

**10<sup>th</sup> CSPWG MEETING**  
**Wellington, New Zealand, 21-24 January, 2014**

**Paper for Consideration by CSPCWG**  
**Report of INT1 subWG**

<b>Submitted by:</b>	Secretary
<b>Executive Summary:</b>	Report of the meeting of the INT1subWG in Cadiz July 2013, with lists of changes required to INT1 and some questions to be resolved by CSPCWG.
<b>Related Documents:</b>	INT1; CSPCWG10-11.2A
<b>Related Projects:</b>	

**Introduction / Background.**

The INT1 subWG comprises the CSPCWG Secretary and official INT1 producers:

Secretary: Andrew Heath-Coleman

France: Olivier Parvillers / Stéphane Guillou (from October 2013)

Germany: Sylvia Spohn

Spain: Alvaro Guitart

The INT1 subWG met in Cadiz 10-11 July 2013 to:

- agree how to include accumulated changes since the last round of new editions
- work up an 'options paper' for reorganizing INT1, arising out of various issues raised at WG9 (WG9 Action 31)
- review Terms of Reference and General Principles for Reviewing and Maintaining INT 1

The report of the meeting is attached at Annex. The 'options' paper has been transferred to CSPCWG10-11.2A for separate discussion.

**Current status of INT1 official language versions**

English Language (produced by Germany): 7<sup>th</sup> Edition 2011

Spanish Language (produced by Spain): 4<sup>th</sup> Edition 2011

French Language (produced by France): 5<sup>th</sup> Edition 2012

It is anticipated that the next round of new editions will be produced around 2015-16. The degree of change will depend on the outcome of discussions about reorganizing INT1 (next agenda item), but sufficient changes have already accumulated to justify new editions.

**Analysis / Discussion.**

Most outstanding changes to INT1 present no particular problems and the INT1 subWG have agreed how to include in next editions of INT1 – see table at Report Annex B. CSPCWG members are requested to inform the subWG if there are any strong disagreements with the agreed actions.

A few items are not straightforward and would benefit from guidance from CSPCWG10. Refer to Report Annex B table '**Outstanding items to be considered for next editions of INT1**' for numbers and details:

- 11 and 44. On multicoloured charts, what colour should the flare on an Emergency Wreck Marking Buoy be? The light is alternating blue and yellow. Should the recently agreed 'generic' magenta flare be used (B-470.4 in the lights section), or two separate coloured flares? We may need to clarify B-466.1.
- 40. Proposed amendment to 'Principles'.
- 42. Minor amendment to include 'Illum' as an International Abbreviation (this has been done in S-4 4.4.0). However, should S-4 be amended to delete the full legend and 'or equivalent'?
- 55. Whatever the outcome of discussion about colours for maximum draught/minimum depth areas (WG10 item 8.2), subWG would like guidance about whether INT1 should be updated by NM Block.

**Action required of CSPCWG.**

The CSPCWG is invited to:

- a. consider the report of the INT1 subWG;
- b. respond to specific questions bulleted above;
- c. approve the continuing existence of the INT1 subWG;
- d. review the Terms of Reference and General Principles (including subWG proposed changes) to confirm the correct direction and guidance is provided by CSPCWG;
- e. consider any issues to be brought to the attention of the INT1 subWG.

**Report of CSPCWG INT1subWG MEETING  
10-11 July 2013 at IHM CADIZ**

**Attendees:**

Andrew Heath-Coleman (UK – Secretary and co-ordinator)  
Alvaro Guitart (Spain - host)  
Luis-Manuel Rusillo (Spain)  
Olivier Parvillers (France)  
Sylvia Spohn (Germany, via ‘Skype’)

**1. ‘Options’ paper.**

The participants examined a draft ‘Possible re-organization of INT1 - options paper’ submitted by the Secretary. A resultant revised paper is at Annex A, intended for submission to the 10<sup>th</sup> CSPCWG meeting, in accordance with CSPCWG9 Action 31.

**2. Next editions.**

The participants worked through a list of accumulated items to be considered for next editions of INT1, held by the Secretary. These mainly derived from discussions and decisions at CSPCWG meetings 8 and 9 (2011-12) and the revision of S-4 Section B-300. While the discussions focussed initially on the more difficult cases, in fact the participants managed to complete the review of the entire list, which is retained in the order they had been noted. The agreed actions list is at Annex B.

**3. Review TOR and Principles.**

The participants reviewed the INT1subWG Terms of Reference (TOR) and General Principles for Reviewing and Maintaining INT 1. No changes are proposed for the TOR (existing TOR at Annex C). Proposed changes to the General Principles are at Annex D.

**Annex A to INT1 subWG report**

**Possible re-organization of INT1: options paper**

Transferred to CSPCWG10-11.2A

**Outstanding items to be considered for next editions of INT1**

(prepared for INT1 subWG meeting, July 2013)

Comments, including references to other documents, in blue.

Decisions at subWG meeting in red.

