



THIS CIRCULAR LETTER REQUIRES YOU TO VOTE

IHO File No. S3/8151/S-100

CIRCULAR LETTER 15/2017
10 February 2017

CALL FOR APPROVAL OF A NEW EDITION OF IHO PUBLICATION S-100
- UNIVERSAL HYDROGRAPHIC DATA MODEL

References:

- A. CL 39/2015 dated 05 June - *Adoption of the New Edition 2.0.0 of IHO Publication S-100 – Universal Hydrographic Data Model*;
- B. IHO Resolution 2/2007 as amended - *Principles and procedures for making changes to IHO technical standards and specifications*;
- C. Document HSSC8-05.1A Rev.2 - *Report and Recommendations of S-100WG*;
- D. IHO CL 08/2017 dated 25 January - *Outcome of the eighth meeting of the Hydrographic Services and Standards Committee (HSSC)*.

Dear Hydrographer,

1. The adoption by the IHO Member States of Edition 2.0.0 of the IHO Standard S-100 – *Universal Hydrographic Data Model* was announced in Reference A. The S-100 Working Group (S-100WG) has continued to maintain and extend this publication, as directed by its programme of work and in response to requests from IHO Member States and other IHO stakeholders. As a result, a proposed new version has been prepared by the S-100WG.

2. In accordance with the procedures outlined in Reference B, the draft was subject to evaluation by the Member States and relevant stakeholders through the S-100WG, and suggested changes underwent a development and testing phase. This process resulted in 17 of 19 proposals being accepted for inclusion in the draft, which has been assigned a status of new Edition due to a number of these proposals being considered to be extensions to the model.

3. At its 8th meeting in November 2016, the Hydrographic Services and Standards Committee (HSSC) endorsed the changes to Edition 2.0.0 of S-100 proposed by the S-100WG (Reference C) and tasked the working group to finalize the draft new Edition 3.0.0 and forward it to the IHO Secretariat for circulation to IHO Member States, for their consideration and approval (see Reference D - action HSSC8/11).

4. The proposed new Edition 3.0.0 and a marked up “redline” version showing all changes are now available on the IHO website at: www.iho.int > Standards & Publications > Draft Publications Awaiting Approval by Member States (English version only).

5. The main changes introduced in the draft new Edition 3.0.0 are summarized in Annex A for ease of reference.

6. In the absence of any impact on existing products, Edition 2.0.0 will be retired when Edition 3.0.0 is adopted.

7. Member States are requested to take into account the endorsement of the HSSC and to consider the adoption of the proposed new Edition 3.0.0 of S-100 by providing their reply on the Voting Form, provided in Annex B, at their earliest convenience and **no later than 15 April 2017**.

8. Member States are invited to note that in accordance with Article IX (f) of the IHO Convention as amended, the decision shall be taken by a majority of the Member States who cast a vote before the deadline, with the minimum number of affirmative votes being at least one-third of all Member States entitled to vote on the date of issue of this Circular Letter.

On behalf of the Secretary-General

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'Gilles BESSERO', with a stylized, cursive script.

Gilles BESSERO

Director

Annexes:

- A. Summary of the changes included in the draft new Edition 3.0.0 of S-100 (*in English only*)
- B. Voting Form

Summary of the changes included in the draft new Edition 3.0.0 of S-100

Since the publication of Edition 2.0.0 of S-100, the S-100WG considered nineteen proposals that clarified, corrected or extended S-100. Of these nineteen, seventeen are proposed for inclusion into Edition 3.0.0 of S-100. They are as follows:

#	S-100 Part	Part Name	Brief Description	Type	Status/Comment
1	7	Spatial	Clarification on internal and external boundaries for areas with holes	Clarification	Accepted
2	4A	Metadata	S100_Support File Format (add Tiff)	Clarification	Accepted
3	4A	Metadata	Invalid Reference to a clause that does not exist	Correction	Accepted
4	9C	SVG Profile	Draft profile of SVG elements that are used in the creation of S-100 symbols	Extension	Accepted This is needed for the S-100 portrayal mechanism as it defines the symbol format
5	11	Product Specification	Clarifies the rules for namespaces for product specifications	Clarification	Accepted
6	10C	HDF	Adds HDF as an encoding format for S-100	Extension	Accepted This is needed for S-100 Product Specifications that utilize gridded formats such as S-102 and S-111
7	Cover	Cover	Amends the copyright note	Clarification	Accepted
8	10A	8211	Needed to amend the 8211 to handle a conditional need for the Segment Header (SEGH) field	Correction	Accepted
9	5	Feature Catalogue	Adds in dataset attributes to the Feature Concept model	Extension	<i>Not Accepted</i> An alternative method was proposed and accepted using the 8211 encoding
10	9	Portrayal	Correction of editorial issues	Correction	Accepted
11	4A	Metadata	Exchange catalogue metadata harmonization and include the S-101 data coverage methodology	Correction	Accepted
12	5	Feature Catalogue	Feature catalogue model and schema extended to include roles in information bindings	Extension	Accepted

