INTERNATIONAL HYDROGRAPHIC ORGANIZATION

Special Publication No. 52, Appendix 2

COLOUR & SYMBOL SPECIFICATIONS FOR ECDIS

Edition 4.1 – January 1999

and its Annex A

IHO ECDIS PRESENTATION LIBRARY

Edition 3.1 – January 1999
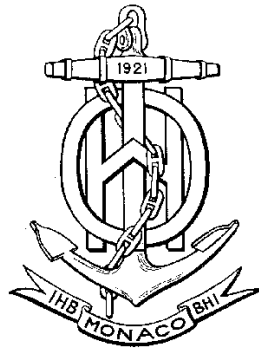
C & S MAINTENANCE DOCUMENT

Number 3 – March 2000

Immediate amendment 04
Deferred amendment 05

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INTERNATIONAL HYDROGRAPHIC ORGANIZATION

C&S MAINTENANCE DOCUMENT

Number 3 – March 2000

S-52 APP. 2 - IMMEDIATE AMENDMENT 04
S-52 APP. 2 - DEFERRED AMENDMENT 05

**Immediate and Deferred amendments to be applied in accordance with
the Amendment Procedures contained in Immediate Amendment 01, item 001,
of Maintenance Document 1, available from this site (**www.iho.shom.fr**)**

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Introduction

The procedures for amending S-52 Appendix 2 follow those established for S-57, except in stressing the distinction between immediate and deferred amendments (see amendment 01 item CS04.0.i01.co.001, section 1.2.4.1 of Maintenance Document number 1.)

This distinction is necessary because immediate amendments are more likely in the Colour & Symbols Specifications (C&SS).   While earlier editions of the Presentation Library (PL) were sea-tested, edition 3 was produced under some time- pressure once S-57 was revised, and has had less testing than S-57 because it depends on the availability of ENCs for office testing and on seagoing ECDIS plus ENCs for at-sea testing, and these were not available until early 1998. In addition, the C&SS are more dependent on outside circumstances, such as changes in other specifications (S-57, IEC 61174), and particularly on new requirements from the mariner.

When comparing S-57 and S-52 App. 2, the following differences should be noted:

- Those affected :
  - for S-57, those affected are primarily the collective HOs.   Manufacturers are also involved, but generally to a lesser extent,
  - for S-52 App. 2, those affected are primarily the ECDIS manufacturers, though the mariners will benefit from the improvements made.

- Consequences of an immediate amendment:
  - for S-57 (by means of an interim release / new edition, see below), the consequences might be that all ENCs prepared up to that time would have to be updated.
  - for S-52 App. 2, the consequences of revisions of detail are generally a minor matter, for example replacing a table in the manufacturer's software.
    However once type-approved ECDIS are installed onboard ship, applying amendments becomes a more difficult matter of getting onboard every ship to change the software.   In addition the type approval itself may be affected.

The following is a comparison between amendment terms in S-52 App. 2 and S-57:

S-52 App. 2	use of term	S-57
Immediate amendment	different words, similar meaning	Interim release/new edition
Deferred amendment	" " " "	Maintenance document
For those affected by S-52 App. 2, the more familiar terms on the left are considered more meaningful		
Clarification	same word, same meaning	Clarification
Correction	" " " "	Correction
Extension	" " " "	Extension
Item	" " " "	item

The following is a comparison of Item Identifiers:

S-52 App. 2	use of identifier	S-57
ss	Distinguishes C&SS from PL also S-52 App. 2 from S-57	No identifier used for S-57
m.n.o	This edition/revision id. already exists in PL 3.0.2 sect.9.1. Used to ensure ECDIS onboard ship has the current PL, a test requirement in IEC 61174.	No need for such an id. as S-57 is not installed onboard ship.
aaa	Identifies "Immediate" or "Deferred" amendment, followed by amendment No.	"Immediate" = "interim release" is rare. "MD" is used for deferred amendment No., (was "A" in first draft)
nnn	Item number within an amendment.	The same (NNN) in S-57

Notes on amendment procedures

Definitions and procedures for immediate and deferred amendments, are given in "Colour & Symbol Specifications for ECDIS", amended section 1.2.4 (which is in immediate amendment item No. CS4.0.i01.co.001 of Maintenance Document number 1).

An immediate amendment to the PL changes the edition/revision number of the PL, and is accompanied by a revised .DAI file carrying the revised edition/revision number.

An immediate amendment applies only to corrections, which must not depend on any deferred amendment.

A deferred amendment is not entered in any S-52 Appendix 2 document until the next new edition.

The item No. of each amendment item gives the edition/revision to which the amendment item applies. This edition/revision number will change once an immediate amendment is applied, but does not change for a deferred amendment.

At the end of each immediate correction item, there is a reminder of the current edition/revision number after the amendment is applied.

Changes to text in the specifications are identified in **bold**, which is less frequently used in the specifications than underlining.

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INDEX OF ITEMS IN IMMEDIATE AMENDMENT 04

INDEX OF ITEMS IN DEFERRED AMENDMENT 05

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S-52 APP. 2 - IMMEDIATE AMENDMENT 04

Item No. PL03.1.i04.co.001

Correction to the LC(RCRTCL) group of symbols in the Symbol Library and to the Look-up Tables - traffic arrows on the wrong side of the route centreline.

The BSH (Type Approval Authority) have pointed out that the symbols LC(RCRDEF01), LC(RCRTCL01), LC(RCRTCL02), LC(RCRTCL03), and LC(RCRTCL04) are drawn with the traffic direction arrow on the wrong side of the recommended route centreline:

The present symbols are:
two-way traffic: one-way traffic:

- - - - >   - - - - >
_____   _____

< - - - -

They should be:
two-way traffic: one-way traffic:

< - - - -
_____   _____

- - - - >   - - - - >

A revised digital Presentation Library PSLB03_2.DAI will be issued containing the revised symbols LC(RCRDEF11), LC(RCRTCL11), LC(RCRTCL12), LC(RCRTCL13), and LC(RCRTCL14) and the follow-on changes to the look-up tables.

The ECDIS Chart1 will be revised when it is re-issued with the next edition of S-52 App. 2.