No	Source	Item	Agreed action
1.	WG8-8.1	K48: Depiction of marine farm areas: there is no requirement for a NM to update INT1, but it should be included at next edition	<p align="center">-----☐-----☐-----</p> <p>K48.1 right angled version. Symbol to be rotatable, otherwise as FR INT1. Term added: ', marine farm areas'.</p>
2.	WG8-8.3	FPSO, FSO and FSU to be added to list of INT abbreviations INT1	To do.
3.	WG8-8.5	INT1 producers to add example of all-round light with circle to INT1 at next edition. <a href="#">See also options paper.</a>	New P1.3. Term: 'Significant all-round light, generally for off shore navigation'.
4.	WG8-8.6	Change required to term at P1, to avoid confusion between major/minor light stars. <a href="#">[see further from discussion at WG9, on WG9-8.1]</a>	Remove flares (to be covered by P1.2). New term: 'Position of navigation light (size and style of 'star' may vary), light, lighthouse'.
5.	WG8-8.9	Clarify terms of dredged/maintained area symbols in INT1.	Still waiting further review post WG9. Currently with AU, consulting AU harbour authorities. <a href="#">See WG10 agenda item 8.1</a>













No	Source	Item	Agreed action
6.	WG8-8.11	Clarify guidance on safe clearances (inc changes to H20 & D26 – see US EN 8.11B, extracts at Appendix A)	<p>1. Divide D26:  D26.1 Overhead power cable with physical vertical clearance  D26.2 Overhead power cable with safe vertical clearance  Revised 'Note' (to follow immediately after D26.2): <i>The safe vertical clearance defined by the responsible authority, to avoid risk of electrical discharge, has been obtained by applying a reduction to the physical vertical clearance of the cable. The reduction is variable and depends upon the transmission voltage. See H20.</i>  Need to amend S-4.</p> <p>2. Include new H20 derived from S-4 B-302.2. Not considered necessary to include parenthesis '(Black)' and '(Magenta)', but change 'charted' to 'physical' to agree with D26 note. Include as much of the note about safe clearance as space allows in bilingual versions, but D26 is primary place for explanation. DE version: add link to D.</p>
7.	WG8-8.18	Include additional example of fairway, with maximum authorized draught in INT1 M18 (similar to UK's depiction in 5011).	Further discussion required following AU comment on WG Letter 7/13. Also see further from discussion on WG9-08.14. See WG10 agenda 8.2
8.	WG8-9.1	HDWG have proposed to include a definition of GNSS in S-32. It should also be added to INT1 as an INT abbreviation	To do
9.	WG8-11.1	INT1 subWG to consider reorganizing INT1 Sections K & L (and subsequently other sections) to remove composite symbols, ready for next round of INT1 new editions.	Major task, requires discussion. See options paper for discussion at WG10.

No	Source	Item	Agreed action
10.	WG8-INF5 (see PDF)	Positive comments were made about the US proposed changes to Q130 (CSPCWG8 – INF5). All WG members to provide any comments on US proposals for improving Q130 to Colby Harmon (Chairman DIPWG) and INT1 subWG officers by end March 2012.	<p>Q130.1.</p> <p>Lateral marks diagram: Choose either standard or multicolour depiction, with note to explain other style rather than 4 graphics, eg 'on standard charts, the flares will all be magenta'. Move buoyage arrow to position as US. To reduce clutter, the information in the US right hand column could be given under the graphics.</p> <p>IALA region map: not important, but include larger versions if plenty of room.</p> <p>Q130.3. Cardinal marks: retain existing depiction.</p> <p>Q130.6. Remove EWMB and include in new Q130.7: 'Marking new dangers'.</p>

No	Source	Item	Agreed action
11.	WG8	Do changes to guidance on charting lights on MCC have implications for INT1?	<p><b>New P1.2. Needs a note:</b>  'On standard charts, positions of lights are highlighted by a magenta flare. On multicoloured charts, the flare indicates the colour of light, except for multicoloured sector lights where a magenta flare may be used if the sectors are not charted*'.  This guide shows standard magenta flares, with examples of multicoloured depiction where significantly different.'  * altered 'is used' to 'may be used' to cover DE practice of using multiple coloured flares.</p> <p><b>New P20.4-6 as new DE version.</b> Add 'multicoloured' before 'charts' in P20.4.</p> <p><b>Rearranged P30.1-6 as new DE version.</b></p> <p><b>New P40.3.</b> Add light star with magenta 'generic' flare. Term: 'Sector light on multicoloured charts. Sectors not charted'</p> <p><b>Add multicoloured versions of P42 and P43 (with coloured circles) as new DE version.</b></p> <p><b>Q63: move to Q130.7. Unresolved: How would flare be shown on EWMB? Presume magenta.</b></p>
12.		'Generic' magenta flare	See above.
13.		ARC-pointer (INF8)	WG Ltr 8/12 – see WG9 8.1: no action required for INT1
14.	B-300 revision	B21, 23, 33 - mark as obsolescent	To do



