

INTERNATIONAL HYDROGRAPHIC
ORGANIZATION



ORGANISATION HYDROGRAPHIQUE
INTERNATIONALE

NAUTICAL CARTOGRAPHY WORKING GROUP (NCWG)

[A Working Group of the Hydrographic Services and Standards Committee (HSSC)]

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Date 7 July 2016

Dear Colleagues

Subject: NCWG2 Actions - Clarifications to S-4

IHO Resolution 2/2007 (as amended) defines 'clarifications' to IHO Standards (which includes S-4) as:

'Clarifications are non-substantive changes to a standard. Typically, *clarifications*: remove ambiguity; correct grammatical and spelling errors; amend or update cross references; insert improved graphics in spelling, punctuation and grammar. A clarification must not cause any substantive semantic change to a standard. *Clarifications* are the responsibility of the relevant subordinate body and may be delegated to the responsible editor.'

The participants at NCWG2 identified several clarifications required to S-4. These are not new symbols or specifications and do not affect chart users. However, in the interests of standardization, they clarify how existing specifications should be applied by chart compilers in particular situations. They do not need to be referred to HSSC or Member States for approval, but they are more than mere editorial changes (such as spelling corrections, cross references and lists of updates) and are therefore not delegated to the NCWG Secretary as the 'responsible editor'; they need to be confirmed by NCWG members. These are all listed in the NCWG2 Report as actions to be initiated by the Secretary.

Annex A lists the relevant NCWG2 actions, with associated extracts from the NCWG2 Report, followed by further discussion leading to suggested revised or additional S-4 text.

Annex B is a response form. You are requested to consider the proposed clarifications carefully, complete the Response form accordingly, and return it to me by 1 September 2016.

Yours sincerely,

Andrew Heath-Coleman
Secretary NCWG

Annex A: NCWG2 Actions 12, 13, 16, 27, 28, 33, 35, 36 and 42 - Clarifications to S-4
Annex B: Response form

NCWG2 Actions 12, 13, 16, 27, 28, 33, 35, 36 and 42**Clarifications to S-4**

The following lists NCWG2 Actions related to clarifications to S-4, followed by the associated extracts from the NCWG2 report. The associated Explanatory Notes (ENs) are listed in the NCWG2 report extract below and can be viewed on the NCWG2 page of the IHO website, if required. Discussions follow under the heading 'Outcome' with suggested changes to S-4 shown in red, with deletions crossed through.

NCWG2 Action 12: Secretary to draft clarification to S-4 about LED lights and circulate to WG for comment and approval.

Extract from NCWG2 report:

8.2 Lite pipes (UK)

Docs: NCWG2-08.2A High intensity LED lights in linear array

Secretary presented the paper. Recommendation 10.2 was accepted and it was agreed that the brand name 'Lite pipe' should be avoided.

Outcome:

Recommendation 10.2 in EN NCWG2-08.2A was to add a clarification at B-478.5 on the charting of high intensity LED strip lights. Consequently, I suggest that the following (based on the draft wording at Recommendation 10.2) should be added to B-478.5, under the existing graphic:

High intensity Light Emitting Diode (LED) lights in linear array intended for use as an aid to navigation should not be treated as strip lights. Instead they should be charted, where required, as conventional lights. A description of the light structure should be included in the List of Lights and Fog Signals (LL).

I suggest a cross reference at the end of B-471.7 would also be useful:

High intensity Light Emitting Diode (LED) lights in linear array intended for use as an aid to navigation should be treated the same as conventional lights (see B-478.5).

And/or at B-471.1:

High intensity Light Emitting Diode (LED) lights in linear array intended for use as an aid to navigation do not need to be distinguished from other lights on charts, although a description of the light structure should be included in the List of Lights and Fog Signals (LL).

B-471.8 implies that the description '(vert)' should only be used to imply two or more lights vertically disposed. This is inconsistent with B-478.5, which states that '(vert)' should be used to qualify a single vertically mounted strip light. There should therefore be an additional clarification inserted in the last paragraph of B-471.8b:

The '&' sign is not required, as the qualifier (vert) or (hor) clearly indicates that there is more than one light. The qualifier (vert) may be used for a single vertically mounted strip light, which is distinguished from two or more lights by its special symbol P64 (see B-478.5). Qualifiers (vert) and (hor) must not be used for Traffic Signals (see B-495).

NCWG2 Action 13: Secretary to amend S-4 B-340.3 and B-540.1 as a clarification re conspicuous features and circulate to WG for comment and approval.

Extract from NCWG2 report:

8.3 Abbreviation or full word for conspicuous features (AU)

*Docs: NCWG2-08.3A Abbreviations Used for Conspicuous Features
Presentation available*

Chair (on behalf of AU) gave a presentation based on his paper, pointing out the inconsistencies in S-4. Secretary pointed out that we need to determine which charting practice is preferred and then adjust S-4 and INT1 as necessary. The meeting decided Recommendation 1 should be accepted and also add 'and conspicuous objects' to B-540.1 (last sentence).

Outcome:

Recommendation 1 in EN NCWG2-08.3A was:

1. Remove the statement “Abbreviations should only be used if space is limited.” from S-4 – B-340.3.

The paragraph under the graphic at B-340.3 will therefore become:

If a position circle (B22) is used for a conspicuous landmark, it should be the larger, 2mm diameter, version. ~~Abbreviations should only be used if space is limited.~~ Identifying features may be added in parenthesis, if useful, for example: ‘(red)’, ‘(2 spires)’.

In addition to removing the above sentence, the graphic should be changed so that ‘WATER TOWER’ becomes ‘**WATER TR**’.

In accordance with the action above, B-540.1 should have ‘**and conspicuous objects**’ added at the end.

These changes will still allow the use of full words for conspicuous objects (even where an international abbreviation exists) while removing it as the recommended practice.

NCWG2 Action 16: Secretary to draft clarification on intermittent lakes for S-4 and circulate to WG for comment and approval.

Extract from NCWG2 report:

8.5 Intermittent lakes (**Chair, for Saudi Arabia**)

Docs: NCWG2-08.5A Intermittent Lakes

Chair presented the paper on behalf of Saudi Arabia. In answer to a question from Saied Parizi (IR), he stated that he did not believe there is any legal implication to charting intermittent lakes (which are non-navigable). The recommendations were accepted.

Outcome:

It is therefore suggested that the following be added at the end of B-353.6, underneath the graphic in accordance with the recommendation for changing S-4:

Intermittent lakes should be represented as for intermittent rivers, see B-353.3.

NCWG2 Action 27: Secretary to draft some clarifications to the various parts of S-4 which cover restricted area and ESSA symbology, to ensure no contradictions or ambiguities.

Extract from NCWG2 report:

8.11 Restrictions in Marine Reserves (**NL**)

Docs: NCWG2-08.11A Restrictions in ESSA-areas

NCWG2-08.11B (S-101PT1-03.3A) DCEG Restricted Area Proposal

Ben Timmerman (NL) presented his paper on colour usage for display of navigational restrictions concerned with ESSAs, followed by a brief from the Chair on the discussions related to sub-classification of restricted areas that took place at the S-100WG1 meeting (14-18 March 2016). There was a robust discussion, initially with conflicting views, but a consensus emerged that:

- Colours of symbols and limits must never be mixed (which accords with the present guidance at B-437.2B).
- Ideally, areas which are **permanently** entry prohibited for **all** classes of vessels should be charted in magenta. However, some cartographic judgment was needed in complex areas where seasonal restrictions apply or different restrictions apply to different parts of an ESSA.

Outcome:

Suggest amend B-437.2b as follows:

b. **Colour.** All details associated with ESSA should be charted in green (the colour internationally associated with environmental matters) or may be charted in magenta (superimposed information); see B-140-146. The use of green for ESSA has the advantages of being immediately identifiable as an ESSA and of reducing the amount of detail on the magenta plate. The use of magenta has the advantage of being one of the four basic colours which all Member States use. All other aspects of specification B-437 apply equally, whichever colour is used.

