**NIPWG9-13.5A**

**Follow up**

## Circular Letter for Consideration by IHO Secretary

## S-100 based nautical publications – considerations for data production and data management

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| ***Submitted by:*** | NIPWG |
| ***Executive Summary:*** | Follow up challenges by creating S-100 based test datasets |
| ***Related Documents:*** | S-100 based product specifications |
| ***Related Projects:*** | Several test datasets by NIPWG members |

## Introduction / Background

During the creation of S-100 based nautical publication test datasets, several NIPWG members faced challenges in the acquisition and management of data maintained by other bodies, e.g. a port administration.

The topic was raised during NIPWG9 and therefore a follow up action was created to ensure that the issue will be discussed on a higher decision level.

## Analysis/Discussion

Using the content of nautical publications for the creation of S-123 (Marine Radio Service), S-127 (Marine Traffic Management) and S-131 (Marine Harbor Infrastructure) test datasets, these datasets could not fully comply with the complete structure of the current data models.

The S-123, S-127 and S-131 data models offer much more elements and content, which are or might not be provided in the respective nautical publications and therefore the data models might not be complete in terms of the whole intention of S-100 based nautical publication services.

Additional information, such as for administrative divisions or detailed port information need to be obtained by external sources.

The following exemplary extraction (features of the different standards) represents a few elements that might be gathered by other authorities – but is not limited to them:

* BerthPosition
* Berth/Berth layout
* ISPS Level
* Cargo handling facilities
* Available Berth length
* Number of bollards
* Bollard capacity
* Bollards layout (number, dimensions, etc.)
* Supply options

Electric power, land connection

Bunker/fuel

Potable water

* Maximum vessel’s dimension

length

draught

* available port services

wasteDisposalService

berthing assistance

mooring gang

tugs

* Fire Fighting capabilities
* MedicalServices
* RepairService

Compass adjustment

Diving service

Mechanic harbour service

The S-100 based datasets are compilations of several raw data that comply and fulfil the demands of each standard, e.g. S-123 (marine Radio Services) or S-131 (Marine Harbour Infrastructure). Creating complete up-to-date datasets to produce a certain S-100 based nautical product requires an interaction between several authorities, which might lead to several limitations, especially in the process to updating information.

Creation and maintenance of complete S-100 based datasets raise following questions:

* How to obtain a complete and up-to-date dataset?
* Will all port administrations be obliged to create their own S-100 based data sets? That means, will a HO and a port provide individual S-100 based data sets? How should they be administrated?
* Will the port administration be obliged to forward all “raw” data to the hydrographic offices and send updates too?
* How should the responsibility be divided for S-100 based standards between different authorities?
  + Is there a need to adjust national legislative framework to ensure the compliance of S-100 based nautical publications services that fulfill carriage requirements and safe navigation?

## Conclusions

An urgent need for the improvement of cross-governmental relationships and cooperation between different authorities has been identified in order to comply with the IHO roadmap.

IHO member countries need to identify and define the responsibilities in terms of S-100 based nautical publications. The appointed body, which is responsible for the creation of the S-100 based nautical publication service, needs to be determined by legislation. This includes also the interaction of data collection and up-to-date data distribution.

## Recommendations

NIPWG is aware of these challenges and should address these issues to the HSSC for consideration.

The hydrographic offices cannot maintain all relevant data in their databases.

It should be defined by each country which responsibilities each administration has in terms of relevant S-100 based nautical publications data products.

The governments should identify a general way – a guideline for the relevant and affected authorities, e.g. hydrographic offices and national agencies– on the creation of datasets, and how to identify the best organization to provide data services to ensure the best possible overall service for the end user.

## Justification and Impacts

All parties should be aware that a closer cooperation is needed. The amount of data exchange will increase. The HOs might be requested to adapt their cooperation agreements with data source providers, such as for example harbours and other national maritime authorities, accordingly. On the other hand these authorities and administrations need to make sure that a continuous flow of complete, correct and up-to-date data are forwarded to the producer / creator of the respective S-100 based nautical publication service in terms of an agreed way of data distribution.

It needs to be highlighted and considered that not only a HO should be made responsible for the complete topic of S-100 based nautical publication services.

## Action Required of NIPWG

The NIPWG is invited to:

a. note this circular letter

b forward this paper to a higher decision level to ensure that the IHMA members are requested to provide their data.