

17th CHRIS MEETING
Rostock, Germany, 5-9 September 2005

STATUS OF IHO PUBLICATIONS ON ECDIS
(IHB - May 2005)

SUMMARY

Executive summary:	This document provides a brief description of the status of all IHO ECDIS-related publications, as of March 2005.
Actions to be taken:	The meeting is invited to take note of this paper, in particular that a new publication S-65 <i>ENC Production Guidance</i> has been issued in March 2005, and that a submission on amending the IMO Performance Standards for ECDIS has been made to MSC 80.
Related documents:	None

Note: The main changes from the previous, 2004 version of this document have been emphasized in **green colour**.

1. S-52 SPECIFICATIONS FOR CHART CONTENT AND DISPLAY ASPECTS OF ECDIS, 5TH EDITION, DECEMBER 1996

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

English and French versions of S-52 (main document) were distributed to Member States with CLs 2/1997 and 47/1998, respectively. This edition has subsequently been updated following adoption by IHO Member States of the SENC delivery option (Decision by IHC/16, April 2002).

IHO body responsible for this publication: CHRIS.

A joint Greece-IHO submission on amending the IMO Performance Standards for ECDIS has been made to MSC 80 (May 2005), to follow-on an action from the 16th CHRIS Meeting (May 2004). See CLs 69/2004 and 5/2005. If the proposed changes to the IMO PS for ECDIS are approved, this will have a significant impact on S-52, which should eventually focus on addressing the ECDIS display aspects.

S-52 includes three separate appendices, which are as follows:

.1 Appendix 1 - Guidance on Updating the ENC, 3rd Edition, December 1996

S-52 Appendix 1 provides guidance on ENC updating.

English and French versions were distributed to Member States with CLs 15/1997 and 54/1998, respectively.

IHO body responsible for this publication: CHRIS.

The following statement was agreed at CHRIS/16 and may impact on any future edition of this appendix : *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 IEC61174 may supersede the guidance given in Appendix 1 of this Specification.*

.2 Appendix 2- Colour and Symbol Specifications for ECDIS, Edition 4.2, March 2004

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

A new edition 4.2 was published in March 2004. The main change from the existing edition 4.1 is the removal of the "hard copy addendum" (ECDIS Chart 1, Colour Differentiation Test Diagrams, symbol names and plot of symbols) which was transferred to the Presentation Library (see below).

IHO body responsible for this publication: C&SMWG (of CHRIS)

S-52 Appendix 2 includes the following Annex A, which is published separately:

Annex A - IHO ECDIS Presentation Library, Edition 3.3, March 2004

The IHO Presentation Library for ECDIS (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 on ECDIS.

A new edition 3.3 of the PresLib was published in March 2004. Edition 3.3 is formed of Part I (users' manual, tables and symbolisation procedures, ECDIS Chart 1, symbol plots, etc.), Part II (mariners' navigational objects) and an Addendum containing a detailed description of the symbol library. A digital version of the PresLib (.dai file), optional, is also provided with Edition 3.3 for convenience. However, it may not be available in future editions of the PresLib.

Edition 3.3 of the PresLib is delivered on CD and is on sale from the IHB at the cost of 1,500 Euros (500 Euros as update for earlier subscribers and free for attendees of, or contributors to the IHO Colours and Symbols Maintenance WG). This relatively high price is intended for recovering part of the cost of developing the PL and to make provision for funding its future maintenance. The PresLib CD includes Edition 4.2 of S-52 Appendix 2.

S-52 Appendix 2 and its Appendix A, i.e. the PL, are maintained by means of Maintenance Documents which are produced from time to time under the authority of the C&SMWG and placed on the IHO website (www.iho.shom.fr). MDs contain amendments to S52 Ap.2 and/or the PL, which are classified as "immediate" or "deferred" depending on their importance for the safety of navigation.

IHO body responsible for this publication: C&SMWG (of CHRIS)

.3 Appendix 3- Glossary of ECDIS-Related Terms, 3rd Edition, December 1997

The English version was distributed to Member States with CL 12/1998. Also available to the general public from the IHO Web-site.

Following decision by CHRIS/16 (May 2004), the content of the ECDIS Glossary is in the process of being transferred to the IHO S-32 "Hydrographic Dictionary".

IHO body responsible for this publication: CHRIS, then IHO Dictionary WG.

2. S-57 IHO TRANSFER STANDARD FOR DIGITAL HYDROGRAPHIC DATA, EDITION 3.1, NOVEMBER 2000

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 most significant digital product being delivered in the S-57 format is the Electronic Navigational Chart (ENC).

