUZ	Spain	INSTITUTO HIDROGRAFICO DE LA MARINA (IHM)
Yves LE FRANC	France	SERVICE HYDROGRAPHIQUE ET OCEANOGRAPHIQUE DE LA MARINE
Simon Tranbjerg Vammen	Denmark	DANISH GEODATA AGENCY - GEODATASTYRELSEN (GST)
Allan Idd JENSEN	Denmark	DANISH GEODATA AGENCY - GEODATASTYRELSEN (GST)
Kenji NAITO	Japan	HYDROGRAPHIC AND OCEANOGRAPHIC

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Participant	Country	Organization
		DEPARTMENT
Yoshitsugu ATSUMI	Japan	HYDROGRAPHIC AND OCEANOGRAPHIC DEPARTMENT
Gong-gu BACK	Republic of Korea	KOREA HYDROGRAPHIC AND OCEANOGRAPHIC AGENCY (KHOA)
Tom LOEPER	United States of America	Office of Coast Survey / National Ocean Service (OCS/NOS)
Hyunsoo CHOI	Republic of Korea	Korea Research Institute of Ships & Ocean Engineering
Hannu PEIPONEN	Finland	International Electrotechnical Commission
Gregor STEVENS	United Kingdom of Great Britain and Northern Ireland	International Chamber of Shipping
Olavi HEINLO	Estonia	ESTONIAN MARITIME ADMINISTRATION (EMA) (Aids to Navigation and Hydrography Division)
Michael KUSHLA	United States of America	NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY DEPARTMENT OF DEFENSE (NGA)
Jason STROM	United States of America	NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY DEPARTMENT OF DEFENSE (NGA)
Svein SKJAEVELAND	Norway	PRIMAR
David LEWALD	United States of America	USCG
SHWU-JING CHANG	Taiwan	National Taiwan Ocean University
Edward HANDS	Norway	NORWEGIAN HYDROGRAPHIC SERVICE
Yves GUILLAM	Monaco	Member of Staff
Jens SCHRÖDER-FÜRSTENBERG	Germany	BUNDESAMT FUR SEESCHIFFFAHRT UND HYDROGRAPHIE

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Annex D: **Updated NIPWG Work Plan**

NIPWG WORK PLAN 2020-21 *(approved by HSSC11 and revised at NIPWG7)*

Tasks

D	Maintain Publication S-12 "Standardization of List of Lights and Fog Signals" (IHO Task 2.8.1)
E	Maintain Publication S-49 "Recommendations concerning Mariners' Routeing Guides" (IHO Task 2.8.3)
F	Establish and monitor, in liaison with the S-100WG, the project teams required to specify and develop nautical information layers for use in ECDIS (IHO Task 2.3)
G	Develop high level specifications for maritime services as defined by IMO in the context of e-navigation covering the provision of hydrographic services to mariners in accordance with the IMO e-navigation strategy implementation plan (IHO Task 2.5.2)
H	Develop a test and implementation plan for the development of the maritime services as defined by IMO (IHO Task 2.5.2)
I	Maintain IHO Resolutions in M-3 relating to Nautical Publications as required (IHO Task 2.1)
J	Liaise with other HSSC WGs and other IHO and international bodies (IHO Task 2.1.8)
K	Conduct the 2019 and 2020 meetings of the NIPWG and its sub-group(s) and project team(s) (IHO Task 2.1)

Work items

Work item	Title	Priority H-high M-medium L-low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C-Completed S-superseded	Contact Person(s)	Related Pubs / Standard	Remarks
D.1	Monitor and assess proposals for amending S-12	M	Next meeting	2014	Permanent	O		S-12	In close liaison with IALA; see J.5.1

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Work item	Title	Priority H-high M-medium L-low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C-Completed S-superseded	Contact Person(s)	Related Pubs / Standard	Remarks
E.1	Develop proposals for amending S-49	M	Next meeting	2019	Permanent	O		S-49	Red-line version (Ver 2.1.0) to be provided to HSSC 12 for endorsement.
F.1	Assess the progress and perspectives of developing specifications for NP data and propose the way forward for consideration by HSSC	H		2015	Permanent	O			To be considered in the context of the IMO e-navigation strategy implementation. NIPWG to consider establishing one or more project team(s) in liaison with S-100WG as required (see J.2), in particular to continue the development of Product Specifications currently assigned to the NIPWG.
F.2	Investigate the interaction between Marine Protected Area Product and ENC in ECDIS	H	Next meeting	2015	Permanent	O	Chair/Sec		In close liaison with the S-100 WG
F.3	Model the NP data where required.	H	Next meeting	2004	Permanent	O	Chair/Sec		S-100 related. To be included in Hydro domain of the FCD Register.

