



## CHART STANDARDIZATION & PAPER CHART WORKING GROUP (CSPCWG)

[A Working Group of the Committee on Hydrographic Requirements for Information Systems – CHRIS]

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### CSPCWG Letter: 02/2007

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To CSPCWG Members

Date 11 January 2007

Dear Colleagues,

**Subject: Additional M-4 specifications for colour printing, deeper wrecks and positioning of chart seals and; mangrove symbols.**

**Reference:** CSPCWG Letter 01/2007 and record of 3<sup>rd</sup> CSPCWG meeting.

The 3<sup>rd</sup> CSPCWG meeting required the Secretary to draft additional specifications for:

- Colour printing (Action 5)
- Wrecks deeper than surrounding bathymetry (Action 15)
- Positioning of chart seals (crests) on adopted co-produced charts (Action 21).

These drafts form Annexes A-C of this letter. Please consider these carefully and advise me **by 8 March 2007** whether you are content for these to be circulated to IHO Member States for approval.

At the same time, please also advise if your own office uses the more complex version of the mangrove symbol at INT 1 C32 (CSPCWG 3 Action 14) or you are aware of any IHO Member State issuing charts with this version of the symbol. Please use the response form at Annex D.

Yours sincerely,

Peter G.B. Jones,  
Chairman

Annex A: Draft addition for M-4 B-140 Use of Colour section

Annex B: Draft additional paragraph to be added to M-4 B-422g (re Deeper wrecks)

Annex C: Draft addition to M-4 B-241.2(I) (re Chart seals)

Annex D: Reply form

Draft addition for M-4 B-140 Use of Colour section.**B-147 COLOUR PRINTING**

Traditional printing methods for 4-coloured charts usually use specific ‘spot’ colours (ie, 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.

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.

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.shom.fr](http://www.iho.shom.fr)).

Draft additional paragraph to be added to M-4 B-422g (regarding Deeper wrecks).

Sometimes when the bathymetry of an area is resurveyed (especially regular re-surveys of changeable areas), the wrecks in the area are not re-examined. In such cases, the details from the most recent survey of the wrecks should be retained. If this results in the charted depth over the wreck being greater than the surrounding depths, the tint over the wreck should be in accordance with the surrounding depths, not the wreck depth. The wreck 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-422.7, 2<sup>nd</sup> bullet iv).

Draft addition to M-4 B-241.2(I), (regarding Chart seals).

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) of 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.

(Note: to be inserted between the two existing paragraphs.)

## RESPONSE FORM

(Please return to CSPCWG Secretary by 8 March 2007)

[andrew.coleman@ukho.gov.uk](mailto:andrew.coleman@ukho.gov.uk)

Please use the table below to record your response

Paragraph Number	Question	Yes	No
1	Are you content with the draft specification for colour printing? If 'no', please explain further below.		
2	Are you content with the draft additional paragraph to be added to M-4 B-422g (regarding deeper wrecks)? If 'no', please explain further below.		
3	Are you content with the draft addition to M-4 B-241.2(I), (regarding Chart seals)?		
4	Does your office use the more complex version of the mangrove symbol at INT 1 C32 (CSPCWG 3 Action 14)?		
5	Are you aware of any IHO Member State issuing charts with the complex version of the symbol? If 'yes', please state below		

Additional comments:

Name:

Hydrographic Office: