6th Nautical Information Provision Working Group (NIPWG) Meeting
28 January – 1 February 2019 – Rostock, Germany

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 (NIPWG Chair) opened NIPWG6 by welcoming new and returning members.
Logistics and building safety were also discussed.

Thomas DEHLING, the German Hydrographer, welcomed the participants. In his welcome speech, he highlighted the importance of the NIPWG work. He emphasised that the provision of S-100 conformant products is one of the HO's key priorities for the forthcoming years.

1.3 Introductions

Due to the large number of new members, no introductions were made.

2. Adoption of NIPWG6 Agenda

NIPWG agreed and adopted the NIPWG6 Agenda with slight modifications as circulated.

3. Adoption NIPWG5 Minutes

The meeting approved the Final Minutes of NIPWG5 with no modifications.

3.1 Corrections

None noted.

3.2 Review of Action Items from NIPWG5

Planned tasks for this Reporting Period						
Action Item	Actor	Task Description	Start Date	Target End Date	Percent Complete	Task Status
5/01	IP	Consider any lessons learned and recommendations from the e-MIO project relevant to NIPWG Prod	04/2018	01/2019	100	

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

		Specs for the next meeting				
5/02	HC	Report to NIPWG6 on the use of this MCP in SMART	04/2018	01/2019	100	
5/03	JS-F	Prepare the paper on 2/2007 revision for HSSC	03/2018	03/2018	100	
5/04	JS-F	Prepare the paper on M-3 amendment proposals for HSSC10 including a note to the S-100WG to consider the amendments to 7/2009	03/2018	03/2018	100	
5/05	DL	Draft M-3 amendments based on the matrix provided as Annex (Doc NIPWG5-08.5 Comment Matrix (CC))	03/2018	07/2018	100	Ex 4/03
5/06	JS	Add definitions on Dynamic and Static UKCM systems to the Hydrographic Dictionary	03/2018	08/2018	90	
5/07	MK	Update S-49 to reflect the existence of UKCM systems	03/2018	09/2018	90	
5/08	EA	Act as PoC for collecting amendments to NIPWG Product Specifications	03/2018	permanent	ongoing	Ex 4/06
5/09	NIPWG	Review UKCM aspects and report back to Mike Kushla (NGA)	03/2018	16 April 2018	100	
5/10	MK	Send a compiled list of comments back to Raphael to incorporate into the standard.	16 April 2018	30 April 2018	100	
5/11	SE	Continue to monitor S-201 and S-101 development and maintain the S-125 data model as needed	03/2018	12/2018	100	
5/12	YG	Inform the NCWG of this presentation on the use case of insufficient ECDIS operation	03/2018	03/2018	100	
5/13	KHOA rep	Invest effort and capacity in the development of portrayal concepts for S-126 data	3/2018	12/2018	100	

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

5/14	BS	Provide recommendations for what physical environment topics should be removed first based on the compiled list from Annex A (NIPWG 5-21.2 Status report S126-Annex A.xlsx)	03/2018	12/2018	ongoing	
5/15	BS+WdT	Continue to compile use cases for S-126 data	03/2018	12/2018	ongoing	
5/16	RM+VZ NIPWG	Prepare a paper to S-100 WG on the support of multi-polygon spatial type in the next edition of S-100 NIPWG members are encouraged to add more examples and send them RM and VZ.	03/2018	31 March 2018	100	
5/17	JS-F	Submit the Action Item 5/16 paper to the next S-100WG meeting	03/2018	03/2018	100	
5/18	VZ	Investigate interoperability of S-121 and S-122 and report	03/2018	12/2018	100	
5/19	AJ	Investigate gaps in S-124 that does not allow specific chart corrections based on the DMA NIORE system	03/2018	12/2018	20	
5/20	Canada	Investigate the usefulness of S-124 for chart correction exchange.	03/2018	12/2018	100	
5/21	ML	Investigate the provision of P and T messages by the STM validation project.	03/2018	12/2018	100	
5/22	JS-F	Approach HSSC and inform on the proposed workshop to develop harmonized NtM chart correction XML	03/2018	03/2018	100	
5/23	NIPWG	Members are encouraged to host XML chart correction examples on the NIPWG Wiki for comparison	03/2018	09/2018	100	
5/24	JS-F	Inform HSSC on the invitation to submit Maritime Services descriptions which are under IHO responsibility according to the HGDM Maritime Services template and to invite	03/2018	03/2018	100	

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

		other involved HSSC WG's to submit their Maritime Services descriptions.				
5/25	NIPWG	Review the budget proposal circulated by the Chair	03/2018	03/2018	100	
5/26	JS-F	Address the appropriateness of DQWG guidelines at HSSC10.	03/2018	03/2018	100	
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	12/2018	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.

6   Council and HSSC related information

The WG took note of the discussion.

Discussion: Use of the words marine and maritime was a discussion point on whether to add in front of the other Product Specifications. It was decided to continue using "marine" as this term is commonly used across all NIPWG product specifications.

Action Item 6/01 (JS-F) – Inform HSSC on the renaming of S-123 to "Marine Radio Services". March 15, 2019.

Action Item 6/02 (JS-F) – Seek HSSC approval for adding the term "Marine" to the remaining Product Specifications under the remit of NIPWG. March 15, 2019.

7   S-100 related information

7.1   Presentation of the outcome of the recent S-100 meeting

The Meeting took note of the presentation of the results of the recent developments, and of the Test Strategy Meeting in particular.

