



IHB File No. S3/8151/S52

CIRCULAR LETTER 34/2009  
19 May 2009

**S-52 - Specifications for Chart Content and Display Aspects of ECDIS  
Draft 6<sup>th</sup> Edition - Request for Stakeholder Feedback**

Reference: Circular Letter 106/2008 dated 15 December

Dear Hydrographer,

1 In accordance with the process described in Resolution A1.21 – *Principles and Procedures for Making Changes to IHO Technical Standards and Specifications*, this letter seeks formal stakeholder feedback on the [draft 6<sup>th</sup> edition of IHO Publication S-52 Specifications for Chart Content and Display Aspects of ECDIS](#), which is available from the IHO website ([www.iho.int](http://www.iho.int) > Committees & WGs > DIPWG > DIPWG1 Documents > DIPWG1-15.1A).

2 The draft 6<sup>th</sup> edition has been prepared by an ad hoc group of the IHO Digital Information Portrayal Working Group (DIPWG – formerly known as the Colours and Symbols Maintenance WG (CSMWG)) and endorsed by DIPWG at its 1<sup>st</sup> meeting (Ottawa, Canada, May 2009).

3 In December 2006, the IMO adopted, through Resolution MSC.232(82), revised Performance Standards for ECDIS. This Resolution incorporated many of the operational requirements previously contained in S-52. Subsequently, the International Electrotechnical Commission (IEC) published Edition 3.0 of IEC 61174, “*ECDIS – Operational and performance requirements, methods of testing and required test results*” in September 2008. As a consequence of these changes, it was proposed at the 18th CHRIS meeting (Cairns, Australia, September 2006) that the S-52 document structure be simplified by merging S-52 Appendix 2 (C&S specs) with S-52 main document (Chart content). The 20<sup>th</sup> CHRIS Meeting (Niteroi, RJ, Brazil, November 2008) tasked DIPWG to “undertake a revision of S-52, including all annexes” (Action 20/21 refers – See reference).

4 The draft 6<sup>th</sup> edition of S-52 addresses the changes in the revised IMO ECDIS Performance Standards and the revised IEC ECDIS test standards and merges the existing S-52 (main document) and the S-52 Appendix 2 into one single document. Because the operational requirements of S-52 were transferred to the IMO ECDIS PS, the 6<sup>th</sup> edition of S-52 is now focussed primarily on portrayal aspects. The general approach used in the revision process is outlined in the attached paper.

5 S-52, Appendix 1 (ENC updating) has not been considered by DIPWG during the revision process because the newly formed ENC Updating Working Group (EUWG) has been tasked to review this document (Action 20/17 of CHRIS-20 and Annex G to CHRIS-20 Minutes refer).

6 Subject to satisfactory feedback from stakeholders, the IHO Hydrographic Services and Standards Committee (formerly the Committee on Hydrographic Requirements for Information Systems (CHRIS)) will consider S-52 Edition 6 for endorsement at its inaugural meeting in October 2009 (HSSC-1). If the new edition is endorsed by the HSSC, the revised standard, incorporating relevant stakeholder feedback will be submitted to Member States by the IHB for approval of its content, and confirmation of a proposed effective date for S-52, Edition 6.

7 Member States and other Stakeholders are invited to consider the draft 6<sup>th</sup> edition of S-52 carefully in relation to its future use by them and to identify any potentially adverse impacts and in particular to provide comments to the IHB on the technical content, the presentation and the readability of the document. Recipients of this letter are encouraged to distribute its contents widely to all those who may have an interest or comments to make on the revision to S-52.

8 In order that any significant feedback can be considered by HSSC-1, feedback on S-52 Edition 6 should be forwarded using the form at **Annex A no later than 18 September 2009**.