Item No. PL03.1.i04.co.002

Correction to Presentation Library section 12 Conditional Symbology Procedures and to the Symbol Library - black outline to ensure that green lights show up on a radar overlay.

ASPO Systems Oy (now NAVINTRA) have pointed out that green light flares and sector arcs cannot be seen over a radar overlay which has any degree of clutter. This amendment changes the light flare symbol and the light arc drawing instruction in the conditional symbology procedure to add the same outline that is used for green buoys and beacons.

For consistency all light colours will be treated the same way, and this may satisfy complaints by mariners that light flares are difficult to distinguish, particularly on a land background.

The revised digital Presentation Library PSLB03_2.DAI will contain the revised conditional procedure LIGHTS05, the revised light flare symbols SY(LITDEF11), SY(LIGHTS11), SY(LIGHTS12), and SY(LIGHTS13), and the look-up table will refer to these and to the revised conditional procedure LIGHTS05.

Follow-on changes will be made to the ECDIS Chart1 when it is re-issued with the next edition of S-52 App. 2.

Item No. PL03.1.i04.co.003

Correction to Presentation Library Section 11 Look-up Tables - <u>change the over-radar flag of the Mariner's Danger Highlight to "Over radar"</u>

ASPO Systems Oy (now NAVINTRA) have pointed out that the Mariner's Danger Highlight for area boundaries is obscured by radar and that there is no entry for Mariner's Danger Highlight in the "lines" look-up table.   Also, because the Danger Highlight has a higher draw priority than the safety contour, the safety contour can be overwritten by radar when it coincides with the boundary of an area Danger Highlight.

The revised digital Presentation Library PSLB03_2.DAI will add an entry for Mariner's Danger Highlight in the "lines" look-up table and will change the over-radar flag (field 5) for Danger Highlight to "o" = over-radar in all look-up tables.

This will also correct the present situation where radar could overwrite the Safety Contour.

In detail, the changes are:

In the lines look-up table 11.2.1 add the line in bold below:
"clrlin","","CS(CLRLIN01)","9","O","MARINERS OTHER","53020"
"dnghlt",""," LS(SOLD,3,DNGHL)","8","O","MARINERS STANDARD","53010"
"ebline","","CS(VRMEBL01)","9","O","MARINERS OTHER","61010"

In area look-up tables 11.3.1 and 11.3.2 change :
"dnghlt","","AC(DNGHL,3);LS(SOLD,3,DNGHL)","8","S","MARINERS STANDARD","53010"
to read:
"dnghlt","","AC(DNGHL,3);LS(SOLD,3,DNGHL)","8",**"O,"**"MARINERS STANDARD","53010"

_____

End of immediate amendment 04

Notes:

1.   A revised .DAI file, carrying the new edition/revision number PSLB03_2.DAI, has been issued for the relevant items and is advertised on this site (<u>www.iho.shom.fr</u>*).*

The Presentation Library manual has been re-issued as Edition/Revision 3.2.
The only changes resulting from C&S MD3 are to sections 11.2, 11.3.1 and 11.3.2, look-up tables, and to section 12.2.7 conditional symbology procedure, revised version LIGHTS05. The revised manual (PSLB03_2.PDF) is available from this site (<u>www.iho.shom.fr</u>*).*

The revised Chart 1 will not be issued until the next new edition.

2.   After applying this immediate amendment, the edition/revision numbers become:
-   Colour & Symbol Specifications 04.1 (no change), and
-   Presentation Library 03.2

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S-52 APP. 2 - DEFERRED AMENDMENT 05

These amendments, discussed as paper C&S/10/6a at the November '99 meeting of the IHO Colours and Symbols Maintenance Working Group (C&SMWG), deal with the changes required to symbolise the new attribute values introduced by S-57 ed. 3_1, plus some other minor items.

Note that deferred amendments can be implemented at any time before being brought into effect by the next new edition. However the revised conditional procedures RESCSP02 and RESARE03 for this amendment, together with the temporary .DAI file PSTY3_2b required by item d05.cl.005, are not yet completed, but will be issued later in year 2000. Meanwhile the information given in these amendments should be adequate to provide for immediate changes if required.

Item No. PL03.1.d05.co.001

Correction to Presentation Library section 12 "Conditional Symbology Procedures" –
Changes in Conditional Symbology Procedures RESCSPnn and RESAREnn
required by changes in S-57 ed. 3.1

NEW VALUES FOR ATTRIBUTES RESTRN AND CATREA

The following new values have been added to attribute RESTRN:

15: construction prohibited (added earlier)
16: discharging prohibited
17: discharging restricted
18: industrial or mineral exploration/development prohibited.
19: industrial or mineral exploration/development restricted
20: drilling prohibited
21: drilling restricted
22: removal of historical artifacts prohibited
23: cargo transhipment (lightering) prohibited
24: dragging prohibited
25: stopping prohibited
26: landing prohibited
27: speed restricted

The following new value has been added to attribute CATREA:

26: water skiing

CURRENT CONDITIONAL SYMBOLOGY PROCEDURES (csp's)

csp's RESARE and RESCSP symbolize by category and severity of restriction. These are judged from the IMO viewpoint of passage navigation and cargo-handling for international shipping rather than small craft navigation or commercial activity such as fishing or drilling. For example, fishing restrictions are considered important because fishing vessels tend to impede passage, not because the restrictions are significant to fisherman.

The first part of the current csp's establishes the category of restriction and hence the main centred symbol, and it also symbolizes minor restrictions. The continuations A, B, and C on the succeeding pages establish whether the main centred symbol gets an "!" attached to indicate an additional restriction which is important to own-ship, or an "i" to indicate other restrictions of less importance to own-ship. Continuation D of RESARE deals with minor values of attribute CATREA.

The following discussion refers to csp RESCSP, but applies also to csp RESARE.