No	Source	Item	Agreed action
15.		C3: modernize symbols?	As Appendix B-312.1
16.		C7: omit centre version	As Appendix B-312.2 (extract). Move old centre version to column 4 marked †
17.		C13: mark as obsolescent	Leave in column 1 but mark †
18.		C31: some trees will be obsolescent	As Appendix B-354.2. C31.2, 31.5-31.8 to be marked †. Also need to add 'Nipa palms' to C32.
19.		D18: helipad	As Appendix B-366.3. Term: Heliport, helipad.
20.		D20-22: rearrange so D20 is fixed bridge(s) including footbridge, 22 is vertical clearance. [See also WG8.8.11 and WG9.8.17]	D20.1 Fixed bridge (as existing D22, without clearance figure) D20.2 Footbridge, or fixed bridge on small scale chart D21 unchanged D22 as existing D20. (FR amend 'sea' to 'see') S-4 numbers amended in 4.4.0 (B-380.2, B-381.1)
21.		D27: add pylons?	No action. Pylons at D26 sufficient.
22.		E26.2: Add 'Onshore' wind farm. Amend limit to continuous line	To do
23.		E34.1: Replace graphic in DE version, similar to FR/ES version	As Appendix B-379.1
24.		F3: upright or sloping text?	Sloping, as Appendix B-313.3
25.		F5: new graphic, without coastline, showing the training wall alongside a channel, including above water (solid) and below water (dashed) sections	As Appendix B-322.2

No	Source	Item	Agreed action				
26.		F6: remove dotted sections and trim firm sections back to drying line.	As Appendix B-313.4. F6 number sufficient; F6.1 to 6.3 numbers are unnecessary (never in S-4). Cut back length of LH version a little. RH version should be similar to LH version, for small scale (ie only one groyne). S-4 4.4.0 B-313.4 amended.				
27.		F13: make thickened wharf in line with coastline	As Appendix B-321.1. Added to S-4 4.4.0: 'and when considered necessary by a bold line (0.2mm).				
28.		F20: replace blue by yellow inside dolphins	To do				
29.		F18: add ref to B-324.4	To do. Note: it would be wise to check all B-300 references following publication of new edition of S-4.				
30.		F19.1 & 2: amend refs to B-321.7 & 8	To do				
31.		F23: add legends 'ramp' and 'patent slip' as appropriate.	<p>See Appendix B-324.1-2. Show 4 boxes:</p> <table border="1"> <tr> <td>1<sup>st</sup> graphic (no legend) </td> <td>2<sup>nd</sup> graphic (Slip) </td> </tr> <tr> <td>3<sup>rd</sup> graphic (Patent slip) </td> <td>4<sup>th</sup> graphic (Ramp) </td> </tr> </table> <p>Amend S-4 references to B-324.1-2.</p>	1 <sup>st</sup> graphic (no legend) 	2 <sup>nd</sup> graphic (Slip) 	3 <sup>rd</sup> graphic (Patent slip) 	4 <sup>th</sup> graphic (Ramp) 
1 <sup>st</sup> graphic (no legend) 	2 <sup>nd</sup> graphic (Slip) 						
3 <sup>rd</sup> graphic (Patent slip) 	4 <sup>th</sup> graphic (Ramp) 						
32.		F24: add term 'careening grid'	To do				

No	Source	Item	Agreed action
33.		F34: show 'true to scale' version to left. Legend 'Hulk' to be upright text. Add S-4 reference B-330	As Appendix B-330. To-scale graphic similar to K20, but labelled 'Hulk'
34.		F44 RH (symbol version) is wrong way round. Also, DE version missing direction arrow.	As Appendix B-364.2 DE add direction arrow.
35.		F53.3: retire sheerlegs (not a symbol)	Delete F53.3. Retired number in S-4 B-151.2.
36.		F63: mark as obsolescent	To do
37.		K43.1, 2: amend S-4 reference to 422.9	To do (but location in INT1 may change, if option approved)
38.		L5.2: amend term to 'Offshore' wind farm	To do
39.	email AU 7/03/12	Add note at M18 'may be highlighted by grey tint'	To do

No	Source	Item	Agreed action
40.	email C Harmon 2/04/12 (Appendix C)	Lines between symbols	<p>The subWG agreed the following new principles:</p> <p><b>Horizontal lines.</b> For fractional numbers, the fractional numbers in column 1 will not be divided by horizontal lines, but the actual symbols and terms in columns 2-4 will be. (E30 seems to be an error which we need to note for the next editions). Sometimes the fractional number itself covers two possible depictions, eg S3.4 and 3.5. Where the symbols are all covered by the same entry in S-4, column 5 will not be divided.</p> <p><b>Vertical lines.</b> Vertical lines are used:</p> <ul style="list-style-type: none"> <li>• principally to improve clarity, eg between 'chart extracts' (eg C24, D1)</li> <li>• to separate alternative symbols or text legends (eg E24, D17), but note that obsolescent symbols should be moved to column 4, unless they have not been replaced with new symbols</li> <li>• to separate 'to-scale' graphics from symbol (eg F34, L5.2)</li> </ul> <p>Vertical lines are <b>not</b> used to separate different examples (eg E2, L5.1)</p> <p>These to be added to the 'Principles'. Some changes to INT1 will be required to comply (eg E30).</p>
41.		L43: should there be a version with 'Diffuser' or 'Crib'? See B-422.9 and B-444.8	<p>Depends on possible rationalization K/L – see options paper. As a principle, should not be necessary to include self-explanatory legends in INT1.</p>

No	Source	Item	Agreed action
42.		<p>Add 'illum' at P63 (see B-478.2).</p> <p>S-4 is inconsistent:  B-478.2 states: ...indicated by the legend 'illuminated', the international abbreviation 'illum', or equivalent...  B-122.1 does not include 'illum' in list of INT abbreviations.</p>	<p>subWG considers it should be INT abbreviation, and therefore to be added to INT1 at P63 and index of abbreviations, and S-4 list in B-122.1 <b>but need to consult full WG</b> (at WG10)</p> <p>Included in S-4 4.4.0. But should 'or equivalent' be deleted?</p>
43.		N21: split for diving prohibited	<p>N21.1 – Fishing prohibited  N21.2 – Diving prohibited  S-4 references B-439.3/4.  Remove national lettered versions.</p>
44.		<p>Q130.6: should there be a separate Q130.7 for EWMB? (Not really a special mark in IALA terminology).  See IALA booklet. New Danger Marks could be lateral, cardinal, isolated danger or EWMB. So EWMB is strictly category on its own. If we use 'Special marks' to include EWMB we depart from IALA terminology.</p>	<p>Add new Q130.7 'Marking new dangers' to include EWMB. Magenta flare?</p>
	<b>Items from CSPCWG9:</b>		
45.		Review TOR and General Principles	See Annexes C and D.
46.	WG9-8.1	amend P1 term to 'Position of navigation light (size and style of 'star' may vary), light, lighthouse'	As at Item 4.
47.	WG9-8.2	<p>Include simplified version of light vessel at Q32 (and related changes, see WG9 minute at 8.2).  INT1subWG would prefer to locate at P6 (P6.2?). Full WG may need to reconsider symbol (see comments in response to WG Ltr 6/13).</p>	No action until further review by WG.

No	Source	Item	Agreed action
48.	WG9-8.5	Consider adding note at N1/2 explaining green might be used when area is environmental	Add note after N2.2: 'On multicoloured charts, these symbols may be green when associated with environmental areas.'
49.	WG9-8.6	Consider adding explanation of 'discontinuity' at I25. WG9 Action 25: INT1 subWG to consider whether some explanation of the break could be added (possibly in I25).	Include in new depth data quality section – see options paper.
50.	WG9-8.6	Consider adding CATZOC table	Include in new depth data quality section – see options paper.
51.	WG9-8.6	Amend description at K3 and K30 as suggested by NZ (WG9-8.6)	Revise K3 term: 'Safe clearance depth. The exact depth is unknown but is estimated to have a safe clearance at the depth shown.'  Revise K30 term:  'Safe clearance depth over wreck. The exact depth is unknown but is estimated to have a safe clearance at the depth shown.'  May change if option for data quality sub-section approved.
52.	WG9-8.6	Review terms for DQ indicators: can differences be clarified?  PA: existing term at B7 seems clear.  PD: existing term at B8 seems clear.  ED: add '(the source data is of suspect quality)'  SD: add '(position accurate, but least depth may not have been found)'	For new data quality section (if approved) use guidance from S-4 (reworded as necessary to make definition rather than guidance on usage).  Later: see proposal for ED derived from US comments on WG Letter 7/13.
53.	WG9-8.6	Make I4 obsolescent	To do (but may be affected by revision of Section I for new data quality sub-section).

No	Source	Item	Agreed action
54.	WG9-8.6	Consider options for rearranging INT1; options, consequences and scope. Involve J Wootton	See options paper at Annex A
55.	WG9-8.14	<p>Include symbols for minimum depth and maximum authorized draught (I26/27)  Depends on approval of draft new specification. Possible solutions:  I26: &lt;18.5m&gt; Maximum authorized draught in a route, channel or area  I27: 18.5m Minimum depth of a route, channel or area</p> <p>Additional Q: should these be added by NM after new edition S-4? Or wait next edition INT1?</p>	<p>Awaiting decision re J Wootton comments on WG Ltr 7/13</p> <p>NM for INT1 likely to be required.</p>
56.	WG9-8.17	Include new footbridge symbol at D20(.2)? Slight rearrangement to move vertical clearance to D22.	See item 20
57.	Other	Contents page: add 'Aquaculture' to K	DE, ES
58.		P-U: amend English title to 'Aids to Navigation & Services'	All
59.		P8	FR add light description
60.		P60 amend term to 'Aeronautical light', in accordance with definition of abbreviation 'Aero'.	To do
61.		S18.1-2	DE to add
62.		S50 note	FR, ES delete 'of' after 'decimal'

## Appendix A to Annex B to INT1 subWG report

### Extracts from WG8 – EN8.11B (US), with comments in blue

The United Kingdom Hydrographic Office (UKHO) Chart (now NP) 5011, Symbols and Abbreviations Used on Admiralty Paper Charts, has a similar diagram as Karte 1 at Symbol H 20, but there are some minor differences that may help a chart user to distinguish the difference between a safe vertical clearance and a physical vertical clearance.

In Chart 5011, the label for the safe vertical clearance dimension line includes the word “Magenta” in parentheses.