On behalf of the Directing Committee  
Yours sincerely,



Captain Robert WARD  
Director

Annex A: S-52 Stakeholder Feedback Form

Attachment : Doc. DIPWG1-15.1A *Revision Process for S-52 Main Document* (English only)

Copy to ECDIS Stakeholders





**Joint 18th TSMAD & 1st DIPWG Meeting  
Ottawa, Canada, 4-8 May 2009**

*Paper for Consideration by TSMADWG/DIPWG  
Revision Process for S-52 Main Document*

<b>Submitted by:</b>	Chair, DIPWG
<b>Executive Summary:</b>	This paper describes the process used to revise and consolidate S-52 and its Appendix 2 into one unified main document.
<b>Related Documents:</b>	IMO Res.A.817(19), ECDIS Performance Standards as amended IMO MSC.232(82), ECDIS Performance Standards IEC 61174, ECDIS Operational and Performance Requirements CHRIS-20, Rio de Janeiro, Brazil, Nov 2008, Final Minutes DIPWG1-15.1A, Draft S-52 Edition 6
<b>Related Projects:</b>	Future development of S-101

***Introduction / Background***

On 5 Dec 2006, the IMO adopted revised Performance Standards for ECDIS through Resolution MSC.232(82) applicable for ECDIS systems installed on or after 1 Jan 2009. This replaced the previous ECDIS Performance Standards, IMO Res.A.817(19) (as amended), which continue to apply for ECDIS systems installed after 1 Jan 1996, but before 1 Jan 2009.

As a consequence, IEC published Edition 3.0 of IEC 61174, "ECDIS – Operational and performance requirements, methods of testing and required test results" on 1 Sep 2008. This test standard now refers to the revised ECDIS Performance Standards based on Resolution MSC.232(82).

The release of these two new standards necessitated the revision of S-52 to account for changes in requirements and to update document references. In Nov 2008, at the 20<sup>th</sup> CHRIS meeting in Rio de Janeiro, Brazil, the CSMWG chair recommended, and CHRIS agreed, that the following three items should be added to the CSMWG (DIPWG) work plan.

Task	Work Item	Affected Pubs/Standard
C.1	Re-structure S-52 including annexes under consideration of the recent revisions of applying documents of IMO and IEC.	S-52 and Annexes
C.2	Liaise with IEC to harmonize the resulting new draft of S-52 with IEC61174 and IEC62288 through the Chairman of IEC/TC80.	S-52 and Annexes
C.3	Present a re-drafted S-52 to HSSC-1.	S-52 and Annexes

Additionally, the 18th CHRIS meeting in Cairns, Australia, in Sep 2006 had also endorsed simplifying the S-52 document structure by merging S-52 Appendix 2 with S-52 main document. The submitted draft Edition 6 of S-52 now addresses the changes in the revised IMO ECDIS Performance Standards and the adapted IEC ECDIS test standards and merges the S-52 and the S-52 Appendix 2 into one main document.