CONDITIONAL PROCEDURE RESCSPnn

1. At present we have the following categories and corresponding continuations in RESCSP :

   - A: entry restrictions (centred symbols ENTRESnn, where nn = 51, 61 or 71)
   - B: anchoring restrictions (symbols ACHRESnn)
   - C: fishing restrictions (symbols FSHRESnn)
   - E: restrictions on other vessels: dredging, diving plus "no wake" (symbols INFAREnn)

2. The following describes what new values for attribute RESTRN have been added to S-57 and how we should symbolise them:

   First, the new 24, dragging prohibited, should be added to category "C" fishing.

   Then there's a new category "D" of "own-ship activities":

   D: own-ship activities: 16, 17 discharging prohibited/restricted,
                                23 lightering prohibited
                                25 stopping prohibited
       to which we should add the existing restriction on own-ship:
                                13 no wake
       and the new: 26 landing prohibited , and
                                27 speed restricted.

   These should be symbolized by SY(CTYAREnn). This symbol looks the same as SY(CTNAREnn), and the restrictions are, as specified for a Caution Area, "a danger, a risk, **a rule**, advice."

3. Then there are some new restrictions on other vessels of less importance to own-ship:

   E: Restrictions on other vessels: 18, 19 development prohibited/restricted
                                         20, 21 drilling prohibited/restricted
                                         22 stealing artifacts prohibited.
       These fit under the existing "other" restrictions:
                                         9,10 dredging
                                         11, 12 diving,
       symbolized by INFARE51.

4. To summarise, the revised categories and symbolizations will be:

   A. entry restrictions:
       RESTRN 7 – entry prohibited
       RESTRN 8 – entry restricted
       RESTRN14 – area to be avoided
       (centred symbols ENTRESnn, where nn = 51, 61 or 71)

   B. anchoring restrictions:
       RESTRN 1 – anchoring prohibited
       RESTRN 2 – anchoring restricted
       (centred symbols ACHRESnn)

C. fishing restrictions:
RESTRN 3 – fishing prohibited
RESTRN 4 – fishing restricted
RESTRN 5 – trawling prohibited
RESTRN 6 – trawling restricted
RESTRN24 – dragging prohibited
(centred symbols FSHRESnn)

D. restrictions on own ship:
RESTRN 13 – no wake
RESTRN 16 – discharging prohibited
RESTRN 17 – discharging restricted
RESTRN 23 – lightering prohibited
RESTRN 25 – stopping prohibited
RESTRN 26 – landing prohibited
RESTRN27 – speed restricted
(centred symbols CTYAREnn)

E. restrictions on other vessels:
RESTRN 9 – dredging prohibited
RESTRN 10 – dredging restricted
RESTRN 11 – diving prohibited
RESTRN 12 – diving restricted
(RESTRN 13 – no wake area moved to category D)
RESTRN 15 – construction prohibited
RESTRN 18 – development prohibited
RESTRN 19 – development restricted
RESTRN 20 – drilling prohibited
RESTRN 21 – drilling restricted
RESTRN 22 – stealing artifacts prohibited
(centred symbol INFARE51)

5. The revised csp should be re-named RESCSP02, and the corresponding changes should be made in the index, section 12.1.1 and as necessary in the look-up tables and cross references such as csp's DEPARE01, RESTRN01.

Note that the numbers of cross-referenced csp's should not be revised merely because of a change in the numbering of a cross-reference.   For example csp DEPARE 01 should not be re-numbered DEPARE02 merely because the cross-reference has been changed from RESCSP01 to RESCSP02.

CONDITIONAL PROCEDURE RESARE02

The same logic applies to both RESCSP01 and RESARE02. RESARE02 should be revised in the same way as RESCSP.

In addition to the changes resulting from new RESTRN values, at each point where CATREA 18 (swimming area) is mentioned, add "CATREA 26 (water skiing area)".

The revised csp should be re-named RESARE03, and the corresponding changes should be made in the index, section 12.1.1 and in the look-up tables and cross referenced sub-procedures such as DEPARE, RESARE (see section 12.1.5).

Item No. PL03.1.d05.co.002

Correction to Presentation Library section 11 Look-up Tables and the Symbol Library - <u>changes in symbolizing Special Purpose marks and other revisions required by changes in S-57 ed. 3.1</u>

1.   CHANGES TO SPECIAL MARKS

1.1.   S-57 ed. 3_1 adds the following new values for Attribute CATSPM – Category of special purpose mark:

53: wellhead mark
54: channel separation mark
55: marine farm mark
56: artificial reef mark

<u>CATSPM 53 – wellhead mark</u>. A change may be needed in the long run, but mariners should be consulted. Make no changes at present. *(However wellheads are potentially dangerous objects, and it may be that we need a special symbol.)*

<u>CATSPM 55 – marine farm and 56 – artificial reef</u>. No changes in symbolizing needed. *(CATSPM is only considered for symbolization in certain attribute values (9, 15, 18, 19, 44, and 52). For new attribute values 55 marine farm and 56 artificial reef the symbolization will be based on the buoy or beacon shape attribute, and if that is not given it will go to the first line default in the look-up table.)*

<u>CATSPM 54 – channel separation mark</u>. The diagram in IALA SP 735 "Maritime Buoyage Systems" shows Special Purpose Marks in all possible buoy shapes, so we should have these available in simplified buoys as well as in the paper chart versions.

In the paper chart point objects look up table for buoys and beacons, special purpose marks are symbolised by shape without colour, so no change is needed.

