**NIPWG 8-4**

## Paper for consideration by NIPWG 8

## Overview of the work status

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| ***Submitted by:*** | NIPWG Chair group |
| ***Executive Summary:*** | Current work is on track against the HSSC workplan. |
| ***Related Documents:*** | http://www.iho.int/mtg\_docs/com\_wg/TOR/SNPWG\_TOR.pdf  http://www.iho.int/mtg\_docs/com\_wg/SNPWG/SNPWG\_Misc/ProdSpecDevelopment.htm  http://wp12183585.server-he.de/npubwiki/wiki/index.php/Main\_Page |
| ***Related Projects:*** | S-100 Ed. 3.0.0 and S-100 Ed. 4.0.0  S-122, S-123, S-125, S-126, S-127, S-128, S-131 |

## Introduction / Background

The NIPWG is a subsidiary of the Hydrographic Services and Standards Committee (HSSC). The work was subject to HSSC approval.

The primary objectives are to develop and maintain guidance, resolutions and specifications in order to provide shipboard users with the necessary and up-to-date information in a timely manner to allow for the planning of a safe route for the intended voyage and the safeguarding of the ship’s navigation throughout the voyage.

Current work is on track against the HSSC Work Plan.

## Analysis/Discussion

**S-122 (Marine Protected Area) and S-123 (Radio Services)** (Work Plan section F)

The first HO initiated and party completed the production of S-122 and S-123 data sets. They provided feedback and requested product specification improvements.

In addition to data model improvements, the S-122 and S-123 products specifications need portrayal instructions. This is urgently necessary to make the S-122 and S-123 products fit for testing in real S-100 based test environment.

Both Product Specifications need revision in 2021. As stated in 2020 as endorsed by HSSC12, the work should be contracted as NIPWG has not the experience to make the improvements by their own. The calculated estimate is 8000,-€ from each product specification and covers portrayal and will replace the small samples in the 1.0.0 packages with more realistic test datasets.

**S-125 (Navigational Services)** (Work Plan section F, J)

The S-125 development will be based on the S-201 product specifaction and will be done by IALA on behalf of the NIPWG. The S-125 product specification will contain information information in addition to those already covered by S-101. Side effects on S-124 need considerations.

The working group assessed an IALA outlone paper desribing how S-201, S-125 and S-124 may work together. The data model aspects were no questioned. Rather, the WG discussed operational aspects. The outline paper with NIPWG responses incorporated is provided in Annex C.

The IALA paper also addresses the nececity to resume the Scale Dependant/Scale Independant (SD/SI) discussion within the IHO community, SNPWG initiated 10 years ago. NIPWG stands ready to provide a paper discussing impacts, opportunities and challenges of SD/SI data creating, maintenance, distribution and processing in ECDIS environment to HSSC14.

**S-126 (Physical Environment)** (Work Plan section F)

The S-126 product specification is progressing with low priority.

The intended work will be on the data model side and portrayal side. No additional funds for contracting out the development of the necessary product specification parts will be requested until 2024.

**S-127 (Traffic Management)** (Work Plan section F)

Version 1.0.0 of the product specification has been endorsed by HSSC and is under the new Resolution 2/2007 life circle regime.

Several tests have been conducted to assess the appropriateness of the specification against real HO data. The tests confirmed that the tested parts of the data model are fit for purpose and that semi-automatic generation of data sets is possible. Test further deliver demand for further product specification improvement. Therefore, the year 2022/2023 is the new intended release date for version 2.x.x.

Data model harmonisation between S-101 and S-127 took place.

**S-128 (Catalogue of Nautical Products)** (Work Plan section F)

The work on S-128 is making good progress. Based on the current development status, HO’s were invited to test the product specification and to provide comments. In addition, the developer checked the S-128 appropriateness for use in e-navigation environment. The work is ongoing. Assuming all comments will be successfully implemented, it is expected that an updated version could be released later in 2021.

S-128 can be the vehicle to provide up-to-date information of products and can have similar functions as the current S-63. A relevant paper on S-128 management issues was provided to WENDWG for consideration.

**S-131 (Marine Harbour Infrastructure)** (Work Plan section F)

The Marine Harbour Infrastructure product specification development is progressing. The scope is determined in close liaison with the International Harbour Master Association and with the International PortCDM Council.

The IHO contracted out the development of the product specification. The expected delivery time is spring next year, depending on the development status of the relevant S-100 edition 5.0.0 components on which it should rely on.

The HSSC should consider the development of a digital infrastructure to enable ports to contribute their information to an single database. NIPWG stands ready to provide the necessary data element information. This information is IMO BLU CODE compliant and needed for berth-to-berth planning. That enables HOs to provide information needed to fulfil the ship’s requests of corresponding IMO Resolution A.893(21).

This digital infrastructure has several benefits:

* One access point for both the contributors and user,
* Ports can define which information they would like to share with HOs,
* HOs can harvest and process further the data,
* Appropriate API definition would be helpful to support the electronic data exchange, and
* IMO can be encouraged to put pressure on ports that are not contributing, keeping in mind the harbour’s contribution to the fulfilment of the relevant IMO resolution on berth-to berth route planning.

The single access point and respectively one database, should be an interim solution and it should stay in operational mode until Coastal States or HOs are able to host and operate their own systems, which collect marine harbour infrastructure information on national basis.

**Maintaining IHO Standards under NIPWG responsibility** (Work Plan section D, E,)

***Maintain Publication S-12 “Standardization of List of Lights and Fog Signals”***

No requests to amend S-12 were raised in 2020. The content provided in S-12 is considered as appropriate and as fit for purpose.

***Maintain Publication S-49 “Recommendations concerning Mariners’ Routeing Guides” (MRG)***

A revision of S-49 was done and has successfully passed the Member State Approval process. The current version is considered as appropriate and as fit for purpose.

***Amendments to M-3***

The NIPWG did not receive requests on M-3 amendments in 2020.

**Provision of S-100 Architecture**

The S-100 Architecture presents all Product Specifications under the remit of the IHO. The approach is to have all Product Specifications displayed on one ECDIS screen. Different interoperability levels apply. NIPWG updated the list of product specifications based on HSSC decision to add S-131 (Marine Harbour Infrastructure) and S-126 (Marine Physical Environment).

The latest version of the Architecture is provided under HSSC 13-05.3C.

***NtM XML Development***

The current XML structure version appears stable. NIPWG did not receive requests to enhance the structure during the reporting period. It seems the 1.5-day’s workshop is no longer necessary. NIPWG will approach HSSC for endorsement to conduct the said workshop if considered necessary. For the time being, NIPWG recommends to close this topic.

***IMO related work*** (Work Plan section G)

NIPWG continued the monitoring of the development of the IMO e-Navigation strategy. It further coordinates the IHO submission of the Maritime Services in context of e-navigation description under IHO to the IMO.

The IHO contribution to the EGDH needs to be harmonised. NIPWG stands ready to act as responsible IHO working group to monitor and contribute to EGDH discussions.

***Test of product specifications and production of data sets***

S-122 (Marine Protected Area) data are available for US and DE waters for testing purposes. According to the software maintenance circle the product specification passed the “Evolution” phase is now in the “Report” and “Request” phase. That needs active support from all HOs that intend to provide S-122 data in the future.

S-123 (Marine Radio Services) product specification is ready to be used for test data set production.

## Justification and Impacts

The results of the product specification development might invite HOs to consider their way of nautical information provision. First test took place to check S-122, S-123, S-127, S-128 and S-131 product specification appropriateness.

## Action required of NIPWG

The NIPWG is invited to:

1. note this paper.