### ***Analysis/Discussion***

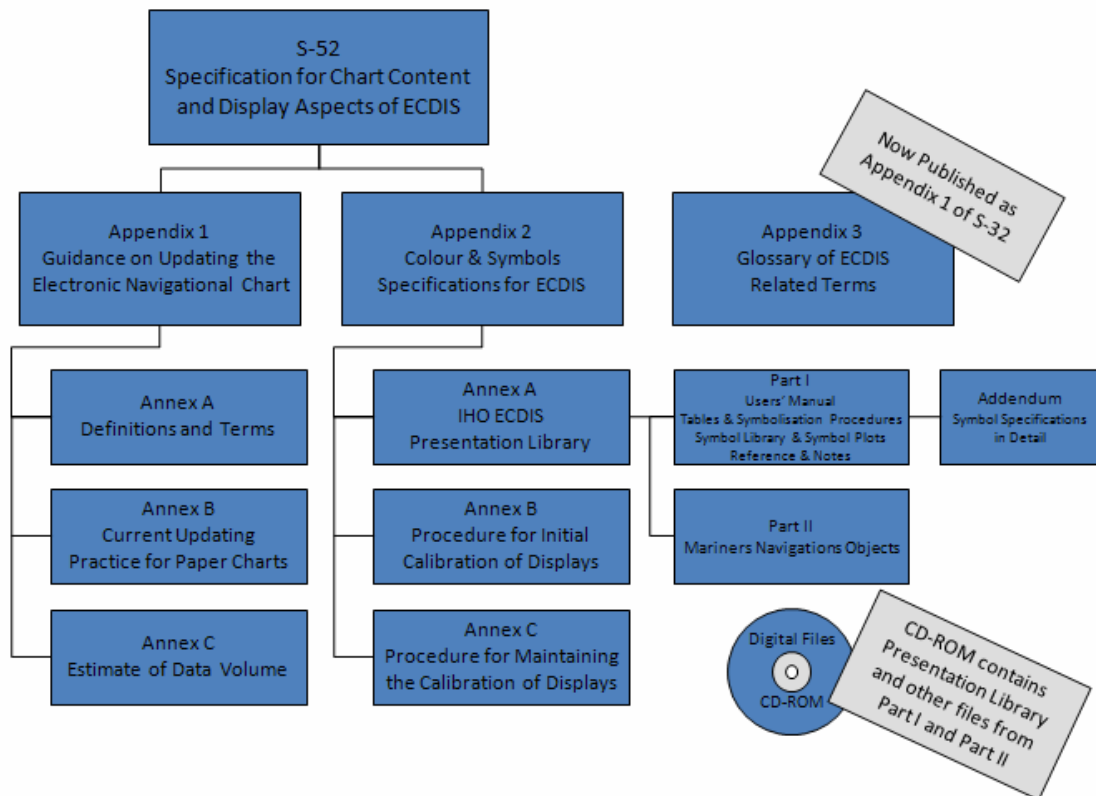
The revision affects only the S-52 main document and the S-52, Appendix 2. DIPWG-members from BSH, NOAA and IHB undertook various aspects of the analysis and editing required to produce the new draft S-52, Edition 6. The general approach used to create the revised document is outlined below:

Restructuring Mechanics (see figures 1 & 2)

- Since the S-52, Appendix 2 is much larger than the S-52 main document, it was decided to retitile Appendix 2 as the S-52 main document and then selectively merge appropriate portions of the old main document into the former Appendix 2.
- The original paragraph numbering in the former Appendix 2 was retained. Therefore, any reference from other documents to sections in S-52, Appendix 2 will have the same paragraph number in the newly merged S-52 main document.
- Annexes A, B and C of the former Appendix 2, became Annexes A, B and C of the merged S-52 main document. The content of these Annexes remains unchanged.
- The group did not touch S-52, Appendix 1 since the newly formed ENC Updating Working Group (EUWG) has been tasked to review this document (Decision 20/17 of CHRIS-20 and Annex G to CHRIS-20 Minutes refer).

