



IHB File N° S3/4405

CIRCULAR LETTER 70/2013
2 December 2013

S-4 - CHART SPECIFICATIONS OF THE IHO
Revised Specifications related to Sections B-400 and C-400
Hydrography and Aids to Navigation

Reference: IHO Publication S-4 Parts B and C - *Chart Specifications of the IHO*, Edition 4.4.0

Dear Hydrographer,

1. In accordance with its Terms of Reference 3a.ii, the IHO Chart Standardization and Paper Chart Working Group (CSPCWG) has a responsibility to “*advise the IHO on suggestions put forward by Member States to update S-4, in accordance with IHO Specification B-160, with the goal of achieving the maximum possible adherence by Member States to the Regulations and Specifications*”.
2. The CSPCWG has recently examined the following subjects in detail, based on various questions or proposals raised by Member States and chart users:
 - a. Showing limits of surveys on charts;
 - b. Discontinuities between surveys;
 - c. Reported dangers.
3. As a result, the CSPCWG proposes certain revised Specifications for inclusion in S-4. Draft texts for the revised Specifications are attached in Annex A to this Circular Letter for Member States to review.
4. According to Specification B-160 of S-4, Member States should inform the IHB (info@iho.int) within three months if they have any major objections to the adoption of these revised Specifications, or any other comments. Therefore, any comments from Member States should reach the IHB **no later than 2 March 2014**, using the Response Form at Annex B. If no objections are received, the IHB will announce in a follow-up Circular Letter that the revised Specifications have come into force. The CSPCWG will then include them in the next edition of S-4.

On behalf of the Directing Committee
Yours sincerely,

Gilles BESSERO
Director

- Annex A: Proposed revised Specifications (with brief explanations)
Annex B: Response form

S-4 -CHART SPECIFICATIONS OF THE IHO PROPOSED REVISED SPECIFICATIONS

- a. Showing limits of surveys on charts;
- b. Discontinuities between surveys;
- c. Reported dangers.

The text of the amended Specifications is provided in English only, as Edition 4.4.0 is only available in English. Proposed additions and amendments to S-4 are shown in red below.

a. Showing limits of surveys on charts.

Background: While the depiction of survey limits on the face of the chart is discouraged, the CSPCWG considers that there may be exceptional circumstances where this might be required. Consequently, the following addition to B-415.2 is proposed:

B-415.2 **Areas investigated by sonar** should not be distinguished on charts unless it is necessary to show the limits of a channel specially investigated for deep draught vessels, see B-435.3. However, in exceptional cases, it may be important to indicate the limits of sonar swept areas on the Source diagram, *or even in situ on the chart if navigators need to know precisely the limits of a survey within dangerous waters. In such cases, the symbol for a maritime limit in general (N1.1) should be used, with a legend such as ‘Surveyed 2013 (see Note)’ or ‘Surveyed 2013 (see Source Diagram)’ placed along the surveyed side of the limit. Any additional information should be given in a charted note.*

Note: a cross reference to this paragraph ‘(see also B-415.2)’ will be inserted in B-434.5 (after ‘survey quality and date’ in the third paragraph) as an editorial amendment.

b. Discontinuities between surveys

Background: The IHO Data Quality Working Group (DQWG) conducted a survey of mariners on their understanding of quality indicators on charts (paper charts and ENC). In 2011, DQWG asked CSPCWG to analyse the results for paper charts. This significant task was carried out by the Secretary of CSPCWG and the findings presented to CSPCWG at its 9th meeting in December 2012. One finding was that the current method of depicting ‘discontinuities between surveys’ on paper charts was not well understood. CSPCWG considers that some improvements to the guidance in S-4 are required and proposes the following revision of B-416.1.

B-416.1 **Discontinuities between surveys.** Many changeable areas are re-surveyed in sections at different times; consequently the contours at the edges of the different surveys may not match. *If the discontinuity is small, the surveyed contours may be joined by complete (I30) or approximate (I31) contours, provided this will not mislead the chart user by implying the area is deeper than it probably is (as demonstrated by the later survey). In these cases where use of approximate contours would be inappropriate, a 1–3 3mm wide ‘white’ gap should be left in the contours and any shallow water tints, in order to draw the mariners’ attention to these discontinuities. Care ~~should~~ **must** also be taken to ensure that the mariner can ascertain the dates of the various surveys. This may be by reference to ~~from~~ the Source or ZOC Diagram (see B-294.1 & B-297.8) ~~and a reference to the Source or ZOC Diagram in the gap may be useful.~~ or the dates of the surveys may be inserted in situ, for example:*



c. Reported dangers

Background: The CSPCWG considers that the danger circle without the abbreviation ‘Rep’ (INT1 I4) to indicate a reported depth, as originally used on the small-scale INT chart series, is potentially confusing and should be made obsolescent. Approximate contours (if appropriate) and the explicit legend ‘Rep’ are clearer. The danger line should normally only be retained if the reported depth is 31m or less. The CSPCWG proposes revised guidance as follows:

B-424.5 **Reported (i.e. unconfirmed) shoal depths and other dangers.** The presence of a reported ~~dangers~~ **shoal depth**, usually in an unsurveyed or inadequately surveyed area, should alert the mariner to the ~~probable~~ **probable** potential existence of ~~other~~ **other** unsurveyed ~~shoaler~~ **shoaler** depths. ~~A significant depths reported by ships on passage which may constitute a danger to navigation should therefore be charted with the abbreviation ‘Rep’, unless it is supported by other data (for example: good quality metadata, other depths within the line of soundings, satellite imagery). it is clear from other charted soundings and the information contained in the source diagram that they are part of an isolated line of soundings.~~ **A significant depths reported by ships on passage which may constitute a danger to navigation should therefore be charted with the abbreviation ‘Rep’, unless it is supported by other data (for example: good quality metadata, other depths within the line of soundings, satellite imagery).**

Rep I3.1

~~A danger line~~ **The reported depth must normally be surrounded by an approximate contour (see B-411.2) and blue tint as appropriate to the depth. may be used to emphasise the reported danger where appropriate** However, if the sounding is potentially a danger to surface navigation (e.g. if it is 31m or less, depending on context), it should be encircled by a danger line in addition to the ‘Rep’ legend. It should not normally be necessary to include an explanatory note on the chart. ~~Other reported dangers, such as wrecks, rocks, should be treated similarly, with the abbreviation ‘Rep’ placed adjacent to the appropriate symbol.~~ **Other reported dangers, such as wrecks, rocks, should be treated similarly, with the abbreviation ‘Rep’ placed adjacent to the appropriate symbol.**

[Note: the remainder of B-424.5 to remain unchanged: The horizontal and vertical accuracy...etc.]

C-404.2 A **danger line**, consisting of a line of dots, shall be used to draw the navigator’s attention to a danger which would not stand out clearly enough if it were represented solely by the symbol for the feature. The danger line shall also be used to delimit areas containing numerous dangers, through which it is unsafe to navigate at the scale of the chart. ~~For use of danger line around doubtful dangers, see C-404.3.~~

C-404.3 **Doubtful dangers and reported shoal depths:** These should be charted in accordance with B-424. The former practice of encircling all reported depths ~~doubtful data should be encircled~~ by a danger line (INT1 I4) has been discontinued. When depths of ~~under~~ **under** less

than 200 metres are involved, or implied, the appropriate blue tint shall be added (see C-402.4). ~~Such features should not be supported by depth contours, nor by the word 'Reported' or its abbreviation.~~ The abbreviations *PA*, *PD*, *ED*, *SD* and *Rep* and ~~ED~~ shall be used as appropriate (see B-424.1 to B-424.4). It is essential that doubtful dangers can be identified without ambiguity and that they can be distinguished from ~~actual dangers confirmed features~~, particularly where the small-scale chart is the largest scale for an ocean area. The year (in parentheses) in which the doubtful data were reported may be inserted, provided that this additional information does not ~~tend to~~ render the chart less legible.

**S-4 - CHART SPECIFICATIONS OF THE IHO
PROPOSED REVISED SPECIFICATIONS**

- a. Showing limits of surveys on charts;
- b. Discontinuities between surveys;
- c. Reported dangers.

Response Form

(to be returned to the IHB by 2 March 2014)
E-mail: info@iho.int - Fax: +377 93 10 81 40)

Note: The boxes will expand as you type your answers.

Member State:

Contact:

E-mail:

Do you agree with the revised specifications? If you answer 'No', please explain in the comment section below the table.

No	S-4 references	Title	Yes	No	Comment (Y/N)
a	B-415.2	Showing limits of surveys on charts			
b	B-416.1	Discontinuities between surveys			
c	B-424.5	Reported dangers			
	C-404.2				
	C-404.3				

Comments:

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Signature:

Date:
