

**IHO CSMWG 16
IHB Monaco 29-31 May 2006**

Review of CSMWG Entries at the IHO web site

**Colours and Symbols Maintenance Working group (CSMWG) section
(under Committees)**

Comments are in italic red text

Objectives

TOR

Meetings *(current wording out of date)*

Add the following black text at the top of this page:

CSMWG is the responsible technical committee maintaining the IHO ECDIS Standard S-52 "Specifications for Chart Content and Display Aspects of ECDIS", including its appendices and annexes under the umbrella of CHRIS committee.

This site explains the actual status of the IHO S-52 series and provides guidance how to apply these Specifications. It also provides between-meeting announcements by the CSMWG executive addressed to the ECDIS community of implementers and users.

This CSMWG site is divided into several sections with links to other related areas:

1. S-52 Chart Presentation Bulletins (CPB)
2. General information about chart presentation on ECDIS display
3. Current status of IHO S-52 including Annexes and Appendixes
4. Issues relating to Original Equipment Manufacturers (OEMs)
5. CSMWG Issues affecting IEC and type approval authorities
6. Frequently Asked Questions (FAQs) related to IHO S-52 or to CSMWG
7. Chart display discussions at the Open ECDIS Forum (OEF)

1. S-52 Chart Presentation Bulletins (CPB)

The S-52 Chart Presentation Bulletins are placed here to communicate information concerning portrayal and update issues related to ECDIS and ENC production. They may influence ENC producers' encoding practices and should be consulted in conjunction with the S-57 Encoding Bulletins. Each Bulletin explains a particular ECDIS portrayal issue, recommended procedures for addressing the issue and the consequences of not following the recommended procedures.

NOTE: all changes described in S-52 Bulletins are strong recommendations and do NOT override existing IMO, IHO nor IEC related standards or specifications.

S-52-CPB-No 1: S-57 encoding of FSPT/USAG: (CSMWG14 Action 31)

In very rare cases a depth (DEPARE) or dredged area (DRGARE) boundary may coincide exactly with a cell boundary. Encoding nations should be aware that in this case, a break or gap will appear in the safety contour along that part of the cell boundary. It should be noted that alarms or indications will still be generated for the DEPARE or DRGARE in this situation.

S-52-CPB-No 2: New S-52 conditional symbol procedure (CSP) for WRECKS: (CSMWG14 action 32)

PresLib Edition 3.3 includes changes to the CSP for wrecks. As the depths of tankers have increased in recent years up to 35 metres, this CSP does not take into account CATWRK = 1 (non-dangerous). When no VALSOU is provided, the new CSP now calculates a value for VALSOU using the formula in M-4 B-422.7 (original version). It was suggested by the CSMWG that better encoding of wrecks (including the population of VALSOU when possible) must be the responsibility of the encoding HOs. The IHO CSMWG is undertaking a major review of B-400 (in 2005-2006), and B-422.7 is likely to be substantially updated. Regardless of this updating, ENC encoders will be encouraged to provide an estimated depth or safe clearance for all wrecks.

S-52-CPB-No 3: Changes to Standard Display in Edition 3.3 of the Presentation Library (CSMWG15 action 7)

S-57 objects **CANALS** and **RIVERS** have been moved to Standard Display in the current Edition of the PresLib. A Deferred Amendment is currently under preparation.

S-52-CPB-No 4: Linear depth areas (CHRIS17 action)

Following the release of the new S-52 Presentation Library edition 3.3 in March 2004, ECDIS manufacturers were given until 1 Jan 2006 to instigate the revised presentation library. CHRIS17 (in 2005) agreed to postpone the implementation of the updated Presentation Library until **1 Jan 2007** until the new objects and related symbols are available for S-57 Edition 3.1.1 enhancements, which are expected to be available towards the end of 2006. For the time being, the coding of linear depth areas (**DEPARE**) has to be continued wherefore. A new date for termination of coding of linear depth areas will be forwarded by the IHB in due course.

S-52-CPB-No 5: Launch of S-100 Discussion Forum

An *S-100 Discussion Forum* was launched in March 2005. This forum addresses new ideas for the development of the new IHO Transfer Standard for Digital Hydrographic Data, which is intended to be released in 2007 – 2008. It can be reached through the IHO website at www.iho.shom.fr - via Committees/CHRIS/TSMAD SubWG (left column on home page) or directly at

<http://195.217.61.120/smf/>. CSMWG members are invited to register / logon and participate in this discussion with the aim of further discussion.

S-52-CPB-No 6: New ENC Product Specification Discussion (S-101)

Development of S-101 cannot commence until the main standard S-100 becomes more mature. However, ideas for consideration for the new ENC Product Specification are being sought on the Open ECDIS Forum (OEF).

2. General information about chart presentation on ECDIS display

2.1 Scope of IHO ECDIS Standard S-52

The Appendix 2 of the IHO ECDIS Standard S-52, "Colours&Symbols Specifications" (C&S Specs) and its Annex A, the "IHO Presentation Library for ECDIS" (PresLib) comprise a set of specifications, plus a symbol library, colour tables, look-up tables and symbolization rules, which link every object class and attribute of the ECDIS internal data base (SENC) to the appropriate presentation of the ECDIS display. The PresLib provides details and procedures for implementing the display specifications contained in the C&S Specs by decoding and symbolizing the elements of the elements of the SENC.

New editions of the IHO ECDIS Standard S-52, Appendix 2, "Colours&Symbols Specifications" and its Annex A, the "IHO Presentation Library for ECDIS" were released in March 2004.

The main changes in the new editions can be summarised as:

- C&S Specs: existing Edition 4.1 replaced by new Edition 4.2
- PresLib: existing Edition 3.2 replaced by new Edition 3.3

These new editions will bring into force all items in the two deferred amendments issued since July 1997, plus the changes agreed at the meetings of the IHO Colours and Symbols Maintenance Working Group (C&SMWG), i.e. Hamburg, 2002 and Ottawa, 2003. These latter changes are described in amendment 'd6', which is issued together with the new package.

Edition 3.3 of the PL will mark a considerable change in format: The Symbol Library was illustrated in hard-copy format, with the offsets of the pivot being explicitly indicated, as opposed to the existing specifications where the Symbol Library is the only part not available as a printable document. This is the biggest change in the new edition (in size as well as innovation), with the hard-copy Symbol Library having about 600 pages, i.e. one symbol description per page. This document (Addendum to the PresLib) provides, for each symbol, its shape and dimensions translated from the digital symbol file, its colour, the links to the paper chart symbology, as in IHO INT1, etc. The Addendum is now available free of charge as a separate document on IHO web site (Publications>Downlad List>S-52).

2.2 How to get the Presentation Library

The entire Presentation Library is now available in a human-readable form, as PDF files, on a CD-ROM: This becomes the authoritative "official" version. The same change applies to the ECDIS Chart 1, which is issued with the PL as a graphic file in TIFF-format and is available in the S-57 format as well.

- 1.500 € for new subscribers,
- 500 € for update of earlier subscribers,
- free of charge for active contributors to the IHO Colours & Symbols Maintenance Working Group.

ECDIS, like all other modern navigation equipment is constantly evolving and improving. This requires that underlying specifications such as the PresLib must be maintained to reflect these developments. The PresLib fees are used to finance and support the necessary maintenance.

The machine-readable digital version of the Symbol Library is also part of the package for those who would be interested in using it. This digital version is now maintained by private initiative of one of the ECDIS stakeholders from ECDIS industry. Requests should be forwarded directly to hannu.peiponen@furuno.fi .

2.3 Application of the current Presentation Library

The IHB has advised via a letter dated 29 April, 2005 (IHB File No S3/8151/CSMWG) that:

- ECDIS systems to be type-approved for the first time after 1st January 2005 must conform to Edition 3.3 of the PresLib from 1st July 2005.
- ECDIS systems already type-approved as of 1st January 2005 should upgrade to Edition 3.3 of the PresLib at the earliest opportunity, but not later than 1st January 2006.
- ECDIS systems that are already in use onboard ships should be upgraded to Edition 3.3 of the PresLib at the earliest opportunity.

2.4 Adaptation of PresLib to new objects and attributes for proposed enhancements to IHO Standard S-57, Edition 3.1.1

In September 2005, the CHRIS-Committee agreed not to promote the upgrade of ECDIS systems that are already in use onboard to Edition 3.3 of the PresLib until three new objects announced as enhancements S-57 object catalogue (Edition 3.1.1) are adopted. This adoption is expected to be towards the end of 2006. CSMWG will then issue an immediate amendment containing symbols relating to the new objects.

According to the rules of CSMWG this immediate amendment will lead to a new Edition 3.4 of the PresLib. The CHRIS committee will force the rapid application of S-57, Edition 3.1.1 and S-52 PresLib, Edition 3.4 to ECDIS systems in a joint approach.

3. Current status of IHO S-52 including Annexes and Appendixes

IHO ECDIS Standard S-52, Main Document:

Specifications for Chart Content and Display Aspects of ECDIS
5th Edition, December, 1996 (amended March 1999).

IHO ECDIS Standard S-52, Appendix 1:

Guidance on Updating the Electronic Navigational Chart,
3rd Edition, December, 1996

IHO ECDIS Standard S-52, Appendix 2:

Colour & Symbol Specifications for ECDIS, S-52 APPENDIX 2,
Edition 4.2, March 2004.

IHO ECDIS Standard S-52, Appendix 2, Annex A:

IHO ECDIS Presentation Library, Edition 3.3, March 2004

IHO ECDIS Standard S-52, Appendix 2, Annex A, Addendum

Hard-copy Symbol Library, Edition 3.3, amended October 2005

A CD of S-52 Appendix 2, including the Presentation Library, Users' Manual, Tables and Symbolization Procedures, Symbol Library and Symbol Plots, References and Notes; Mariners' Navigational Objects; Addendum (Hard-copy Symbol Library); and various other related digital files is available from the IHB on a paid basis.

IHO ECDIS Standard S-52, Appendix 3:

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

IHO ECDIS Standard S-52 CSMWG MAINTENANCE DOCUMENTS:

No. 3, incl. Immediate Amendment 04 and Deferred Amendment 05, March 2000, (incorporated in C&S Specs, Edition 4.2 and PresLib Edition 3.3 already)

No. 4, incl. Deferred Amendment 06 (incorporated in C&S Specs, Edition 4.2 and PresLib Edition 3.3 already)

No. 5, incl. Immediate Amendment 05 and Deferred Amendment 07 (under preparation)

IHO ECDIS Standard S-64 Test Data Sets for ECDIS,

Edition 1.0, December 2003/revised 2004 (delivered on CD on request at IHB)
Edition 2.0, containing new S-57, Edition 3.1.1 objects and attributes, February 2006 (tentative version – available on request at IHB), final Version under preparation.

S-64 contains the IHO Test Data Sets (TDS) for ECDIS, to be used in conjunction with the IEC Standard 61174 for testing/type approval purposes; it is composed of:

1. ENC Test Data Sets and the associated ECDIS graphic plots; and
2. RNC Test Data Sets.

4. CSMWG Issues relating to Original Equipment Manufacturers (OEMs)

4.1 Immediate Amendments

Latest Immediate Amendments already incorporated to the current Editions of C&S S and PresLib:

Immediate Amendment No. 04, March 2004

Immediate Amendments already adopted to by applied to the current Editions of C&S S and PresLib:

None

Draft Immediate Amendments:

Immediate Amendment No. 05, June 2006

(Note that adoption of this Draft Immediate Amendment will upgrade the PresLib to Edition 3.4)

List of Draft Immediate Amendments items:

4.2 Deferred Amendments

Latest Deferred Amendment already incorporated in to the current Editions of C&S S and PresLib:

Deferred Amendment No. 06, March 2004

Deferred Amendments already adopted to by applied to the current Editions of C&S S and PresLib:

- Error in DEPCNT03

Draft Deferred Amendments:

Deferred Amendment No. 07, June 2006

List of Draft Deferred Amendments items, e.g.:

- Typographic Error:
- SENC Delivery: (maybe we got it already in Edition 4.2?)
- Error in DEPCNT03 (already adopted but contained in No. 07 for completeness)

5. CSMWG Issues affecting IEC and type approval authorities

- Advice to use Colour token “RESBL” (approved CSMWG15 1.4 Item9) for presentation of AIS-Symbols according to IMO Resolution MSC.191 (79) and IMO SN/Circ.243, 2004 for presentation of Navigational Symbols.
- Advice to check provision of current Editions of PresLib and applying Deferred Amendments (see section 2 and section 3 of this site).
- Advice to check capabilities of equipment under test for proper symbolisation of unknown objects, unknown attributes and accessibility of existing S-57 Edition 3.1 attributes, especially INFORM attribute by cursor interrogation.
- Announcement of amended symbology for new objects and attributes of S-57, Supplement 1.0 (Edition 3.1.1.) contained in PresLib Edition 3.4 to be applied to existing ECDIS and new development in a joint approach.

6. Frequently Asked Questions (FAQs) related to IHO S-52 or to CSMWG

S-52-FAQ-No 1: What means Display Base with regard to the chart presentation?

Display Base is that part of the ‘Standard Display’ which can never be removed from the ECDIS display.

S-52-FAQ-No 2: What means Standard Display with regard to the chart presentation?

Standard Display is the data which must always appear on the ECDIS display when first turned on and is a sub-set of the full display. The mariner may ‘turn off’ any S-57 features within ‘standard display’, except those in ‘Display Base’. Note that even when such features are not displayed, any required alarms and indications relating to them should still be advised to the ECDIS user.

S-52-FAQ-No 3: Is there a difference between S-57 Group 1 objects (Skin of the Earth) and Display Base?

Group 1 is a cartographic concept needed to ensure that each area with data available is covered by an area geo-object. (S-57 ENC Product Spec Edition 2.0 Clause 3-10-1). Display Base is an IMO minimum list of features that must always be on the display for safety reasons. Coastline and safety contour are Display Base, but are not areas and so are not part of Group 1. For all intents and purposes, from an ENC encoder’s perspective, the two are almost identical in content.

Any questions relating to the Specifications hosted on this site, should be referred to the Chairman of the CSMWG (Email: mathias.jonas@bsh.de).

Items of general interest will be added to this site (FAQ).

7. Chart display discussions at the Open ECDIS Forum

The Open ECDIS Forum (<http://www.openecdis.org>) is a web based discussion forum. It is used mainly by people involved in the development of ECDIS and its associated standards and specifications. The OEF runs a special forum for C&S Specs issues. The executive of CSMWG is constantly monitoring the ongoing discussions and take the results into account for the CSMWG considerations. Please register and contribute to discussions.