In the simplified point objects look up table, <u>beacons</u> are straightforward – no change needed. For simplified <u>buoys</u> the conical and can lateral special marks are looked after for CATSPM 19 "TSS mark" by symbols BOYSPP 15 and 25.   But there is no LU table line for a pillar or spar buoy, which may be the shape of a channel separation mark, nor for the yellow spherical buoys mentioned in the IALA quote above. We need to define a new simplified pillar/spar/ice buoy SY(BOYSPP35) and to assign the existing special purpose buoy SY(BOYSPP11) to symbolize a special purpose barrel buoy The information given in these amendments should be adequate to allow for immediate changes if required

1.2.   To symbolize these new values for channel separation marks, add the following lines (in **bold**) to the Presentation Library Look-up section 11.1.2 simplified point look-up tables:

"BOYSPP","CATSPM19ⱱBOYSHP1ⱱ","SY(BOYSPP15);TE('by
%s','OBJNAM',2,1,2,'15110',-1,-1,CHBLK,21)","8","O","DISPLAYBASE","17010"
"BOYSPP","CATSPM19ⱱBOYSHP2ⱱ","SY(BOYSPP25); …. etc
"BOYSPP","CATSPM54ⱱBOYSHP1ⱱ","SY(BOYSPP15); …. etc   *(conical)*
"BOYSPP","CATSPM54ⱱBOYSHP2ⱱ","SY(BOYSPP25); …. etc   *(can)*
"BOYSPP","CATSPM54ⱱBOYSHP4ⱱ","SY(BOYSPP35); …. etc   *(pillar)*
"BOYSPP","CATSPM54ⱱBOYSHP5ⱱ","SY(BOYSPP35); …. etc   *(spar)*
"BOYSPP","CATSPM9ⱱ","SY(BOYSUP02); …. etc
"BOYSPP","CATSPM15ⱱ","SY(BOYSUP02); …. etc
"BOYSPP","CATSPM52ⱱ","SY(BOYDEF03); ….. etc
"BOYSPP","BOYSHP1ⱱ","SY(BOYSPP15); ….. etc   *(conical)*
"BOYSPP","BOYSHP2ⱱ","SY(BOYSPP25); …... etc   *(can)*
"BOYSPP","BOYSHP3ⱱ","SY(BOYSPP11); …... etc   *(spherical)*
"BOYSPP","BOYSHP4ⱱ","SY(BOYSPP35); …... etc   *(pillar)*
"BOYSPP","BOYSHP5ⱱ","SY(BOYSPP35); …... etc   *(spar)*
"BOYSPP","BOYSHP6ⱱ","SY(BOYSPP11); …... etc   *(barrel)*

"BOYSPP","BOYSHP7⌄","SY(BOYSUP02); …... etc   *(super buoy)*
"BOYSPP","BOYSHP8⌄","SY(BOYSPP35); …... etc   *(ice buoy)*

1.2.1.   Add the following new symbol and meaning changes to the Symbol Library and to Chart 1:

- new symbol SY(BOYSPP35) "special purpose ice buoy or spar or pillar shaped buoy, simplified". This is the same shape as symbol SY(BCNSPP21) [#32 on Chart 1] but sloping at about 25 deg.

- SY(BOYSPP11) [#56 on Chart 1] will be used as a "special purpose buoy, spherical or barrel shaped, or default symbol for special purpose buoy, simplified". Change the meaning in the symbol library to this wording.

2.   NEW ATTRIBUTE VALUES CATOBS10 "BOOM" AND WATLEV 7 "FLOATING".

2.1.   An obstruction CATOBS10 (boom) will be symbolized the same way as CATOBS8 (ice boom).

The most likely use of water level WATLEV7 (floating) is in conjunction with the object class "Obstruction". At present the conditional procedure OBSTRN04 opens with the assignment of a default "Depth value" by the CATOBS and WATLEV attributes which does not apply to the attribute "floating". Fortunately OBSTRN, WATLEV7 can be symbolized in the look-up table thus preventing its ever getting into the conditional procedure.

A point OBSTRN, CATOBS8 or OBSTRN, CATOBS10 or OBSTRN, WATLEV 7 object should be symbolized by the new floating hazard symbol SY(FLTHAZ01) consisting of an "X" on its side above a wavy line.

For a line OBSTRN, CATOBS8 or 10 or OBSTRN, WATLEV7 the same dashed grey line symbolization as a line OBSTRN,CATOBS8 (ice boom) should be used.

For an area, the point symbol SY(FLTHAZ) will serve as a centred symbol for all these cases, since the area concerned will generally be reasonably small.

In addition the new symbol SY(FLTHAZ01) should be used as both a point symbol and a centred area symbol for LOGPON – logpond.

Also a dashed magenta line has been added to symbolize OBSTRN, CATOBS9 (ground tackle) in the lines and areas look-up tables.

2.2.   To symbolize these new objects, add the following new lines, identified in **bold**, to the existing look-up tables:

11.1.1. Paper chart points:

"LOCMAG","","SY(LOCMAG01)","4","O","OTHER","31080"
"LOGPON","","SY(FLTHAZ01)","4","O","OTHER","34050"
"M_NPUB","","SY(CHINFO07)","4","O","OTHER","31020"

"OBSTRN","","CS(OBSTRN04)","4","O","OTHER","34050"
"OBSTRN","CATOBS7⌄","SY(FOULGND1)","4","O","OTHER","34050"
"OBSTRN","CATOBS8⌄","SY(FLTHAZ01)","4","O","OTHER","34050"
"OBSTRN","CATOBS9⌄","SY(ACHARE02)","4","O","OTHER","34050"
"OBSTRN","CATOBS10⌄","SY(FLTHAZ01)","4","O","OTHER","34050"
"OBSTRN","WATLEV7⌄","SY(FLTHAZ01)","4","O"",DISPLAYBASE","12410"

11.1.2. Simplified points:

“LOCMAG”,””,”SY(LOCMAG01)”,”4”,”O”,”OTHER”,”31080”
“LOGPON”,””,”SY(FLTHAZ01)”,”4”,”0”,”OTHER”,”34050”
“M_NPUB”,””,”SY(CHINFO07)”,”4”,”O”,”OTHER”,”31020”

“OBSTRN”,””,”CS(OBSTRN04)”,”4”,”O”,”OTHER”,”34050”
“OBSTRN”,”CATOBS7⌄”,”SY(FOULGND1)”,”4”,”O”,”OTHER”,”34050”
“OBSTRN”,”CATOBS8⌄”,”SY(FLTHAZ01)”,”4”,”O”,”OTHER”,”34050”
“OBSTRN”,”CATOBS9⌄”,”SY(ACHARE02)”,”4”,”O”,”OTHER”,”34050”
“OBSTRN”,”CATOBS10⌄”,”SY(FLTHAZ01)”,”4”,”O”,”OTHER”,”34050”
“OBSTRN”,”WATLEV7⌄”,”SY(FLTHAZ01)”,”4”,”O”,”DISPLAYBASE”,”12410”

