

**11th CSPCWG - 1st NCWG MEETING
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Paper for Consideration by Nautical Cartography Working Group (NCWG)

Proposal to Modify CSPCWG Terms of Reference for NCWG

Submitted by:	USA (NOAA), UK, AU
Executive Summary:	A proposal to modify the existing Chart Specification and Paper Chart Working Group (CSPCWG) Terms of Reference (TOR) for use by its renamed successor, the Nautical Cartography Working Group (NCWG).
Related Documents:	HSSC6-04.2A , Report of the Correspondence Group on HSSC Working Groups' Restructuring (CGHR) IHO Circular Letter 76/2014 , Re-Structuring o the Working Groups of the Hydrographic Services and Standards Committee (HSSC) CSPCWG TOR DIPWG TOR New HSSC Working Group TORs HSSC Draft Work Plan 2015-16
Related Projects:	

Introduction / Background

At the sixth meeting of the Hydrographic Services and Standards Committee (November 2014 - Viña del Mar, Chile,) the committee considered a proposal to restructure several of its working groups. The IHB presented [HSSC6-04.2A](#), *Report of the Correspondence Group on HSSC Working Groups' Restructuring (CGHR)*.

The report summarized the discussion of the reorganization by the Correspondence Group (which took place throughout the year between HSSC5 and HSSC6). Under the "Conclusions and Recommended Actions: Structure" section the report addresses an earlier restructuring proposal to combine the CSPCWG and the Standardization of Nautical Publications Working Group (SNPWG) into a new Nautical Information Provision Working Group (NIPWG). The report stated that, "Although there is some reluctance to accept merging the CSPCWG and the SNPWG into the NIPWG, this move seems sufficiently supported to be considered as a realistic medium-term objective."¹

The report recommended not combining the two working groups, but to, "Prolong the existence of the CSPCWG subject to the annual review of its existence by the HSSC with a focus on the future of chart products as a basic component of e-navigation." HSSC6 agreed to keep CSPCWG and SNPWG separate for now, but to rename CSPCWG as the Nautical Cartography Working Group (NCWG) and Action HSSC6/09 called for "NCWG to report on its continuance after 2015 and if required propose amendments to the current CSPCWG TORs to reflect the change of name." This paper proposes amendments to the CSPCWG (now NCWG) terms of reference in accordance with the Action HSSC6/09.

Analysis/Discussion/Conclusions

The recommended changes to the CSPCWG TOR presented here are influenced by two related thrusts.

The accelerating transition from paper to digital products

Although the current CSPCWG TOR states that one objective of the group is to, "provide a core of expertise on the concepts of charting ... *whatever physical form the chart may take*," it is undeniable that the major focus of the working group's efforts up to now has essentially been on paper charts. The HSSC working group reorganization provides an opportunity for the CSPCWG/NCWG to leverage the large cadre of cartographic experts in its membership and take a leadership role in influencing the representation of

¹ HSSC6-04.2A, page 9, paragraph 34.

nautical information in digital products (S-101 in particular, but also in the emerging field of e-navigation in general).

The text of Action HSSC6/09 does not provide much detail, but the meaning of the "change of name" mentioned in the action is clearly linked to the Correspondence Group on HSSC Working Groups' Restructuring recommendation that CSPCWG "focus on the future of chart products as a basic component of e-navigation."²

The HSSC Chair's own comments to the Correspondence Group also discuss the evolving role of the Working Group. He says, "With the generalization of the use of ECDIS, the development of e-navigation, and the generalization of GIS-based chart production systems, the time has come to consider shifting the underlying framework of chart specifications from paper to digital products."³

The NCWG TOR should clearly state that the working group is expected to take an active role in developing, maintaining, and advising others on digital symbology and the portrayal of digital data in addition to paper chart standardization.

Disbanding of the Digital Information Portrayal Working Group (DIPWG)

Under the legacy HSSC working group structure the CSPCWG and DIPWG provided a degree of symmetry and division of the symbology/portrayal labor between the "paper chart people" and the "ENC people." These groups coordinated on new and changed symbology, DIPWG often following CSPCWG's lead, such as with the recent development of a dozen symbols for virtual AIS aids to navigation. DIPWG defined the symbols for ECDIS after CSPCWG defined the paper chart symbols for the aids in S-4.

The NCWG should take up the role of considering symbology and developing holistic paper *and* digital chart solutions for cartographic and symbology issues *together*, rather than passing the digital portion off to another working group.

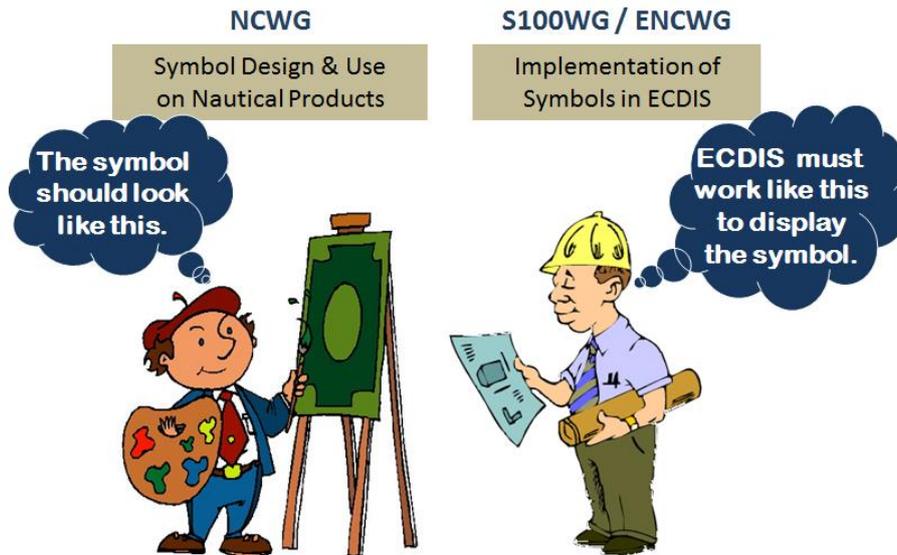
DIPWG's TOR called for the working group to maintain the symbolization/portrayal of ENC data in ECDIS as specified by S-52, its accompanying Presentation Library and the portrayal related elements of S-100 and S-101. The last DIPWG Work Plan also called for the group to provide technical assistance on Portrayal for S-100 related product specifications.

With the recent decision to disband DIPWG at HSSC6, there is no longer a single group responsible for digital symbology. The new ENC Working Group (ENCWG) will maintain S-52 symbology (for S-57 ENCs) and the new S-100 Working Group (S-100WG) will develop and maintain the portrayal of S-101 ENCs. Also, Task D of the draft S-100WG Work Plan calls for the Working Group to, "support the development and maintenance of S-100-based product specifications," but no work items specifically state the responsibility to provide guidance on *symbology or portrayal*, other than for S-101.

The S-100WG and ENCWG should have a role in *implementing* digital symbology in ECDIS and advising developers of S-100 based products on the "mechanics" of portrayal catalogs and the like, but NCWG should lead *defining* paper and digital symbology. This concept is illustrated by the cartoon below.

² HSSC6-04.2A, Page 9, paragraph 34.d.

³ HSSC6-04.2A, page 19.



There should be a shared responsibility between S-100WG and NCWG in reviewing symbology proposed for other S-100 based products and advising them on possible conflicts with the existing portrayal of the base ENC product on ECDIS displays.

A modified version of the current CSPCWG terms of reference is provided in Annex A. These changes reflect the direction given by HSSC at its November 2014 meeting and the concepts described above. The changes also take into account the draft TORs and Work Plans of other Working Groups approved at HSSC6.

Please note that the assumption was made that the standard "boiler plate" in the "Composition and Chairmanship" and "Procedures" sections of the new Working Groups' TORs will ultimately be adopted into the other Working Groups' TORs for the sake of consistency. Therefore, the text from these sections has been placed into the modified draft NCWG TOR. However, some changes have been recommended for this "standard text" too. If the changes to these sections are approved, the changes should be rolled back into the TORs of the new Working Groups and any other Working Group that will use text from the new Working Groups' TORs.

The rationale for specific changes to all portions of the NCWG TOR is provided below:

General Changes

- Adopted the formatting and paragraph numbering scheme used in the new WG TORs.
- Moved "Composition and Chairmanship" under "Authority," as it is in the new WG TORs.
- Replaced the "Composition and Chairmanship" (section 3) with the version used in the new WG TORs, but retained "The Chairman will monitor membership to ensure that each regional hydrographic commission is invited to be represented on the WG" from the CSPCWG TOR, which is now 3.b. Some minor modifications are noted under "*Rationale for specific changes by section*" below.
- Deleted the "Guiding Principles" section. It is thought that this section was probably added (particularly 5.a.i.) to nudge the scope of the CSPCWG beyond its well established focus on paper charts. The recommended changes to the rest of the TOR make this point clear and render this section redundant. Furthermore, the Introduction section of S-4 is the best place to describe the scope of the document; the TOR should only describe the composition and function of the Working Group, not the documents that it maintains.

Rationale for specific changes by section

1.a) and 1.b) These sections now expectedly list the documents for which NCWG is responsible in the first part of the Objectives section for clarity; details are provided later on in the Procedures section.

1.c) This section adds responsibilities (in addition to S-4 and S-11 maintenance) to provide authoritative guidance to other IHO and non-IHO efforts. (Not stated explicitly, but this would include providing input to the ENCWG and the S-100WG for the portrayal of ENCs in ECDIS, as well as to other groups developing other S-100 based products.)

1.c(i)-(ii) This section restates the concept from the original TOR section 1.a. that the Working Group is to provide expertise for both paper and digital charts. (Not stated explicitly, but this would include RNCs, ENCs and any other digital chart format developed in the future.)

1.c(iii) With the disbanding of DIPWG, there is no other obvious group of symbology experts for S-100 based product developers to turn to for advice. This addition makes it clear that NCWG will participate in ensuring that the display of the growing number of ECDIS data layers will be intelligible.

2. Given that the surge to update S-4 is essentially over, the HSSC believes that maintenance of this standard will no longer be exempt from the process and procedures used to approve modifications of other IHO HSSC standards and specifications. Therefore the text related to the Working Group's authority to seek direct endorsement by Member States has been removed.

3.d Added "each" after "Chair and Vice-Chair shall" in first line. Added "Each MS present is allowed one vote," to the end of the paragraph.

3.e Added new language to clarify the common confusion as to whether the secretary needs to be elected or not.

3.f Added new language to clarify what should occur if the position of Chair or Vice-Chair needs to be filled between meetings.

3.h Replaced "in the event that" with "if."

4.a.iii HSSC6 moved responsibility for S-49 to NIPWG. The bulleted list of documents has been changed into normal sentence form since only S-11 remains.

4.c Deleted this, because it is the same as 3.i. (sections 4.d-g has been renumbered to 4.c-f)

4.d Clarified that only Member States may vote.

4.f) Replaced "particularly DIPWG and TSMAD" with "particularly those developing and maintaining S-100 based products," which will include S-100WG and ENCWG, as well as others.

Recommendations

We recommend that NCWG endorse the modified TOR for use by NCWG, incorporating any additional recommendations by other Member States, as appropriate, and forward the draft to HSSC for consideration at their next meeting (HSSC7, Busan – November 2015).

Justification and Impacts

The NCWG has an opportunity to influence the implementation of the emerging role of e-navigation. Failure to broaden the group's portfolio will eventually render it irrelevant as the use of paper charts diminishes and may eventually end altogether.

Action Required of NCWG

NCWG is invited to:

- a. endorse the need to change to CSPCWG/NCWG TOR,
- b. adopt the proposed TOR changes or agree upon alternative modifications,
- c. forward the draft NCWG TOR to HSSC for approval.