5   SMART Project update/UNH-NOAA NPB paper towards S-100 products

The Meeting took note of the presentations.

UNH-NOAA NPB

NOAA is using XML to tag features in Coast Pilots and creating Marine Resource Names (MRN) to replace (Global Unique Identifier) GUID as the unique identifier. MRN format was discussed on how to proceed moving forward. Conclusion of the discussion was that the

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

whole MRN concept requires testing as it has been developed on theoretical hypothesis. Especially, the application of MRN to existing systems and data seems challenging.

SMART Project

Thomas CHRISTENSEN, on behalf of Jin Hyoung PARK, provided an overview brief on the SMART Project and gave a status on the project. He noted that the Maritime Connectivity Platform (MCP) consortium is currently being signed by Host members. Some organisations, such as IALA, will become host members. It is intended to approach other non-profit organisations to join the consortium. The project uses IHO standards (S-1XX) and MRN as a part of the project.

Discussion: There was interest about the MRNs used in the project. Thomas agreed to share MRN information with NIPWG.

8   (S-126) Physical Environment

The meeting took note and discussed the presentation.

Discussion: Future weather related specifications such as S-412 could be potentially included in S-126. Briana SULLIVAN did a surface data prototype and found matches in S-126 for all ENC features except the entrance feature. NIPWG needs to define what the purpose of S-126 is and what the plan is going forward.

Action Item 6/03 – KHOA to submit change proposal to the S-100WG to add curved functions in S-100 based SVG. November 2019.

Action Item 6/04 – KHOA to develop and test S-126 symbols in night and dusk ECDIS modes. November 2019.

Action Item 6/05 – JS-F to submit a paper to NCWG requesting the template on the provision of symbols for portrayal. May 30, 2019.

Action Item 6/06 – KHOA to 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. November 2019.

Action Item 6/07 – BS and WdT to 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. November 2019.

STAKEHOLDERS' FORUM

Welcome and Introduction

The topic of the forum was *Presentation of Nautical Publication Information on future S-100 based ECDIS*.

Jens welcome the stakeholder representatives of which 2 were attending remotely via Skype. He gave an introduction presentation on the Provision of Nautical Information. Data

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

quantity, data access, connection and interaction of the data were addressed as concerns for NIPWG moving forward. The meeting took note of the presentation.

ICS Presentation

Moving from raster to vectorisation of Nautical Publications by using relevance, timing, and volume is favoured by ICS. Electronic Bridge Folio, which already exists in aviation, could be used as an example how to provide information management in an integrated environment and how the volume of data could be managed. This could provide an interface to the ECDIS acting as a filter to only pass minimal information needed for voyage execution to the ECDIS.

Discussion: Current IMO regulations relating to the provision of S-57 as a database of all charted information in one package (parallel to S-101) could limit industry from developing customized data bases on area and route for ECDIS users. The idea behind vectorization of publication data is that the information would be attached to existing features such as contact information attached to a pilot pickup point feature. ECDIS is going to be more sophisticated to handle S-100 based products that may be provided in different layers.

BIMCO Presentation

BIMCO briefed on the outcome of the EfficienSea2 project. Harmonisation of vessel reporting information provision mentioned as critical. Use of international standards is key and leads to interoperability. Need for a common data element ID is considered a current obstacle.

Recommended to have one standard profile with single operator function and one customized that enables functions defined by the user. Having 3 or 4 such profiles provides ease for navigators.

Discussion: The harmonisation of reports was noted as important. NIPWG has members participating in various meetings where this issue is under consideration.

CIRM Presentation

CIRM proposal was developed and shared with the relevant CIRM sub-working groups. Validating included interviews, surveys, card-sorting exercises, web-based simulators. Proposal was evaluated by mariners. They suggested building in shortcuts with a standard symbol that has logical grouping of information would be useful for the mariner. Recommended that NIPWG needs to work on standards supporting a paradigm shift in S-100 data.

Discussion: CATZOC should never be left empty for autonomous shipping. Standards need to be defined by priorities on how data is displayed on an ECDIS. Collaboration is key for IHO to merge data streams to create standards instead of groups working in isolation.

IHMA Presentation

Users expect ENC and digital products to be up-to-date. There is a clear disconnect between the Pilot and ship regarding navigation data. Berth information to input to ENC, Port guides, Port databases of customers, and VTS. Berth information such as berth position, soundings, and bearing are not identified. To resolve current shortfalls they

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

6

UNCLASSIFIED

decided to refer to ISO standards. Standards outside ISO have been considered as inappropriate. Want recognition of the quality of information for each Port attributed in the CATZOC.

Discussion: Communication problems between Port Authorities, Terminals, Shipping Companies, Pilots, and HO's exist creating conflicting Port/Berth information. NIPWG, along with S-100WG, S-101PT, and NCWG, are able to simulate the development of S-100 based products. S-98 duplication issues currently exist in the interoperability catalogue. Industry is appreciative of the work of S-100 but want procedural and governance work to be done under the IHO.

Action Item 6/08 – (JS-F) Update a work plan to consider implementation issues. January 2019.

9 (S-129) Under keel clearance information

The meeting took note of the UKCM definition and S-49 presentation.

Discussion: The group decided that the graphics attached to the Static and Dynamic definitions should be deleted as they do not fit the definitions and cause confusion. It also was agreed that the Dynamic and Static final sentences should be the only ones included in the definition.

Action Item 6/09 – JS to change Dynamic and Static definitions to only include the final sentences without graphics. March 31, 2019.

Action Item 6/10 – JS to inform the S-129PT on outcome of Static and Dynamic discussions. March 31, 2019.

Action Item 6/11 – JS to provide definitions to the HDWG using their drafted submission template and report back at NIPWG7. November 2019.

S-49 Discussion:

Wording changed in E2.3 to reflect UKCM systems that was non-existent when the S-49 standard came out. Proposal was to change E2.3 to read "Underkeel clearance criteria, including Underkeel Clearance Management Systems, and specific advice to deep draught vessels" instead of "Underkeel clearance criteria and specific advice to deep draught vessels (if not included in E2.1 or E2.2)"

It was decided that information on Areas to be Avoided and Vessel Traffic Service should not be added to S-49. This information is already covered in E1.1 (Routeing Measures) and E4.1 (Vessel Reporting System).

U6.6 (Seismic Activity) and U6.7 (Magnetic Anomalies) should be added to S-49. The provision of Maritime Boundaries information has been decided as unnecessary for Routeing Guides.

The meeting came to a consensus to add new item N8.2 (Automatic Identification System).

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

7

UNCLASSIFIED

The meeting agreed to remove SECTION 4 (List of published Mariners' Routeing Guides) from the S-49 standard. It was considered that this information is not needed and is difficult to maintain..

Action Item 6/12 – MK to provide a red line version of S-49 and to create initial draft of a NIPWG letter and send it to JS-F. July 31, 2019.

10 (S-128) Catalogue of Nautical Products

KHOA updated the application schema and drafted the product specification for S-128. KHOA also suggested including e-Navigation service in S-128 to which NIPWG agreed. Plan is to submit product specification package version 1.0 and provide a report at NIPWG7. KHOA tested S-122, S-123 and S-127 and validated using a S-100 viewer as a test bed. The meeting <u>took note</u> of the presentation.

Discussion: Hannu PEIPONEN brought up concerns with duplication of S-12X features and synchronization of the data. We need to communicate concerns about the development of the direction of the S-100 ecosystem. A vision of the S-100 architecture and implementation strategy should be drafted considering concerns raised by industry. This should reconsider whether the direction we are going with the duplication of layers is still valid.

Action Item 6/13 – JS-F to draft a paper/NIPWG letter outlining the "P" in NIPWG. February 15, 2019.

Action Item 6/14 – NIPWG to review letter and provide comments to JS-F. February 28, 2019.

Action Item 6/15 – JS-F to submit respective NIPWG submission to HSSC. March 15, 2019.

Action Item 6/16 – KHOA to update S-128 to S-100 ed. 4. November 2019.

Action Item 6/17 – NIPWG to check S-128 for the usefulness of Catalogue items and report any issues to KHOA to improve the data model. August 2019.

Action Item 6/18 – KHOA to check S-128 for the usefulness of the Catalogue data for up-to-date synchronization of S-100 products. November 2019.

11 Cooperation with (S-124) Navigational Warnings

Eivind MONG reported on the outcome of the WWNWS10 meeting. One agreement was to eliminate NtM T and P messages from the S-124 product specification. Eivind reported work on S-124 and development and testing of the product specification. It was said that a S-124 impact study was planned. The meeting took note of the presentation. Tests and investigation carried out by Canadian Hydrographic Service and Canadian Coast Guard show that the S-124 data model can support the dissemination of Notice to Mariners information. Danish Hydrographic Office raised concerns with the current S-124 product specification as it seems to not be appropriate for their NIORD system.

Discussion: It was underlined that S-124 is only a subset of the official MSI broadcast warning messages.

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

Action Item 6/19 – Danish Hydrographic Office (JC&SV) to check the usefulness of S-124 in NIORD and include examples of challenges. November 2019.

13   US NGA enhanced update service for Nautical Publications (ESYNCH)

The meeting took note of the presentation. NIPWG appreciates the NGA initiative on the nautical information provision via satellite system.

30   (S-122) MPA and (S-123) Marine Radio Services

Daniel ZÜHR reported on the conversion from International Union for Conservation of Nature (IUCN) data to S-122 dataset. The BSH offers to provide the developed solution as one option to create S-122 datasets easily. Virgil ZETTERLIND gave a progress update on the Anthropocene Institute ProtectedSeas project. 2,000 new MPAs and 500 updates were added in 2018. He is working with ESRI to test ProtectedSeas S-122 output validation against the latest S-1XX schemas using ESRI's chart authoring tools and hopes to report results at NIPWG7. The meeting took note of both presentations.

Discussion: How we can evaluate the interest in S-122 from the HOs and what should we recommend about producing S-122 data. Recommended that we identify who is the authority of the data and have a shared database. It was decided that every 2 years a product specification should be reviewed.

Decision Item 6/20 – Prod Specs under the remit of NIPWG to be under a 2 year revision cycle.

Action Item 6/21 – JS-F to address the availability of S-122 datasets to HSSC and IRCC respectively. March 15, 2019.

Action Item 6/22 – Spain, Canada, Netherlands and Germany (and other Countries as appropriate) to provide comments on experiences made during the test of S-122/S-123 data production. November 2019.

Action Item 6/23 – Elena ARMANINO to continue collecting feedback on both product specifications. Ongoing.