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Work item	Title	Priority H-high M-medium L-low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C-Completed S-superseded	Contact Person(s)	Related Pubs / Standard	Remarks
F.4	Review of objects and attributes. Propose amendments to HYDRO domain of the FCD Register	H	Next meeting	2004	Permanent	O	Chair/Sec		S-100 related. Incorporate in FCD Register if appropriate.
F.8.1	Develop S-12n - Nautical Information Product Specification								
F.8.1.2	For Marine Navigational Services	L	next NIPWG meeting	2013		P	Chair/Sec	S-125	On Hold IALA offers to develop draft, NIPWG
F.8.1.4	For Marine Physical Environment	M	next NIPWG meeting	2013		~~P~~O	Chair/Sec	S-126	Investigatory work initiated, see action
F.8.1.5	Catalog of Nautical Products	H	next NIPWG meeting	2016	2021	O	Chair/Sec	S-128	Development continued by KHOA
F.8.1.6	For Marine Harbour Infrastructure	M	next meeting	2019		~~Oc~~	Chair/Sec	S-12X	Investigatory work initiated, see action
F.8.2	Draft Data Classification and Encoding Guides								Document for NPs similar to Use of the Object Catalog
F.8.2.1	For Marine Navigational Services	M		-		P	Chair/Sec	S-125	In close liaison with IALA, see J.5.1
F.8.2.2	For Marine Physical Environment	M	Next meeting	-	-	P	Chair/Sec	S-126	
F.8.2.3	For Digital Catalog of Nautical Product	H	Next meeting	2016	2021	O	Chair/Sec	S-128	In progress
F.8.2.4	For Marine Harbour Infrastructure	M	Next meeting			P	Chair/Sec	S-12x	
F.8.2	Monitor and Maintain NIPWG Product Specification	H	Next meeting	2019	2021	O	Chair/Sec		S-122, S-123 and S-127 under 2 year revision cycle

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Work item	Title	Priority H-high M-medium L-low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C-Completed S-superseded	Contact Person(s)	Related Pubs / Standard	Remarks
G.1	Monitor the requirements for, and provision of, nautical information in e-navigation test-beds Produce NP1 sample data sets					C			According to the tasks assigned by HSSC4. Collection of information to be modelled
G.3	Rules and guidelines for displaying nautical information in ECDIS and in maritime services as defined by IMO								
G.3.1	Develop basic display principles for NP data intended for use in ECDIS (NP3)	M		2008		O	Chair/Sec		Close co-operation with NCWG and S-100WG required. Interoperability Spec to be considered.
G.3.2	Monitor and contribute to the development of IMO guidelines showing how navigation information received by communications equipment can be displayed in a harmonized way and what equipment functionality is necessary.	M		2015		O			e-nav IMO Strategy Implementation Plan, Task T13 (HSSC6-07.1A refers) Output number 5.2.6.2 of NCSR biennial agenda 2016-17 Completion date is unknown and dependent on the maturity of interoperability and portrayal frameworks For HSSC consideration
I.1	Maintain and extend resolutions in M-3 relating to Nautical Publications	M	Next meeting	2012	Permanent	O	Chair/Sec NIPWG	M-3	A review is required due for the harmonization of M-3 information and potential ProdSpecs content
J.3	Liaise with other HSSC WG	M		2004	Permanent	O	Chair/Sec NIPWG		
J.3.1	Liaise with the NCWG	M			Permanent	O	Chair/Sec NIPWG		Establish joint project teams as required and endorsed by HSSC.
J.3.2	Liaise with the ENCWG	M			Permanent	O	Chair/Sec NIPWG		
J.3.3	Liaise with the S-100WG	H			Permanent	O	Chair/Sec NIPWG		Establish joint project teams as

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Work item	Title	Priority H-high M-medium L-low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C-Completed S-superseded	Contact Person(s)	Related Pubs / Standard	Remarks
									required and endorsed by HSSC.
J.4	Liaise with IRCC								
J.4.1	Liaise with WWNWS Sub-Committee	M			Permanent	O	Chair/Sec NIPWG	S-124	Monitor developments of S-124 Project Team
J.4.2	Liaise with WENDWG	M		2019	Permanent	O	Chair/Sec NIPWG		
J.5	Liaise with other international bodies which contribute to nautical information	H		2015	Permanent	O	Chair/Sec NIPWG		
J.5.1	Liaise with IALA	H		2013	Permanent	O	Chair/Sec NIPWG		
J.5.2	Liaise with International Harbor Masters' Association (IHMA)	M		2015	Permanent	O	Chair/Sec NIPWG		IHMA attended the NIPWG 7
J.5.3	Liaise with International Cable Protection Committee (ICPC)	L		2016	Permanent	O	Chair/Sec NIPWG		

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Meetings (Task K)

Date	Location	Activity
21 – 25 Sept 2020	Brest, France	NIPWG8
Sept 2021	India (invitation expected)	NIPWG9
Sept 2022	Niteroi, Brazil (invitation confirmed)	NIPWG10
Sept 2023	Monaco	NIPWG11

Chair: Jens Schröder-Fürstenberg, BSH, GE   Email: jens.schroeder-fuerstenberg@bsh.de
Vice Chair: Stefan Engström, Traficom, FI   Email: Stefan.engstrom@traficom.fi
Secretary: Thomas Loeper, NOAA, USA   Email: Thomas.Loeper@noaa.gov

Top three work items:
- Initiate prototype implementation of existing S-12x products in an S-100 based environment to explore governance architecture and service delivery mechanism
- Develop S-12x nautical information Product Specifications
- Coordinate the IHO contributions to the definition and harmonisation of maritime services as defined by IMO within the remit of IHO