

## Paper for Consideration by NIPWG

### [Update of S-128 development]

<b>Submitted by:</b>	Republic of Korea (KHOA)
<b>Executive Summary:</b>	This paper describes the update of S-128 development.
<b>Related Documents:</b>	NIPWG6-10.1 S-128 - Catalogue of Nautical Products NIPWG5-10.1 S-128 Development: Status Report NIPWG4-19.1 Review of comments on S-128 Application Schema NIPWG3-29.1 Results of designing Application Schema for S-128 Catalogue of Nautical products NIPWG2-29.1 Status of S-128 Product Specification for Catalogue of Nautical Products NIPWG1-21.2 Proposal of a new S-10X Prodspec on catalogue of charts and publications
<b>Related Projects:</b>	KHOA S-100 Test bed project

### Introduction / Background

NIPWG6 reviewed the S-128 Catalogue of Nautical Products update results and determined 3 action items related to NIPWG7. KHOA has updated the S-128 product specification documents and the data model to following the action items determined by NIPWG6.

### Analysis/Discussion

#### Update S-128 PS following the S-100 ed. 4.0 Release

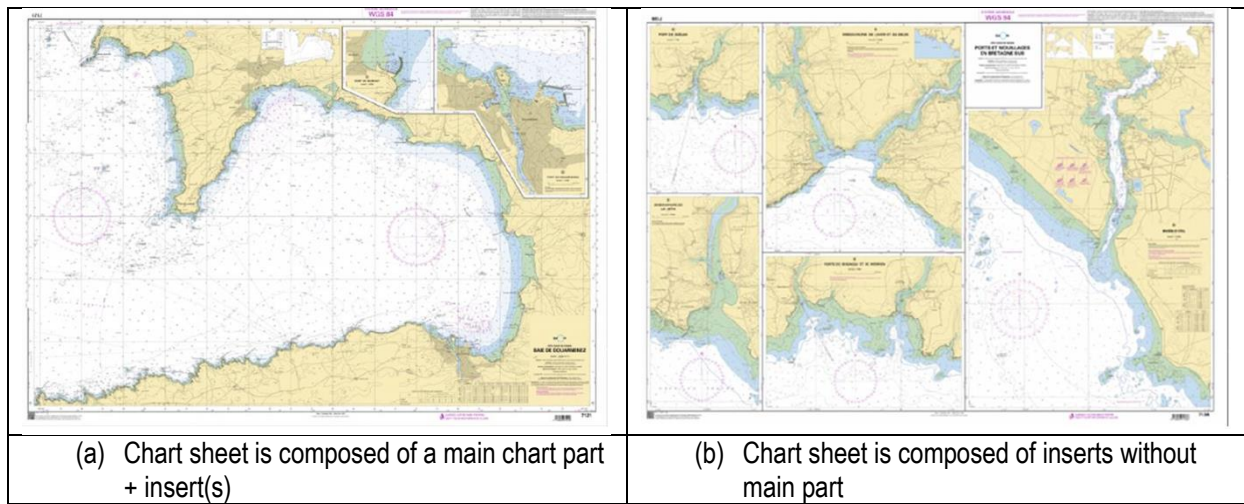
S-100 4.0 was published in December 2018 and the current S-100 based product standard requires the latest version of S-100 to be reflected. Major changes of S-100 4.0 are as follows:

- Online Communication - inclusion of a set of components and processes needed to specify and online exchange of information, including streaming data. This extension came via IALA.
- Scripting Language – definition of a standard mechanism for scripting support in S-100 based products using the Lua language.
- Lua Portrayal Support – Implementation of the Lua scripting language in support of portrayal.
- Harmonization of the HDF5 encoding used by S-102 and S-111

In addition to the above main changes, metadata models, file naming rules, and maintenance rules have been changed. Since the S-127 Marine Traffic Management PS has been developed to reflect S-100 4.0, KHOA has updated S-128 PS by reference and major changes are as follows.

#### Update S-128 PS following the Requirements

NIPWG6 required to reflect the review comments of S-128 working draft of NIPWG members through action items 6/16. SHOM of France suggested that the use case should be accepted by the S-128 data model, as there are cases in which the paper chart's insert is included in the distribution of a particular paper resolution, along with some paper resolution.



The S-128 project team revised the S-128 data model considering the above requirements, and the revised data model should refer to the S-128 product standard package.

#### Application of up-to-date synchronization of S-128 data

As a result of the NIPWG6 discussion, the S-128 project team reviewed the use of S-128 data as an up-to-date synchronization area of S-100 data.

The table below shows the ENC's version of the Catalogue function in S-63 for publication and update date information.

Event	File Extension	EDTN	UPDN	UADT	ISDT	Comments
New ENC Cell	.000	1	0	19950104	19950104	UADT < or = ISDT
Update 1	.001	1	1	Prohibited	19950121	ISDT only
Update 2	.002	1	2	Prohibited	19950225	ISDT only
...						
Update 31	.031	1	31	Prohibited	19950905	ISDT only
Re-issue of an ENC Cell	.000	1	31	19950905	19950910	UADT < or = ISDT
Update 32	.032	1	32	Prohibited	19951023	ISDT only
...						
Update 45	.045	1	45	Prohibited	19951112	ISDT only
New edition of ENC Cell	.000	2	0	19951201	19951201	UADT < or = ISDT
Update 1 to edition 2	.001	2	1	Prohibited	19960429	ISDT only

As the S-128 data model reflects the information about Edition Number, Update Number, Update Application Date (UADT), and Issue Date (ISDT) for Chart Product as a property. It shall be used as utilization of S-100 data as an up-to-date sync.

Following the IMO SOLAS Convention, it

According to the IMO SOLAS Convention, the provision of the latest charts and electronic charts is specified, and whether the paper charts reflect the latest navigation notices in the case of paper charts through the PSC (Port State Control) process, and the latest charts for the electronic charts Checking if update file from has been applied. In the future, various waterway information based on S-100 will be supplied, and confusion about version management of various waterway information is expected, so it is possible to check up to data using S-128 data.

#### **Conclusions**

The S-128 project team updated the S-128 PS packages based on the requirements of the NIPWG and the S-100 4.0 Update, as determined by NIPWG6. KHOA also checked S-63 Catalogue to see if S-128 data is applicable and confirmed that the current S-128 data model meets the requirements.

#### **Recommendations**

S-128 project team requested to review the updated S-128 PS and approve the edition 1.0. In the future, if the S-101 ENC standard will released as test version 1.0 in accordance with IHO Resolution 2/2007, KHOA will test the

S-128 e.d 1.0 and update the application schema and related parts in accordance with the additional requirements of Member States and users to develop the S-128 2.0 version.

**Action Required of NIPWG**

The NIPWG7 is invited to:

- a. Note and discuss the paper.
- b. Review the update of S-128 PS document
- c. Approve the S-128 PS ed. 1.0