It is recommended that Member States move towards the use of green for ESSA if there are no other

considerations preventing this. ~~However, certain areas discussed in B-435 and B-439 should be inserted in magenta for consistency.~~ If green is used for the ESSA limits, all associated symbols, abbreviations, legends, texts and notes should also be green. Associated symbols could include, for example: restrictions on entry, anchoring, fishing and diving; various animal silhouettes; speed limits. ~~The exception is when a note about an ESSA is combined with a magenta note (for example about an associated restriction), then the entire note should be in magenta.~~ However, the following areas should be shown in magenta, even when their existence is partly or wholly to reduce the risk of pollution or other damage to the environment:

i. **All routing measures listed in B-435**, whether IMO-adopted or not.

Notes:

- PSSAs are not routing measures, but they may have associated protective routing measures (see B-435h), for example: traffic separation schemes designed to route traffic away from the PSSA; compulsory reporting or pilotage schemes. In such cases, the magenta routing measure normally takes priority over the dashed PSSA limit, although the PSSA tint band and abbreviation may still be shown in green. For further guidance, including circumstances when this convention might be reversed, see B-435h and B-437.6b & c.
 - IMO-adopted ‘No anchoring areas’ (see B-435.11) are routing measures and must be shown in magenta. However, other areas where anchoring is prohibited within an ESSA inside territorial waters may be shown in green.
- ii. **Areas into which entry is permanently prohibited for all classes of vessels** (see B-439.3), except authorized vessels, for example: military vessels (see B-441.6); offshore production vessels (see various notes in B-445).

Notes:

- Even if the entry prohibited area is part of an ESSA charted in green, it will usually be possible to show the limits and associated N2.2 symbol in magenta while the rest of the ESSA and associated other restrictions and explanatory notes can be shown in green. However, some cartographic judgment is allowed where necessary to avoid confusion.
- Areas into which entry is occasionally or seasonally prohibited, or into which only certain vessels are prohibited, for environmental reasons, should be charted in green for consistency if that is the colour used for other parts of the ESSA.

Other consequential amendments required:

At B-146, the final sentence could cause confusion, by implying that if an ESSA note includes a reference to a restriction, such as fishing prohibited, then the note should be in magenta. This sentence was probably intended to cover ‘associated protective measures’, but in such cases it would be better to have separate notes (if notes are required for both features).

If a note refers to two or more features which are charted in different colours, the note should be in the colour of the most navigationally significant feature. ~~For example, when a note about an Environmentally Sensitive Sea Area (charted in green) is combined with a magenta note (for example about an associated restriction), then the entire note should be in magenta; see B-437.2b.~~

Are there other examples, or would it be better to delete the whole second paragraph at B-146 – and delete the related wording at B-242.3? If not to be deleted, it would probably be better to add it to the end of the first paragraph.

At B-439.3

These line symbols, with the exception of L41.2, must be shown in magenta (or green for environmental areas). Symbols should be inserted at intervals of approximately 40mm or closer and not exceeding 50mm.

In INT1, suggest adding a note under the ‘Restricted Areas’ title area above N20:

Note: On multi-coloured charts, the magenta symbols below may be in green when associated with environmental areas.

For consistency, the same note could be inserted into the ‘General’ title area above N1.1, with the existing note under N2.2 removed.

Action NCWG2/28: Secretary to circulate draft amendment to B-422.2, allowing use of K25-27 for nearly invisible stranded wrecks, to WG for comment and approval.

NCWG2 Report Extract:

8.12 Use of symbol K24 'Stranded wreck' in tidal waters (DE)

Docs: NCWG2-08.12A Wrecks almost not visible at level of Chart Datum

Sylvia Spohn (DE) presented her paper. Secretary proposed an addition to S-4 B-422.2, allowing the use of K25-27 in such circumstances. This was agreed by the meeting.

Outcome:

The EN originally proposed that this should be a clarification, but I do not recall that this was discussed or approved by the meeting. However, no new symbols are involved, just some additional guidance on how to use existing symbols in certain circumstances, so 'clarification' seems appropriate.

The following proposed additions are different from those that I proposed at the NCWG2 meeting, but on reflection seem to better cover the situation described in EN NCWG2-08.12A. There appears to be two possibilities which I have tried to cover:

- The wreck is only just visible **at chart datum**
- Although the top of the wreck may be significantly above chart datum, **it is hardly visible above the surrounding sea floor**, when it becomes exposed as the tide falls, because it has been almost covered by sediment.


I also think a cross reference to B-416.3 could be useful.


