

**Paper for Consideration by the S-100 WG****Outcome of the 4<sup>th</sup> session of the  
IMO Sub-Committee on Navigation, Communications, Search and Rescue (6-10 March 2017)**

<b>Submitted by:</b>	IHO Secretariat
<b>Executive Summary:</b>	This paper informs the S-100WG of the outcome of the 4 <sup>th</sup> session of the IMO Sub-Committee on Navigation, Communications, Search and Rescue (NCSR 4, 6-10 March 2017) and highlights items relevant to the development of the S-100 framework.
<b>Related Documents:</b>	HSSC8-07.2A, HSSC8-07.2B, IHO CL 12/2017, NCSR 4/WP.1, NCSR 4/WP.4
<b>Related Projects:</b>	- Development of S-100 - IHO contribution to the implementation of e-navigation

**Introduction / Background**

1. The 4<sup>th</sup> session of the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 4) of the International Maritime Organization (IMO) took place at the IMO Headquarters in London, United Kingdom from 6 to 10 March 2017. The Sub-Committee addressed a significant number of items of interest to IHO Member States. This paper reports on the items relevant to the development of the S-100 framework, namely:

- Item 5: Interconnection of NAVTEX and Inmarsat SafetyNET receivers and their display on Integrated Navigation Display Systems
- Item 7: Additional modules to the Revised Performance Standards for Integrated Navigation Systems (INS) (resolution MSC.252(83)) relating to the harmonization of bridge design and display of information;
- Item 8: Guidelines for the harmonized display of navigation information received via communications equipment;
- Item 27: Any other business: Proposal to activate the IMO-IHO Harmonization Group on Data Modelling (HGDM).

**Analysis/Discussion/Recommendations*****Interconnection of NAVTEX and Inmarsat SafetyNET receivers and their display on Integrated Navigation Display Systems***

2. The Sub-Committee approved amendments to resolutions MSC.252(83) *Revised Performance Standards for Integrated Navigation Systems (INS)*, MSC.306(87) *Revised Performance Standards For Enhanced Group Call (EGC) Equipment*, and MSC.148(77) *NAVTEX* to enable interconnection of NAVTEX and Inmarsat SafetyNET for the purpose of displaying GMDSS maritime safety information on integrated navigation display systems.

3. Subject to the approval of these amendments by the 98<sup>th</sup> session of the Maritime Safety Committee (MSC 98, 7-16 June 2017), it is recommended that they be reviewed by the S-124 CG, considering in particular any potential impact on the S-100 Interoperability Design Specification.

***Additional modules to the Revised Performance Standards for Integrated Navigation Systems (INS) (resolution MSC.252(83)) relating to the harmonization of bridge design and display of information***

4. The Sub-Committee agreed to propose to the MSC not to develop further at this stage the proposed additional modules to the Revised Performance Standards for Integrated Navigation Systems (INS) relating to the harmonization of bridge design and display of information.

### ***Guidelines for the harmonized display of navigation information received via communications equipment***

5. The Sub-Committee agreed to the establishment of a Correspondence Group under the coordination of Norway to continue the development of Guidelines for the harmonized display of navigation information received via communications equipment. The guidance provided to the group (see Annex A) includes the following consideration:

*“If applicable, navigation-related information received via communication equipment should be displayed based on the portrayal specifications of the S-100 standard or based on SN.1/Circ.243/Rev.1”.*

6. The Sub-Committee agreed to recommend to the MSC to extend the target completion date to 2018.

7. It is recommended that the Chair of NIPWG continues to coordinate the IHO contribution to the Correspondence Group and liaises with the S-100WG as appropriate.

### ***Proposal to activate the IMO-IHO Harmonization Group on Data Modelling (HGDM)***

8. As invited at MSC 96, the IHO submitted a document proposing the activation of the IMO/IHO Harmonization Group on Data Modelling (HGDM) to assist in developing guidance on the definition and harmonization of the format and structure of Maritime Service Portfolios (MSPs) in support of the implementation of e-navigation.

9. The Sub-Committee considered the proposed work plan provided at Annex B and decided to refer the proposal to activate the group to the MSC, inviting interested parties to submit proposals related to the proposed work plan and to a possible revision of the HGDM terms of reference for further consideration at MSC 98.

10. Subject to the activation of the HGDM by the MSC, the Sub-Committee recommended the appointment of Mr Sunbae Hong (Republic of Korea) as the Chair.

11. The proposed work plan of the HGDM (see Annex B) includes two items which are relevant to the work plan of the S-100WG, namely:

- to specify the architecture and management of the Common Maritime Data Structure (CMDS) necessary to support Maritime Service Portfolios (MSPs); and
- to harmonize the role of S-100 and the related GI Registry ... in the implementation and management of the CMDS.

12. It is recommended that the S-100WG considers its representation and contribution to the HGDM.

### **Action required of the S-100WG**

13. The S-100WG is invited to:

- a. consider the recommendation in paragraphs 3, 7, and 12;
- b. take any other actions considered necessary.

## Annex A

### **Guiding principles for the work of the IMO Correspondence Group on the Development of Guidelines for the harmonized display of navigation information received via communications equipment**

(extract from NCSR 4/WP.4)

- 1 The correspondence group should examine the issues relating to the display of navigation information received via communications equipment, including maritime safety information as defined in resolution A.705(17).
- 2 The Guidelines should take into consideration:
  - .1 the high-level objective, without imposing type-specific requirements;
  - .2 the harmonization of the presentation of navigation-related information received via communication equipment and their integration in a user-friendly manner with the already presented information on the navigational systems;
  - .3 If applicable, navigation-related information received via communication equipment should be displayed based on the portrayal specifications of the S-100 standard or based on SN.1/Circ.243/Rev.1;
  - .4 the amount of information available from communications equipment may exceed the presentation capability / amount of display space available on existing navigation equipment such as radar and ECDIS;
  - .5 data received via communications equipment required selection, filtering, routing of information to avoid information overload, and enable user settings to meet shipboard needs, taking into account urgency and sea area.
  - .6 the scope and objectives of other outputs which are directly or indirectly related to this work, in order to avoid duplication or conflict; and
  - .7 the potential need, where appropriate, to add new symbols to SN.1/Circ.243/Rev.1, if such symbols to display received information did not currently exist.

## Annex B

### Proposed work plan for consideration at the first meeting of the IMO/IHO Harmonization Group on Data Modelling (HGDM)

(extract from NCSR 4/WP.4)

1. To specify the architecture, implementation and management of the Common Maritime Data Structure (CMDS) necessary to support MSPs, taking into account evolving e-navigation needs, including data streaming, as well as current and future communication means;
2. To identify and propose work to harmonize the development of MSP use cases within the e-navigation concept in accordance with the ToR of the HGDM, as set out below in this annex;
3. To harmonize, in particular, the role of S-100 and the related Geographic Information Registry and of submitting organizations in the implementation and management of the CMDS in order to ensure the harmonization and interoperability of related product specifications;
4. To identify and propose work items that may require further consideration by the HGDM, under its current or revised terms of reference, and develop recommendations to that effect, if and as appropriate; and
5. To submit an interim report to NCSR 5<sup>1</sup>.

#### Proposed schedule of meetings

**June 2017:** MSC 98 to consider approving one annual meeting of the HGDM in 2017, requesting C 118 to endorse the meeting to last 5 days, as follows:

**16 - 20 October 2017:** 1<sup>st</sup> meeting of the HGDM

**September 2018:** 2<sup>nd</sup> meeting (expected)

Documents submitted to meetings of the HGDM should be received by the IMO Secretariat at least four weeks prior to each session. Commenting documents should be received at least one week prior to each session.

---

<sup>1</sup> NCSR 5 is tentatively scheduled from 19 to 23 February 2018.