12th CHRIS MEETING
Valparaiso, Chile, 23-25 October 2000

Report on Activities of the
COLOURS & SYMBOLS MAINTENANCE WORKING GROUP

At the November, 1999 meeting of the Colours and Symbols Maintenance Working Group a work program was established for the upcoming year. The following represents a brief progress report on the program and should be used as the basis for discussion at the September, 2000 joint TSMAD/C&SMWG meeting.

1. **Deferred Amendment 05** – a result of changes to S-57 in Edition 3.1. These amendments include changes to the PL (look-up tables, symbol library, and conditional symbology procedures for "restricted areas"). The written description of these changes have been published by the IHB as Maintenance Document # 3 in March 2000. A temporary .dai file is being produced under contract and it is anticipated that it will be made available through the IHB this year.

2. **Single colour palette** – this proposal was discussed at the C&SMWG Nov'99 meeting. Pioneer ECDIS manufacturers have experimented with colours and in some cases evolved effective colour schemes resulting in fewer colour palettes and more significantly a sharper contrast in data presentation. A scheme has been developed and a preliminary examination has been made, however, mariner input is required before sea trials can be conducted.

3. **Labelling the Safety Contour** – there are seldom enough contours in the ENC to give the mariner the safety contour value required, and the ECDIS will generally default to the next deeper available contour. Since the contours available in the ENC vary widely from one area to another, the default contour selected by the conditional symbology procedure will change, ogten quite frequently. Consequently the mariner will seldom know what contour he is seeing highlighted as the safety limit. As a result, this prime feature of the ECDIS display is of little use, unless it is labeled to show its value.

   As the Australian HO pointed out, the highlighting proposed under deferred amendment 02 was not a satisfactory solution and it would be better to label the safety contour so that the mariner can immediately see the current value.

   Under contract, Universal Systems Ltd. is developing a method of labeling the safety contour with a value. A solution has been proposed but it needs to be modified to give optimal results. The proposal involves new symbols for blanking the contour line under the label and making a change to the conditional symbology procedure, with little additional processing by the ECDIS.

4. **Changes in symbolizing three important areas:**

   i. **No Data / Unsurveyed areas :**
      The Australian HO pointed out that there is a requirement to increase the prominence of potentially dangerous unsurveyed and partly surveyed areas. The proposed solution is to symbolize the area boundary with the same prominent line style as the safety contour.

Note that the same symbology is used for both "unsurveyed" areas and "no data" (meaning no ENC available) areas.

The proposed solution requires review by mariners.

ii.   Dredged Areas

Canadian Mariners have complained that the pattern of gray dots indicating a dredged area obscures the display of the own ship symbol. The Captain of a 1999 sea trial vessel in the Great Lakes noted that he needed to have the dredged immediately available, without cursor inquiry.

Two main solutions have been proposed, they are:

a)   Symbolize these areas similar to the presentation on the paper chart (white background), dashed boundary) and a centered symbol with a dredged value.
b)   Thick dashed boundary line, depth area colour, and a centered dredged value.

This requires further review by mariners before sea trials.

iii.   Overscale symbolization

Many objections have been heard regarding the vertical line symbolization of the overscale portion of a display compiled from ENCs of different navigational purposes.

One possibility is to go back to the old centered symbol OVERSC01, consisting of two concentric squares, intended to illustrate expanded data.

No review has been conducted on this solution to date.

5.   CHS Staff Training Re: Presentation Library Maintenance Software

Until a strategic direction is developed and accepted on future maintenance of the Presentation Library, Canadian Hydrographic Service staff will continue to assist contractors with PL amendments. This requires ongoing training with the software tools needed to make these amendments.

Note: This is an interim arrangement.

6.   S-57/INT1 Cross Reference Document

The C&SMWG portion of this document will be finished this year. The appropriate PL symbology will be added to the document currently being produced by the UKHO.

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