11.2. Lines:

“OBSTRN”,””,”CS(OBSTRN04)”,”4”,”O”,”OTHER”,”34050”
“OBSTRN”,”CATOBS8⌄”,”LS(DASH,1,CSTLN)”,”4”,”O”,”DISPLAYBASE”,”12410”
“OBSTRN”,”CATOBS9⌄”,”LS(DASH,1,CHMGD)”,”4”,”O”,”DISPLAYBASE”,”12410”
“OBSTRN”,”CATOBS10⌄”,”LS(DASH,1,CSTLN)”,”4”,”O”,”DISPLAYBASE”,”12410”
“OBSTRN”,”WATLEV7⌄”,”LS(DASH,1,CSTLN)”,”4”,”O”,”DISPLAYBASE”,”12410”

11.3.1. Areas, symbolized boundaries:

“OBSTRN”,””,”CS(OBSTRN04)”,”4”,”S”,”OTHER”,”34050”
“OBSTRN”,”CATOBS6⌄”,”CS(OBSTRN04);AP(FOULAR01);LS(DOTT,2,CHBLK)”,”4”,”S”,
“OTHER”,”34050”
“OBSTRN”,”CATOBS7⌄”,”SY(FOULGND1);LC(NAVARE51)”,”4”,”S”,”OTHER”,”34050”
“OBSTRN”,”CATOBS8⌄”,”SY(FLTHAZ01);LS(DASH,1,CSTLN)”,”4”,”S”,
“DISPLAYBASE”,”12410”
“OBSTRN”,”CATOBS9⌄”,”SY(ACHARE02);LS(DASH,1,CHMGD)”,”4”,”S”,
“DISPLAYBASE”,”12410”
“OBSTRN”,”CATOBS10⌄”,”SY(FLTHAZ01);LS(DASH,1,CSTLN)”,”4”,”S”,
“DISPLAYBASE”,”12410”
“OBSTRN”,”WATLEV7⌄”,”SY(FLTHAZ01);LS(DASH,1,CSTLN)”,”4”,”S”,
“DISPLAYBASE”,”12410”

11.3.2. Areas with plain boundaries:

“OBSTRN”,””,”CS(OBSTRN04)”,”4”,”S”,”OTHER”,”34050”
“OBSTRN”,”CATOBS6⌄”,”CS(OBSTRN04;AP(FOULAR01);LS(DOTT,2,CHBLK)”,”4”,”S”,
“OTHER”,”34050”
“OBSTRN”,”CATOBS7⌄”,”SY(FOULGND1);LS(DASH,1,CHGRD)”,”4”,”S”,”OTHER”,”34050”
“OBSTRN”,”CATOBS8⌄”,”SY(FLTHAZ01);LS(DASH,1,CSTLN)”,”4”,”S”,
“DISPLAYBASE”,”12410”
“OBSTRN”,”CATOBS9⌄”,”SY(ACHARE02);LS(DASH,1,CHMGD)”,”4”,”S”,
“DISPLAYBASE”,”12410”
“OBSTRN”,”CATOBS10⌄”,”SY(FLTHAZ01);LS(DASH,1,CSTLN)”,”4”,”S”,
“DISPLAYBASE”,”12410”
“OBSTRN”,”WATLEV7⌄”,”SY(FLTHAZ01);LS(DASH,1,CSTLN)”,”4”,”S”,
“DISPLAYBASE”,”12410”

2.3. In addition, make the following changes:

11.3.1. Areas, symbolized boundaries:
        Change:
“LOCMAG”,””,”SY(LOCMAG51);LC(NAVARE51)”,”4”,”S”,”OTHER”,”31080”
“LOGPON”,””,”SY(LS(DASH,1,CHBLK)”,”5”,”S”,”DISPLAYBASE”,”12410”
“LOKBSN”,””,”AC(DEPVS);LS(SOLD,1,CHBLK)”,”2”,”S”,”DISPLAYBASE”,”12420”
        to:

"LOCMAG","","SY(LOCMAG51);LC(NAVARE51)","4","S","OTHER","31080"
"LOGPON","","**SY(FLTHAZ01);**LS(DASH,1,CHBLK)","5","S","DISPLAYBASE","12410"
"LOKBSN","","AC(DEPVS);LS(SOLD,1,CHBLK)","2","S","DISPLAYBASE","12420"

11.3.2. Areas with plain boundaries:
        change:
"LOCMAG","","SY(LOCMAG51);LS(DASH,1,CHGRD)","4","S","OTHER","31080"
"LOGPON","","LS(DASH,1,CHBLK)","5","S","DISPLAYBASE","12410"
"LOKBSN","","AC(DEPVS);LS(SOLD,1,CHBLK)","2","S","DISPLAYBASE","12420"
        to:
"LOCMAG","","SY(LOCMAG51);LS(DASH,1,CHGRD)","4","S","OTHER","31080"
"LOGPON",""," **SY(FLTHAZ01);**LS(DASH,1,CHBLK)","5","S","DISPLAYBASE","12410"
"LOKBSN","","AC(DEPVS);LS(SOLD,1,CHBLK)","2","S","DISPLAYBASE","12420"

2.4.   Add symbol SY(FLTHAZ01) "Floating hazard to navigation, paper chart and simplified" to the Symbol Library.

2.5.   Make the appropriate follow-on additions to Chart 1 and Viewing groups (PL section 13.2).

Item No. PL03.1.d05.co.003

Correction to Presentation Library sections 11 Look-up Tables and 12 Conditional Symbology Procedures and to the Symbol Library and ECDIS Chart 1 – <u>various minor changes due to S-57 ed 3_1 and other sources</u>.