Edition 3.1 of S-57 was published in November 2000 (re: CL 52/2000) and is frozen until further notice. It contains limited changes from Ed 3.0, incorporating approximately forty additional attribute values but no other new information. Ed. 3.0 ENCs and updates ceased to be valid after December 2004 (re: CL 68/2003).

Edition 3.1 is distributed on CD. A booklet accompanies the CD and provides general information on the Standard.

The best estimate for completion of Ed. 4.0 is 2006 (re: CL 68/2003). However, see the *S-57 Edition 4.0 Information Paper* on the IHO website http://www.iho.shom.fr/ECDIS/S-57_Ed4_Information_Paper_ver1.1.pdf (re: CLs 83/2004 and 26/2005) and the *S-57 ENC Product Specification Debate* on <http://195.217.61.120/smf/>.

IHO body responsible for this publication: TSMAD (of CHRIS)

3. S-58 RECOMMENDED ENC VALIDATION CHECKS, EDITION 2.0, OCTOBER 2003

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. This document was previously part of S-57 Edition 3.1.

IHO body responsible for this publication: TSMAD (of CHRIS)

4. S-61 PRODUCT SPECIFICATION FOR RASTER NAVIGATIONAL CHARTS (RNC), 1ST EDITION, JANUARY 1999

S-61 defines the minimum requirements that a Raster Navigational Chart (RNC) must have to fulfill the requirements of the Raster Chart Display System (RCDS) Mode of Operation, as described in the IMO Performance Standards for ECDIS. An amendment to the IMO PS was adopted in December 1998, allowing the use by ECDIS of RNCs where there is no ENC coverage.

The English version was distributed to Member States with CL 13/1999.

IHO body responsible for this publication: TSMAD (of CHRIS)

5. S-62 ENC PRODUCER CODES, EDITION 2.0, DECEMBER 2004

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

IHO body responsible for this publication: IHB

4. IHO S-63 IHO ENC DATA PROTECTION SCHEME, EDITION 1.0, OCTOBER 2003

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 with data encrypted.

Edition 1.0 of S-63 (re: CL 65/2003) is derived from the Primar Security Scheme and includes, in addition to the S-63 documentation, test data (jointly produced by the UKHO and the Norwegian ECC) and a software kernel (developed by the CHS). S-63 is delivered on CD; it is also available free of charge from the IHO website (www.iho.shom.fr > ENC > Data Protection).

The IHB acts as Scheme Administrator for S-63. This IHO standard is maintained by the Data Protection Scheme Working Group (DPSWG) of CHRIS. Edition 1.0 is frozen until further notice. At the 16th CHRIS meeting, it was decided that DPSWG work on developing a new edition of S-63 would be deferred, pending further experience and feedback with S63 e1.0, and that a clear requirement is demonstrated. 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.

IHO body responsible for this publication: DPSWG (of CHRIS)

5. IHO S-64 IHO TEST DATA SETS FOR ECDIS, EDITION 1.0, DECEMBER 2003

Edition 1.0 of S-64 (initially planned as S-52 Appendix 4; re: CL 79/2003) contains sample ENC data and their 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 within the IHO, i.e. HCRF (ARCS) and BSB. These test data are intended for use in conjunction with the Standard IEC 61174 (2nd Edition, August 2001) for ECDIS testing and certification/type approval purposes. S-64 is delivered on CD. However, the ENC test data are available to the general public from the IHO Website.

The ENC and HCRF (ARCS) RNC test data have been produced by the UKHO; the BSB RNC test data by Maptech, Inc., through US-NOAA partnership; and the graphical representations associated with the ENC by Navintra-Furuno, under supervision by the IHO C&SMWG.

As a follow-on of a WEND/9 decision, France provided input for a review and updating of the ENC Test Data Set, as in S-64, and recommended to adopt a new approach to the quality assurance of ECDIS software. This has been referred to CHRIS for further action.

IHO bodies responsible for this publication: TSMAD and C&SMWG (of CHRIS)

6. IHO S-65 ENC PRODUCTION GUIDANCE, EDITION 1.0, MARCH 2005

WEND/9 tasked the IHB to develop an ENC Cookbook in liaison with the UK Hydrographic Office. This resulted in a document which was submitted and approved by WEND members (re: WEND Letter 2/2004). Subsequently MS have agreed that this document be made a new IHO publication S-65 and entitled ENC Production Guidance (re: CL 91/2004).

IHO body responsible for this publication: WEND