#	S-100 Part	Part Name	Brief Description	Type	Status/Comment
13	10b	GML	Place existing description of associations in a sub-section and add a second sub-section describing an alternate method for encoding feature and information associations	Extension	Accepted
14	2B	Portrayal Register	Inclusion of the Portrayal Register model into S-100	Extension	Accepted
15	9	Portrayal	Modification for point Set / multipoint features	Correction	<i>Not Accepted</i> Deferred until more testing could occur and the Portrayal Catalogue Builder is functioning
16	4A	Metadata	PDF as a support file format	Extension	Accepted
17	5	Feature Catalogue	Clarification on the use of supertypes	Clarification	Accepted
18	8	IGD	Alignment to revised ISO models	Correction	Accepted
19	4A	Metadata	Amend the definition of layer ID	Clarification	Accepted

These extensions were considered at the request of various product specification developers who recognized that the S-100 framework must be extended to incorporate new items so as to enable them to continue their developments. Major extensions included:

- HDF was added as an encoding format to support product specifications that use gridded data such as S-102 – Bathymetric Surface and S-111 – Surface Currents. This improves standardization, by moving the encoding to the S-100 level rather than having the product specifications define the encoding
- SVG was added as a profile to S-100. SVG is used to define symbols that will be registered in the portrayal register and utilized in the portrayal of products.
- Portrayal Register Model – S-100 was missing a formal model for how the Portrayal Register should be constructed.

The draft new Edition 3.0.0 was finalized after the 1st meeting of the S-100WG in March 2016.

In accordance with IHO Resolution 2/2007 as amended, the draft S-100 edition 3.0.0 was sent out to both Member States and other stakeholders for a final review. As a result of this review, the S-100WG received 43 comments from the following organizations: NOAA, SPAWAR and C-MAP. These comments were considered at the S-100 Test Strategy Meeting held in September 2016. The resultant revised draft Edition 3.0.0 was submitted to HSSC-8 for endorsement.

Since S-100 provides the framework to develop S-100 based product specifications it cannot be tested in the traditional sense. Instead, it forms the basis for the S-100 test bed against which S-100 based product specifications will be tested. Once Edition 3.0.0 is approved, the following external applications that have been developed as part of the S-100 infrastructure will require updating and testing prior to public release:

- S-100 GI Registry (Note: The Portrayal Register Model has already been developed under contract)

- S-100 Feature Catalogue Builder (Note: The Republic of Korea - KHOA has already started updating the FCB to incorporate the concepts included in Edition 3.0.0)
- S-100 Portrayal Catalogue Builder (Note: this still needs a general update to Edition 2.0.0 and edition 3.0.0 does not have any changes that will affect the PCB)

Updating these applications will not impact any existing S-100 based product specifications.

Currently, S-102 - *Bathymetric Surface Product Specification* is the only product specification that has been developed with reference to S-100 (Edition 1.0.0). S-102 is in the process of undergoing an update to include portrayal capability and will utilize HDF5 encoding - which is available in the draft new Edition 3.0.0.

All other IHO S-100 based product specifications and non-IHO product specifications under development are waiting for the release of Edition 3.0.0 to make any further progress as they all require various corrections and extensions that are included in this new edition.

**S-100 - UNIVERSAL HYDROGRAPHIC DATA MODEL
Approval of Edition 3.0.0**

Voting Form

*(to be returned to the IHO Secretariat **by 15 April 2017**)*

E-mail: cl-lc@iho.int - Fax: +377 93 10 81 40)

Note: The boxes will expand as you type your answers.

Member State:

Contact:

E-mail:

Do you approve the adoption of the proposed Edition 3.0.0 of S-100 (*tick the appropriate box*)?

YES

☐

NO

☐

If you answer 'NO', please explain your reasons in the comment section below.

Comments :

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Signature :

Date :