1.   <u>LOOK-UP TABLES</u>

1.1.   <u>Text command for LNDARE to name islands</u>.   In order to name small islands without needing a coincident LNDRGN, amend entry for LNDARE to include a TX command for OBJNAM in both area tables, as in **bold** below:

Look-up tables 11.3.1 and 11.3.2:

"LAKARE","","AC(DEPVS);LS(SOLD,1,CHBLK)","2","S","OTHER","32050"
"LNDARE","","AC(LANDA);**TX(OBJNAM,1,2,3,'15110',-1,-1 ,CHBLK,26)**")","1","S",
"DISPLAYBASE","12010"
"LNDMRK","","AC(CHBRN);LS(SOLD,1,LANDF)","4","S","OTHER","32220"

1.2   <u>Symbolizing cairns</u>. Change the symbolization for BCNLAT, BCNSHP6 = cairn for simplified points to be the same as for paper chart points, i.e. SY(CAIRNS01) plus SY(CAIRNS11) for a conspicuous cairn.

Look-up table 11.1.2 Simplified points:

Delete the line highlighted below:

"BCNLAT","COLOUR4,3,4⊽BCNSHP5⊽","SY(BCNLAT16);
TE('bn%s','OBJNAM',2,1,2,'15110',-1,-1,CHBLK,21)","8","O","DISPLAYBASE","17020

**"BCNLAT","COLOUR4,3,4⊽BCNSHP6⊽","SY(BCNLAT16);
TE('bn %s','OBJNAM',2,1,2,'15110',-1,-1,CHBLK,21)","8","O","DISPLAYBASE","17020"**

"BCNLAT","COLOUR3,4,3⊽","SY(BCNLAT15);
TE('bn %s','OBJNAM',2,1,2,'15110',-1,-1,CHBLK,21)","8","O","DISPLAYBASE","17020"

- and insert the following lines identified in bold in the appropriate position in the table (as indicated by the adjacent non-highlighted lines):

"BCNLAT","COLOUR4▽BCNSHP5▽","SY(BCNLAT16);
TE('bn %s','OBJNAM',2,1,2,'15110',-1,-1,CHBLK,21)","8","O","DISPLAYBASE","17020"

**"BCNLAT","BCNSHP6▽CONVIS1▽","SY(CAIRNS11);
TE('bn %s','OBJNAM',2,1,2,'15110',-1,-1,CHBLK,21)","8","O","DISPLAYBASE","17020"**

**"BCNLAT","BCNSHP6▽","SY(CAIRNS01);
TE('bn %s','OBJNAM',2,1,2,'15110',-1,-1,CHBLK,21)","8","O","DISPLAYBASE","17020"**

"BCNLAT","COLOUR3▽","SY(BCNLAT15);
TE('bn%s','OBJNAM',2,1,2,'15110',-1,-1,CHBLK,21)","8","O","DISPLAYBASE","17020

1.3.   Prefixes.   Change abbreviation "No" for number to "Nr".

Because all text, including numbers, is displayed in black, and black numbers are completely indistinguishable from shallow soundings (depth less than the safety depth), **prefixes** are used in displaying the name of objects on the water that could have an OBJNAM consisting of a number only, such as a buoy, a calling-in point, etc.   (See PL Manual 7.1.2.1 (2)).

The prefix at present used for "Number" is the official INT 1 abbreviation "No" (see INT1 for paper charts section IW). This has given rise to some ridiculous text labels; for example a calling-in point called "East Channel" would be labelled "No East Channel", which is laughable if not confusing. We should therefore change the abbreviation for "number" from "No" to the self-evident German/European version "Nr".

To implement this will require going through the look-up table and changing all TE text commands containing "No" to "Nr", and also changing the Presentation Library Manual section 13.4.1 "TE Command abbreviations" to read "Nr" in place of "No".

1.4.   ORIENT text instruction for NAVLNE and RECTRC. The ORIENT text instruction for NAVLNE is required for CATNAV 1 and 2 (clearing line and transit/range line) but causes duplication and sometimes over-writing when it is written on the same line spatial object as a RECTRC, DWRTCL etc. which also carry an ORIENT text instruction.

In Presentation Library 11.2, "Lines" look-up table, the NAVLNE text instruction should be removed from the line "NAVLNE" with no attributes and retained for two added lines carrying attribute CATNAV 1 and CATNAV2.

Change:
"MORFAC","CATMOR6▽","LS(DASH,1,CHMGF)","6","O","DISPLAYBASE","14010"
"NAVLNE","","LS(DASH,1,CHGRD**);TE('%03.0lf
deg','ORIENT',3,1,2,'15110',1,-1,CHBLK,11**)","4","O","STANDARD","25010"
"OBSTRN","","CS(OBSTRN04)","4","O","OTHER","34050"
to read:
"MORFAC","CATMOR6▽","LS(DASH,1,CHMGF)","6","O","DISPLAYBASE","14010"
"NAVLNE","","LS(DASH,1,CHGRD)","4","O","STANDARD","25010"
**"NAVLNE","CATNAV1","LS(DASH,1,CHGRD);TE('%03.0lf
deg','ORIENT',3,1,2,'15110',1,-1,CHBLK,11)","4","O","STANDARD","25010"**
**"NAVLNE","CATNAV2","LS(DASH,1,CHGRD);TE('%03.0lf
deg','ORIENT',3,1,2,'15110',1,-1,CHBLK,11)","4","O","STANDARD","25010"**
"OBSTRN","","CS(OBSTRN04)","4","O","OTHER","34050"

In addition, "recommended track (RECTRC)" is not listed in the text groupings. It should be added to text group 11 in order to call up the ORIENT text on that object.

PL Manual section 13.3 change text group 11 to read:

"11   vertical clearance of bridges, overhead cable, pipe or conveyor (BRIDGE, CBLOHD, PIPOHD, CONVYR, VERCLR, VERCCL, VERCOP), bearing of navline, recommended route, deep water route centreline line**, recommended track** (NAVLNE, RCRTCL, DWRTCL, **RECTRC**), name and communications channel of radio calling-in point (RDOCAL, OBJNAM, COMCHA)."

1.5.   <u>IMO Category for MORFAC</u>. MORFAC is one of those variable object classes that can be anything from a buoy to a tie-up wall. Because it usually constitutes a hazard to navigation, the first line default should be in Base and viewing group 12410 in the LINES look-up table. (It is already in base in the other tables.)

Table 11.2 should read (change in **bold**):
"MARCUL","","LS(DASH,2,CHGRF)","4","O","STANDARD","26210"
"MORFAC","","LS(SOLD,2,CSTLN)","6","O","**DISPLAYBASE","12410"**
"MORFAC","CATMOR4∨","LS(SOLD,2,CSTLN)","6","O","DISPLAYBASE","12410"

1.6.   <u>Add new attribute value CATOBS10 = "boom"</u>. To revise for S-57 ed 3_1, add a new line to look-up table 11.2 "Lines" to add OBSTRN, CATOBS10, with the same entry as OBSTRN, CATOBS8, i.e. symbolized by a dashed 1-pixel (0.3 mm) grey line, as follows (change in **bold**):

"OBSTRN","","CS(OBSTRN04)","4","O","OTHER","34050"
"OBSTRN","CATOBS8∨","LS(DASH,1,CSTLN)","4","O","DISPLAYBASE","12410"
"OBSTRN","CATOBS10∨","LS(DASH,1,CSTLN)","4","O","DISPLAYBASE","12410"
"OILBAR","","LS(DASH,1,CHBLK)","4","O","DISPLAYBASE","12410"

1.7.   <u>Symbolizing an unidentified area</u>. To avoid clutter, the symbolization for an unidentified area should be changed from an area pattern to a centred symbol.

In section 11.3.1 "Look-up table for areas with symbolized boundaries":
change:
* default for symbolization failure; must be the first entry to look-up table
"######","","AP(QUESMRK1);LS(DASH,1,CHMGD)","5","S","STANDARD","21010"
to:
* default for symbolization failure; must be the first entry to look-up table
"######","","**SY**(QUESMRK1);**LC(QUESMRK1**)","5","S","STANDARD","21010"

["AP(QUESMRK1) changes to **SY**(QUESMRK1) and "LS(DASH,1,CHMGD)" changes to "**LC(QUESMRK1**)"]

-and in section 11.3.2 "Look-up table for areas with plain boundaries":
change:
* default for symbolization failure; must be the first entry to look-up table
"######","","AP(QUESMRK1);LS(DASH,1,CHMGD)","5","S","STANDARD","21010"
to:
* default for symbolization failure; must be the first entry to look-up table
"######","","**SY**(QUESMRK1);LS(DASH,1,CHMGD)","5","S","STANDARD","21010"

["AP(QUESMRK1) changes to "**SY**(QUESMRK1)"]

2.   <u>CONDITIONAL SYMBOLOGY PROCEDURES</u>

2.1   <u>Text giving the ORIENT for a directional light</u>. ASPO have reported that an instruction is needed to write the "ORIENT" of a directional light. However S-57 Appendix B1 – Annex A – Use of the Object Catalogue sections 12.8.6.5 and 12.8.6.6 on Directional and Moiré-effect lights - implies that a recommended track (RECTRC) must be encoded to show the direction to be followed for such lights. Although LIGHTS have a draw priority of 8, higher than the draw priority of 6 for RECTRC, the

text for the RECTRC, <u>ORIENT</u> should show up even though the RECTRC line symbolization is overwritten by the line drawn from the LIGHTS object.

Experience is needed to confirm that the ORIENT attribute of a co-located recommended track does provide the required information on the display.

2.2.   <u>Clarification of instruction for symbolizing own ship vector</u>. As reported by Q-Mar, a clarification is needed in Presentation Library section 12.2.10 conditional symbology procedure "OWNSHP02". Add to both of sections 4.1 and 4.2 the sentence: "Rotate all symbols in the direction given by (cogcrs or ctwcrs)"

2.3   <u>Editorial corrections to conditional procedure DATCVR</u>. As pointed out by the Secretary of C&SMWG, the following amendments to section 12.2.2 conditional symbology procedure "DATCVR" are needed to bring the terminology up to date with S-57 ed. 3.1:

a.)   Under "Remarks" on the first page, change the note from:
" Note that the mandatory meta object CATQUA is symbolized by the look-up table."
To:
"Note that the mandatory meta object **M_QUAL, CATZOC** is symbolized by the look-up table."

b.)   Under "3. SCALE BOUNDARIES" delete the sentence: "The scales that comprise each navigation purpose are defined by the HO, as explained in S-57". S-57 no longer makes any reference to chart scale.

Note that because these are purely editorial changes, the number of the conditional procedure should not be changed.

3.   <u>PRESENTATION LIBRARY MANUAL</u> :

3.1.   For clarification on symbolizing unidentified objects, re-word section 8.3.3.7 as follows:

"8.3.3.7   **Question mark symbolizes unidentified object**

If there is no look-up table line matching the object at all, the look-up table is incomplete or the object is of an unknown object class. If this happens use the following as fail-safe presentation:

For a <u>point</u> object, display a '?'- symbol SY(QUESMRK1).

For an <u>area</u> object, display SY(QUESMRK1) as a centred symbol and use LC(QUESMRK1) for a symbolized area boundary, and LS(DASH,1,CHMGD for a plain area boundary.

For a <u>line</u> object display LC(QUESMRK1).

In each case a cursor enquiry on the object should read out and explain the object in the SENC.   In addition, a caution note should be shown on the mariners' interface."

3.2.   To clarify revision of the ECDIS Chart 1, add the following, identified in **bold**, to the last paragraph of section 9.1.3:

"After an immediate amendment, the amended Presentation Library Manual, in digital form, will be posted on the IHO web site: <u>http://www.iho.shom.fr</u>. (Note that this will not include any changes to symbols **or to the ECDIS Chart 1**, since the "hard copy addendum" to the Presentation Library, which contains the graphic representations of the symbols **and the ECDIS Chart 1**, is in fact bound in with the "Colour & Symbol Specifications for ECDIS", which will only be re-issued for a new edition.)"

4.   <u>CHART 1</u>:

A number of changes are needed to make the hard copy version of the ECDIS Chart 1 (bound in with the "Colour & Symbol Specifications") consistent with the S-57 files for the 1999 digital version:

-        Front page index (bottom right panel) and Mariners' Navigation Symbols page: - change own ship vector to the IEC version (black version of the ARPA vector) and delete the note on the Mariners' objects page.

