

Paper for consideration by HSSC9

Request of financial support to outsource S-127 completion

Submitted by:	NIPWG
Executive Summary:	Description of the financial support request to outsource the S-127 product specification development
Related Documents:	NIPWG
Related Projects:	NIL

Introduction / Background

The IHO decided in 2005 that a universal hydrographic data model (named S-100) should be developed. This data model is based on the ISO 19XXX series for geographic information. It provides the principle framework to develop product specifications. Product Specifications are the basis to create products that can be used in future ECDIS and other GIS applications.

The first edition of S-100 was published in 2010. Since then, a number of improvements were incorporated. Some of them are based on NIPWG proposals.

NIPWG conducted a scope assessment of information provided in nautical publications. The result was the allocation of nautical information to potential product specifications. The proposed set of these product specifications was considered by HSSC 5, and finally, the HSSC assigned the work item to NIPWG to develop nautical information product specifications.

NIPWG developed S-100 compliant data models for all nautical publication information. The data models have reached a level of maturity ready for further use.

Focusing on S-122 (Marine Protected Area) and S-123 (Radio Services) development, NIPWG also developed test data samples for other product specifications in parallel.

The test data sample for S-127 Traffic Management is now stable and mature enough to be used as basis for the completion of the S-127 Product Specification.

Analysis/Discussion

The development of the S-122 and S-123 Product Specifications was outsourced in 2017 and the two Product Specifications were delivered as contracted and on schedule. The contractor underlined their experience in developing S-100 compliant Product Specifications. As an additional unintended outcome of the development work, submissions to the next S-100 edition were made, such as the inclusion of incremental updates for GML based data.

S-127 can be considered as the remaining Product Specification which fits and complements nicely with the S-123 and S-122 Product Specifications by providing digitized and interoperable information to support bridge operations during a voyage, as well as related activities such as voyage planning. The functions to be supported include route monitoring, route planning, and reporting functions. S-127 will complement S-101, S-102, S-122, and S-123 with information about routeing, pilotage, ship reporting (including requirements, times, and locations for reports), and vessel traffic services.

The provision of a Product Specification S-127 (Traffic Management) plus its associated Data Capture and Encoding Guide (DCEG), in conjunction with the S-122 and S-123 Product Specifications and their DCEGs, will provide guidance and allow hydrographic offices/agencies to produce harmonized and S-100 compliant products for the dissemination of nautical information. The availability of S-122, S-123, and S-127 Product Specifications and DCEGs would provide the template for the production of Product Specifications and DCEGs for other S-xxx product specifications:

1. A Product Specification and DCEG for Mariners' Routing Guides (S-xxx), which contain much of the same information as MPAs, Radio Services, and Traffic Management, could easily be adapted from those three standards.

2. Serve as a template for Marine Services (S-125) and Physical Environment (S-126) when work on these standards is resumed.
3. Serve as a template for Harbour Infrastructure (S-xxx) and Marine Services (S-xxx) when work starts on these product specifications.

Development of an S-100 compliant Product Specification is a significant effort and requires a range of expertise, including information modelling, familiarity with ISO 191xx series standards and S-100, and familiarity with particular data formats, as well as technical writing. Referring to papers HSSC7-05.4A and HSSC8-05.4A, and based on HSSC8/29, development of the S-127 Product Specification is stalled due to the lack of technical experience by the NIPWG members. The lack of technical expertise in the working group will not be filled within the foreseeable future.

Consequently, NIPWG requests external expertise and that the completion of the Product Specification development should be outsourced. Details will be provided in due course after the HSSC-9 discussions.

Justification and Impacts

The proposed outsourcing of the S-127 (Traffic Management) Product Specification development would result in the delivery of a Product Specification on which hydrographic offices/agencies can produce S-100 compliant products.

The provision of S-127 (Traffic Management) products would complement the existing S-122 (Marine Protected Area) and S-123 (Radio Services) products and would provide an information environment in which mariners can navigate safely.

Recommendations

The estimate should be allocated to S-127 (Traffic Management) product specification completion. The completion date shall be the end of 2018.

Action Required of HSSC9

The HSSC9 is invited to:

- a. note this paper,
- b. allocate the budget for the S-127 (Traffic Management) Product Specification development.