

10th CSPWG MEETING
Wellington, New Zealand, 21-24 January, 2014

Paper for Consideration by CSPCWG
Report from HSSC5 - Notes by CSPCWG Chairman

Submitted by:	Chairman
Executive Summary:	A brief report on IHO meeting HSSC5, November 2013, for matters of interest to CSPCWG
Related Documents:	CSPCWG10-04.1A CSPCWG Report to HSSC5 HSSC5 Report (draft in preparation by IHB) Summary report by IHB at Annex.
Related Projects:	CSPCWG Work Plan

Introduction / Background

1. These notes provide a brief summary report of the 5th meeting of the Hydrographic Standards and Services Committee (HSSC5), hosted by China MSA, Shanghai, 5-8 November 2013. It is for information only and limited to those issues that are most closely related to CSPCWG's activities; it is not intended to summarise all matters, or to replace the official meeting Record and Actions List that is distributed to Member States (MS) by IHO Circular Letter.
2. Most technical WG chairmen presented their respective WG reports to HSSC in person, attending as part of their national delegations. However, TWLWG's and HDWG's reports were delivered by others; and SCWG Chairman reported via a telephone link.
3. Chairman CSPCWG presented the WG's report (CSPCWG10-04.1A).
4. HSSC5 was attended by 25 IHO MS including some national hydrographers. Further participants came from industry and international affiliated bodies. (An "IHO Stakeholders' Forum" was not held this time.) As Chairman, I took the opportunity to lobby MS' senior staff to encourage their continuing support for your continued participation in CSPCWG (e.g. technical reviews, meeting attendance).
5. A general comment made by President Robert Ward was that if standards are set but not implemented it reflects badly on MS, HSSC & IHO in the eyes of users, distributors and stakeholders. Consistency and credibility is undermined.

Analysis / Discussion

6. **CSPCWG Report (HSSC5-05.5A) and Chairman's brief to HSSC5:**
 - 6.1 WG Report and Work Plan were endorsed. Work Plan progress was reported.
 - 6.2 S-4 Edition 4.4.0 (Sep 13) had been agreed by MS and notified by CL55/2013.
 - 6.3 The plan is to issue the final portion of S-4 refresh (section B-500) by CL for MS' endorsement before end 2013.

6.4 When endorsed, S-4 will come under the control of Resolution 2/2007 and the 'special status' of obtaining MS approval will lapse (WG10 Agenda Item 5 refers).

6.5 Progress on incorporating ENC scheming guidance into S-11A reported.

6.6 Definitions of *altitude*, *elevation*, *height* remain to be resolved in liaison with TSMAD27 (December 2013) and HDWG (WG10 Agenda item 9.10 refers).

6.7 At the time of HSSC5, 9 IHO CLs had been issued from CSPCWG's work in calendar year 2013 (=15% of all IHO CLs). CSPCWG activity was commended.

6.8 I explained certain aspects, direction and challenges facing the WG, including:

- Addressing ongoing emerging real-world requirements in the maintenance of S-4 (to serve charting principles across all formats);
- How to bring cartographic principles and enhancements to ECDIS display of ENC;
- The potential to review the generation, content and maintenance regime of paper charts in the future as ECDIS/ENC carriage grows and paper comes second to, and may be derived from, ENC (a new-look product?);
- President Robert Ward stated that the International Cartographic Association (ICA) President had offered the potential of contacts /resource to advise on portrayal issues for future charting and data presentation matters.

7. **Proposed change of CSPCWG name (HSSC5-05.5B):**

7.1 The proposal was deferred pending the restructure of HSSC WGs.

7.2 However, the proposed new name 'Nautical Cartography' was implicitly endorsed in the name of the new prospective WG (NCNIWG).

