S-101PT11-08.3

**Paper for Consideration by S-101 PT11**

**Addressing Gaps in S-101 Identified by the MASS PT**

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| ***Submitted by:*** | S-101PT Chair |
| ***Executive Summary:*** | This paper proposes minor changes to S-101 based on initial analysis conducted by the MASS PT. |
| ***Related Documents:*** | S-101 Edition 1.1.0<br>MASS PT TORs |
| ***Related Projects:*** | S-100 |

1. The IHO (HSSC 13) established a MASS Project Team to consider the requirements that MASS have for navigational information and to identify gaps in existing Product Specifications that these present.

2. During 2022 the MASS PT collated MASS requirements and conducted reviews of S-100 Data Product Specifications to identify any existing gaps. The S-101 PT chair met with the MASS PT chair to discuss the requirements and provide S-101 specific input. Some requirements are at this stage immature but there was a clear requirement that unstructured text should be minimised. Given this requirement a review of all text attributes in S-101 was conducted using the S-101 1.0.2 Feature Catalogue. This identified two attributes requiring action and some which just need to be noted at this stage. This paper presents recommend action in these two cases for inclusion in S-101 1.2.0

3. In S-101 1.1.0 the attribute Radar Band is of type text (DCEG 27.139). As only a limited set of radar band values may be used in order to make this information more machine readable it is proposed to change the attribute type to an enumeration in S-101. Values should be X and S.

Format: C

Example: **X** for the (X) - Band.

Remarks:
- Radar transponder beacons generally work on the 3cm (X) – Band or the 10cm (S) – Band wave lengths. Nevertheless, wave lengths outside the marine band are used.

Figure 1 Extract from the DCEG (1.1.0) entry for Radar Band (27.139)

4. In S-101 1.1.0 the attribute Communication Channel is a text attribute with specific formatting requirements defined. In order to ensure that these requirements are met a validation check should be considered in S-101.

**27.74 communication channel (COMCHA)**

**Communication channel:** IHO Definition: A channel number assigned to a specific radio frequency, frequencies or frequency band. (S-57 Edition 3.1, Appendix A – Chapter 2, Page 2.114, November 2000).

Attribute Type: Free text

Expected input: Enter specific Communication Channel.

Indication: Each Channel should be indicated in square brackets by 4 digits and up to 4 characters (A-Z).

Format: [XXXX]

Example: **[VHF0007]** for VHF-Channel 7
**[NBDP5555]** for Narrow Band Direct Printing Channel 5555

Remarks:
- The attribute "communication channel"| encodes the various Channels used for all methods of radio communication.

Figure 2 Extract from the DCEG (1.1.0) entry for Communication Channel (27.74)

5. Some free text attributes (listed below) were considered acceptable to remain as text at this stage but it was considered that use of some of these attributes should be monitored as S-101 matures especially the Information attribute.

Feature Name, Information, Pictorial Representation, Vessel Class and Reference Location.

## Recommendations

A. Consider changing the simple attribute Radar Band from a text attribute to an enumeration in S-101 1.2.0.

B. Add a validation check to confirm that Communication Channel conforms to the specific formatting requirements included in the DCEG.

C. Note that other attributes as described in paragraph 5 should be considered as S-101 is further developed. In future once MASS requirements are more mature a further review may be required.