32   (S-127) Traffic Management

Raphael MALYANKAR reported on the completion of work on the S-127 product specification and requested that any errors in the product specification be reported before 31 May 2019. Corrections will be applied and modifications will be for the next major version. Eivind provided outcomes of the Feature Catalogue Builder (FCB) testing. Tests identified errors and results that will be reported at the next S-100 meeting. KHOA mentioned that they have already fixed some of the errors and reported back to developers of the Registry. The meeting took note of the presentations.

Discussion: Concerns were raised over updating product specifications. Product specifications should be updated on similar timeline to avoid changes having effects on other product specifications. NIPWG agreed that portrayal of the product specifications is not a priority at this point.

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

Action Item 6/24 – JS-F to include in the NIPWG report to HSSC concerns about product specification/S-100 versions conflict and possible inconsistencies. March 15, 2019.

34 Provision of S-122, S-123 and S-127 based test data sets

The meeting took note of the presentation.

35 (S-125) Navigational Services

The meeting took note of the presentations.

Discussion: Questions were raised on what S-125 should provide and is it really needed? NIPWG concluded that it welcomes the IALA offer in drafting of S-125 as a dataset based on S-201 provided that it deliveres navigationally significant information additional to the data currently available in S-57 / S-101. NIPWG is currently unable to verify that issues related to extending the data model would not arise. NIPWG considers that further consideration in relation to current practices and regulations is needed before the data model is further extended with data related to Notices to Mariners.

NIPWG agreed to IALA's proposal to let the IALA ARM Committee draft the S-125-PS and submit to NIPWG for its consideration/comment. It was also noted that the development of S-125 draft would involve liaising between the two bodies.

Action Item 6/25 – JS-F to reply to IALA that S-125 should only contain additional information to S-101 that has navigational significance. February 28, 2019.

36 Product Specification Harmonisation

NIPWG domains can expect to have much in common. Rafael mentioned product specification harmonisation raises ongoing questions that have not been answered yet. The meeting took note of the presentation.

Discussion: NIPWG questions whether the harmonisation of NIPWG's sub-set of product specifications is a problem and if so, can it be fixed? Also, is it worth the effort and what is gained from harmonising multiple product specifications?

It was concluded that additional efforts in harmonisation of product specifications are not always practical and therefor will not be initiated at this time.

Action Item 6/26 – BS to review and contribute to S-97 as appropriate. November 2019.

37 Marine resource names

Eivind posed the question on how we can manage MRN. Development of the MRN principle is still in progress and at the stage of a theoretical guideline. The meeting took note of the presentation.

Discussion: Concerns were raised on the implementation of MRN and whether it is practical. NIPWG agreed that a unique identifier is needed but there is not much clarity on the roadmap ahead.

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

Action Item 6/27 – NIPWG to monitor progression on MRN developments. Ongoing.

41 IHO Registry

KHOA reported on the status of the registry. NIPWG will continue to support the IHO registry. The meeting took note of the presentation.

43 Harmonisation of NtM XML Structure

Stefan ENGSTRÖM reported that the workshop developed the initial data model for testing purposes. XSD schema was generated at the meeting, and conversion of existing data into to XML format has been made within Hydrographic Offices. The meeting took note of the presentation.

Discussion: NIPWG plan is to continue with the workshops and use of the WIKI site as a NtM XML repository. Concerns were raised over whether symbol definitions should be included in the exchange format. It was suggested to create and provide list of symbols and store in the portrayal registry. INT 1 symbols would need to be in SVG format with a unique identifier and textual description. NIPWG agreed that there is a need for a symbol registry.

Action Item 6/28 – JS-F to invite NCWG to provide a set of SVG symbols for further use (textual description of each possible feature). May 20, 2019.

44 Report and cooperation with various HSSC WGs

Yves GUILLAM reported on DQWG and that data quality measures are done for S-127 but that for S-122/S-123 they would be done for Edition 2.0. He also reported the work being done with CATZOC. NCWG chair recommended NIPWG to consider the Ballast Water paper. Jason STROM will provide a report at NIPWG7 after submitting definitions to the HDWG. The meeting took note of the presentations.

Action Item 6/29 – Hydrographic Offices are invited to consider the incorporation of ballast water management area information into their nautical publications if appropriate. Ongoing.

45 IMO's e-Navigation

The meeting took note of the presentations. Marine Service Portfolio name changed to "Maritime Services in the context of e-navigation".

Discussion: Amendments on some terms should be considered while taking into account that the official NCSR6 report will not be made available before the end of February.

46 Architectural display of S-100 related products

The meeting took note of the presentation.

Discussion: NIPWG discussed what is front of bridge and back of bridge in S-98, S-102, and S-101 on an S-100 based ECS. Questions were raised on how we deal with regulated and non-regulated navigation systems. Group discussed development structure and suggested modifications to the paper. It was agreed that it would be beneficial to construct another

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

diagram outlining dissemination of S-100 related products. NIPWG to approach HSSC regarding architecture guidelines.

Action Item 6/30 – JS-F to provide updated diagram to NIPWG for review. February 2019.

Action Item 6/31 – JS-F to provide the consolidated NIPWG position to HSSC for further consideration. March 15, 2019.

47   Interoperability issues between S-122 and S-121 data sets

The meeting took note of the presentation.

Discussion: Yves reported that some countries expressed concerns over the sensitivity of the data in S-121. It was mentioned that after S-121 use criteria is clarified and the specification advances to revision 2.0 (operational) it would need to be re-evaluated for potential interoperability and encoding concerns relative to S-122 and S-121.

