**Nautical Information Provision Working Group (NIPWG) Meeting**

**22nd March 2022 – VTC, Worldwide**

1. **Opening and administrative arrangements**
	1. **Welcome and opening remarks**
* Chair opened the NIPWG VTC and by welcoming new and returning members
1. **Introductions**
* All.
1. **Updated on outstanding action items**
* This was discussed after Section 4.0 of the meeting.
1. **Product Specification updates**
	1. **S-122 – Marine Protected Areas**
		1. Update on comments received – Elena ARMANINO (5min)
* **EA:** Comments will be sent once final version is received.
* **EM:** OGC started a project, on Denmark request, so more comments on the way. If all in agreement, leave S-122 to elicit more comments over time?
* **JP:** OGC project is looking for broader uses of Marine Protected Area data via webservices. Should be played out/commentary received within a month or 2.
* **EM:** S-100 edition 5 is almost out. So will require an S-122 update soon.
	1. **S-123 – Marine Radio Services**
		1. Update from S-123 Task Group – Bridget Gagné (15min)
* **BG & JP:** Presentation *(available on webpage: NIPWG-VTC01-4.2.1A)*
* **RM:** At present not in favor of allowing in-line attributes as well as information types.
* **EM:** Discussion to be had within task group; if not possible to reach consensus within the task group, can be moved to a full, dedicated meeting.
	1. **S-125 – Marine Navigational Services**
		1. Development update – Sewoong Oh (KRISO) (10min)
* **SO:** Presentation *(available on webpage: NIPWG-VTC01-4.3.1A)*
	+ 1. Name change of S-125 – All (10min)
* S-125 is more of a digital list of AtoNs – Chair of HSSC suggests changing name for clearer representation. Suggestions from working group:
	+ Digital List of Marine Aids to Navigation
	+ Marine Navigational Aids to Navigation (AtoN) Services
	+ Marine Aids to Navigation (AtoN) Information
	+ **Marine Aids to Navigation (AtoN)**
	+ Provision of Aids to Navigation (AtoN)
* Note. S-201, which is AtoN Information

**ACTION.** Put “Marine Aids to Navigation (AtoN)” to HSSC for approval. **Chair**

* 1. **S-126 – Marine Physical Environment**
		1. Development update – Briana Sullivan (10min)
* **BS:** Unofficial task group/input given by: JC, CGF, JP, MS, SS, JS, BS.
* Link for video: [https://www.youtube.com/watch?v=pxxP1W1qImE](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DpxxP1W1qImE&data=04%7C01%7CLaura.Hall-King%40UKHO.gov.uk%7C4e9453b7515e4b961ae308da0b5bc88a%7C9134ca48663d4a05968a31a42f0aed3e%7C0%7C0%7C637834786088835977%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=tYN7%2FbWyAYW33rCYg6hHlL5fFK8MEBGPdWjyiH%2Fk%2B0M%3D&reserved=0)
	+ 1. Next steps – All (10min)
* **EM:** See action item.

**ACTION.** Make task group official.

* Those who show interest (JC, CGF, JP (not present, but has shown interest), MS, JS, BS + UKHO (Jo Marks to identify who)) to set-up additional meeting where leader can be assigned.
	1. **S-127 – Marine Traffic Management**
		1. Update on comments received – Elena ARMANINO (5min)
* **EA:** Have received comments from Germany, Canada & UNH.
* **EM:** Canada has a project for S-127 coverage for the whole country.
	+ Shortly will submit a large amount of comments on this.
* **BS:** Created a subset for Coast Pilot, expanding to make more comprehensive.
	+ IIC has created an interface that will capture the data more easily and will build the SML; get in touch with JP for more on using the interface and contributing data.
* **EM:** Canada has used CARIS HPD for S-123 and IIC Interface for S-127; want to combine and see if they can read data from another.
* **IK**: S-127 testing has started for national waters
	+ XML, using base data from CARIS HPD
* **EM:** Note that there is more work underway, but more testing required before moving to new version of S-127, which would also include the update of S-100 ed. 5.
* **PS:** Germany has also created a first test data set for a sample port.
	+ 1. Communication with bridges and locks – Mike Kushla (10min) *(available on webpage: NIPWG-VTC01-4.5.2A)*
* **MK:** Updated the test dataset by adding comments on Bridges & Locks from Canadian Coast Guard.
* **EM:** been working on the DCEG and test data to encapsulate this data – potentially a gap in data model; so this work has been required to prepare for next version. *(Available on meeting page - welcome input from everybody).*
	+ Working on it in the background and waiting for further comments.
* Q. **RM:** What source material was used to construct the sample? A. **MS:** Source information created to fit in with test datasets (based on the reality of Jussland, not the reality of the world).
* **BS:** will be focused on this in the next week or so and will send some over from CP.

