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CIRCULAR LETTER 58/2007
27 June 2007

**CHART SPECIFICATIONS OF THE IHO (M-4)
ADDITIONAL SPECIFICATIONS FOR WRECKS, CHART SEALS AND COLOUR**

Dear Hydrographer,

The IHO Chart Standardization and Paper Chart Working Group (CSPCWG) has a responsibility to 'keep under continuous review the IHO publication M-4 *Regulations of the IHO for International (INT) Charts and Chart Specifications of the IHO*, in order to advise the IHO on their updating, design and format' and to 'advise the IHO on suggestions put forward by Member States to update M-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' (CSPCWG Terms of Reference).

Three subjects have recently been considered by CSPCWG as a result of questions raised by Member States:

1. The depiction of wrecks in changeable areas where the latest survey shows the water depth to be shallower than the surveyed depth over the wreck.
2. The positioning of seals on international charts which have been co-produced by two (or more) nations and then reproduced by another nation.
3. Guidance on the use of colour on paper charts.

Consequently, CSPCWG proposes new specifications for inclusion in M-4. Drafts of these are attached as Annexes to this CL for Member States to review. According to Specification B-160, Member States should inform the IHB (info@ihb.mc) if they have any major objections to the adoption of these additional specifications, or any other comments, within three months. Therefore, Member States' comments should reach the IHB no later than **27 September 2007**. 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 M-4 at the next opportunity.

On behalf of the Directing Committee
Yours sincerely,

Rear Admiral Kenneth BARBOR
Director

- Annex A: Draft addition to M-4 B-416: Wrecks in changeable areas
Annex B: Draft addition to M-4 B-241.2(I): Chart seals on co-produced charts
Annex C: Draft addition for M-4 B-140: Colour printing

Draft addition to M-4 B-416

Wrecks in changeable areas

B-416.3 Wrecks (or other obstructions) in changeable areas. In areas of mobile sediments which are frequently resurveyed, the wrecks in an area may not be specifically re-examined or re-assessed by a competent surveyor. In such cases, the details from the most recent wreck examination should be retained. If this results in the charted depth over a wreck being greater than the surrounding depths (because of the movement of sediments), the tint over the wreck symbol should be in accordance with the surrounding depths, not the depth shown over the wreck. The wreck with its associated danger line should not be removed, as it may still exist and at a future time the sediments may move and the wreck be uncovered again. If there are numerous wrecks deeper than surrounding depths in navigationally significant areas, an explanatory note may be inserted.

(Note: A cross reference to this addition will be added at B-422g and B-422.7, 2nd bullet iv).

Draft addition to M-4 B-241.2(I)

Chart seals on co-produced charts

B-241.2(I) On international charts the seal of the producer nation and the IHO seal must be placed above the title, side by side and of equal height, with the producer nation's seal on the left. In the case of a reproduced international chart, the printer nation's seal must be placed between the seals of the producer nation (to the left) and the IHO (to the right); the latter two seals must be smaller in height than the seal of the printer nation (about 0.8 of the height).

If the international chart is co-produced (or co-published) the producers' seals must be placed to the left of the printer's seal and arranged in alphabetical order (from the left) based on the producer nations' ISO two-letter codes. Some cartographic judgment may be required to maintain an aesthetic layout (eg four seals may need to be of a consistent size to avoid an unbalanced look). Alternatively, the seals may be placed in the top margin, in the same order.

The words 'INTERNATIONAL', or equivalent, above and 'CHART SERIES', or equivalent, below the seals must also be shown on international charts.

(Note: the new paragraph will be inserted between the two existing paragraphs and should be read in context.)

Draft addition for M-4 B-140

Colour printing

B-147 COLOUR PRINTING

Traditional printing methods use specific 'spot' colours (usually black, magenta, buff and blue). The ink colours are selected from a print colour standard, such as 'Pantone'. Wherever colours are overprinted, another colour will appear. This is done deliberately to produce the green intertidal tint (see B-145). However, a magenta tint printed over a shallow water blue area will appear different from a magenta tint over a white area.

Multi-coloured charts are usually printed using 'process' (or 'four-colour') printing. The colours used are coded as percentages of Cyan/Magenta/Yellow/black (Key) (known as 'CMYK' colours). Theoretically, the three colours can be combined in varying amounts to produce all other colours, with the three added in equal proportions making black (but in practice, the results are poor). They can be improved by the addition of some black ink (known as the key). By this method, colours are not overprinted, separate combinations of the four colours being used to produce intertidal tint, and any other colour required.

Hydrographic offices redesigning their charts to change from spot colours to CMYK colours may find choosing the appropriate codes a daunting process. While recognising that hydrographic offices may wish to retain an element of national individuality in their colour scheme, they may find it helpful to examine a selection of other offices' charts, choose one close to the colour scheme they prefer and ask that office to supply its CMYK values. Using these as a starting point, it is then possible to experiment with small adjustments to the percentages until the required colour is achieved. It is important to note that results will vary depending on paper type and production methods. Some hydrographic offices have kindly allowed their colour codes to be published on the CSPCWG section of the IHO website (www.iho.int).

The 'RGB' colours used for electronic display devices are mixtures of Red/Green/Blue light (RGB added together makes white). For printed materials, this light combination cannot be directly reproduced, so computer-generated images must be converted to the CMYK equivalent in ink colours. Such conversions are best described as 'nominal'. CMYK colours may print very differently from how the RGB colours display on a monitor. There is no single 'good' conversion rule between RGB and CMYK.