Action Item 6/32 – VZ to re-evaluate potential interoperability and encoding concerns relative to S-122 and S-121. Ongoing.

48   S-127 and S-101 data model harmonisation

The meeting took note of the presentation.

Discussion: Changes in S-101 might also need to be reflected in S-4. NIPWG suggested that the proposal from Norway should be investigated for potential impacts to S-4.

Action Item 6/33 – JLE to get back to JS-F with use cases on proposed S-101 data model amendments. March 30, 2019.

Action Item 6/34 – JS-F to provide a redline version to S-101 Project Team. April 30, 2019.

49   Proposed M-3 amendments

The meeting took note of the presentation.

Discussion: UTC was in brackets after the Zulu time in the redline document. NIPWG agreed that UTC be deleted in the time example and left as follows: 1321Z. In addition, the examples for alternative time be left as it was in the original proposal.

Action Item 6/35 – JS-F to provide redline version of M-3 amendment to HSSC. March 15, 2019.

50   ToR review

The Meeting reviewed and discussed the current ToR.

Discussion: Group agreed that no amendments are needed.

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

53   Work plan for the NIPWG

The Meeting reviewed and completed the NIPWG work plan.

57   Any other business

57.1   Review of draft minutes

The Meeting reviewed and adopted the draft Minutes of NIPWG6. The final Minutes will be prepared by the Secretary servicing this Meeting in close co-operation with all participants.

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

The NIPWG7 meeting will be held in St. Petersburg (Russia), 25-29 November 2019.

NIPWG 8 will be held in Brest (France), Sept. 2020

The next meetings are proposed to be held:
NIPWG 9 will be held in India (invitation expected) 2021
NIPWG 10 will be held Brazil (confirmed) 2022
NIPWG 11 will be held in Tallinn (Estonia) 2023

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

13

UNCLASSIFIED

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
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		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		
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		
6/03	KHOA	Submit change proposal to the S-100WG to add curved functions in S-100 based SVG	02/2019	Nov 2019		
6/04	KHOA	Develop and test S-126 symbols in night and dusk ECDIS modes	02/2019	Nov 2019		
6/05	JS-F	Submit a paper to NCWG requesting the template on the provision of symbols for portrayal	02/2019	30 May 2019		
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		
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		Continuing of 5/14 and 5/15
6/08	JS-F	Update for work plan to consider implementation issues	02/2019	Feb 2019	done	

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

6/09	JS	Change Dynamic and Static definitions to only include final sentences with no graphics	02/2019	31 March 2019		
6/10	JS	Inform the S-129PT on outcome of Static and Dynamic discussions	02/2019	31 March 2019		
6/11	JS	Provide the definitions to the HDWG using their drafted submission template and report back to NIPWG7	02/2019	Nov 2019		Continuing of 5/06
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		Continuing of 5/07
6/13	JS-F	Draft a paper/NIPWG letter outlining the "P" in NIPWG	02/2019	15 Feb 2019		
6/14	NIPWG	Review letter and provide comments to JS-F	16 Feb	28 Feb 2019		
6/15	JS-F	Submit respective NIPWG submission to HSSC	02/2019	15 Mar 2019		
6/16	KHOA	Update S-128 to S-100 ed. 4	02/2019	Nov 2019		
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		
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		
6/19	JC&SV	Check the usefulness of S-124 in NIORD and include examples of challenges		Nov 2019		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		
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		

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

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 versions conflict and possible inconsistencies	02/2019	15 March 2019		
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		
6/26	BS	Review and contribute to S-97 as appropriate	02/2019	permanent		
6/27	NIPWG	Monitor progression 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		
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		
6/31	JS-F	Provide the consolidated NIPWG position to HSSC for further consideration	02/2019	15 Mar 2019		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		
6/34	JS-F	Provide a redline version to S-101 Project Team	04/2019	30 April 2019		
6/35	JS-F	Provide redline version of M-3 amendment to HSSC	02/2019	15 Mar 2019		

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

Annex B: Agenda

Agenda (as conducted)

Agenda (draft)

	6th Meeting of the Nautical Information Provision Working Group (NIPWG)
	28 January – 1 February 2019, BSH, Rostock, Germany
	Stakeholders Forum on provision of NPUB information on onboard devices
	29 January (Penta Hotel), Rostock, Germany

	Monday, 28 January Forenoon		
1	Opening and administrative arrangements	JS-F	
	Opening address on behalf of the German HO	TD	
2	Agenda		
	Adoption of the Agenda	JS-F	6-2
3	Minutes of NIPWG5	JS	6-3
3.1	Amendments to the minutes	JS	
3.2	Review of Action Items from NIPWG5	JS	
4	NIPWG status of work (overview)	JS-F	6-4
6	Council and HSSC related information		
6.1	Overview of Council and HSSC decisions affecting NIPWG (status of actions items assigned to NIPWG)	YG	oral
6.2	Discussion of Council 2-4.1 and 2-4.3	JS-F	Oral 6-6.2
7	S-100 related information		
7.1	Outcome of the S-100WG TSM meetings	DZ	6-7
5	Projects and concepts		
5.1	Information on SMART project progress (on THURSDAY)	JP	6-5.1
5.3	NOAA's NPB progress on transitioning from paper products to S-100 products	BS	6-5.3 presentation

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

	Monday, 28 January Afternoon		
8	S-126 (Physical Environment) discussions		
8.1	S-126 status and further data model development discussions	BS	6-8.1
8.2	Effort and capacity in the development of portrayal concepts for S-126 data	JK	6-8.2
8.3	Discussion of the paper	JS-F	
	Minutes of Day1		
	END OF DAY 1		

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

18

UNCLASSIFIED

	Tuesday, 29 January whole day		
	Stakeholders Forum		
	0900–1030		
	09:00-09:30 Welcome speech and introduction	JS-F	
	09:30-10:00 (08:30 UK time) ICS presentation*	MW	
	10:00-10:30 BIMCO presentation*	AS	
	1100–1200 CIRM presentation		
		MB	
	1300–1430		
	IHMA presentation	BvS	
	14:30 NIPWG Continues		
9	(S-129) Under keel clearance information		
9.1	HDWG (Under Keel Clearance Management Systems definition) (draft discussion paper for UKCMPT consideration)	JS	6-9.1
9.2	Update of Mariners' Routeing Guide (S-49)	MK	6-9.2
	END OF DAY 2		

JS-F	Jens Schröder-Fürstenberg (NIPWG Chair
JK	Jimin Ko (ROK/ KHOA))
MB	Michael Bergmann (CIRM)
AS*	Ashok Srinivasan (BIMCO)
MW*	Matthew Williams (ICS)
BvS	Ben von Scherpenzeel (IHMA)

* remotely via Skype

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

	Wednesday, 30 January (Data work)			
10	(S-128) Catalogue of Nautical Products			
10.1	Presentation of the work status	SJ	6-10.1 ProdSpec draft 0.0.1	
10.2	Discussion on the paper	JS-F		
34	Provision of S-122, S-123 and S-127 based test data sets			
34.1	Collection of source material, Data model extension, Development of portrayal proposals	SJ	6-34.1	
11	(S-124) Navigational Warnings (WWNWS)			
11.1	WWNWS-Correspondence Group report	EM	6-11.1	
11.2	STM - Baltic Navigational Warning service	JS-F (on behalf of ML)	6-11.2	
11.3	Canadian Trial on S-124 for NtM	EM	6-11.3	
11.4	Denmark Trial on S-124 for NtM/NIORD	JC	6-11.4	
13	US NGA enhanced update service for Nautical Publications			
13.1	Introduction of the ESYNC system	JS	6-13.1	
30	(S-122) MPA and (S-123) Radio Services			
30.1	Status of Registry entries	JS-F	oral	
30.3	S-122 conversion from IUCN data to S-122 dataset	DZ	6-30.3	
30.4	S-122 practical showcase with Anthropocene data distribution	VZ	6-30.4	
30.2	Maintenance procedure	JS-F	oral	
	Wednesday, 30 January Afternoon (Data Work/Think Tank)			
32	(S-127) Traffic Management			
32.1	Presentation of the development status	EM+ RM	6-32.1	
32.2	Summary of Feature Catalogue Builder testing	EM+ RM	6-32.2	
32.3	Discussion on the paper and outstanding issues (e.g. portrayal)	JS-F		
35	(S-125) Navigational Services			

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

35.1	Status of work and gap discussion	SE	6-35.1
35.2	IALA Paper	SE	6-35.2 6-35.2 supplementary information
36	Product Specification Harmonisation		
36.1	Similarities and differences, and harmonisation of Product Specifications (approved/ developed/ under development)	RM	6-36.1
36.2	Discussion on the paper	JS-F	
	Minutes of Day3		
	END OF DAY 3		

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

21

UNCLASSIFIED

No.	Agenda Item	Lead	Documents
	Thursday, 31 January Forenoon (NIPWG ProdSpecs, IMO)		
37	Marine Resource Names		
37.1	Discussion of NIPWG comment on S-100WG paper	BS EM	
5	Projects and concepts (cont.)		
5.1	Information on SMART project progress and MCP (Maritime Connectivity Platform) in e-Navigation	TC	6-5.1
41	IHO Registry		
41.1	Status of the IHO Registry and intended revision	??	6-41.1
43	Harmonisation of NtM XML Structure		
43.1	Outcome of the XML workshop	SE	6-43.1
43.2	Discussion of potential benefits and way forward	JS-F	
44	Report of and cooperation with various HSSC WG		
44.1	DQWG	YG JS-F	oral 6-44.1
44.2	NCWG		6-44.2
44.3	HDWG	JS	6-44.3
45	IMO's e-Navigation		
45.1	Outcome of MSC100/ NCSR6	HP	oral
45.2	Outcome of 2nd HGDM meeting	JS-F	oral
45.3	Presentation of the results related to NIPWG work	JS-F	6-45.3
45.4	Discussion of what is relevant for NIPWG work	JS-F	
	Thursday, 31 January Afternoon (IMO/S-100 based ProdSpecs)		
46	Architectural display of S-100 related products	JS-F	
46.1	Discussion of the developed structure	JS-F	6-46.1

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

47	Interoperability issues between S-122 and S-121 data sets	VZ	
47.1			
48	S-127 and S-101 data model		
48.1	Data model amendments for versions 2	J-MK	6-48.1
48.2	Presentation of NO digital Route Service	J-MK	6-48.1 presentation
49	M-3 Resolutions revision		
49.1	7/2009 Time information (reflecting IHO CL 46/18)	JS-F	6-49.1
49.2	Gap analysis between M(aritime) S(ervice)12 and M-3	JS-F	oral
	Minutes of Day4		
	END OF DAY 4		