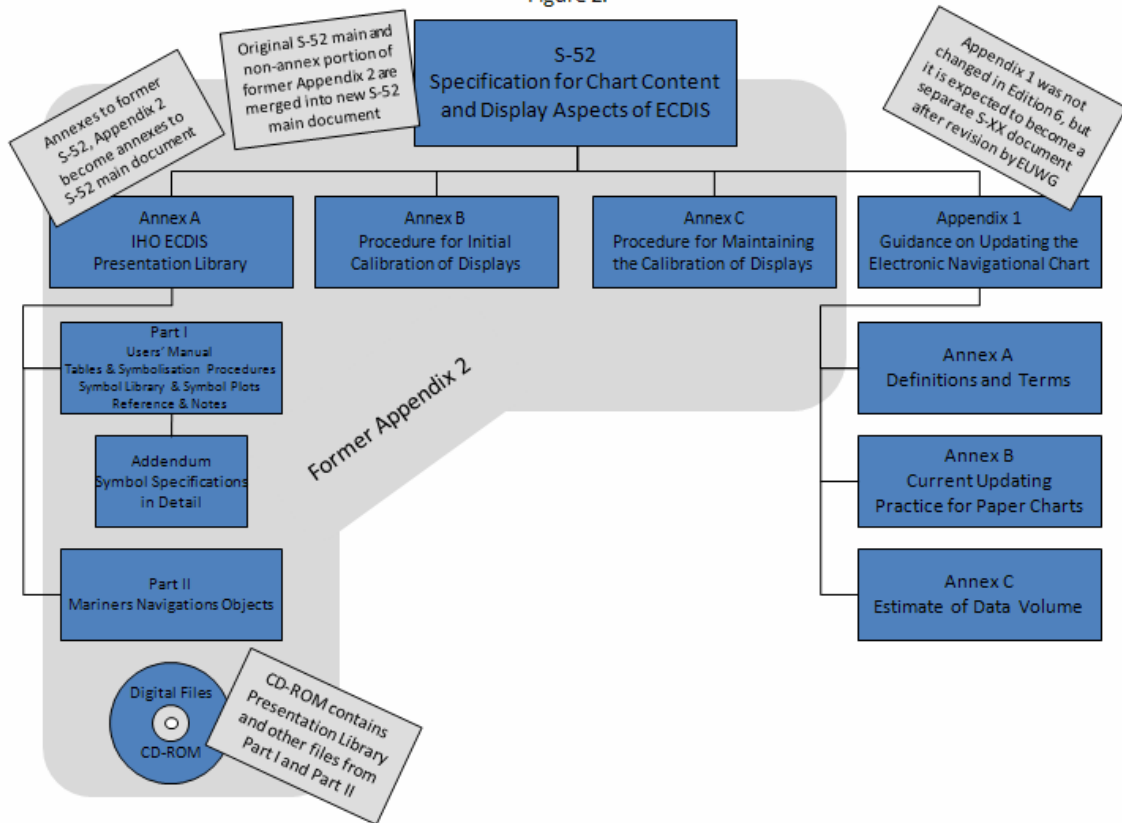
## Legacy S-52 Document Structure

Figure 1.



# New S-52, Edition 6 Document Structure

Figure 2.



## Deletions

- Requirements that were redundant with those specified in the new IMO MSC.232(82), ECDIS Performance Standards (PS) were removed from S-52.
- Commentary related to the relative immaturity of ECDIS, LCD displays or other developing technology that was written for the earliest editions of S-52 was most often deleted, but sometimes was revised to reflect the respective entity's current state of development or use.
- Annex A to the original S-52 main document, "Reference Table between S-52 and the IMO Performance Standards for ECDIS" was deleted.
- Annex B to the original S-52 main document, Performance Standards For ECDIS, IMO Resolutions A.817 (19), Msc.64 (67) And Msc.86 (70)" was deleted.

## Updated References

- All references from S-52 to the old IMO Res.A.817(19) PS were changed to the corresponding reference in the new IMO MSC.232(82) PS.
- Figure 1, in section 1.1.4, "International organizations and their related standards for ECDIS," was updated and expanded.
- Figure 2. In Section 1.4, "Structure of the Specifications" was updated to reflect the new S-52 document structure.
- References to CRTs when used in a generic sense were changed to "display"

## Amalgamations

- The historical background sections from the S-52 main document and Appendix 2 were combined.
- The document change history from the former S-52, Appendix 2 was updated and expanded to apply to the entire S-52 document.

## ***Conclusions***

A restructured S-52, Edition 6 has:

- Removed redundant language that is specified in the IMO Performance Standards
- Updated references in S-52 to the new IMO Performance Standards
- Made S-52 easier to use and maintain
- Provided a more streamlined document that should facilitate the definition of portrayal within a new ENC S-101 specification.

## ***Recommendations***

- Follow-up with IEC must still be undertaken to determine how best to resolve the IEC references to sections of S-52 that were deleted in this revision. For the most part these were portions that were redundant with the IMO Performance Standards. This coordination is called for in DIPWG Work Plan Item C.2.
- There are also two references to S-52, Appendix 2 in the new IMO Performance Standards that should be resolved.

## ***Justification and Impacts***

The creation of a restructured S-52 in Edition 6 fulfils the DIPWG Work Plan Item C.1, "Re-structure S-52 including annexes under consideration of the recent revisions of applying documents of IMO and IEC."

## ***Action Required of HSSC DIPWG***

The HSSC DIPWG is invited to:

- a. endorse the revised S-52, Edition 6 and,
- b. forward S-52, Edition 6 to HSSC for approval.