8. **Re-positioning paper charts on WGS84 Datum (HSSC5-05.5C):**

8.1 The paper was tabled to fulfill CSPCWG9 Actions 47 & 48: to encourage prioritising the acceleration of the adoption of WGS84 Datum. This had already been agreed by MS in the publication of S-4 Edition 4.4.0. HSSC was supportive.

8.2 A question arose about the suitability of the term 'WGS84'. ISO TC211 may be looking at the standardization of geodetic terms and references (including a generic global datum name - ISO19114?). Advice has been sought from IHB's ISO contact (AD Tony Pharaoh).

9. **Performance Indicators (PI) for HSSC**

9.1 WG are required to report for the calendar year: i) numbers of MS participating; ii) percentage of work plan items completed. However, as the PI have not been in operation sufficiently long to identify trends or lessons, HSSC agreed to continue with them as they are for now.

9.2 Overall, the percentage of work plan items completed in-year by WG is low. This focuses attention on how these figures are reported and interpreted: i) obtaining common reporting from WG is problematic; ii) are the plans overly optimistic? Further, progress is dependent on MS' support, which is outside the control of WG chairs, who can only make assumptions. IHB responded that by placing

items into HSSC / WG work plans, MS were implicitly committing to their resourcing and delivery!

10. Proposed Restructure of HSSC Working Groups

10.1 The proposal of HSSC Chair and IHB Technical Director (GB) as largely represented in HSSC5-04.2A was pushed through – MS PPT presentation refers (to be delivered at WG10). Justifications focused on: i) fewer WG; ii) commitment of MS resources; iii) limited expertise; iv) analogue to digital; v) forward-looking (i.e. >5 years).

10.2 The priority to address the restructure of TSMAD was very well supported (overworked; technical experts and industry contributors stretched between WG; need to establish S-100 support to product experts in other WG and to other domains).

10.3 However, the restructure of TSMAD was incorporated into a wider restructure, the implications of which include:

- The impact on CSPCWG (contrary to HSSC5-04.2F) and SNPWG in creating a NCNI (Nautical Cartography and Nautical Information) 'super WG';
- Reasons in favour: i) concept of data / information being often overlapping and, in the digital environment, much less linked to individual product lines; ii) projects of defined life can be established to address particular developments.
- Reasons against: i) ongoing maintenance in both charts and publications areas; ii) the 'maturity' of paper charting standards may be challenged if the 'future of paper charts' issues are to be grasped; iii) potentially undermines attempts to apply cartographic standards across all formats?; iv) disciplines have been traditionally different so how will HOs choose to be represented?; v) remit may be too wide to maintain true subject matter expertise?; vi) may generate a need to create sub-WG and/or projects, undermining the aim of fewer WG; vii) is there a risk that the WG be 'strategic' rather than 'technical'?

10.4 The restructure will proceed by developing the detail (e.g. reshape Terms of Reference, Procedures) through a Correspondence Group, comprising WG chairs and any MS who wish to contribute.

10.5 Further, IHB will invite MS to define their contributions to technical WG activities.

10.6 Following the above consultation, a final proposal, including WG composition and transition arrangements, will be put to EIHC (October 2014) and HSSC6 (November 2014) for approval and implementation (following HSSC6).

11. Reports by Other HSSC Working Groups – Annex also refers

11.1 HSSC5-05.6A DQWG Report & INF4 IMO/HTW (formerly STW) on Data Quality Issues:

- Work on 'traffic light' proposal has yet to address criteria, weightings etc. This is being addressed by HICUP (Hierarchical Indicator of Composite Uncertainty Propagation) sub-WG in advance of DQWG meeting, April 2014).
- HSSC Chair commented how Data Quality is 'massively important'; perhaps taking over from the issue of positioning.

- 11.2 HSSC5-05.8A TWLWG Report:
- There remain some outstanding IHO Resolutions to tidy up with possible impacts on S-4.
- 11.3 HSSC5-05.9A HDWG Report:
- There remains an outstanding item regarding work plan task A3 (Altitude, Elevation, Height) - WG10 Agenda Item 9.10 refers.
 - Proposed WG restructure retains the autonomy of HDWG as a separate WG (i.e. it will not be subsumed into another WG).

12. Inter-Organizational Bodies

- 12.1 HSSC WG are to support the IMO e-Navigation strategy as far as possible. The provision of nautical information is an integral part of e-Nav (HSSC5-07.1A paragraph 25.f).
- 12.2 There is an ongoing need for MS to keep in close liaison with their General Lighthouse Authority to avoid any potential confusion in chart display over AIS Aids to Navigation (HSSC5-07.2A paragraphs 4-6).
- 12.3 The 2010 edition of S-66 is in need of revision. IHB will invite MS to provide volunteer experts to assist in the revision (HSSC5-07.2B).
- 12.4 Development of an S-100 ice product specification, including a portrayal component, has been progressed by the German Ice Service on behalf of J-COMM (HSSC5-07.9A) – WG10 Agenda Item 15 refers?
- 12.5 FIG Commission 4 (Hydrography), includes consideration of professional training (e.g. S-8 standard) and development. It has also Issued a paper entitled “Economic Benefit of Hydrography” (HSSC5-07.11A).

13. Review of new developments and other INF papers

- 13.1 HSSC5-INF1 Status of Standards: a new edition of S-11 Part A will result from CSPCWG Work Plan item B.3.
- 13.2 HSSC5-INF2 Status of T&P ENC Updates: MS have reported the status of their application of P&T NM in their ENC.
- 13.3 HSSC5-INF7 Future demand for paper nautical charts: Australia reported their particular national circumstances, including a 20% drop in demand for paper charts in the last 2 years and the withdrawal of their Raster Chart Service from July 2014 (HSSC5-INF8).
- 13.4 HSSC5-INF9 US Technical Matters: USA reported their decision to stop lithographic printing (but not POD) of paper charts and their focus on digital charting, especially with ENC-Online. However, US cautioned others to take care over communications regarding paper chart supply as they received very many questions from users over whether they were withdrawing from paper entirely.

14. Next meeting (HSSC6) Valparaiso, Chile 10-14 November 2014.

Justification and Impacts

15. CSPCWG Chairman to continue representing the WG at HSSC:

- by providing a report of CSPCWG's activities;
- seeking endorsement of our Work Plan, including new items and relative priorities;
- raising issues of wider interest for the Committee's attention, as required.

Action required of CSPCWG

16. CSPCWG is invited to note this report (and to refer to the full HSSC5 final report and actions, when issued).

**5th MEETING OF THE IHO HYDROGRAPHIC SERVICES AND STANDARDS
COMMITTEE (HSSC) – SUMMARY REPORT BY IHB
Shanghai, China, 4-8 November**

The fifth meeting of the Hydrographic Services and Standards Committee (HSSC) took place in Shanghai, China, hosted by the Maritime Safety Administration of China (China MSA), from 4 to 8 November 2013. Mr Chen Xiao Guang, Deputy Director General of Shanghai MSA, welcomed delegates at the beginning of the meeting which was chaired by Dr Mathias Jonas (Germany). 62 representatives from 25 Member States, PRIMAR Regional ENC Coordinating Centre, the IHB, and six international organizations accredited as observers were present. FIG (International Federation of Surveyors) was represented for the first time. President Robert Ward, Director Gilles Bessero and Assistant Directors Michel Huet and Tony Pharaoh represented the IHB.

The Committee reviewed the activities, proposals, and work plans of its working groups and the decisions of other bodies and organizations affecting its work. The Committee endorsed three draft new editions of IHO publications (draft edition 4.0.0 of S-57 - Appendix B1 - Annex A - *Use of the Object Catalogue for ENC*, S-57 Supplement 3 - *IHO Transfer Standard for Digital Hydrographic Data*, Supplementary Information for the Encoding of S-57 Edition 3.1 ENC Data, draft edition 5.0.0 of C-51 - *Manual on Technical Aspects of the United Nations Convention on the Law of the Sea 1982 [TALOS]*) and invited the IHB to circulate them to Member States for approval.