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

23

UNCLASSIFIED

	Friday, 1 February Forenoon		
50	ToR review	MK; JS-F	See NIPWG website
53	Work plan for the NIPWG (status of HSSC10 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	HSSC Discussion paper on harmonising portrayal efforts (joint NIPWG, UKCMS-PT paper)	JS-F	6-57.1
	Provision of presentations in the future At the beginning the description of the purpose (why it is being brought to the group's attention) At the end a collection of actions to be taken by the group or individuals		
	Review of Minutes	JS	
59	Dates and places of next meeting(s)	JS-F	
	NIPWG7 25 – 29 November 2019 Russian Federation / St. Petersburg NIPWG8 September 2020 France/Brest NIPWG9 India 2021 (**invitation expected**)		

Table of names

BS	Briana Sullivan (U.S./ UNH)
DZ	Daniel Zühr (GE)
EH	Edward Hosken (UK)
EM	Eivind Mong (U.S./ Portolan Sciences, CA/ Coast Guard)
HC	HyunSoo Choi (ROK/KRISO)
HP	Hannu Peiponen (IEC)
JC	Jes Carstens (DK)
JK	Jimin Ko (ROK/ KHOA)
J-MK	John-Morten Klingsheim (NO)
JP	JinHyoung Park (ROK/ KRISO) substituted by Thomas Christensen
JS	Jason Strom (U.S./ NGA)
JS-F	Jens Schröder-Fürstenberg (GE)

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

JW	Jeff Wootton (IHO Secretariat)
MK	Mike Kushla (U.S./ NGA)
RM	Raphael Malyankar (U.S./ Portolan Sciences)
SE	Stefan Engström (FI)
SJ	Seung Eun Jung (ROK/ KHOA)
TD	Thomas Dehling (GE)
TL	Thomas Loeper (U.S./ NOAA)
WdT	Wilfred den Toom (NL)
YG	Yves Guillam (IHO Secretariat)

Table of Acronyms

EAHC	East Asia Hydrographic Commission
HSSC	Hydrographic Services and Standards Committee
M-3	Resolutions of the International Hydrographic Organization
S-49	Standardization of Mariners' Routeing Guides
TSM	Test Strategy Working Group Meeting
UKCMPT	Under Keel Clearance Management Project Team

Work sessions:

Monday	Tuesday	Wednesday	Thursday	Friday
0900–1030	0900–1030	0900–1030	0900–1030	0900–1030
1100–1230	1100–1200	1100–1230	1100–1230	1045–1200*
1400–1530	1400–1530	1330–1530	1330–1530	
1600–1720	1600–1700	1600–1720	1600–1700	

* It has been proposed to continue the forenoon session without lunch break and close the meeting around noon

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

25

UNCLASSIFIED

Annex C: List of Attendees

Brazil	Rafaela Pereira de Castro
Canada	Eivind Mong
Denmark	Jes Carsten
Denmark	Simon Vammen
Estonia	Olavi Heinlo
Finland	Stefan Engström
France	Yves Le Franc
Germany	Jens Schröder-Fürstenberg
Germany	Daniel Zühr
Italy	Elena Armanio
Japan	Kenji Naito
Netherlands	Wilfred den Toom
Norway	John Morten Klingsheim
Republic of Korea	Seung eun Jung
Republic of Korea	Jimin Ko
United Kingdom	Edward Hosken
USA	Jason Strom
USA	Michael Kushla
Spain	Alejandro Herrero Pita
United Navigation	Yiorgis Palierakis
IEC	Hannu Peiponen
Antrophocene Institute	Virgil Zetterlind
KRISO	Hyunsoo Choi
UNH	Briana Sullivan
Portolan Sciences	Raphael Malyankar
IHO Secretariat	Yves Guillam
National Taiwan Ocean University	Shwu-Jing Chang
UNH	Steven Johnson
Stakeholder Forum	
Intertanko	Virender Singh
SevenCs	Friedhelm Moggert-Kägeler
Chartworld	Andrey Vorobiev
HS Wismar	Tomas Boecker
HS Wismar	Michèle Schaub
IHMA	Ben van Scherpenzeel
CIRM	Michael Bergmann
AS*	Ashok Srinivasan (BIMCO)
MW*	Matthew Williams (ICS)

* remotely via Skype

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

Annex D: **Updated NIPWG Work Plan**

NIPWG WORK PLAN 2019-20 ~~2018-19~~*(approved by HSSC10 and revised at NIPWG6)*

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 ~~a combined M~~maritime~~ne S~~services as defined by IMO in the context of e-navigation ~~Portfolio (MSP)~~ 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 ~~MSP "hydrographic services"~~ (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)
K	Conduct the 2019~~2017~~ and 2020~~2018~~ meetings of the NIPWG and its sub-group(s) and project team(s) (IHO Task 2.1)

(((Yves GUILLAM to update the IHO tasks as appropriate)

 Work items

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

27

UNCLASSIFIED

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
E.1	Develop proposals for amending S-49	M	Next meeting	2019	Permanent	O		S-49	
F.1	Assess the progress and perspectives of developing specifications for NP data layers in ECDIS 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	Draft Product Specification for Marine Protected Areas (S-122) released in 2018 Next meeting	2015	Permanent	O	Chair/Sec		In close liaison with the S-100 WG On target for endorsement by Council - 2. See action NIPWG 6/XX

