

**7th CSPCWG Meeting
23-26 November 2010, Simon's Town, South Africa**

Paper for Consideration by CSPCWG

Lighthouses

Submitted by:	Australia
Executive Summary:	Australia has identified what it considers to be a minor inconsistency in S-4 in regard to guidance on the depiction of lighthouses on paper charts. Additionally, there is no guidance in S-4 as to depiction of disused lighthouses on paper charts.
Related Documents:	IHO S-4, clauses B-457.3, B-470.5 and B-473.7
Related Projects:	INT1 Sub-Working Group

Introduction / Background

IHO S-4 – Regulations of the IHO for International (INT) Charts and Chart Specifications of the IHO – provides an internationally agreed product specification for both international and national nautical charting products. This includes guidance for the depiction of lighthouses (B-457.3) and representation of the position of light in general (B-470.5). Throughout S-4, there is guidance for the indication that a feature is disused, such as for fortified structures; dumping grounds; submarine cables and pipelines; and spoil grounds.

Analysis / Discussion

Inconsistency in S-4: During a recent investigation of S-4 resulting from a question relating to the depiction of a disused lighthouse on an Australian chart, it was noticed that there is a possible inconsistency in the guidance for the depiction of lighthouses at B-457.3 and lights in general (including lighthouses) at B-470.5. B-457.3 states:

B-457.3 **Lighthouses**, ie structures built to house major marine navigational lights, must be shown as light stars (see B-470).

B-470.5 states:

B-470.5 **Position of lights.** The position of a light (including lighthouses) should normally be shown by a five-pointed star in one of two sizes.

While B-457.3 implies that it is mandatory to show lighthouses using the light star symbol (use of “must”), B-470.5 implies that it is not mandatory to depict lighthouses using the light star symbol (specific case of lighthouse quoted and use of “should normally”). As B-470.5 covers all types of lights and the first paragraph may be considered to be generic, it is suggested that the text “(including lighthouses)” be removed from this paragraph. Guidance relating to the depiction of lighthouses may be included elsewhere in the clause to be consistent with B-457.3.

Disused lighthouses: S-4 – B-473.7 contains guidance for the depiction of extinguished (temporarily extinguished or destroyed) lights. While there is guidance throughout S-4 for the depiction of different disused features such as fortified structures; dumping grounds; submarine cables and pipelines; and spoil grounds, there is no such guidance for disused lighthouses other than a reference to the legend “LtHo (disused)” at B-470.5. A clear indication to the mariner that a lighthouse is disused should be considered to be important as the primary function for which the lighthouse was built is no longer being performed but the structure itself is likely to be conspicuous, or at least prominent. This raises the question of the symbology to be used to indicate that a lighthouse is disused, in addition to the legend. When discussing this in the AHO, three possible alternatives for symbology were identified:

- Retaining the light star and light flare;
- Retaining the light star and removing the light flare; or

- Removing the light star and flare and replacing with a tower symbol (INT1 – E20).

Given that a range of alternatives were identified, it was considered that for consistency there should be guidance included in S-4. Of the three alternatives, the AHO favoured the retention of the light star and removal of the flare, as it would keep the depiction consistent with the mandatory requirement to show lighthouses using a light star (B-457.3), and would be easier from a chart maintenance (NtM) perspective. If it is agreed to incorporate guidance in S-4, it is also suggested that a corresponding symbol be included in INT1, also to be consistent with other types of disused features included in INT1, at P1 (P1.2?).

Conclusions

Although there is a minor inconsistency in the guidance for the depiction of lighthouses between B-457.3 and B-470.5 in regard to strength of wording, it has the potential to cause confusion and therefore should be rectified. Given that there is guidance throughout S-4 for indicating that certain types of features are disused, and the impact of a lighthouse being disused in that the major function of the lighthouse is no longer being performed, guidance for the depiction of disused lighthouses should be included in S-4.

Recommendations

1. Amend S-4 – B-470.5 to read similar to (changed text in red):

B-470.5 **Position of lights.** The position of a light ~~(including lighthouses)~~ should normally be shown by a five-pointed star in one of two sizes.



P1

The larger star should be used for the majority of lights, **and must be used for lighthouses (see B-457.3)**. The smaller star may be used where there are numerous minor lights, eg the corners of quays and dolphins in a harbour.

2. Adopt standard symbology for the depiction of disused lighthouses in accordance with one of the three options described above. Suggest retaining the light star but removing the light flare, and including the legend “LtHo (disused)”.

3. Either:

- 3.1 Amend B-457.3 to read similar to (additional text in red):

B-457.3 **Lighthouses**, ie structures built to house major marine navigational lights, must be shown as light stars (see B-470). As they are usually distinctive structures, in size, shape and colour, a small pictorial sketch may be placed nearby. It should normally be in magenta, but a different colour (other than black) may be used; see B-456.5.



E3.2

Disused lighthouses are likely to be visually conspicuous or prominent by day, and must/should be indicated by removing the light flare at the position of the light, and adding the text “LtHo (disused)” or equivalent adjacent to the light star symbol.

[insert symbol] **P1**

Associated pictorial sketches may be retained for disused lighthouses.

- 3.2 Or insert new clause B-473.8 similar to:

B-473.8 **Disused lighthouses** are likely to be visually conspicuous or prominent by day. Where it is required to indicate that a lighthouse is disused, it must/should be indicated by removing the light flare at the position of the light, and adding the text “LtHo (disused)” or equivalent adjacent to the light star

symbol.

[insert symbol] **P1**

Associated pictorial sketches may be retained for disused lighthouses (see B-457.3).

4. Insert corresponding symbol for disused lighthouse at INT1 – P1 (or other suitable location in INT1 – P).

Justification and Impacts

- Correct possible inconsistency in S-4 for guidance on depiction of lighthouses.
- Include guidance for the consistent depiction of disused lighthouses in S-4 in order to be consistent with guidance for other types of disused features, and include symbol in INT1 to be consistent with other types of disused features.
- There is no impact on other nautical product specifications (S-57) or display specifications (S-52).
- Australia would be willing to assist in any further work required resulting from CSPCWG decisions.

Action required of CSPCWG

The CSPCWG is invited to:

- a. consider this paper
- b. discuss possible inconsistency in guidance for depiction of lighthouses and agree on a suitable solution
- c. determine, on the merit of the Analysis/Discussion above, appropriate symbology for the depiction of disused lighthouses, and agree on inclusion of this symbology in INT1
- d. Agree on S-4 location and content of guidance for the depiction of disused lighthouses