

11TH WEND COMMITTEE MEETING
Tokyo, 2-5 September 2008

STATUS OF IHO ECDIS-RELATED STANDARDS
(IHB - August 2008)

SUMMARY

Executive summary:	This document provides a brief description of the status of all IHO ECDIS-related standards, as of August 2008.
Actions to be taken:	The meeting is invited to take note of this paper.
Related documents:	Doc. WEND11-05C

Note: The main changes to the 2007 version of this report have been emphasized in **green colour**.

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

S-52 provides specifications and guidance regarding the issuing of ENCs, their display in an ECDIS and their updating.

Current edition: 5th edition, December 1996 updated to March 2001; English and French.

A new edition is in preparation, which will also incorporate the existing Appendix 1, following the adoption by IMO/MSC 82 of revised Performance Standards for ECDIS in December 2006 [Res. MSC.232(82)].

IHO body responsible for this publication: CHRIS/CSMWG.

S-52 includes three separate appendices:

1.1 Appendix 1 - Guidance on Updating the ENC

S-52 Appendix 1 provides guidance on ENC updating.

Current edition: 3rd edition, December 1996; English and French.

Since Appendix 1 was drafted, much practical experience with ECDIS and its updating mechanisms have been gained and advanced requirements for operational behaviour of ECDIS updating mechanisms contained in IEC 61174 may supersede the guidance given in this document. It will be superseded by the next edition of S-52.

IHO body responsible for this publication: CHRIS/CSMWG.

1.2 Appendix 2 - Colour and Symbol Specifications for ECDIS

S-52 Appendix 2 Specifies how to display an ENC on ECDIS.

Current edition: Edition 4.3, January 2008 (CL 29/2008 refers); English.

IHO body responsible for this publication: CHRIS/CSMWG

S-52 Appendix 2 includes the IHO Presentation Library for ECDIS, as Annex A, which is published separately on CD-ROM:

1.3 Appendix 2, Annex A - IHO ECDIS Presentation Library (PresLib)

The PresLib provides details and procedures for implementing the display specifications contained in S-52 Appendix 2, by decoding and symbolizing the elements of the SENC. It includes a full description of the symbol library for use in ECDIS.

Current edition: Edition 3.4, January 2008 (CL 29/2008 refers); 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). It is on sale on CD-Rom from the IHB.

S-52 Appendix 2 and the PresLib are maintained by means of Maintenance Documents (MDs) which are produced from time to time under the authority of the CSMWG and placed on the IHO website (www.iho.int). MDs contain amendments to S-52 Ap.2 and/or the PresLib, which are classified as "immediate" or "deferred" depending on their importance for the safety of navigation.

IHO body responsible for this publication: CHRIS/CSMWG

2. S-32 Appendix 1 HYDROGRAPHIC DICTIONARY - GLOSSARY OF ECDIS-RELATED TERMS

As part of the IHO Hydrographic Dictionary, 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 (CL 87/2007 refers); English and Spanish (French version in preparation).

IHO body responsible for this publication: Dictionary WG.

3. 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 to manufacturers, mariners, and other data users. Presently, the only product being delivered in the S-57 format is the ENC.

Current edition: Edition 3.1.1, i.e. Ed. 3.1, November 2000 plus Supplement No 1, January 2007 (CL 05/2007 refers); English.

S-57 Supplement No 1 "*Enhancements Required to Encode S-57 Edition 3.1.1 ENC Data*" contains the S-57 objects and attributes required to encode new IMO features, e.g. PSSAs or ASLs. It also makes provision for undefined "placeholders".

A new ISO-compliant transfer standard is being developed, to be known as S-100 "*The IHO Geospatial Standard for Hydrographic Data*". **A draft version of S-100 has been released in early 2008 and is available for comment from the IHO website (www.iho.int > CHRIS > TSMAD).**

An ENC Product Specification based on S-100 is also under development, to be known as S-101, of which a Working Draft is planned for late 2008.

IHO body responsible for this publication: CHRIS/TSMAD

4. 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 to ensure that ENC data are compliant with the S-57 Product Specification for ENC.

Current edition: Edition 3.0, February 2007; English

IHO body responsible for this publication: CHRIS/TSMAD

5. 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 Standards for ECDIS.

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

IHO body responsible for this publication: CHRIS/TSMAD.

6. S-62 ENC PRODUCER CODES

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

Current edition: Edition 2.4, November 2007; English.

IHO body responsible for this publication: IHB

7. S-63 IHO ENC DATA PROTECTION SCHEME

S-63 describes the IHO recommended standard 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 (CL 36/2008 refers); English (French and Spanish versions under preparation).

Technical issues related to S-63 are addressed through a discussion group on the Open ECDIS Forum (www.openecdis.org) and Frequently Asked Questions (FAQ) are answered on the IHO website (www.iho.int).

IHO body responsible for this publication: CHRIS/DPSWG

8. 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 to be published in August 2008; English.

IHO bodies responsible for this publication: CHRIS/TSMAD and CSMWG.

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

S-65 provides a high level guide to the production, maintenance and distribution of ENCs. It offers a framework to inform HOs of the processes and requirements necessary to produce, maintain and distribute ENCs. 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 1.1, April 2008 (CL 45/2008 refers); English (French and Spanish versions under preparation).

Ed. 1.1 of S-65 incorporates, as Annex A, a list of “*Recommendations for Consistent ENC Encoding*” which were agreed by CHRIS-19, as well as the changes made to the WEND Principles since the previous edition in 2005.

IHO bodies responsible for this publication: IHB and WEND.

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

S-66 will be based on an adoption of the information booklet “Facts about Electronic Charts and Carriage Requirements” which was developed by IC-ENC and Primar, and has been available on the internet for some time. It is intended to make it a joint IMO-IHO publication. See also Doc. WEND11-05C.

S-66 is intended to inform both Maritime Administrations and mariners on the practical implementation of the IMO carriage requirements regarding ENCs and ECDIS.

Current edition: The 1st edition is under preparation (CL 16/2008 refers). It will be made available in English and French versions. Spanish and Japanese versions of the original (RENC) document exist and will be referenced on the IHO website.

IHO bodies responsible for this publication: to be determined at CHRIS-20.

Action Required of WEND

13. The WEND is invited to:
 - a. **note** this report.
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