

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

REPORT ON CSC ACTIVITIES, IN RELATION TO CHRIS

(by Peter Cox, CSC Chairman)

1. INTRODUCTION

The CSC held a well attended meeting in Monaco in March. Some CSC members were represented by their CHRIS colleagues. Notes of the meeting have been provided to the CHRIS Secretary. It was acknowledged that the CSC's normal method of working by correspondence is appropriate for the nature of the work, though future meetings will be arranged as necessary. Consideration will be given to the other possible methods of communication as used by other IHO groups. The meeting covered a wide range of topics, many of which touched on topics of interest to CHRIS. They are covered as appropriate in the paragraphs which follow.

2. LONG STANDING CSC TASKS

Progress has been made on a number of the long standing, major tasks which are allocated to the CSC.

- a. **Regulations of the IHO for International (INT) Charts [INT Regs]**
 The revised Regulations of the IHO for International (INT) Charts, completed by the CSC, and the new numbering of the Parts of M-4, proposed by the CSC, have both been adopted and incorporated in M-4. They were announced by IHB CL 21/2000 dated 23 May 2000.
- b. **Specifications of the IHO for Small-scale International (INT) Charts.**
 Revision of the Small-scale Specifications to incorporate them in M-4 has been completed and was passed to the IHB in September 2000, for circulation to all IHO Member States.
- c. **Guidance for Regional Coordinators of International (INT) Chart Schemes**
 Guidance for Regional Coordinators of International (INT) Chart Schemes [former S-48] is being revised and incorporated in M-11 [Catalogue of International (INT) Charts]. However, additional work is required to rationalize the contents, to remove the duplication resulting from the amalgamation of the two publications, and to remove inconsistencies in the content of the Annexes. CSC Secretariat will shortly prepare a CSC Circular Letter, to set out the proposals for rationalization and to decide on the overall policy and requirements before proceeding with producing a revised draft. Copies of the draft guidance were provided to the IHB for use during the recent meeting to establish INT Area J2.
- d. **International Notices to Mariners (INT NMs)**
 The CSC Vice-Chairman has progressed the CSC's work item of INT NMs. Presentation of INT NMs will be very difficult to rationalize, as all are different. At the CSC meeting, Australia advised that NMs also fall within the remit of the Standardization of Nautical Publications Working Group (SNPWG) which is concentrating on digital publications, and looking at themes and common words against which all can be referenced [results of this may feed into the paper versions]. Discussion concluded that CSC and SNPWG involvement concerns different aspects of NMs. Liaison between the two groups is essential to ensure work is co-ordinated. Robert Ward, SNPWG Chairman, can provide input to the Australian CSC representative. CSC Chairman considered that a CSC representative should be involved in discussion of this topic at the SNPWG. The SNPWG hope to have something concrete to put forward for review and comment before their next meeting. The CSC Vice-Chairman is to

continue the CSC's study into the concept of International NMs with collation of the various national criteria used to identify chart-correcting NMs.

3. M-4

- a. **Revision of M-4.** M-4 is a combination of product specification and presentation library. When the 1988 edition of M-4 was prepared, it was loosely worded to gain consensus. CSC Secretariat will produce the draft revised specifications as closely aligned to S-57 and as prescriptive as possible. Whilst it is desirable for M-4 to be more prescriptive, full achievement may still not be possible. Specifications should, however, be clearly written. National specifications can be more prescriptive than those in M-4. The current revision of M-4 will focus on the more important items.
- b. **M-4 as an ISO standard.** At the CSC meeting, IHB [Michel Huet] outlined the approach they had received from ISO/TC8 over the possible adoption of M-4 as an ISO Standard. Copies of correspondence were provided [and have been circulated to all CSC members]. The IHB had referred the letter to the CSC Chairman for comment who had concluded that the disadvantages of adoption as an ISO standard outweighed the advantages. The main advantages would be to provide visibility to M-4 and to encourage new members of the IHO to bring their charting into line with it. M-4 is a construction standard for all navigational charts, and, as it is already compiled, is likely to require very little additional effort other than normal maintenance to render it suitable as a standard.

The main disadvantage is that there is an implication in the "Fast Track Procedures" that, if M-4 becomes an ISO standard and all amendments have to be reviewed by the ISO technical committee, the IHO might lose control of the updating of M-4. This would be unlikely to be acceptable to IHO Member States and would be very cumbersome to operate. IHB want to be custodian of the standard and have not yet received assurance that this is so. Another disadvantage is that IHO Member States who do not produce national charts in conformance with M-4, may feel that they are being pushed into conformance by the wider circulation of M-4. Charts produced by Member States which do not conform, might be deemed for legal purposes not to be charts. It is also possible that the present options in M-4 to use alternative solutions, may not be acceptable for an ISO standard.

ISO seems more appropriate for S-57 than M-4, given the level of competition in digital charting from the private sector. ISO TC211 is the base standard currently being looked at to make S-57 an ISO document. It was queried whether it would be acceptable for M-4 not to be ISO, if S-57 was ISO. From a national point of view, Germany and India have achieved ISO 9000 accreditation, without M-4 being ISO.