**ACTION:** Invite group to provide data samples of bridges and locks, which have communication requirements for safe passage either under the bridge or through the lock. Whole group

* 1. **S-128 – Catalogue of Nautical Products**
		1. Development update – Izzy Kim/KHOA (10min)
* **IK:** Will bring 1st draft to HSSC for approval before HSSC 14.
* **HC:** Presentation *(available on webpage: NIPWG-VTC01-4.6.1A)*
* **EM:** Believe S-128 ed.1 has already been approved and will be submitted to HSSC following the review and application of all the comments received, within the planned scope of ed.1.
	+ 1. Status of submission to HSSC for edition 1.0.0 – chair (5min)
	+ **EM:** Plan is to create a submission to HSSC, including the files on VTC 2022\_01 webpage (*NIPWG-VTC01-4.6.1A)* and make that a recommendation from NIPWG.
	+ Without ed.1 it’s difficult to test things like merging catalogues and creating data generation of the catalogue.

**ACTION:** Create submission of S-128 Ed.1 and submit to HSSC. Chair

**12:41 - 5-minute “health break”**

* + 1. Description of S-128 stakeholder roles considering data exchange – chair/all (15min)
* **EM:** At the recent WENDWG(12) meeting, discussion was had for the future role of S-128:
	+ S-128 has a very important role with regards to machines understanding how to up-to-date they are – has significant implications on data producers.
	+ Requested to raise with NIPWG, to discuss what questions need to be answered by IHO community in order for S-128 to fulfill its role in helping machines understand their ‘up-to-dateness’.
* Presentation *(available on webpage: NIPWG-VTC01-4.6.3A)*
* **YG:** WENDWG agree that S-128 is an essential part of the S-100 work map. Would it be wise to clarify these questions before submitting to HSSC for approval of ed. 1, or is it independent enough to continue how it is going?
	+ **EM:** This has more to do with producer, aggregator, and distribution of the data. We need S-128 at the test stage to answer many of the questions.
	+ **SS:** Important to get an Ed.1 so that we can start testing:
		- Hoping to initiate a testing project starting in 2023.
		- Currently Primar have no strategy as to how they should approach real time data. (Noticed no information also provided by IC-ENC either)
* **EM:** Canada will have one leading catalogue produced and maintained by CHS. Highly recommend each country to have cross-company/government discussion as to having one central catalogue. Each member state should start thinking about these lines to take.

**ACTION.** Please submit your own questions and thoughts (as seen in the presentation; NIPWG-VTC01-4.6.3A, slide 5) by Friday 25th March so Eivind can correlate and submit to HSSC. All members

