

RE-STRUCTURING OF IHO COMMITTEES AND WORKING GROUPS THE ROLE OF CSC AND ITS RELATIONSHIP WITH CHRIS

(by Peter Cox, CSC Chairman, September 2001)

Introduction

The primary role of the IHO's Committees and Working Groups is to assist the IHO in achieving its objectives. To facilitate this, the structure of these Committees and Working Groups needs to be continually reviewed to ensure that this role is fulfilled in the most appropriate manner. At a time when the IHO's focus is shifting increasingly to the requirements of the electronic world, it is important to consider the role (existing and future) of the IHO's Chart Standardization Committee (CSC) in relation to the Committees and Working Groups established to meet the specific needs of electronic charting ie Committee on Hydrographic Requirements for Information Systems (CHRIS) and its Working Groups.

The CSC believes that such a fundamental change as restructuring of the IHO's Committees and Working Groups should be referred to International Hydrographic Conference (IHC), rather than dealt with by Circular Letter. The forthcoming XVith IHC presents the opportunity for such a discussion. This paper is intended to inform that discussion.

Background

The CSC was initially established, in 1972, as the North Sea International Chart Commission (NSICC), with 10 members. In 1977 it became the Chart Specifications Committee (CSC) with 17 members. It was renamed the Chart Standardization Committee (CSC) in 1982, with an unchanged membership. The CSC currently has 24 members, including at least one from each International charting region. Only three Member States currently represented on CSC are not represented on CHRIS or its Working Groups. As at 30 August 2001, nine of the representatives on CSC also represent their State on CHRIS or one of its Working Groups. The CSC's terms of reference are at Annex A.

The CHRIS was created in 1996 from the Committee On ECDIS (COE), formed in 1986, and the Committee on the Exchange of Digital Data (CEDD), created in 1983. CHRIS currently has 33 members (with a further 4 who are members only of its Working Groups). It was established to deal with matters related to the Special Committee on Worldwide Electronic Navigational Data Base (WEND), whose first meeting was in 1995, and to ENC. The CHRIS's terms of reference are at Annex B.

The role of the CSC - its contribution to existing and future charting

The current discussions on the CSC's future role are concerned with identifying the most appropriate position for the CSC in the IHO's structure of Committees and Working Groups. Details of its work are raised purely to assist in this discussion.

The important point in any discussion of the CSC's future is the fact that the CSC and the publications it is responsible for provides a core of expertise on the basic concepts of charting. Whatever physical form the chart or publications may take, the fundamental concepts and elements of marine cartography remain the same.

The CSC tasks related to M-11, S-48 and M-4 Parts A and [to a lesser extent] Part C are, at present, largely outside the area of interest of CHRIS and its existing working groups. The CSC's task related to International Notices to Mariners is in parallel with the Standardization of Nautical Publications Working Group (SNPWG)'s work on publications. The main area of overlap is M-4 Part B - Specifications of the IHO for National and International Charts at Medium- and Large-scale.

M-4 Part B provides an internationally-agreed product specification for both national and international (INT) charts at medium- and large-scale. The role of M-4 Part B is twofold, in that it provides:

- a. an explanation of the general concepts and rationale behind the portrayal of features on charts, much of which is relevant to both digital [ie electronic] and analogue [ie paper] charts.
- b. specific guidance for paper charts, including the use of text and symbology.

Specific guidance for digital (vector) charts is provided by S-52 and S-57; specific guidance for digital (raster) charts is provided by S-61. All make full use of the background material contained in M-4 and include cross references where appropriate. Duplication of information is thus (rightly) avoided.

In short, M-4 Part B provides the 'why' for both paper and electronic charts as well as the 'how' for paper charts. The 'how' for electronic charts, is provided by S-52, S-57 and S-61. This is the logical arrangement. Whilst other Working Groups are concerned with the 'how' in all its guises, it is the CSC who is concerned with the 'why'.

The CSC is currently carrying out a detailed review of M-4 Part B [Specifications of the IHO for National and International Charts at Medium- and Large-scale], with a view to achieving a higher degree of standardization. It will be subsequently revised to take account of electronic charting. It is also worth noting that in some areas it is likely that the paper chart will continue for a considerable number of years.

Steps already taken to improve liaison between CSC and CHRIS

The need for closer relations between CSC and CHRIS became apparent to the current CSC Secretariat after the XVth IHC. Since then, the CSC Secretariat has worked to improve CSC's liaison with the IHO digital charting groups. As a result, a number of procedures have been put in place: CSC is now an observer of CHRIS with the Vice-Chairman attending 12th CHRIS meeting [October 2000] and scheduled to attend the 13th CHRIS meeting [September 2001]; CSC Secretariat receives CSMWG and TSMAD agendas and papers; CSC input [written briefs] have been provided to CHRIS and CSMWG meetings in 1999 and 2000 when appropriate. Further briefs will be provided to these and to SNPWG when required. In addition to input to meetings of CHRIS and its working groups, CSC proposals on specific topics have been passed to the relevant digital working group for information and comment - eg symbology for Archipelagic Sea Lanes, symbology for High Speed Craft, revision of M-4 Part B Section 100.

The need for closer relations between CSC and CHRIS

The current state of development of electronic charting is such that it now impacts, to a greater or lesser degree, on the way in which Hydrographic Offices (HOs) work, resulting in changes. In terms of the production procedures followed, 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 charts and ENC are derived.

Similarly, the evolution from paper to electronic charts may raise a number of questions over the future appearance and content of paper charts, and over possible compromise between analogue (paper) and digital (electronic) requirements.

The future requirement for digital production and products may influence the significance of paper products.

All these serve to highlight the need for close co-operation between the CSC and CHRIS. Despite acknowledgement of the need for, and the steps already taken towards, closer liaison between CSC and CHRIS, examples are still being identified where the CHRIS (including its Working Groups) and CSC have each not included the other in discussions on topics directly relevant to it. It is evident that the measures already taken have not produced the necessary level of liaison and have not therefore provided a satisfactory solution to the problem. If the problem is to be addressed, it is now necessary to consider more fundamental change in the organization of the IHO's Committees and Working Groups.

Discussions to-date in CSC and in CHRIS

The future of the CSC after XVIth IHC was discussed at the CSC meeting in March 2000. Some at the CSC meeting 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. Although theoretically joint working groups are a possibility, it would be difficult to make such an organization work, given the nature of the work. The nature of the CSC's current responsibilities sits well as a dedicated Working Group under CHRIS. No further thoughts were received from members in response to the notes of the CSC meeting circulated by CSC CL 5/2000.

CSC input to 12th CHRIS in October 2000 reported on the discussions at the CSC meeting and commented that although some CSC members may not be in favour of such re-organization, a change in the way the CSC operates seems the best way forward. It is important that CSC's moves to closer integration between paper and digital charts is extended and that the work done by CSC on basic principles of cartography is continued. The minutes of 12th CHRIS indicate that the Chairman [Neil Guy] commented on the possibility of merging CSC with CHRIS. The meeting considered that integrating CHRIS and CSC sometime in the near future would be beneficial.

CSC Chairman proposal

The CSC has a continuing valuable contribution to make to future charting whether it be paper or electronic, particularly to provide the reasons why and approach to be adopted to the basic content of chart information. To assist the IHO achieve its objectives, it is important that future work by the IHO's Committees and Working Groups is more fully integrated. To ensure that the CSC's work is integrated with that of the existing CHRIS working groups, I propose that the scope of CHRIS be extended to incorporate the work detailed in the CSC's terms of reference and to change the status of CSC to a Working Group of CHRIS from the next IHC in April 2002. The current on-going changes in marine cartography mean that it is no longer feasible for the CSC and CHRIS to continue in parallel; the closer liaison introduced to date, although improving the situation, is not delivering all the coordination required. I believe the restructuring proposed to be in the interests of all concerned.

The title "Committee on Hydrographic Requirements for Information Systems" [the existing title of the CHRIS] would correctly reflect the role of such a restructured Committee, covering the work of a new Chart Standardization and Paper Chart Working Group (the former CSC) as well as that of the existing CHRIS working groups. If the title 'CHRIS' is adopted for the restructured committee, it will be particularly important to ensure that the extended remit of the Committee is well publicised.

**TERMS OF REFERENCE OF THE CHART STANDARDIZATION COMMITTEE OF THE
INTERNATIONAL HYDROGRAPHIC ORGANIZATION**

[Source: IHO Circular Letter 14/1998]

Membership:

Membership of the Chart Standardization Committee (CSC) is open to all Member States wishing to be represented, by request to the Directing Committee of the International Hydrographic Bureau (IHB). The Chairman will monitor membership to ensure that each regional hydrographic commission is represented on the CSC. He will inform the Directing Committee of the IHB if, at any time, a regional commission is not represented. The IHB Director in charge of Cartography will be an ex-officio Member of the CSC.

Organization:

1. A Chairman and Vice-Chairman of the CSC will be appointed from participant Member States of the CSC. The Chairman will be determined by appointment by the Directing Committee of the IHB in consultation with Member States. The Vice-Chairman will be determined by the CSC, from amongst its members, by election conducted by the CSC Chairman.
2. The Chairman and Vice-Chairman will discuss and decide between themselves the organization of the work entailed in these posts.
3. A Secretary will be appointed from within the organization of the Chairman of the CSC to ensure the smooth running of business, and to administer consultation and collation of members' views. The Secretary will not be a member of the Committee.
4. The CSC conducts its business mainly by correspondence.

Objectives:

The IHO Chart Standardization Committee (CSC) shall:

Chart Specifications of the IHO

1. Keep under continuous review in all respects the "Chart Specifications of the IHO", in order to advise the IHB on their updating.
2. Advise the IHB on suggestions, put forward by Member States, to update the "Chart Specifications of the IHO", with the goal of achieving the maximum possible adherence by Member States to the Specifications.

Regulations of the IHO for International (INT) Charts

3. Keep under continuous review in all respects the "Regulations of the IHO for International (INT) Charts" in order to advise the IHB on their updating.
4. Advise the IHB on suggestions, put forward by Member States, to update the "Regulations of the IHO for International (INT) Charts".

International (INT) Chart Scheming

5. Advise the IHB, as appropriate, in the setting-up of regional hydrographic commissions or working groups in order to accelerate the production of large- and medium-scale international (INT) charts.
6. Offer advice on chart schemes and cartographic work of such commissions or groups, in order to ensure homogeneity and so that these commissions might take advantage of its experience.

Note: With regard to 5 and 6, the role of the CSC vis-a-vis the regional commissions and groups is purely of a consultative nature.

Guidelines for Regional Coordinators of International (INT) Chart Schemes

7. Keep under continuous review the “Guidelines for Regional Coordinators of International (INT) Chart Schemes” in order to advise the IHB on their updating.

Liaison with other IHO bodies

8. Maintain close liaison with other relevant IHO bodies, in particular the Committee on Hydrographic Requirements for Information Systems (CHRIS).

Reports of activities

9. Report progress to Member States through the Annual Report of the IHB, and by means of a report to each ordinary session of the IH Conference.

**COMMITTEE ON HYDROGRAPHIC REQUIREMENTS FOR
INFORMATION SYSTEMS(CHRIS)**

[Source: IHO Publication M-3 - Technical Resolution K 2.13]

Considering the need to promote and co-ordinate the development of official digital products and services to meet the requirements of mariners, it is resolved to establish a Committee on Hydrographic Requirements for Information Systems (CHRIS) with the following Terms of Reference and Rules of Procedure:

1. Terms of Reference

- 1.1 To monitor the requirements of mariners associated with development and use of electronic information systems that may require data provided by national hydrographic offices, and identify the matters that may affect the activities and products of these offices.
- 1.2 To study and propose methods and minimum standards for the development and provision of official digital hydrographic data, nautical products and other related services.
- 1.3 To prepare and maintain publications to describe and promote the Committee's recommended methods and standards adopted by the International Hydrographic Organization, and advise national hydrographic offices about implementation procedures as required by those offices.
- 1.4 To establish and maintain contact with other relevant IHO bodies, such as the Committee on WEND, the Legal Advisory Committee, the Copyright Working Group, etc...
- 1.5 To liaise with other relevant international organizations.

2. Rules of Procedure

- 2.1 The Committee is composed of representatives of Member States and a representative of the International Hydrographic Bureau.
- 2.2 Member State Representatives, or the Committee as a whole, may invite Observers to Committee Meetings.
- 2.3 Meetings shall be held at least once a year. The venue and date will be announced at least three months in advance.
- 2.4 The Committee Members will elect the Chairman of the Committee at its first meeting following each International Hydrographic Conference.
- 2.5 The Committee will progress its work primarily through Working Groups, each of which will address specific tasks. Working Groups will operate by correspondence to the maximum extent practicable.
- 2.6 Recommendations of the Committee will be submitted to the IHO Member State for adoption through the Directing Committee.

Note: The terms of reference are currently under review - CHRIS/13/3B refers.