The Committee reviewed the progress in preparing other draft new editions of IHO documents (draft edition 6.1.0 of S-52 - *Specifications for Chart Content and Display Aspects of ECDIS*, draft edition 4.0.0 of the Presentation Library [Annex A to S-52], draft edition 5.0.0 of S-58 - *ENC Validation Checks* and draft edition 3.0.0 of S-64 - *IHO Test Data Sets for ECDIS*) and agreed to endorse them by correspondence after finalization by the relevant working groups. The significant effort devoted to enhancing these IHO publications is intended to address various issues related to ECDIS operational anomalies and was conducted in close liaison with the International Electrotechnical Commission (IEC) and the Comité International Radio-Maritime (CIRM). A process of approval by correspondence was agreed by the Committee to ensure that new editions of S-52, S-52 Presentation Library and S-64 can be approved by IHO Member States before the end of October 2014, in line with the target date for the publication of the associated new edition of the IEC standard 61174 - *Operational and performance requirements, methods of testing and required test results for ECDIS*. The Committee also agreed on the actions that will be required to coordinate the implementation of these revised editions of the standards with the International Maritime Organization (IMO).

Progress in developing the next generation of standards for digital hydrographic products and services, the S-100 Universal Hydrographic Data Model and associated Product Specifications was reviewed. The Committee agreed the structure of an S-100 master plan for framing this development. The Committee approved a technology roadmap intended to guide the completion of the S-101 ENC product specification, which has encountered some delay due to resource constraints. The elements requiring further work and the establishment of a thorough test bed programme are now progressing well. Several test bed projects presented by the Republic of Korea will provide a significant contribution to the development programme. The opportunities offered by a new phase of the Marine Electronic Highway Project in the Straits of Malacca and Singapore that will incorporate dynamic tides in ECDIS and the presentation of chart quality indicators were also acknowledged.

The Committee adopted a standardised method for identifying S-100 based product specifications and endorsed the development of a new standard - IHO S-121 - *Maritime*

Limits and Boundaries Product Specification, to be progressed by Geoscience Australia on behalf of the IHO. The Committee also supported the development of IHO S-124, a new Product Specification for Navigational Warnings, to be progressed by the IHO World Wide Navigational Warning Service Sub-Committee (WWNWS) in liaison with the Transfer Standard Maintenance and Application Development Working Group (TSMAD). The Committee reviewed the coordination of S-100 related activities with the development of the IMO e-navigation strategy implementation plan which should be the main driver for the uptake of S-100 based products and services.

The Committee discussed the re-structuring of its working groups to acknowledge the changing focus from paper to digital data based products and services and to best use limited resources. The Committee agreed principles aimed at improving its efficiency and facilitating inputs from industry and other stakeholders through a reduction in the number of long-term working groups and the establishment of time-limited project teams. The proposed new structure will be further developed inter-sessionally and presented to the next meeting for implementation. Taking into account the central role that S-100 will play in future standards developments within the IHO as well as outside the IHO, the new structure will include a dedicated S-100 working group.

The Committee endorsed several revisions to IHO Resolutions dealing with tidal matters and invited the IHB to circulate them to Member States for approval. The Committee endorsed a number of new definitions proposed by the Hydrographic Dictionary Working Group to be circulated to Member States for approval.

The Committee warmly thanked China for the excellent meeting arrangements and the support provided to the participants and acknowledged that this support contributed significantly to the success of the meeting.

The next meeting of the HSSC will take place from 10 to 14 November 2014, in Valparaiso, Chile.

Further information is available at
http://www.iho.int/mtg_docs/com_wg/HSSC/HSSC5/HSSC5Docs.htm.