B-422.2 A **stranded wreck** with any portion of the hull or superstructure emerging above Chart Datum, which cannot be drawn to scale (plan view), must **normally** be shown by the symbol:



Heights above height datum, or drying heights above Chart Datum, may be shown in brackets, if known. This helps to distinguish wrecks which are always visible from wrecks which are only visible at low tide.

Exceptionally, if K24 seems inappropriate as the wreck is hardly visible above chart datum or above the exposed sea floor at low tide, an appropriate selection from K25-28 may be used, with an associated drying height and intertidal tint. See also B-416.3 for guidance in changeable areas.

A wreck with masts (and/or funnel) only visible above Chart Datum must be shown by the symbol  with the legend 'Mast(s)', 'Funnel' or equivalent, as appropriate. The height or drying height of the masts (or funnel) may also be shown in brackets, for example:

 Masts (12) **K25**

NCWG2 Action 33: Secretary to draft a clarification to B-489.2 to provide a cross reference to B-125.2 for V-AIS out of position for consideration by the WG.

Extract from NCWG2 report:

8.15 Depicting Virtual AIS AtoNs Out of Position (AU)

Docs: NCWG2-08.15A V-AIS Out of Position

Chair (on behalf of AU) presented the paper on depicting V-AIS AtoN out of position. Secretary pointed to S-4 B-125.2, which the meeting agreed largely covered the situation. It was decided that a cross reference to B-125.2, with a comment that a magenta pointer should be used, should be added to B-489.2.

Outcome:

Suggest add at the end of B-489.2 (after the graphics):

Where a V-AtoN is positioned directly over a charted feature, such as a submerged danger to navigation, the feature should be shown in its true position as normal. The V-AtoN should be offset from the danger in accordance with B-125.2, with a short magenta 'pointer', for example:



NCWG2 Action 35: Secretary to include the clarification on hanging light sectors in S-4 for consideration by the WG.

Extract from NCWG2 report:

9.2 'Hanging' light sectors (**UK**)

Docs: NCWG2-09.2A *Hanging light sectors*

NCWG2-09.2B *U.S. Response to UK Hanging Light Sectors Proposal*

Secretary presented the papers on 'Hanging light sectors' on behalf of UK. Although some concern was expressed, the meeting decided that the practice is legitimate in complex situations. The US more compact version (see 'B' paper) was accepted, with the associated graphics, except that the arrowheads should be removed from the 'hanging' ends of the sector arcs.

Extract from US EN NCWG2-09.2B: The US proposes an alternative to the text proposed by the UK, which is simpler and shorter.

UK Proposal:

Sometimes, for example in complex areas or where the outer limits of the bordering sectors fall outside the navigational area of the chart, the outer sectors can be indicated by a short section of arc, either side of the sector to be followed, for example:

US Alternative:

To reduce clutter or to otherwise improve clarity, the lines delimiting the outer edge of the outermost sectors may be omitted, for example:

This shorter sentence (and examples) could appear in both B-475.1 and B-475.5. If it is desired to have only one description and example of hanging light sectors, the US recommends insertion into B-475.1.

Outcome:

I think it is useful to state the most common reason for omitting the outer sector limits, so have adjusted the US sentence to reflect this; it is still more succinct than the original UK offering. I agree it is only necessary to include this at the end of B-475.1:

For details of lights on multicoloured charts, see B-470.4a.

To reduce clutter or to otherwise improve clarity (for example, where the limits of outer sectors are 'hidden' behind land), the lines delimiting the outer edge of the outermost sectors may be omitted [A short arc is sufficient to show the colours visible either side of the fully charted sector], for example:



I remain slightly concerned that this simplified wording does not make clear that a short section (rather than the whole) of the arc is all that is required. Perhaps the term 'hanging arc' would have been better than 'hanging sector'. I have therefore added a phrase in [] which could be included.

NCWG2 Action 36: Secretary to apply clarification re non-IHO seals to S-4 for consideration by the WG.

Extract from NCWG2 report:

9.4 Possibility of excessive use of non-IHO seals on charts (**Secretary**)

Docs: NCWG2-09.4A *Potential for non-IHO organizations seals being included on charts*

Secretary presented the paper. The meeting confirmed the proposed clarification to S-4. No additional clarification was considered necessary in regard to 'acknowledgments'.