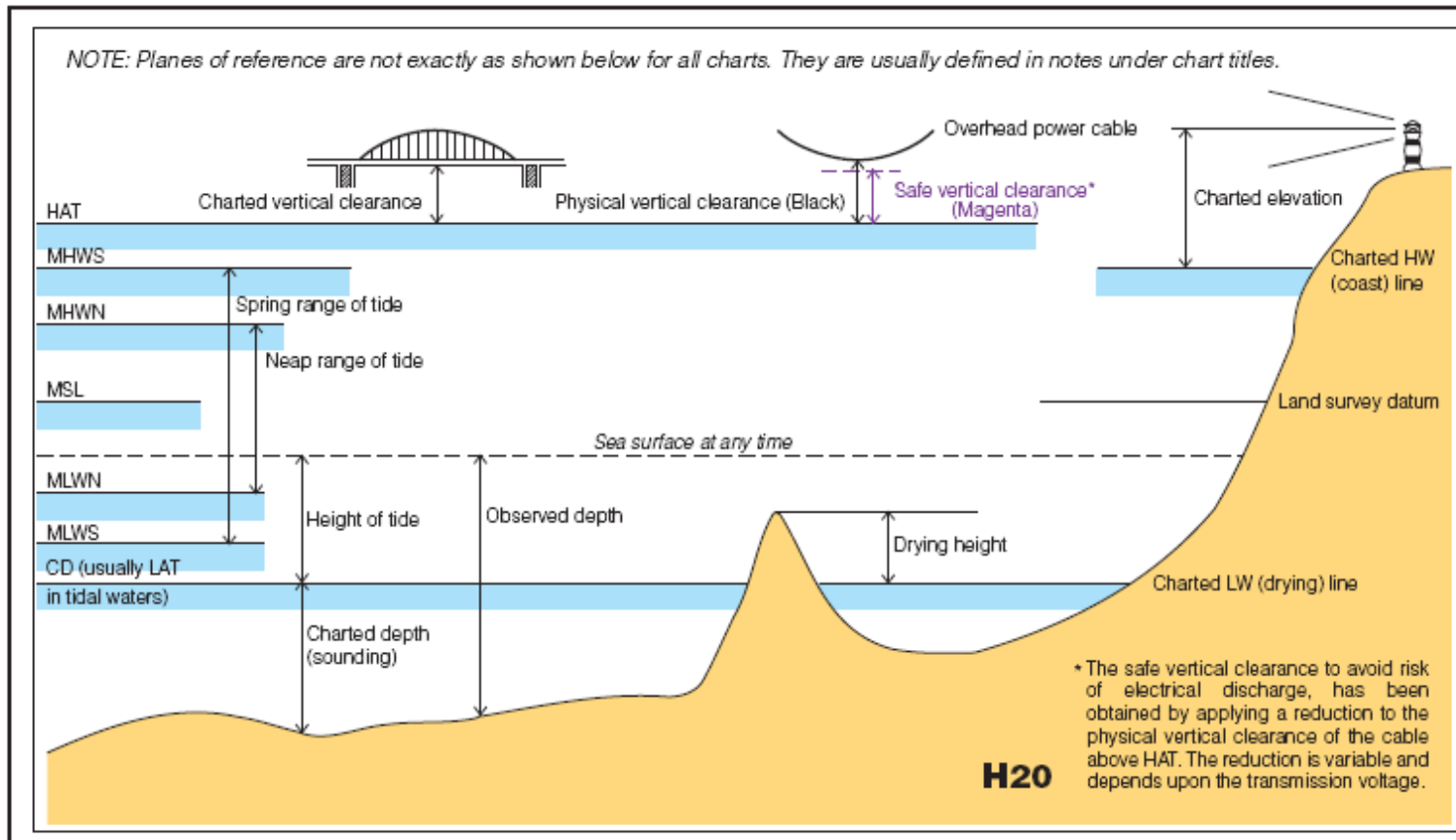
In Chart 5011, the vertical dimension line for the physical vertical clearance of the overhead power cable is labeled, “Charted vertical clearance (Black).”

These additions might help a mariner understand the difference in the two types of clearances existing on nautical charts. In addition, Chart 5011 includes an explanation of safe vertical clearance in the lower right corner of the graphic.

A similar explanation is found in Karte 1 as a footnote to Symbol D 26 (“Overhead power cable with pylons and safe vertical clearance”), but the United States believes that such a statement would also be helpful to chart users at H 20 as is done in Chart 5011. Note that the footnote for the vertical clearances of power cables at D 26 refers back to D 20, which shows **a bridge** symbol. This is potentially confusing. **One problem with this is the fact that INT1 is bilingual, therefore DE, ES and FR will have to show all notes and legends on H20 in two languages; space may therefore be a limiting factor.** Perhaps it would also be helpful if the label for the safe vertical clearance vertical dimension line at H 20 could be changed to magenta coloured type. **Good idea.** Also, consider changing “Charted vertical clearance” at the overhead cable (and not the bridge), to “Physical vertical clearance (Black)”, since it may be the magenta safe vertical clearance that is actually charted. **Good point**

**New H 20 from S-4 B-300. This includes US suggestions above and could be included in next editions INT1.**





Since there are two different types of overhead power cable clearances that may be charted, CSPWG might consider amending INT 1, Symbol D 26, into.....

