



THIS CIRCULAR LETTER REQUIRES YOU TO VOTE

IHB File N° S3/8151/S-100

**CIRCULAR LETTER 19/2015
02 March 2015**

**APPROVAL OF THE NEW EDITION 2.0.0 OF IHO PUBLICATION S-100
UNIVERSAL HYDROGRAPHIC DATA MODEL**

References:

- A. IHO CL 07/2015 dated 16 January - *Outcome of the sixth meeting of the Hydrographic Services and Standards Committee (HSSC)*;
- B. IHO Resolution 2/2007 as amended - *Principles and procedures for making changes to IHO technical standards and specifications*;
- C. IHO CL 11/2015 dated 12 February - *Implementation of the reorganised structure of the Workings Groups of the Hydrographic Services and Standards Committee (HSSC)*.

Dear Hydrographer,

1. As reported in the minutes of the 6th meeting of the Hydrographic Services and Standards Committee (HSSC) (Reference A), the Committee endorsed the draft new edition 2.0.0 of IHO Publication S-100 - *Universal Hydrographic Data Model* for submission to the IHO Member States seeking their approval, subject to the Chair of the Transfer Standard Maintenance and Applications Development Working Group (TSMAD) providing the relevant documentation in accordance with IHO Resolution 2/2007 as amended (Reference B).
2. A report compiled by the Chair of the new S-100 Working Group (see Reference C) confirming that the draft new edition has been drawn up in accordance with the procedures described in Reference B, is provided in Annex A. The report outlines the main changes introduced in the draft new edition, notably the completion of the portrayal model, and their impact.
3. The draft new Edition 2.0.0 of S-100 and a marked up "redline" version showing all changes (*in English only*), as endorsed by the HSSC, are now available for inspection by Member States on the IHO website at: www.iho.int > Standards & Publications > Download > Draft Publications Awaiting Approval by Member States. The text is available in English only.

4. Member States are requested to take into account the endorsement and recommendation of the HSSC and to consider the adoption of the draft new Edition 2.0.0 of the S-100 standard by providing their reply on the Voting Form, provided in Annex B, at their earliest convenience and **no later than 02 May 2015**.

On behalf of the Directing Committee
Yours sincerely,



Gilles BESSERO
Director

Annexes:

- A. Report of the Chair of the S-100 WG on the conformance of the draft new Edition 2.0.0 of S-100 with IHO Resolution 2/2007 as amended (*in English only*)
- B. Voting Form

Copy (*by e-mail*):

- Chair of the HSSC
- Chair of the S-100WG

Report of the Chair of the S-100 WG
on the conformance of the draft new Edition 2.0.0 of S-100
with IHO Resolution 2/2007, as amended

IHO Publication S-100 – *Universal Hydrographic Data Model* provides a theoretical framework of components that are based on the ISO 19100 series of standards and specifications.¹ Meaning that it provides the means for the IHO and other organizations to develop product specifications based on a uniform framework. Because S-100 is unique in that previous editions are never retired, new editions of S-100 can be released without impacting S-100 based product specifications that are tied to previous editions.

In accordance with IHO Resolution 2/2007, S-100 draft edition 2.0.0 was sent out to the representatives of Member States and to the broad list of IHO stakeholders for a final review. As a result of this review, TSMAD (now S100WG) received 53 comments from the following stakeholders: United Kingdom, United States, Furuno, Jeppesen, and IEC. These comments were resolved at the S-100 Test Strategy Meeting held from September 16-18 and Edition 2.0.0 was submitted to HSSC for approval.

Resolution 2/2007 specifies that IHO Standards should undergo a development and testing phase. As part of the development of S-100 Edition 2.0.0 the following corrections and extensions were approved to improve usability of S-100.

S-100 #	Part Name	Description	Change Type
1	Conceptual Schema Language	Added Support for: <ul style="list-style-type: none"> • Codelists • truncated datetime types • Uniform Resource Identifiers 	Extension
2A	Feature Concept Dictionaries	Added Support for: <ul style="list-style-type: none"> • Codelists • truncated datetime types • Uniform Resource Identifiers 	Extension
3	General Feature Model	Added Support for: <ul style="list-style-type: none"> • Codelists • Truncated datetime types • Uniform Resource Identifiers • Expanded Roles 	Extension
4A	Metadata	Inclusion of metadata schemas and clarification of the S-100 catalogue UML model	Correction
5	Feature Catalogue	Added Support for: <ul style="list-style-type: none"> • Codelists • Truncated datetime types • Uniform Resource Identifiers • New Spatial Types (ArcByCenterPoint, CircleByCenterPoint) 	Extension
7	Spatial Schema	Added Support for: <ul style="list-style-type: none"> • New Spatial Types (ArcByCenterPoint, CircleByCenterPoint) 	Extension
9	Portrayal	Inclusion of the S-100 Portrayal Model	Extension
10A	ISO-IEC 8211 Encoding	Corrections to the ISO 8211 encoding	Correction
10B	GML Encoding	Inclusion of GML as an available encoding format	Extension
11	Product Specifications	Inclusion of the S-10X template for building new product specifications	Extension
12	Maintenance Procedures	Alignment of procedures to S-99	Correction

¹ S-100 Introduction

The majority of the changes will improve the usability of S-100 for product specification developers by providing the portrayal model that will be used to develop the IHO Portrayal Catalogue Builder, an additional encoding format – Geographic Markup Language (GML), and the ability to implement code lists – which provides the ability to maintain lists of information that are common across different domains – e.g. IHO Producing Agencies is an example of a code list. In addition, it also corrects errors found in S-100 by developers of S-100 product specifications.

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 which will be used by S-100 based product specifications to test against. Once S-100 Edition 2.0.0 is approved then items such as the S-100 GI register, Feature Catalogue Builder and Portrayal Catalogue Builder will need to be updated to the revised models contained within S-100 and undergo testing prior to public release.

Impacts on S-100 based product specifications, S-100 GI Register, Feature Catalogue Builder and Portrayal Catalogue Builder

Because product specifications are tied to particular editions of S-100 and past versions of S-100 are never retired there are no impacts to existing S-100 based product specifications. Currently, S-102 – *Bathymetric Surface Product Specification* is the only product specification that has been developed to S-100 Edition 1.0.0. S-102 is in the process of undergoing an update to include portrayal capability – which is only available in Edition 2.0.0 and therefore will baseline to Edition 2.0.0.

All other IHO S-100 based product specifications and non-IHO product specifications under development by IALA and the IOC-WMO JCOMM are waiting for the release of Edition 2.0.0 to make any further progress as they all require various corrections and extensions that are included in this new edition.

As a result of S-100 2.0.0 the following external applications that have been developed as part of the S-100 infrastructure will have to be updated:

- S-100 GI Register
- S-100 Feature Catalogue Builder
- S-100 Portrayal Catalogue Builder

However, updating these applications will not impact any existing S-100 based product specifications as these applications are designed to be able to maintain items to different editions of S-100.

VOTING FORM
(to be returned to the IHB no later than 02 May 2015
E-mail: info@iho.int - Fax: +377 93 10 81 40)

Member
State:

Contact:

E-mail:

ADOPTION OF NEW EDITION 2.0.0 OF S-100

1. Do you approve the adoption of new Edition 2.0.0 of S-100 - *Universal Hydrographic Data Model*?

YES

NO

2. Comments (if required)