

**2nd IHO-HSSC Meeting
Rostock, Germany, 26-29 October 2010**

**Status Report on IHO Publications on Standards, Specifications and Guidelines
(IHB - October 2010)**

SUMMARY

Executive summary:	This document provides a brief description of the status of all IHO publications on standards, specifications and guidelines, under HSSC responsibility, as of October 2010.
Actions to be taken:	The meeting is invited to take note of this paper.

A. STANDARDS AND SPECIFICATIONS

1. S-4 REGULATIONS FOR INT CHARTS AND IHO CHART SPECIFICATIONS

S-4 gives chart specifications of the IHO for compiling nautical charts, together with agreed symbols and abbreviations adopted for general use by Member States. It provides also Regulations for INT Charts. Supplemented by INT 1, INT 2 and INT 3.

Current edition: Edition 4.000, September 2010, English (French and Spanish versions in preparation). It includes a new section B-600 on chart maintenance. Associated publications:

- INT1 *Symbols, Abbreviations and Terms used on Charts:*
 - English: Edition 6, 2008, published by Germany on behalf of IHO;
 - French: Edition 4, 2006, published by France on behalf of IHO;
 - Spanish: Edition 3, 2007, published by Spain on behalf of IHO.
- INT2 *Borders, Graduations, Grids and Linear Scales:*
 - Edition 4, 2007, trilingual English/French/Spanish, published by Netherlands on behalf of IHO.
- INT3 *Use of Symbols and Abbreviations:*
 - Edition 4, 2005, English, published by UK on behalf of IHO.

Responsible body: CSPCWG

2. S-11 PART A GUIDANCE FOR THE PREPARATION AND MAINTENANCE OF INTERNATIONAL CHART SCHEMES

S-11 provides directions to assist coordinators in following the principles established for INT Chart schemes.

Current edition: Edition 2.003, March 2010, bilingual English/French

The new edition includes, as Annex C, terms of reference for International Charting Coordination Working Groups (ICCWG).

Responsible body: CSPCWG

3. S-32 HYDROGRAPHIC DICTIONARY

Provides definitions of words and terms used in hydrography and associated activities.

Current edition: 5th edition, English (1994), French (1998) and Spanish (1996).

An on-line version of the Hydrographic Dictionary (English and French), based on the 5th edition of S-32, is also available on the IHO website. An on-line version in Spanish is under development.

Responsible body: HDWG.

S-32 Appendix 1 Glossary of ECDIS-Related Terms

S-32, Appendix 1 provides a list of all ECDIS-related terms in use, with specific definitions. It has replaced the former S-52 Appendix 3.

Current edition: September 2007; English and Spanish (French version in preparation).

Responsible body: HDWG.

4. S-44 IHO STANDARDS FOR HYDROGRAPHIC SURVEYS

S-44 sets minimum standards for surveys conducted for the safety of surface navigation.

Current edition: 5th edition, February 2008, English

Responsible body: S-44 WG (currently dormant)

5. S-49 STANDARDIZATION OF MARINERS' ROUTEING GUIDES

S-49 provides a standardized structure for the preparation and publication of Mariners' Routeing Guides.

Current edition: Edition 2.0, April 2010, English

Responsible body: CSPCWG

6. S-52 SPECIFICATIONS FOR CHART CONTENT AND DISPLAY ASPECTS OF ECDIS

S-52 provides specifications and guidance regarding the issuing of ENC's and their display in an ECDIS. Its Annex A forms the IHO ECDIS Presentation Library (PresLib).

Current edition: Edition 6.0, March 2010, English.

This new edition amalgamates the former S-52 main document and its Appendix 2 (display specifications), but not its Appendix 1 (guidance on ENC updating).

Responsible body: DIPWG.

Annex A - IHO ECDIS Presentation Library (PresLib)

The PresLib provides details and procedures for implementing the display specifications contained in S-52, by decoding and symbolizing the elements of the SENC. It includes a full description of the symbol library for use in ECDIS. It is published separately on CD-Rom.

Current edition: Edition 3.4, January 2008, English.

Ed. 3.4 of the PresLib comprises Part I (users' manual, tables and symbolisation procedures, ECDIS Chart 1, symbol plots, etc.); Part II (mariners' navigational objects); an Addendum containing a detailed description of the symbol library; and an optional digital version of the PresLib (.dai file).

S-52 and the PresLib are maintained by means of Maintenance Documents (MDs) which are produced from time to time under the authority of the DIPWG and placed on the IHO website (www.iho.int). MDs contain amendments to S-52 and/or the PresLib, which are classified as "immediate" or "deferred" depending on their importance for the safety of navigation.

Responsible body: DIPWG.

Note: A revised version of Appendix 1 "Guidance for ENC Updating" of the former S-52 is under development by EUWG, for inclusion in S-65.

7. S-57 IHO TRANSFER STANDARD FOR DIGITAL HYDROGRAPHIC DATA

S-57 describes the data standard to be used for the exchange of digital hydrographic data, and for the distribution of digital hydrographic products such as the ENC to manufacturers, mariners, and other data users.

Current edition: Edition 3.1. (November 2000) plus Supplement 2 (June 2009), English.

S-57 Supplement 2 “*Supplementary Information for the Encoding of S-57 Edition 3.1 ENC Data*” contains agreed changes to CATZOC definitions and the addition of temporal attribution on certain feature objects. Supplement 2 includes the contents of Supplement 1 “*Enhancements Required to Encode S-57 Edition 3.1.1 ENC Data*”, published in January 2007. Supplement 1 contained the S-57 objects and attributes required to encode new IMO features, e.g. PSSAs or ASLs, and also made provision for undefined “placeholders”.

Responsible body: TSMAD

8. **S-58 RECOMMENDED ENC VALIDATION CHECKS**

S-58 specifies a minimum set of checks that producers of ENC validation tools need to include in their validation software. These software are used by ENC producers to ensure that ENC data are compliant with the S-57 Product Specification for ENC.

Current edition: Edition 4.1, January 2010, English.

Responsible body: TSMAD

9. **S-61 PRODUCT SPECIFICATION FOR RASTER NAVIGATIONAL CHARTS (RNC)**

S-61 defines the minimum requirements of a Raster Navigational Chart (RNC) intended to fulfill the requirements of the Raster Chart Display System (RCDS) Mode of Operation, as described in the IMO Performance Standard for ECDIS.

Current edition: 1st edition, January 1999, English.

Responsible body: TSMAD.

10. **S-62 ENC PRODUCER CODES**

S-62 provides a list of Agency Codes for all ENC producers, mainly Hydrographic Offices.

Current edition: Edition 2.5, December 2009, English.

Responsible body: IHB

11. **S-63 IHO ENC DATA PROTECTION SCHEME**

S-63 describes the IHO scheme for the protection of ENC information. It defines security constructs and operating procedures that must be followed to ensure the data protection scheme is operated correctly and to provide specifications that allow participants to build compliant systems. It is intended for use by all those ECDIS manufacturers and data distributors participating in an ENC service supplying encrypted data. The IHB acts as Scheme Administrator for S-63.

Current edition: Edition 1.1, March 2008, English and French.

Frequently Asked Questions (FAQ) related to S-63 are answered on the IHO website (www.iho.int).

Responsible body: DPSWG

12. **S-64 IHO TEST DATA SETS FOR ECDIS**

S-64 contains sample ENC data and updates, as well as the associated graphical representations of the ECDIS display. S-64 also includes sample RNC data in the two formats in use by Member States, i.e. HCRF (ARCS) and BSB. These test data are intended for use in conjunction with the IEC 61174 – the test specifications for ECDIS certification/type approval.

Current edition: Edition 1.1, December 2008, English.

Responsible bodies: TSMAD, DPSWG, DIPWG, IHB.

13. **S-65 ENC PRODUCTION GUIDANCE**

S-65 provides a high level guide to the production, maintenance and distribution of ENC. It offers a framework to inform HO of the processes and requirements necessary to produce, maintain and distribute ENC. It provides references to documentation which can support each stage of the process. S-65 has been developed through UKHO-IHB collaboration

Current edition: Edition 1.2, October 2009, English and French.

The new edition includes, as Annex B, "*Guidelines for Encoding Temporary and Preliminary ENC Updates*".

Responsible body: TSMAD.

14. **S-66 FACTS ABOUT ELECTRONIC CHARTS AND CARRIAGE REQUIREMENTS**

S-66 is intended to inform both Maritime Administrations and mariners on the practical implementation of the IMO carriage requirements regarding ENC and ECDIS. It is based on the information booklet "Facts about Electronic Charts and Carriage Requirements" which was developed by HO of ICENC and PRIMAR and has since been withdrawn in favour of S-66.

Current edition: Edition 1.0.0, January 2010, English. French and Spanish versions in preparation.

Note: A Japanese version has been prepared by the Japan Hydrographic Association and is available from <http://www.jha.or.jp/jha/purchase/enc.html#s-66>.

Responsible body: ICENC-PRIMAR Joint Information Working Group (JIWG), on behalf of HSSC.

15. **S-99 OPERATIONAL PROCEDURES FOR THE ORGANIZATION AND MANAGEMENT OF THE S-100 GEOSPATIAL INFORMATION REGISTRY**

S-99 describes the roles, responsibilities and procedures for operating and managing the S-100 Geospatial Information Registry and its component Registers. It is a new publication.

A draft S-99, edition 1.0.0, January 2011, is included in the HSSC2 documents and HSSC2-05.1B invites the HSSC to recommend its adoption to MS.

Responsible body: TSMAD.

16. **S-100 IHO UNIVERSAL HYDROGRAPHIC DATA MODEL**

S-100 provides a contemporary framework hydrographic geospatial data standard that can support a wide variety of hydrographic-related digital data sources, and is fully aligned with mainstream international geospatial standards, in particular the ISO 19100 series of geographic standards, thereby enabling the easier integration of hydrographic data and applications into geospatial solutions.

Current edition: Edition 1.0.0, January 2010, English.

Responsible body: TSMAD

17. **S-101 ENC PRODUCT SPECIFICATION**

S-101 is the new Electronic Navigational Chart product specification that is based on S-100 and which is being developed by TSMAD. S-101 will include machine readable feature catalogues and portrayal catalogues.

Publication of S-101 is planned from 2012.

Responsible body: TSMAD

B. GUIDELINES

18. **C-17 SPATIAL DATA INFRASTRUCTURES: "THE MARINE DIMENSION" - GUIDANCE FOR HYDROGRAPHIC OFFICES**

C-17 is a procedural guide to assist national hydrographic authorities in establishing their role in Marine Spatial Data Infrastructures (MSDI). It explains the way that HO might promote, support, and

participate in Spatial Data Infrastructures (SDI), through practical advice, simple step by step processes, useful links to reference material and examples of best practice.

Current edition: Edition 1.0, October 2009, English.

Responsible body: MSDIWG

19. C-51 A MANUAL ON TECHNICAL ASPECTS OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA - 1982

C-51 addresses the relationship between the Law of the Sea and the disciplines of Geodesy, Hydrography, and Geoscience. It provides an overview of a series of technical issues whose satisfactory understanding is key element in the orderly practice of international law in the ocean environment.

Current edition: 4th edition, March 2006, English and Spanish. French version in preparation.

Responsible body: ABLOS

Action Required of HSSC

The HSSC is invited to *note this report*.
