



THIS CIRCULAR LETTER REQUIRES A RESPONSE

IHB File No. S3/4405

CIRCULAR LETTER 02/2011  
6 January 2011

**CHART SPECIFICATIONS OF THE IHO (S-4)  
Proposed New Definitions, Specifications and Symbols for  
Foul Area and Foul Ground**

- References:
- a) IHO publication S-4, specification B-422.8
  - b) IHO Publication S-32: Definitions 'Foul Area' and 'Foul Ground'
  - c) IHO Publication INT 1, symbols K1 and K31

Dear Hydrographer,

1 During discussions in the Chart Standardization and Paper Chart Working Group (CSPCWG), it became apparent that very different understandings and applications of the English word 'foul' exist within the hydrographic community. In some hydrographic offices, notably USA, the word 'foul' is used on charts to refer to an area containing numerous dangers to surface navigation; this is called a 'Foul Area', but may be simply labelled 'Foul' in small areas. In other offices, the word 'foul' is used in the context of seafloor debris that might be a problem for anchoring or other seafloor activities, but causes no danger to surface navigation; this is called 'Foul Ground', but also may be simply labelled 'Foul', as at INT1, symbol K31. Both of these usages are very long-standing. CSPCWG has considered the different uses of the word 'foul' in order to resolve any potential confusion.

2 Initially, it was thought that any such confusion was confined to cartographers compiling paper charts and could be overcome by improving the definitions of 'Foul Area' and 'Foul Ground' in the Hydrographic Dictionary (S-32) and by adding to the definitions and clarifying the distinct methods of charting them in S-4, specification B-422.8. It was considered that there was unlikely to be any confusion for paper chart users, as the different meaning is clear from the use of a danger line around 'Foul Area', and a dashed limit around 'Foul Ground'. The meaning of the # symbol K31 in INT1 is clearly explained in INT1 and, because of the long usage in paper charts, is believed to be well-known.

3 Subsequently, it became apparent that any confusion among cartographers over the terms 'Foul Area' and 'Foul Ground' may have implications for ENC compilation. This is because some ENC compilers may be unaware of the different meanings of 'Foul Area' and 'Foul Ground'. Foul Ground and Foul Area are both located in Category of Obstruction (CATOBS) in S-57. When ENC are derived from paper charts, foul ground that has been wrongly labelled as 'Foul Area' or correctly labelled simply as 'Foul', may be wrongly captured using the S-57 attribute CATOBS, enumerate 6 'Foul Area', instead of enumerate 7 'Foul Ground'. Enumerate 6 displays as a danger line, filled in blue, marked by an isolated danger symbol. If this is the case, then mariners may choose to avoid such areas thereby causing a vessel to deviate from the safest route unnecessarily.

4 Because of the long usage of these terms, it has proved impossible to agree to apply the word 'foul' only to one of these situations. Consequently, CSPCWG proposes:

- an improved definition for 'Foul Ground' in the Hydrographic Dictionary S-32 (CL75/2010 refers)
- the phasing out of the word 'Foul' altogether on charts in time, in favour of using symbols
- inclusion in S-4 of the definitions and clear specifications for charting both types of area
- new symbols for areas of foul ground
- that the Transfer Standard Maintenance and Applications Development Working Group (TSMAD) consider separating the attribution of 'foul ground' from 'obstructions' in S-101 (this has already been referred to the TSMAD).

5 It is not proposed to add a reference to Foul Area in INT1, as this is likely to create confusion to the mariner that does not currently exist. K1 exists to explain a danger line, and CSPCWG considers that to be sufficient. The existing area version of K31 will become obsolescent and be replaced by the proposed new area symbols.

6 Draft texts of the proposed revised specifications, including the new symbols, are attached at Annex A to this CL for Member States to review. According to Specification B-160, Member States should inform the IHB (info@ihb.mc) within three months if they have any major objections to the adoption of these revised specifications and new symbols, or any other comments. Therefore, Member States' comments should reach the IHB **no later than 6 April 2011**, 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. CSPCWG will then include them in S-4 at the next opportunity.

On behalf of the Directing Committee  
Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Robert Ward', with a stylized flourish at the end.

Robert WARD  
Director

Annex A: Draft revised specification B-422.8 of S-4  
Annex B: Response form

**Draft Revised Draft Specification: S-4 Part B**

**B-422.8** A **Foul Area** is an area of numerous uncharted dangers to navigation. The area charted serves as a warning to the mariner that all dangers to navigation are not charted individually and that navigation through the area may be hazardous. The term ‘foul area’ should not be applied to a soft continuum with indefinite boundaries such as mud or sand; to areas congested with marine vegetation such as kelp or grass in water (unless attached to rocks or obstructions); or to materials not likely to cause damage to a vessel.

**Foul Ground** is an area over which it is safe to navigate but which should be avoided for anchoring, taking the ground or ground fishing (eg remains of wreck, cleared platform).

It is important to distinguish between these two uses of the description ‘Foul’ on charts. Therefore, the word ‘Foul’ should be avoided on charts, because of the potential for confusion by the chart user.

A **Foul Area** must be delimited by a danger line, **K1** (see B-420.1), filled with blue tint. Further information should be provided by one or both of:

- appropriate legends to indicate the characteristics of the uncharted dangers to navigation, where known, eg ‘numerous rocks’, ‘numerous obstructions’, ‘coral heads’ with an associated note, if required;
- insertion of the available hydrographic data, appropriate to the nature of the area and scale of the chart, with an associated note, if required, explaining that surveys are incomplete and uncharted dangers may exist.

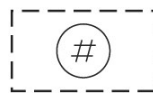
The legends ‘*Foul*’ or ‘*Foul Area*’ should not be used.

The **foul ground** symbol # **K31.1/L22** should be used as a point symbol to indicate small areas of sea floor debris, eg: the distributed remains of a wreck, a dropped anchor, the site of a cleared production platform (provided the platform has been removed to the sea floor). Note: Platforms which have been cut-off **above** the sea floor must be charted as obstructions, see B-422.9.

The depth over the area, if known and required, may be shown in brackets adjacent to the symbol, eg:

# (22)

Larger areas of **foul ground** must be shown by symbol # K31/L22 centred in a circle and placed within dashed limits where the extent is known and the area is large enough to be charted true to scale:



**K31.2**

For extensive areas, the # symbol may be included in the limit, at intervals of approximately 40mm or closer and not exceeding 50mm:



**K31.2**

The background colour should be in accordance with the depth. The legends ‘*Foul*’ or ‘*Foul Ground*’ should not be used.

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**Proposed New Definitions, Specifications and Symbols for**  
**Foul Area and Foul Ground**

**Response Form**

*(to be returned to the IHB by 6 April 2011)*

*E-mail: [info@ihb.mc](mailto:info@ihb.mc) - 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 and new symbols, as described in Annex A to CL02/2011? If you answer 'No', please explain your reasons in the comment section below the tables.

Yes	No

**Comments :**

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**Signature :**

**Date :**