4. SYMBOLOGY

- a. **Environmentally Sensitive Sea Areas [ESSAs].** CSC Secretariat is currently preparing a further paper which will include responses to CSC CL 8/1998, developments at IMO's MEPC 43, MEPC 44, MEPC 45 and at IHO's Caribbean and Gulf of Mexico Hydrographic Commission meeting. CSC paper will also include the Caribbean and Gulf of Mexico Hydrographic Commission's Resolution concerning symbology for coral and coral reefs which has now been received from US(NOS). It will also include papers submitted by US to IMO's NAV 46 [July 2000] proposing the establishment of a new "No anchoring" routeing measure to protect areas such as coral.
- b. **Proposal prepared by Finland and Sweden for adopting "fairway area" as INT symbology.** Finland has challenging waters, with many rocks etc. A few years ago they decided that they wanted to show mariners fairway areas surveyed to a high standard ie more than a recommended track. Finland is changing national symbology and colours to INT. ENC includes the concept of 'Digital Fairways'; similar features are needed in paper charts. CSC

Secretariat to formulate a suitable definition for fairway areas and to formulate proposals for fairway area symbology.

- c. **Inclusion of Zones of Confidence (ZOC) in M-4 and provision of ZOC data.** Some HOs have included Zones of Confidence [initially developed for use on ENC] on paper charts. This has raised the question of their applicability to paper charts and their inclusion in M-4. A number of points were raised during the discussion at the CSC meeting. M-4 will be revised to include reference to ZOCs and their use, in addition to Source and Reliability Diagrams. CSC Secretariat is preparing a paper on the inclusion of Source Diagrams, Reliability Diagrams, CATZOCs, etc, in M-4 Part B, incorporating the discussions at CSC meeting and at TSMAD. CSC has recently been informed that Australia is preparing a paper on the inclusion of CATZOCs in M-4.

5. **CSC RELATIONS WITH CHRIS AND THE FUTURE OF CHRIS AND CSC AFTER IHC 2002**

Liaison between CSC and the IHO's digital charting groups is now closer than before but still needs to be developed further. HOs are now working in a variety of ways to produce paper and digital charts: some produce paper charts from ENC; some produce ENC from paper charts; some produce a database from which both paper and digital charts are derived. The evolution from paper to digital charts may raise a number of questions over the future appearance and content of paper charts, and over possible compromise with digital requirements.

A review of current structures and working groups may be proposed by WEND. The IHB will look at existing terms of reference, tasks and Working Groups memberships, and, in conjunction with TSMAD, C&SMWG, CSC, etc, put together a proposal to send to members. More thought needs to be given to whether CSC and CHRIS should be restructured. Committees should look at policy whilst sub-groups should look at detail. The title "Committee on Hydrographic Requirements for Information Systems" [the existing title of CHRIS] would correctly reflect the role of such a restructured Committee, covering the work of the existing CHRIS working groups and the CSC [which could become a working group of the restructured CHRIS]. Some felt that the CSC should continue in its present form but with joint Working Groups, others that the work of CSC should be restructured to deal with paper charts under the new CHRIS.

Any restructuring of the IHO's Committees should be discussed by the whole IHO membership. This discussion could take place at the IHC in 2002. The membership of the existing Committees, Working Groups etc will be able to formulate their views and provide input to this discussion.

6. **HARMONIZATION OF INT1, S-52 AND S-57 - LIAISON WITH TSMAD AND C&SMWG**

The paper, submitted to TSMAD in April, on the harmonization of INT1 with S-57 was shown to the CSC meeting for information. The document is intended to be useful to those creating ENC data, especially when digitizing paper charts. It was proposed to make it an Appendix to S-57. It was thought this would also be useful to cartographers. The CSC meeting noted that the style proposed might be adopted by the CSC for its corresponding work item, in collaboration with C&SMWG, to link INT1 with S-52. It is noted from CHRIS/12/13.2A that C&SMWG is collaborating with TSMAD in producing a single document.

The CSC Secretariat considers that there should be two separate documents - one linking INT1 and S-52 which will be relevant to chart users, the other linking INT1 and S-57 which will be relevant to ENC producers.

7. **OTHER TOPICS DISCUSSED AT THE CSC MEETING WERE:**

- a. **Cartographic training.** IHB [Michel Huet] reported that the IHB [Tony Pharaoh] had been involved in developing the syllabus for training national cartographers for the International

Maritime Academy [IMA]. A number of states had requested standards for nautical cartographers comparable to the existing standards of competence for hydrographic surveyors. CSC members to send views on standardizing cartographic training to CSC Secretariat for subsequent passing to IHB for IHB to collate and circulate to IHO member states for comment. No comments have been received to date.

- b. **Routes for High Speed Craft [HSC].** The Netherlands had been discussing how to chart routes for High Speed Craft [HSC]. It has been noted for inclusion in revision of M-4, though it seems difficult to recommend anything other than a note on chart, as it is not possible to have a clearly depicted route.
 - c. **Paper charting requirements when ECDIS is in widespread use.** The topic was included on the agenda for the CSC meeting but was not discussed through lack of time. It had been included on the agenda by the Chairman to encourage members to begin considering the matter.
 - d. **IHO Strategic Plan, March 2000.** The CSC's work is included in Programme 3 [Techniques and Standards Support] of the IHO Strategic Plan's Work Programme for 2000-2004. Task 3.1.3.5 is a new task which will involve the CSC. CSC Chairman has had preliminary discussion with IHB [Neil Guy] and it has been added to the CSC Work Programme.
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