D 26.1, showing the overhead power cable symbol and a physical vertical clearance symbol in black coloured type, with the term column stating, “Overhead power cable with pylons and physical vertical clearance (no safe clearance available)” .....

and.....

D 26.2, which would remain the same as the current D 26, with a safe vertical clearance. With the addition of D 26.1, the footnote for D 26.2 would not have to refer back to D 20, a generic vertical clearance symbol shown associated with a bridge.

[This seems a sensible suggestion.](#)

**B-312.1** A steep and high coast, eg, a coast backed by rock or earth cliffs, may give a good radar return and be useful for visual identification from a distance.

Where cliffs are prominent features they should be charted on scales larger than 1:500 000. Cliff-top heights may be used for estimating distance off (eg, for clearing inshore dangers) and should be shown where possible.

A coast backed by rocky cliffs must be charted with the cliff top in its true position on large-scale charts. On medium scales the cliff top may have to be displaced inland slightly for the symbol to be shown clearly.



**C3**

A steep coast without rocky cliffs should be charted by hachures, thus:



**C3**



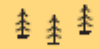



**Extract from revised B-312.2:**

A **stony shore** must be represented, if useful on large-scale charts, by a band of small circles or by a legend on the land side of the coastline:



**C7**

**B-354.2** **Prominent trees** when found in small groups (as opposed to stretches of woodland) may be represented by pictorial symbols. When the position of an individual isolated tree is known, and is of use in position-fixing, a small circle must be inserted at the base of the symbol.

	<b>Prominent Trees</b>	<b>Isolated Tree</b>	
a. Unspecified Tree			<b>C31.1</b>
b. Coniferous and Casuarinas			<b>C31.3</b>
c. Palm			<b>C31.4</b>

- B-379.1** On large-scale charts, fortified structures should be represented by true-to-scale outlines, generalised where necessary. The symbols used must be the normal symbols for individual buildings, with embankment or steep coast symbols (C3) if appropriate. Detached walls must be represented by bold lines. Where appropriate, the structure should be named.



**E34.1**

- B-313.3** A causeway is a raised road of solid structure built primarily to provide a route across wet ground or an intertidal area. It must be represented by the symbol for a road or track as appropriate (see B-365.2) with land tint and the legend 'Causeway' or equivalent. If scale permits and useful, the embankment may be represented by hachures. Where a causeway is intertidal, it must be represented by dashed lines, with intertidal tint and the legend 'Causeway' or equivalent.



**F3**

**B-322.2** A **training wall** is a structure built alongside a channel to direct water flow through the channel to promote a scouring action. Training walls are often submerged at high water.

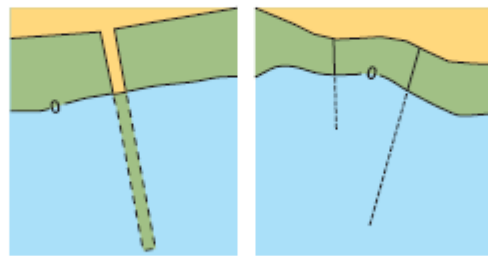
Unless the scale is large enough to show the actual outline, with appropriate coloured tint, a training wall should be shown as a very bold line (approximately 0,5mm width), continuous where the wall always remains above water, dashed where it may be submerged. Any associated lettering should be upright, unless no part of the training wall is above HW.



**F5**

**B-313.4** A **groyne** (US: groin) is a low wall-like structure, usually extending at right angles from the shore, to reduce coastal erosion. Groynes submerged at high water may be a danger to small craft. On large-scale charts, groynes should be charted in their true positions:

- by continuous bold (coastline thickness) lines where they are above height datum and
- by dashed bold lines to show their full extent below high water:



**F6**

Lacking more specific knowledge, it may be assumed that the top of the groyne will be above high water through the charted intertidal area.

**B-321.1** **Quays and wharves.** A **quay** is a solid structure usually of stone, masonry or concrete (as distinguished from a pile structure) alongside which vessel may lie to work cargoes. It usually runs along or nearly along the line of the shore. A **wharf** is a structure similar to a quay but usually constructed of wood, iron or concrete and supported on piles. It may be either in continuous contact with the land or connected to the shore by one or more approach piers. On charts, they will usually only be distinguished by the name.



**F13**

- B-324.1** A **Slipway** is a reinforced slope where vessels may be constructed or repaired. Slipways must be shown in accordance with the principles above. The **international legend** 'Slip' should be used where necessary to avoid misinterpretation; lettering should be upright.



A **Patent slip** (Marine railway, US usage) is a slipway with rails for ship cradles. They should be distinguished on the largest scale charts by two parallel lines inserted down the centre of the slip. A legend may be added to help identify the feature:



- B-324.2** **Landings** for boats, if shown, may take the form of very small piers, ramps or areas of hard bottom where the rest of the foreshore is mud.

A **Ramp** (a slope used for landing small boats, or driving cars on and off a ferry, etc) must be shown, where required, as for slipways. The legend 'Ramp' should be used where space permits to avoid misinterpretation; lettering should be in upright.



A hard area should be delimited by dashed lines. On large-scale charts, the **international abbreviation** 'Lndg' should be added in sloping text if it is sometimes submerged or upright text if it is always above water.





**B-366.3** Heliports must, if required, be charted by a black circle 3mm in diameter containing the international abbreviation 'H':



**D18**

Helipads may be charted, if required, by the same symbol as a heliport.

For pilots transferred by helicopter, see B-491.2.

## B-330 MOORED AND FIXED VESSELS, HULKS

Vessels may be built for, or converted to, some use which does not require them to move, eg museum ship, houseboat, floating hotel, conference centre, storage hulk, breakwater. Permanently fixed vessels should normally be charted as a true to scale and orientation outline, filled with land tint, eg:



If scale does not allow, the symbol should be used:



**F34**

The legend 'Hulk' in upright text should be placed adjacent to the outline or symbol, to distinguish it from a wreck. If useful, the vessel's name or the present function of the hulk may be shown in addition to or in place of the legend.

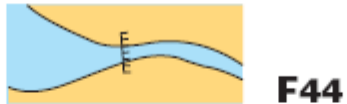
A hulk may be defined as the hull of an old vessel from which fittings and superstructure have been removed. It may be abandoned or put to some non-navigable use.

For moored offshore production vessels, see B-445.5.

**B-364.2** A dam must be represented, if required, either true to scale, with legend 'Dam', or equivalent, eg:



or by the symbol drawn across and slightly overlapping the banks of the river, the 'teeth' pointing in the direction of the flow:



**B-366.3** Heliports must, if required, be charted by a black circle 3mm in diameter containing the international abbreviation 'H':



Helipads may be charted, if required, by the same symbol as a heliport.

For pilots transferred by helicopter, see B-491.2.



## Appendix C to Annex B to INT1 subWG report

### Email exchange Secretary/Colby Harmon

#### Email from Colby Harmon dated 29 March 2012:

Andrew,

I have been struggling to figure out one of the more arcane aspects of INT1. Do you know the logic behind when INT1 inserts horizontal lines between fractional symbol numbers (i.e., E25.1 & E25.2) and when it doesn't (i.e., E30.1-E30.4)?

I am also wondering about when vertical lines are inserted (i.e., E10.1) and when they are not (i.e., E16 & E30.1-2).

Related to this is the case where the last German INT1 used vertical lines in each of the four symbols E10.1-4, but the most recent Spanish INT1 version removed the lines for E10.2-4.

We could just follow what was done in the most recent INT1, but as the case above illustrates, it would be helpful to know what the "rule(s)" is/are. It's hard to tell if the change is fixing something or if it's a mistake that we would be repeating.

Thanks for your help, Colby A. Harmon

#### Response from Secretary:

Colby

We concentrated in the last round of editions in trying to get consistency across the INT1 for important aspects, especially the actual symbols and associated descriptive terms; we did not look so closely at the 'arcane' aspects. You are right to question the 'rules'. There are none written, so far as I know, except that 'true to scale' depiction should be to the left and smaller scale symbols to the right in column 2 (see example in the Introduction section).

I think the 'rule's as far as can generally be applied should be:

#### Horizontal lines (as agreed by subWG).

For fractional numbers, the fractional numbers in column 1 will not be divided by horizontal lines, but the actual symbols and terms in columns 2-4 will be. E30 seems to be an error which we need to note for the next editions. Sometimes the fractional number itself covers two possible depictions, eg S3.4 and 3.5. Where the symbols are all covered by the same entry in S-4, column 5 will not be divided.

#### Vertical lines (as agreed by subWG).

Vertical lines are used:

- principally to improve clarity, eg between 'chart extracts' (eg C24)
- to separate different symbols or text legends (eg E24)
- to separate to-scale graphics from symbol (eg F34)

Vertical lines are not used to separate different examples (eg E2)

These to be added to the 'Principles'. Some changes will be required as a result.

I think these are intended to divide where there is a choice of two (or more) symbols for the same thing (in which case, usually one will be obsolescent and marked by a dagger). Where the depictions are current but different because of scale (as explained in the introduction) there should not be vertical dividers. Also, there is no divider for several examples, eg E1.

If this is right, then the vertical line at E10.1 is correct, but should not be there for 10.2-10.4; the horizontal lines dividing E10.1-4 are correct. So, Spain has got this right. At E30, there should be vertical lines in 30.1 and 30.2 and horizontal lines between all four (I think all the INT1s are wrong). E16 should have a vertical line. E25.1/2 is correct.

The INT1 subWG needs to look at this more carefully when we have the opportunity.

Andrew Heath-Coleman

**TERMS OF REFERENCE**  
*for the*  
**INT 1 subWG of the**  
**CHART STANDARDIZATION AND PAPER CHART W.G. (CSPCWG)**

**1. Objectives**

To develop and maintain the three official language version of INT 1 'Symbols, Abbreviations, Terms used on Charts' (i.e. English, French and Spanish).

**2. Authority**

The sub Working Group (subWG) is a subsidiary of CSPCWG and its work is subject to CSPCWG approval.

**3. Procedures**

- a. The subWG will conduct its business mainly by correspondence.
- b. The subWG will report to meetings of CSPCWG and will copy significant correspondence to all CSPCWG members, through the CSPCWG Secretary.
- c. The CSPCWG Chairman will review annually the outstanding issues and continuing need for the subWG.

**4. Composition and Chairmanship**

- a. Membership of the INT 1 subWG will consist of the French, German and Spanish CSPCWG members (as representatives of the Member States responsible for producing the three official language versions of INT 1) and the CSPCWG Secretary.
- b. There will be no Chairman. The CSPCWG Secretary will coordinate correspondence.

**5. Tasks**

- a. Liaise regarding the publication of new editions of INT 1.
- b. Liaise regarding the publication of updates via Notices to Mariners.
- c. Advise and make proposals to CSPCWG on policy for maintaining INT 1.
- d. Develop improvements in consistency between INT 1 versions and with S-4 (e.g. identify and seek to eliminate significant inconsistencies; work towards the inclusion of all INT symbols in each language version).
- e. Advise CSPCWG on implications to INT 1 of proposed changes for S-4.
- f. Assess vacant entries (CSPCWG Work Item E.4).
- g. Consider the potential for developments of INT 1 to meet users' needs (e.g. as a digital publication), advising CSPCWG accordingly.
- h. Assist in the Quality Assurance of INT 1.

General Principles for Reviewing and Maintaining INT 1

(Agreed at subWG meeting June 2010)

(Proposed changes from subWG meeting July 2013)

1. Complete consistency between the versions is unlikely to be achievable and not necessary. However, no differences that have the potential to confuse users should be allowed.
2. Numbering and English terms and descriptions should be common.
3. The French and Spanish versions should have French and Spanish legends and abbreviations (where non-INT) in column 2. The German version, as the official English language version, should have English legends and abbreviations in column 2 (the German equivalents being shown in column 4, with any national or obsolescent versions).
4. For consistency, the order of graphics in column 2 should be (from left to right): i. true-scale, ii. symbol, iii. legend or abbreviation, as shown in the 'Schematic Layout' after the Introduction.
5. Dividing lines.
  - a. **Horizontal lines.** For fractional numbers, the fractional numbers in column 1 will not be divided by horizontal lines, but the actual symbols and terms in columns 2-4 will be. Sometimes the fractional number itself covers two possible depictions, eg S3.4 and 3.5. Where the symbols are all covered by the same entry in S-4, column 5 will not be divided.
  - b. **Vertical lines.** Vertical lines are used:
    - principally to improve clarity, eg between 'chart extracts' (eg C24, D1)
    - to separate alternative symbols or text legends (eg E24, D17)
    - to separate 'to-scale' graphics from symbol (eg F34, L5.2)
  - c. Vertical lines are **not** used to separate different examples (eg E2, L5.1)
6. Obsolescent symbols are to be marked by a dagger '†' symbol. They should be moved to column 4, unless they have not been replaced with new symbols, when they are retained in column 2.
7. Vertical clearances. Although the stated IHO convention is now for vertical clearances to be given above HAT (except where there is minimal tide), it will be a long time before all (or even most) charts follow the changed convention. INT 1 (as a user document) should reflect this situation, using a wording appropriate to the publishing nation, with the actual datum used for clearances being defined on individual charts.
8. 'Large-scale' is an adjective and hyphenated, 'smaller scale' (adjective + noun) are two separate words. The use of hyphens to conjoin English words is generally in accordance with the Oxford English Dictionary.



9. Section U (Small Craft or Leisure Facilities) will contain no INT symbols and is an optional section.

10. Maintenance of INT 1:

- a. The INT1 subWG should not anticipate S-4 revisions in updating INT 1.
- b. The decision to publish a new edition may be based on many factors, eg weight of outstanding updates, available resources, commercial needs balanced against user expectations. Therefore, the publishing of a new edition must remain at the discretion of the publishing office.
- c. Any member of the INT1 subWG preparing a new edition should consult within the subWG, to gain, as far as possible, agreement on changes to be incorporated. (This should usually be by correspondence; it is not assumed that a meeting will invariably be necessary).
- d. Navigationally significant changes (or updates) should be made by NM (or NM Block). Such cases should be rare, and would be the subject to subWG consultation and be announced by IHO CL and displayed on the IHO website.
- e. Changes (including new symbols) that are so intuitive that there is no chance of misinterpretation should usually be left until the next new edition.
- f. Minor corrections may be included in reprints, including: spellings; improvements (but not changes) to existing symbols; clarification of terms (when not navigationally significant); changes to S-4 references; addition of obsolescent marks (†).
- g. A previously used INT1 number must not be reused for a different subject, because of the possible confusion caused to references in other publications or databases.
- h. A 'tinted' version of new editions, available only to IHO Member States on the website, would be helpful to show changes, assisting the other language publishers for their next edition.

11. Future developments:

Although an IHB tri-lingual version of INT 1, with an IHO approved symbol library, remains an ambition, it is accepted that there is currently no possibility of pursuing this. Note: As a compromise suggestion, the subWG considered that an Annex to S-4, with each symbol shown in INT 1 order, with agreed English, French and Spanish terms alongside, would be useful for hydrographic offices. As no international symbol library is available, the symbols used would be those in S-4 (mostly currently derived from UK symbols). The WG rejected this suggestion at CSPCWG5.