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

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.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.
F.4	Review of objects and attributes	H	Next meeting	2004	Permanent	O	Chair/Sec		S-100 related.
F.5	Propose amendments to HYDRO domain of the FCD Register	H		2005	Permanent	O	Chair/Sec		S-100 related. To be included in the FCD register
F.8.1	Develop S-12n - Nautical Information Product Specification								
F.8.1.1	For ~~Marine~~ Radio Services	H	next NIPWG meeting	2012	2019	~~O~~C	Chair/Sec	S-123	Edition 1.0.0 endorsed by Member States 2018
F.8.1.2	For ~~Marine~~ Navigational ~~s~~Services	L	next NIPWG meeting	2013		P	Chair/Sec	S-125	On Hold IALA offers to develop draft, NIPWG
F.8.1.3	For ~~Marine~~ Traffic Management	H	~~next NIPWG meeting~~	2013	2021	O	Chair/Sec	S-127	Edition 1.0.0 developed (is now under 2/2007 life cycle management)
F.8.1.3.1	For Marine Protected Areas	H	next NIPWG meeting	2011	2019	~~O~~C	Chair/Sec	S-122	Edition 1.0.0 endorsed by Member States 2018

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

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.8.1.4	For Marine Physical eEnvironment	L	next NIPWG meeting	2013		PO	Chair/Sec	S-126	On Hold Investigatory work initiated, see action
F.8.1.5	Catalog of nautical products	M	next NIPWG meeting	2016	2021	O	Chair/Sec	S-128	Development continued by KHOA
F.2	Monitor and Maintain NIPWG Product Specification	H	Next meeting	2019		O	Chair/Sec		S-122, S-123 and S-127 under 2 year revision cycle
G.1	Monitor the requirements for, and provision of, nautical information in e-navigation test-beds Produce NP1 sample data sets								According to the tasks assigned by HSSC4. Collection of information to be modelled
G.1.3	For Marine Traffic mManagement	H	next meeting	2012	2018	C	Chair/Sec	S-127	
G.1.4	For Marine Physical environment	L	next meeting	2013		O	Chair/Sec	S-126	On Hold Investigatory work initiated, see action 6/07
G.3	Rules and guidelines for displaying nautical information in ECDIS and in maritime services as defined by IMO combined Marine Service Portfolios								
G.3.1	Develop basic display principles for NP data intended for use in ECDIS (NP3)	M		2008		O	Chair/Sec	S-52	Close co-operation with NCWG and S-100WG required. Interoperability Spec to be considered.
G.3.2	Monitor and contribute to	M		2015	2019	O			e-nav IMO Strategy

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

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
	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.								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
G.5	Contribute to considering the future of paper charts in the perspective of the establishment of ~~MSPs~~maritime services as defined by IMO	M		2014		O			Subject to request from NCWG
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.0	Liaise with the NCWG	M			Permanent	O	Chair/Sec NIPWG		Establish joint project teams as required and endorsed by HSSC.
J.1	Liaise with the ENCWG	M			Permanent	O	Chair/Sec NIPWG		
J.2	Liaise with the S-100WG	H			Permanent	O	Chair/Sec NIPWG		Establish joint project teams as required and endorsed by HSSC.
J.2.1	Draft Data Classification and Encoding Guides								Document for NPs similar to Use of the Object Catalog

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

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
J.2.3	Draft Product Specification								
J.2.3.2	For Marine Navigational Services	L		-		P	Chair/Sec	S-125	On hold
J.2.3.3	For Marine Traffic management	H		2011	2021	O	Chair/Sec	S-127	In progress
J.2.3.5	For Physical eEnvironment	L		-	-	P	Chair/Sec	S-126	On hold
J.2.3.6	For Digital Catalog of Nautical Product		Next meeting	2016	2021	O	Chair/Sec	S-128	In progress
J.3	Liaise with other HSSC WG	M		2004	Permanent	O	Chair/Sec NIPWG		
J.4	Liaise with IRCC								
J.4.1	Liaise with WWNWS Sub-Committee							S-124	Monitor developments of S-124 Correspondence Group
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 e-Nav Committee	H		2013	Permanent	O	Chair/Sec NIPWG		
J.5.2	Liaise with International Harbor Masters' Association (IHMA)	L		2015	Permanent	O	Chair/Sec NIPWG		See outcome HSSC8 Section 7.10 of the minutes IHMA attended the NIPWG Stakeholder forum 2019
J.5.3	Liaise with International Cable Protection Committee (ICPC)	ML		2016	Permanent	O	Chair/Sec NIPWG		MOU signed between IHO and ICPC

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

Meetings (Task K)

Date	Location	Activity
25–29 Nov 2019	St. Petersburg, Russian Federation	NIPWG7
Sept 2020	Brest ~~(tbc),~~ France	NIPWG8
June 2021	India (invitation expected)	NIPWG9
March 2022	Niteroi, Brazil	NIPWG10
Jan 2023	Tallinn, Estonia	NIPWG11

Chair: Jens Schröder-Fürstenberg, BSH, GE   Email: jens.schroeder-fuerstenberg@bsh.de
Vice Chair: Edward Hosken, UKHO, UK   Email: Edward.Hosken@UKHO.gov.uk
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

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

33

UNCLASSIFIED