Outcome: (From the recommendation in UK EN NCWG2-09.4A):

Clarify the note at B-241.2(l) – 'Seals on international charts' to read:

Note: The IHO seal must only be used on charts produced by Member States of the IHO. Seals of **the**

designated lead hydrographic authority of non-IHO Members States may be added to INT charts where the nation ~~or organization~~ has officially delegated its cartographic authority to a chart producer which is an IHO Member State and: ...

Action NCWG2/42: Secretary to add fm, fms to list of INT abbreviations in S-4 and add remaining vacant entries to the 'retired' list at B-151.2.

Extract from NCWG2 report:

The meeting decided that vacant entry INT1 numbers should not be re-used.

11.2 Vacant entries in INT1 (Task E4) **(Secretary)**

Docs: NCWG2-11.2A Vacant entries in INT1

NCWG2-11.2B US response re Fathoms and Compass Terms

NCWG2-11.2C US response re Floating Barriers and Oil Retention Barriers

Presentations available

Secretary presented the paper on vacant entries in INT1. Chair confirmed from participants that only US had some comments, after which Colby Harmon presented his papers.

On the 'B' paper, the meeting agreed that 'fm, fms' should be included as INT abbreviations for fathom(s) and included in INT1 at B48. However, as no INT abbreviations were agreed for the magnetic terms B60-67, it was decided these entries should be removed. If national HOs require them for national abbreviations, these should become lettered entries. Secretary pointed out that there is no requirement to put them at the end of the INT1 section, citing S-4 B-151.1.

Outcome: Although it was not discussed at NCWG2 whether this change to S-4 should be a clarification, I suggest it should be. Adding 'fm, fms' as INT abbreviations simply brings consistency with the already listed 'ft' (foot/feet), and only affects those chart producing MS still using non-metric units, probably now limited to UK and US; both were represented at the meeting. Adding the vacant entries to the retired INT1 numbers list is simply a device for the NCWG to avoid creating confusion and is really an editorial amendment. I suggest this is not a matter that should concern HSSC or other MS.

At B-122.1 add a new line after 'Fla': **fm, fms Fathom(s) B48**

At B-151.2 add new entries B3, B24, B46, B60-67, H7, L13, L15, L21.3, Q6, Q60, Q61, Q125 (as listed in paper NCWG2-11.2A). Note that the future of F29.1-2 and N61 will be included in another letter, after consideration by the INT1 subWG.

NCWG2 Actions - Clarifications to S-4

Response Form
 (please return to CSPCWG Secretary by 1 September 2016)
andrew.coleman@ukho.gov.uk

If you vote 'No' to any of the following questions, please explain in the 'Comments' section and provide suggestions for different wording.

Action	Question	Yes	No
12	Do you agree with the proposed clarification to B-478.5?		
	Do you agree to insert the proposed cross references: at the end of B-471.7?		
	at the end of B-471.1?		
	(you can choose to answer Yes or No to both options)		
	Do you agree with the proposed clarification to B-471.8?		
13	Do you agree with the proposed clarification to B-340.3?		
	Do you agree with the proposed clarification to B-540.1?		
16	Do you agree with the proposed clarification to B-353.6?		
27	Do you agree with the proposed clarifications to B-437.2b?		
	Do you agree with the proposed deletion to B-146?		
	Should the first sentence of B-146 also be deleted (and similar at B-242.3)? If you are aware of other examples where a note which could include information about features which are charted in different colours, please explain in the 'Comments' section below.		
	Do you agree with the proposed clarifications to INT1 Section N?		
28	Do you agree with the proposed changes to B-422.2?		
	Do you agree that these changes may be regarded as clarifications?		
33	Do you agree with the proposed clarification to B-489.2?		
35	Do you agree with the proposed clarification to B-475.1?		
	Should the additional phrase in [] be included?		
36	Do you agree with the proposed clarification to B-241.2(I) Note?		
42	Do you agree that 'fm, fms' should be added to the list of international abbreviations?		
	Do you agree that the addition of 'fm, fms' to B-122.1 should be regarded as a clarification?		
	Do you agree that adding new entries to B-151.2 should be regarded as editorials?		

Further comments:

Name:

Member State: