

**Paper for Consideration by TSMAD23
Wellington, New Zealand
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S-100 Maintenance

Submitted by: Canada (CHS)

Executive Summary: This is a proposal for the maintenance regime of the S-100 Hydrographic Universal Data Model

Related Documents:

- 1/ CL37-2011 Proposal to Amend IHO Resolution 2/2007
- 2/ HSSC3-05.1 S-100 Maintenance.pdf

Related Projects:

Introduction/Background:

The intentional design of the S-100 Universal Hydrographic Data Model (UHDM) was such that it separated the core framework Standard from the Product Specification(s) to correct the problems encountered with the S-57 Standard. The S-57 Standard combined the Product Specification and Coding Guide into a single document preventing updates and refinements to the Standard on the basis that changing the ‘Standard’ affected all previously released ENC products. New versions of S-100 can be realized without affecting existing S-10n Product Specifications (products) in the market place.

The flexibility of S-100 is vital to its utility for a wide range of applications within the marine environment beyond those of a navigational nature. In order to be able to take full advantage of this flexibility there should be a unique regime for the maintenance of the S-100 Universal Hydrographic Data Model, different from the Resolution 2/2007 which requires full IHO Member State review at each new version of a Standard.

The proposal to the 3rd meeting of the Hydrographic Services and Standards Committee (HSSC) by the Transfer Standard Maintenance and Development (TSMAD) Working Group (HSSC-05.1) captured the essence of the needed S-100 maintenance regime. This Proposal is intended to augment the TSMAD proposal to clarify the process and to ensure reasonable oversight at the IHO Committee level.

Given S-100 is in its early stages, it is unclear how frequent new editions will be created. Whether the creation of new editions is rapid or modest it is reasonable to consider that they could be achieved without the full oversight of IHO Member States as specified in Resolution 2/2007. It should be considered that the HSSC be assigned the authority to approve a new edition of S-100 knowing that it will not impact existing S-10n products. Notwithstanding to the maintenance regime for the S-100 UHDM, all IHO related S-10n Product Specifications would be required to flow through the full Resolution 2/2007 approval process.

The management environment of the S-100 Universal Data Model is the S-99 Operational Procedures for the Organization and Management of the S-100 Geospatial Information Registry. With this framework in mind it should be considered that S-100 changes required by the users of the Supplementary Registry would require less oversight than those generated by users of the Main Registry. In this light, HSSC may wish to grant authority to the Transfer Standard Maintenance Application Development Working Group (TSMAD) to work with the users of the Supplementary Registry to complete the S-100 change requirements and to close the process without further approvals from HSSC. It should also be considered that any clarifications and corrections to S-100 editions could be realized without HSSC final approval.

Inclusion of HSSC in the overall process of tasking TSMAD as the technical expertise in the assessment of new S-100 versions will ensure that IHO and Regional Hydrographic Commission resources are tasked appropriately and that any request from Supplementary Registry sources are evaluated in light of the current and future requirements of the IHO.

To further clarify what S-100 changes must be passed through the HSSC:

- Items that must be vetted with or endorsed by the HSSC prior to being worked on by TSMAD or other working groups:
 - New versions of the overarching S-100

- Extensions to S-100

Items that could be assigned to TSMAD without further approval by HSSC:

- A new version, clarification or correction of an individual feature(s) already existing in S-100
- Creation of new features as a result of an HSSC work item assigned to TSMAD or another committee
- New version of the “Data Classification and Encoding Guide” in support of the use of new versions of features

Definitions

- By definition in the S100 standard: Extensions are significant changes to S-100. They can include additional information from the IHO or ISO TC211 geographic information standards that were not originally included in S-100 that may be needed for additional applications. Extensions result in a new major version of S-100. One extension may result in multiple related actions. All cumulative clarifications and corrections shall be included with the release of approved extensions. Extensions shall be proposed to the HSSC and if approved, added to the TSMAD work program. On completion the extension shall be made available for use at a date specified by the HSSC.
- By definition in the S100 standard: Clarifications are defined as non-substantive changes to S-100. Clarifications remove ambiguity and errors in spelling, punctuation and grammar. A clarification shall not cause any substantive semantic change. A clarification shall not be classified as a correction. All clarifications shall be available for immediate use when approved by TSMAD.
- By definition in the S100 standard: Corrections are defined as substantive semantic changes to S-100 to correct factual errors. A correction shall not be classified as a clarification. One correction may result in multiple related actions. All cumulative clarifications shall be included with the release of approved corrections. After approval the correction shall be available for use at a date specified by TSMAD.

Action required of TSMAD

TSMAD is invited to:

give consideration to this alternative process for the Maintenance of S-100 as outlined in the Annex.

