

**16<sup>th</sup> CHRIS MEETING  
Ottawa, Canada, 28-31 May 2004**

**STATUS OF IHO PUBLICATIONS ON ECDIS  
(IHB - March 2004)**

**SUMMARY**

<b><i>Executive summary:</i></b>	This document provides a brief description of the status of all IHO ECDIS-related publications.
<b><i>Actions to be taken:</i></b>	The meeting is invited to take note of this paper, in particular that new publications S-63 and S-64 have been issued in 2003, and that new editions of S-52 Appendix 2 and its Annex A, the IHO Presentation Library for ECDIS, have been promulgated in March 2004.
<b><i>Related documents:</i></b>	None

**Note:** The main changes from the previous, 2003 version of this document have been emphasized in **green colour**.

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

S-52 provides specifications and guidance regarding the issuing of ENCs, 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

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

**.1 Appendix 1 - Guidance on Updating the ENC, 3<sup>rd</sup> 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

**.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 has been 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 has been transferred to the Presentation Library, of which a new edition is also about to be published (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 S52 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 has been 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 will be delivered on CD and it will be 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 will include 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](http://www.iho.shom.fr)). MDs contain amendments to S-52 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, 3<sup>rd</sup> 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.

Consideration is being given to including the ECDIS Glossary in IHO S-32 “Hydrographic Dictionary”, with ECDIS-related terms being flagged so as to produce, as necessary, new editions of S-52 Appendix 3, since this publication is referred to in the IMO Performance Standards for ECDIS. S-32 is maintained by a specific IHO WG.

IHO body responsible for this publication: CHRIS

**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, dated 1996, remains valid for the time being (in addition to Ed 3.1). However, **Ed. 3.0 ENCs and updates will cease 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 now 2006**, instead of 2004 as previously stated (re: CL 68/2003).

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), 1<sup>ST</sup> 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 IHO CODES FOR AGENCIES PRODUCING S-57 DATA, EDITION 1.2, MARCH 2003**

S-62 provides a list of Agency Codes for all producers of S-57 data, in particular Hydrographic Offices issuing ENCs.

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.

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 for, at least, two years, i.e. until 1st November 2005 at the earliest. Technical issues related to S-63 are addressed through a discussion group on the Open ECDIS Forum ([www.openecdiss.org](http://www.openecdiss.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 (2<sup>nd</sup> 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.

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

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