-        page A,B: area pattern AP(QUESMRK1) is no longer used. The bottom right figure on page AB should show centred symbol SY(QUESMRK1).

-        page CDEF: the pipeline should be labelled "<u>OVERHEAD</u> PIPELINE" .

-        page H,I: replace double-dashed lines LOWACC07 and LOWACC11 with dashed lines.

-        page J,K,L: add new symbol SY(FLTHAZ01) "Floating hazard to navigation" .

-        page PQRS: various changes – compare with the digital version.

Also add a new buoy symbol:
SY(BOYSPP35) "special purpose ice buoy or spar or pillar shaped buoy, simplified",

and change the symbol meaning for SY(BOYSPP11):
SY(BOYSPP11) "special purpose buoy, spherical or barrel shaped, or default symbol for special purpose buoy, simplified"

-        Mariners' objects: label the "Clearing Line"(centre symbol on the right).

Follow-on change in "Hard copy addendum to the PL" (bound in the Colour & symbol specs), define symbol 486 ERBLIN as "Electronic <u>range</u>/bearing line. Also correct spelling of symbol 517 to LC(<u>SCLBDY</u>).

Item No. CS04.1.d05.cl.004

Clarification to Colour & Symbol Specifications section 1 "Introduction" **-** <u>Slight deviations in chart symbology at Type-approval</u>

The following was agreed at the 9th meeting (December '98) of the C&SMWG and should be added to the "Introduction" of the Colour & Symbol Specifications as new section 1.1.5:

"1.1.5   <u>Slight deviations in chart symbology at Type-approval</u>

Should the type-approval authority wish to use some discretion over slight deviations in chart symbology, the following criteria are proposed as a guide for judging whether any symbolization on an ECDIS, which is visibly different from the symbolization on the IHO Test Data set, is still compliant. The symbolization used:

1.)   should be the same in general shape and size as the IHO version;

2.)   should be clear and sharp so that there is no uncertainty over meaning;

3.)   should be close enough to the IHO version to avoid ambiguity in meaning between that model and any other model of ECDIS;

4.)   should use only the calibrated colours specified in S-52 App.2;

5.)   should comply with the various considerations of scientific design described in S-52 App. 2;

6.)   should comply with the priority of prominence on the display in proportion to importance to safety of navigation which is built into the Presentation Library, and

7.)   should avoid any increase in clutter.

Any symbolization that does not meet these criteria is not compliant.

The type-approval authority is strongly encouraged to contact the chairman of the IHO C&SMWG in any case of uncertainty over differences in symbolization, ideally attaching graphics to illustrate the situation. The chairman of the WG will give the reason for the particular symbolization on the Test Data Plots, and will comment on any perceived advantages or disadvantages of the manufacturer's version, with reasons.

Manufacturers, type-approval authorities, and above all mariners, are always encouraged to contact the IHO over any improvements, criticisms, questions or comments that they may have about the ECDIS display, in order that the specifications can be kept effective and up to date.

Address informal notes to the technical staff, in care of the IHB member:

Chairman, IHO C&SMWG, by way of International Hydrographic Bureau, BP 445, MC 98011, Monaco. (Fax: +377 9310 8140 or E-mail: info@ihb.mc).

Item No. CS04.1.d05.cl.005

Clarification to Presentation Library section 9.1.3. –
Temporary .dai file to accompany a deferred amendment.

Item 31 in deferred amendment 2, which introduced new curved linestyles, was accompanied by a temporary .DAI file labelled PSTY03_0.DAI containing the new symbols required. However only these new symbols were updated in this temporary .DAI file. Changes to other symbols and to the look-up table etc. included in deferred amendment 2 were not included in PSTY03_0.DAI.

In future any deferred amendment which changes the digital Pres. Lib. .DAI file will be accompanied by a temporary .DAI file which will be a complete update of all changes made to that edition of the PL by deferred amendment. The content of the temporary .DAI files will accumulate during the life of that edition of the Presentation Library.

To add this change to the Presentation Library Manual, re-number section 9.1.3 as 9.1.3a and add the following new section 9.1.3b at the end of 9.1.3a, immediately before section 9.1.4:

"9.1.3b   Whenever a deferred amendment changes the look-up tables, colour tables or symbol descriptions, it will be accompanied by a temporary .DAI file. This will be a full replacement of the current official .DAI file issued after each immediate amendment for that edition/revision number of the Presentation Library, as described in 9.1.3a above. But in addition to containing all the changes made by immediate amendments this temporary .DAI file will also contain all changes made by deferred amendments during the life of that edition of the Presentation Library.

When an immediate amendment is accompanied by a revision of the official .DAI file, the temporary .DAI file will also be re-issued containing the changes made by that immediate amendment. Thus the temporary .DAI file is always an up to date shadow version of the official .DAI file for the next new edition.

The temporary .DAI file is intended for use by the manufacturer whenever he wishes to implement the deferred amendments.

A temporary .DAI file will be called "PSTYm_na.DAI", where "m_n " is the shortened edition/revision number of the Presentation Library to which the file applies, and "a" is an alphabetical counter for each successive temporary .DAI file having that edition/revision number.

For example the temporary .DAI file issued with the immediate amendment which changes the edition/revision number of the Presentation Library to "3_2" will be called "PSTY 3_2a". Then the temporary .DAI file for the first deferred amendment applying to edition/revision 3_2 will be called "PSTY3_2b". If a second deferred amendment to edition/revision number 3_2 is issued, its temporary .DAI file will be called "PSTY3_2c"

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End of deferred amendment 05

Note that the edition/revision numbers do not change after a deferred amendment. They remain:
- *Colour & Symbol Specifications 04.1, and*
- *Presentation Library 03.2*
as they became after applying immediate amendment 04.

The revised conditional procedures RESCSP02 and RESARE03 for this amendment, together with the temporary .DAI file PSTY3_2b required by item d05.cl.005, will be issued later in year 2000. (This will be the first temporary .DAI file to be issued and will include the changes made by deferred amendments 02 and 05. Deferred amendment 03 concerned "Extensions" and did not specify any changes.)

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