

Paper for consideration by HSSC 10

Completion of S-122/S-123 and associated impact study survey

Submitted by:	NIPWG
Executive Summary:	Completion of S-122 and S-123 product specification development and results of the impact survey
Related Documents:	M-3 Resolution 2/2007, HSSC 8 and HSSC 9 minutes
Related Projects:	S-122, S-123 https://www.iho.int/mtg_docs/com_wg/NIPWG/NIPWG_Misc/ProdSpecs/NIPWG_ProdSpecs.pdf

Introduction / Background

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

Based on decisions made by HSSC 8 in 2016, the development of the S-122 (Marine Protected Area) and S-123 (Radio Services) was outsourced. As reported at HSSC 9 in 2018, the contract was completed in time with the expected deliverables.

The IHO technical resolution 2/2007 defines that an impact study has to be carried out for new products which might have significant impacts on the stakeholders.

Although the application of the said resolution on S-122 and S-123 was not confirmed in late 2017, NIPWG was tasked by HSSC9 to conduct a survey on the S-122 and S-123 impacts.

Analysis/Discussion

Delivery of S-122 and S-123

The S-122 and S-123 product specifications are available online on the IHO website since completion. Only minor comments have been provided by stakeholders so far. Based on consideration of the NIPWG Chair and the contractors, the decision was made that these comments should be taken into account by the next revision of the product specifications. The current versions as well as the provided test sample data are ready for testing purposes in an S-100 based ECDIS. The results can also be used to push product system development and for possible assessment of interoperability issues.

Conduction of an impact study

Although it was not well defined whether impact studies based on IHO Resolution 2/2007 should be applicable for new products, it was decided to conduct these studies according to the said IHO Resolution.

Resolution 2/2007 doesn't specify how an impact study should be carried out. NIPWG decided to use a free version on an online tool, named SurveyMonkey. The number of possible questions was limited to ten (10).

Based on a contact list provide by the IHO Secretariat, the survey was sent out to 104 addressees. HSSC contact points of big shipping associations such as ICS (International Chamber of Shipping), Intertanko, BIMCO, CLIA (Cruise Lines International Association), CIRM (Comité International Radio-Maritime) and IEC (International Electrotechnical Commission) have been approached to seek the widest possible feedback from users which might be affected by these new product specifications.

The survey run from 1 December 2017 until 31 January 2018 and earned 14 responses on S-122 and 10 responses on S-123. That is a response rate of about 10% for each product specification. The results of the surveys are combined in one table and are attached as Annex.

One of the important results of this study is that the majority plans to provide S-122 and S-123 datasets in the future. Most responders indicate that the time frame for the dataset provision has not been specified yet. The lack of maturity of the S-100 environment is one of the biggest concerns raised.

Justification and Impacts

The development of S-122 and S-123 product specifications based on the NIPWG work plan was endorsed by HSSC. The product specifications are ready for further use and should be endorsed.

The completions of a workable S-100 technical environment should be addressed to HSSC for further consideration. This S-100 environment includes the infrastructure hosted by the IHO and the production platforms at the producing agencies/offices.

Action required of HSSC10

The HSSC10 is invited to:

- a. note this paper,
- b. note the outcome of the impact study,
- c. endorse the S-122 and S-123 completion and initiate the Member State approval process.

Annex

Question	Responses	
	S-122	S-123
What is your stakeholder Group?		
Software developer	1	1
Data Producer	9	6
Service Provider	4	2
End user	0	1
TOTAL	14	10
What is your role in the stakeholder Group		
HO (hydrographic product/service delivery)	11	8
Other government agency	0	0
Navigation System Manufacturer (ECDIS)	0	0
Navigation System Manufacturer (ECS)	0	0
Navigation System Manufacturer (PPU)	0	0
Production Tool Developer	1	1
Service Provider	0	1
Developer (SDK)	0	0
Developer (Kernel)	0	0
Navigator	0	0
Ecologist	0	0
GIS user	0	0
Coast Guard	0	0
MPA management authority	0	
Other (in your own words)	2 ¹	0
TOTAL	14	10
Do you plan to produce or use S-122/S-123 datasets?		
Yes	6	6
Yes, under conditions	2	1
No	3	1
If yes under conditions, please describe.	3 ²	2 ³
TOTAL	14	10

¹ 1) GIS user, Coast Guard and HO

2) NSM (ECDIS,ECS,PPU), Service Provider, Dev (SDK, Kernel, Production Tools))

² 1) If being in charge, if will be common exchange format

2) If requested and proven profitable or required.

3) If the HO will be in charge of delivering such information or if S-122 will become the common exchange format between organizations.

³ 1) If requested and proven profitable or required

2) The use of S-123 may be decided after implementation of S-100 data module.

If Yes, what benefit do you expect from S-122/123 compared with existing mechanisms?

Ease of access to data/information	2	1
Interoperability with other data/information	10	6
More frequent/up to date information	0	1
Other (in your own words)	0	0
TOTAL	12	8

If Yes, how confident are you that you understand how to implement S-122/S-123?

We have fully read and understand the details of the product specification	0	1
We have a reasonable understanding, and are confident we can implement, but have not yet studied the product specification in detail	4	2
We understand the concept, but lack confidence in full understanding	4	5
We haven't yet studied the product specification	4	1
Other (in your own words)	1 ⁴	0
TOTAL	13	9

Yes, what is the main driver for implementation?

Internal data management	2	0
Standardised data transfer between organisations	2	2
Delivery of data/services to end users	5	6
TOTAL	9	8

If Yes, do you expect implementation issues?

Inconsistencies with ENC content	2	1
Insufficient access to information needed	3	1
Insufficient availability of information needed	2	1
Lack of understanding of how to implement	3	2
Lack of production capability (e.g. application software)	1	4
Other (in your own words)	2 ⁵	0
TOTAL	13	9

If Yes, when do you plan to start the implementation?

Within a 3 year time frame	1	1
Within a 5 year time frame	2	1
Not specified yet	8	7
Other (in your own words)	2 ⁶	0
TOTAL	13	9

⁴ We are not the source of the information and that could be a problem. Our strength is that we know what the end-user needs.

⁵ 1) It will probably take a lot of time to achieve standardized data exchange from several, often local organisations.

2) There can be several reasons listed above

⁶ 1) See question 3.

2) t.b.d.

If No, what are the issues preventing you from implementation?

No customer request to provide this information	0	2
Lack of available data	0	0
Not responsible for handling this type of information	1	0
Lack of maturity of S-100 environment	4	1
Other (in your own words)	2 ⁷	1 ⁸
TOTAL	7	4

Do you foresee any disadvantages, risks and issues for your organization from a technical and commercial or resources perspective (in your own words)?

S-122	S-123
<p>It's too early to provide some issues The end-user may expect the data to be more accurate just because it is digitized and standardized. They may expect better data with a high up-to-dateness.</p> <p>It's too early for our organization to provide some issues.</p> <p>We are a service provider organization, the use of this normative will help to increase the production of thematic products</p> <p>As we do not have the complete understanding of S-100, we cannot estimate how much resources will be needed for implementation</p> <p>Disadvantages: lack of mature production and validation software. Issues: lack of clarity about (i) how to manage feautres/objects that could occur in both ENC's and these data sets (ii) future interoperation for user/display between S-101 and these data sets; (iii) lack of regulatory framework driving the use of such data.</p> <p>To advance introduction of S122 resources will need to be directed to include Information, Experience, Time and Training within our Organisation.</p> <p>National Policies on the subject issues should be cleared from the relevant authorities.</p> <p>Yes , we don't have staff for yet, and technically we are not ready</p>	<p>It's too early to provide some issues</p> <p>Without having the complete picture, one problem could be that the data is produced in a not standardized way. What is the quality of the data?</p> <p>It's too early for our organization to provide some issues.</p> <p>As we do not have the complete understanding of S-100, we cannot estimate how much resources will be needed for implementation</p> <p>Transition from existing products to new formats is insufficiently clear to commit to investment.</p> <p>Yet to be assessed</p> <p>Issues for implementation are internal to the organisation, namely Experience, Time, Training and Information.</p>

⁷ 1) Answers 1, 3, and 4 (above)
2) Answered YES