* 1. **S-131 – Marine Harbour Infrastructure**
		1. Update on S-131 Project submission to IHO Lab – chair (10min)
* **EM:** Informed by Singapore Lab leader that submission for the S-131 project *(available on webpage:* *NIPWG-VTC01-4.7.1A)* has been approved, in principle. Questions need to be answered before continuation.
	+ Yves has maintained draft submissions on IHO NIPWG webpage – please review there.
		1. User research Port data information – Johanna Marks (10min)
* **JM:** Presentation *(available on webpage: NIPWG-VTC01-4.7.2A)*
* **EM:** Encourage all HOs to obtain similar statistics in own nations
* **JM:** Feedback will be asked for and appreciated next time so that they can tailor the questionnaire better before it’s sent out.
	+ 1. Guidance for Ports – Ben van Scherpenzeel (10min)
* Guide for Nautical Data 1.0 document

*(Available on webpage: NIPWG-VTC01-4.7.3A)*

* + **BvS**: Adopting international standards at local port communities/database is the biggest difficulty:
	+ **EM:** Invites all to review documents on meeting page and provide comments (see action item).
		- Imperative that we all realise that there is a discrepancy in the understanding of what are the ports (and sometimes Hydrographic Service) responsibilities - these documents and this work are an effort to try and clarify this.
	+ **BvS:** Ports are asking: what’s the minimum amount of data that they should be providing, against the standards from an authoritative document? And if they have collected/provided this, is there some sort of recognition/degree of recognition that can be given to the ports who are supporting this document/are up to date (as simple as publishing a list of them on the IHO website)?
		- **EM:** No quick answer but will be investigated.

**ACTION.** Invite all NIPWG members to review “FAL 46 – Guide for Nautical Data final submission” (available on the webpage) and provide feedback to Eivind, Stefan and Laura so responses can be collated and then provided to Ben.

* Working Group Deadline: April 22nd 2022
* Chair Team response to Ben Deadline: May 1st 2022
	+ 1. Development update – Raphael Malyankar (30min)
* Presentation and comments *(available on webpage: NIPWG-VTC01-4.7.4A)*

**ACTION.** Interested/contributing members to look at comments and slides (request made at slide 4) and reply with comments and feedback to flesh out details.

* All interested members, who have also already provided feedback, to attend one of two VTCs: scheduled for Tues 29th and Thurs 31st March @ 12:00 UTC.
1. **Next meetings**
	1. **NIPWG9 – Brazil Update**
* **GP**: Can be hosted in Niterói, Brazil, 13th to 16th Sep 2022
	+ Conference room can fit up to 21 people (hybrid)
	+ Auditorium can fit up to 50 people (only in person)
* In-person registration by **13th June 2022**.
	1. **Next VTC**
* Early June – TBD

**Meeting ends: 14:30 UTC**

**Table of names & initials:**

|  |  |
| --- | --- |
| EA | Elena ARMANINO  |
| EM | Eivind MONG  |
| JP | Jonathan PRITCHARD |
| BG | Bridget GAGNÉ  |
| RM | Raphael MALYANKAR |
| SO | Sewoong OH |
| BS | Briana SULLIVAN |
| JC | Jakob CHRISTENSEN |
| CGF | Charline GIFFARD  |
| MS | Matilde SKÅR  |
| SS | Svein SKJAEVELAND |
| JS | Jason STROM  |
| IK | Iji (Izzy) KIM |
| PS | Philipp SCHWEDAS |
| MKU | Michael KUSHLA  |
| HC | HyunSoo CHOI  |
| YG | Yves GUILLAM |
| JM | Jo MARKS  |
| CGL | Christopher GILL |
| BvS | Ben van Scherpenzeel |
| SE | Stefan ENGSTRÖM |
| GP | Guilherme PONTES |
| YLF | Yves LE FRANC  |
| HP | Hannu PEIPONEN  |
| DL | David LEWALD  |
| HA | Hugh ASTLE  |

**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 |
| S-12 | Standardization of List of Lights and Fog Signals. |
| TSM | Test Strategy Working Group Meeting |

**Annex A: List of Action Items**

|  |  |  |
| --- | --- | --- |
| **Action Item** | **Assigned** | **Status** |
| **VTC 04/21** |
| Action Item 01 - Draft document for S-100 System Architecture for IMO Maritime Service.  | Chair, RM, YLF, MS, HP, MK will assist | In progress |
| Action Item 02 - Initiate contact with relevant HSSC WGs and IHMA to review.  | Chair and CGL | In progress |
| Action Item 03 - Initiate contact with relevant HSSC WGs [invite IRCC/WWNWS-SC] to review “Maritime Services in context of e-navigation” under their remit & provide them to NIPWG for further action if appropriate. Complete by 31 December 2021. | Chair | Sent out – have till end of Apr to comment |
| Action Item 04 - Provide a paper describing how S-201, S-124 and S-125 may work together. | Chair, Vice Chair, DL and possibly CGL | In progress (Mar 30) |
| Action Item 06 - Form a task group to prepare updates to S-123 in light of comments received. Canadian Coast Guard (not named) will be the task lead. | BS, PS, HA, SJC, RM, JP, CL and possibly CGL | In progress |
| Action Item 09 - Task group to draft a NIPWG view on the classification of products by 31 Dec 2021. | YLF (lead), HP, RM, Chair, JP, IK, CGL | By NIPWG 9; Sep 2022 |
| Action Item 10 - Send a letter to HSSC seeking endorsement pointing to the S-128 data package and go forward with testing of the data model by 31 Oct 2021. | Chair | Will be submitted by HSSC 14 for approval |
| Action Item 11 - Model transferred to Portolan Sciences and version 1.0.0 of PS would be ready by Spring of 2022 taking into consideration of when S-100 Ver 5.0.0 is published. | RM | In progress – target Q3 2022 |
| **VTC 01/22** |
| Action Item 01 - Put “Marine Aids to Navigation (AtoN)” to HSSC for approval.  | Chair |  |
| Action Item 02 - Make task group official. Those who show interest to set-up additional meeting where leader can be assigned.  | JC, CGF, JP MS, JS, BS + UKHO (JM to identify who) |  |
| Action Item 03 - Invite group to provide data samples of bridges and locks, which have communication requirements for safe passage either under the bridge or through the lock. | All |  |
| Action Item 04 - Create submission of S-128 Ed.1 and submit to HSSC. | Chair |  |
| Action Item 05 - Please submit your own questions and thoughts (as seen in the presentation; NIPWG-VTC01-4.6.2A, slide 5) by Friday 25th March so Eivind can correlate and submit to HSSC. | All |  |
| Action Item 06 - Invite all NIPWG members to review “FAL 46 – Guide for Nautical Data final submission” (available on the webpage; NIPWG-VTC01-4.6.3A) and provide feedback to Eivind, Stefan and Laura so responses can be collated and then provided to Ben. Working Group Deadline: April 22nd 2022Chair Team response to Ben Deadline: May 1st 2022 | All, Chair Team, BvS |  |
| Action Item 07 - Interested/contributing members to look at comments and slides (request made at slide 4) and reply with comments and feedback to flesh out details. All interested members, who have also already provided feedback, to attend one of two VTCs: scheduled for Tues 29th and Thurs 31st March @ 12:00 UTC. | All, RM |  |
| Action Item 08 - Set date for next VTC – Early June. | Chair, Chair Team |  |

**Annex B: NIPWG List of Decisions & Action Items Arising from HSSC-13**

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| **5.3** **Nautical Information Provision (NIPWG)** |
| 5.3 | S-100 System Architecture, IMO’s Maritime Services | HSSC13/35 | Noting different expectations, **HSSC** welcomed the offer made by **NIPWG** in liaison with **S-100WG** to complement the S-100 System Architecture by a submission paper addressing the what/how/when the S-100 based products should work together in a future S-100 ECDIS environment. | **HSSC-14** |  |
| 5.3 | S-131 | HSSC13/36 | **HSSC** agreed on the way forward proposed by **NIPWG** to consider the possibility of setting up a digital infrastructure to collect S-131 compliant Harbour Information.**NIPWG** to provide the necessary data elements description.**HSSC/IHO Secretariat** to consider the most suitable options for establishing this IHO infrastructure (IHO GIS Infrastructure within which S-131 database is managed).Possible project to be considered by Joint IHO-SG Lab for experimentation. | **HSSC-14****HSSC-14/-15** | DecisionIn progress |
| 5.3 | Maritime Services, e-navigation | HSSC13/37(former HSSC12/32, HSSC11/36) | **HSSC** tasked the responsible **HSSC WGs** [and will invite also the **IRCC/WWNWS-SC**] to review the initial descriptions of “*Maritime Services in context of e-navigation*” under their remit and to provide them to **NIPWG** for further action if appropriate.**NIPWG** to send reminders as appropriate. | **Permanent****Deadline to be confirmed by NIPWG** |  |
| 5.3 | Maritime Services, e-navigation | HSSC13/38 | **HSSC** tasked **NIPWG** to act as the responsible IHO WG to monitor and contribute to the IMO Expert Group on Data Harmonization (EGDH). | **Permanent** |  |
| 5.3 | NtM XML | HSSC13/39 | **HSSC** noted the intention by NIPWG to close the NtM XML workshop topic and to re-open it if it becomes necessary**.** |  | Decision |
| 5.3 | Scale Dependent (SD)/Scale Independent (SI) | HSSC13/40 | After having considered an IALA outline paper describing how S-201, S-124, S-125 may work together, **HSSC** tasked **NIPWG** to provide a paper discussing SD/SI data handling aspects. | **HSSC-14** |  |
| 5.3 | S-100 Whole Picture | HSSC13/41 | **HSSC** welcomed the offer by **NIPWG** to develop an outline paper, in liaison with **S-100WG**, describing the whole S100 picture in close cooperation with stakeholders, inside and outside the IHO community and with IMO in particular. | **HSSC-14** |  |
| 5.3 | Acknowledgments | HSSC13/42 | Following **NIPWG** analysis, **HSSC** agreed that the provision of acknowledgments on IHO publications is on editing IHO bodies’ discretion. |  | Decision |
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**Annex C: Agenda**

Draft agenda v.4

1. **Welcome**
2. **Introductions**
3. **Update on outstanding action items**
4. **Product Specification updates**
	1. **S-122 – Marine Protected Areas**
		1. Update on comments received – Elena ARMANINO (5min)
	2. **S-123 – Marine Radio Services**
		1. Update from S-123 Task Group – Bridget Gagné (15min)
	3. **S-125 – Marine Navigational services**
		1. Development update – Sewoong Oh (KRISO) (10min)
		2. Name change of S-125 – All (10min)
	4. **S-126 – Marine Physical Environment**
		1. Development update – Briana Sullivan (10min)
		2. Next steps – All (10min)
	5. **S-127 – Marine Traffic Management**
		1. Update on comments received – Elena ARMANINO (5min)
		2. Communication with bridges and locks – Mike Kushla (10min)
	6. **S-128 – Catalogue of Nautical Products**
		1. Development update – Izzy Kim/KHOA (10min)
		2. Status of submission to HSSC for edition 1.0.0 – chair (5min)
		3. Description of S-128 stakeholder roles in light of data exchange – chair/all (15min)
	7. **S-131 – Marine Harbour Infrastructure**
		1. Update on S-131 Project submission to IHO Lab – chair (10min)
		2. User research Port data information – Johanna Marks (10min)
		3. Guidance for Ports – Ben van Scherpenzeel (10min)
		4. Development update – Raphael Malyankar (30min)
5. **Next meetings**
	1. NIPWG9 - Brazil update
	2. Next VTC

**Annex D: List of those Registered**

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| **Name** | **Country** | **Organization / Company** | **Present** |
| Guilherme PONTES | Brazil | Directorate of Hydrography & Navigation | Y |
| Rodrigo OBINO | Brazil | Directorate of Hydrography & Navigation | Y |
| Charline GIFFARD | Canada | Canadian Hydrographic Service (CHS) | Y |
| Eivind MONG | Canada | Canadian Hydrographic Service (CHS) - Chair | Y |
| BridgeT GAGNÉ | Canada | Canadian Hydrographic Service (CHS) | Y |
| Zinhui LI | China | Maritime & Safety Administration (MSA) | Y |
| Lingzhi WI | China | Maritime & Safety Administration (MSA) | Y |
| Jakob CHRISTENSEN | Denmark | Danish Geodata Agency/Geodatastyrelsen (GST) | Y |
| Jen Søe CHRISTIANSEN | Denmark | Danish Geodata Agency/Geodatastyrelsen (GST) | Y |
| Stefan ENGSTRÖM | Finland | Finnish Transport Agency Hydrographic Office | Y |
| Yves LE FRANC | France | Service Hydrographique et Oceanographique de la Marine (SHOM) | Y |
| Coralie MONPERT | France | Service Hydrographique et Oceanographique de la Marine (SHOM) | Y |
| Philipp SCHWEDAS | Germany | Bundesamt für Seeschifffaahrt & Hydrographie (BSH) | Y |
| Stelios CONTARINIS | Greece | Hellenic Navy Hydrographic Service (HNHS) | N |
| K Victor PAUL | India | National Hydrographic Office | Y |
| Elena ARMANINO | Italy | Istituto Idrografico Della Marina (IIDM) | Y |
| Matilde SKÅR | Norway | Norwegian Hydrographic Service | Y |
| Jon Leon ERVIK | Norway | Norwegian Coastal Administration | N |
| Jihyun SON | Republic of Korea | Korean Hydrographic Oceanographic Agency (KHOA) | Y |
| Hyunsoo CHOI | Republic of Korea | Korean Hydrographic Oceanographic Agency (KHOA) | Y |
| Iji (Izzy) KIM | Republic of Korea | Korean Hydrographic Oceanographic Agency (KHOA) | Y |
| Miguel Angel LOBEIRAS DE LA CRUZ | Spain | Instituto Hidrografico de la Marine | Y |
| Bernice MAHABIER | Suriname | Maritieme Autoriteit Suriname (MAS) | N |
| Ben VAN SCHERPENZEEL | The Netherlands | Port of Rotterdam / International Harbour Master Association | Y |
| Christopher GILL | UK | UK Hydrographic Office (UKHO) | Y |
| Marcy KLIMEK | UK | UK Hydrographic Office (UKHO) | Y |
| Jo MARKS | UK | UK Hydrographic Office (UKHO) | Y |
| Laura HALL-KING | UK | UK Hydrographic Office (UKHO) - Secretary | Y |
| Michael KUSHLA | USA | National Geospatial-Intelligence Agency (NGA) | Y |
| Jason STROM | USA | National Geospatial-Intelligence Agency (NGA) | Y |
| R. David LEWALD | USA | National Oceanographic & Atmospheric Administration (NOAA) | Y |
| Gregor STEVENS | UK | International Chamber of Shipping | N |
| Virgil ZETTERLIND | USA | Anthropocene Institute | Y |
| Mauro CALVI | - | - | Y |
| Shwu-Jing CHANG | Taiwan | National Taiwan Ocean University (NTOU) | Y |
| Svein SKJAEVELAND | Norway | PRIMAR | Y |
| Raphael MALYANKAR | USA | Portolan Sciences | Y |
| Hugh ASTLE | CANADA | Teledyne CARIS | Y |
| Yves GUILLAM | MONACO | International Hydrographic Office (IHO) | Y |
| Abri KAMPFER | MONACO | International Hydrographic Office (IHO) | Y |
| Briana SULLIVAN | USA | University of New Hampshire (UNH) | Y |
| Seewong OH | Republic of Korea | Korean Research Institute of Ships & Ocean Engineering (KRISO) | Y |