

6th Meeting of the Hydrographic Services and Standards Committee
11-14 November 2014, Viña del Mar, Chile

Report of CSPCWG to HSSC6
Chart Standardization and Paper Chart Working Group

Submitted by: Chairman, CSPCWG
Related Documents: IHO Circular Letter 48/2014 (6th Meeting of the HSSC)
Related Projects: not applicable

Chair: Jeff Wootton, Australia
Vice Chair: Nick Webb, UK
Secretary: Andrew Heath-Coleman, UK
Member States: Australia, Brazil, Canada, Chile, Colombia, Denmark, Finland, France, Germany, Greece, India, Indonesia, Iran, Italy, Japan, Korea (Rep of), Latvia, Netherlands, New Zealand, Norway, Pakistan, Russia, South Africa, Spain, Sweden, Turkey, Ukraine, UK, USA (=29).
Expert Contributors: M Huet, IHB (ret); Y Guillam, IHB
Organisations: ESRI, Jeppesen Marine, KESTI

See Annex A for full details of membership

1. Meetings Held During the Reporting Period

- 1.1 CSPCWG10, 21-24 January 2014, held in Wellington, New Zealand.
- 1.2 Planned: CSPCWG11, 28-30 April 2015, Rostock, Germany; meetings beyond CSPCWG11 dependant on outcomes of HSSC review of HSSC Working Group structure.
- 1.3 A short meeting of the INT1 Sub-Working Group was held at the conclusion of CSPCWG10. No meetings of the INT1 Sub-Working Group have been conducted during the reporting period, and no meeting is planned before CSPCWG11 in April 2015.

2. Election of Officers

On notification at CSPCWG10 that the Chair (Peter Jones, UK) would be retiring effective 31 March 2014, it was agreed that the Vice-Chair (Jeff Wootton, Australia) would take over as Chair effective 01 April 2014 in accordance with the CSPCWG Terms of Reference. Chris Thorne (UK), was elected unopposed as Vice-Chair. Due to reassignment, Chris was succeeded by Nick Webb (UK) from 01 September 2014, who was elected unopposed via CSPCWG correspondence vote.

3. Work Programme

The programme is based on the priorities assigned within the detailed Work Plan (Annex B refers). Since HSSC5, the principal activities have been:

- 3.1 S-4 Chart Specifications of the IHO and Regulations for International (INT) Charts:
- 3.1.1 Edition 4.4.0, September 2013, was reported to HSSC5. IHO CL 55/2013, 03 October 2013 and 03/2014, 07 January 2014 refer.
- 3.1.2 A further revision, Edition 4.5.0, is planned to be published late 2014 or early 2015. This includes:
- A complete revision of Part B Section 500 (*Text: Language, Numbers, Names, Type Styles*) as approved by Member States (IHO CL 73/2013 and 38/2014 refer). This sees the completion of the full review and modernization by the CSPCWG of S-4 Part B.
 - A new specification on the '*Highlighting of navigational lights*' (IHO CL 58/2013 and 32/2014 refer).
 - Revised specification at A-204.2 – A204.5 allowing for international chart numbers to be extended to 5 digits (IHO CL 49/2015 refers).
 - Numerous clarifications of charting practice resulting from discussions within CSPCWG including: the principle of the best practice of compilation of the largest scale chart first (including associated benefit for updating charts); best practice for the selection of charted soundings; definition of a 'major light' for charting purposes; specification for directional lights; status of 'Large Automatic Navigational Buoy' (LANBY); showing limits of surveys on charts; discontinuities between surveys; reported dangers.
 - Revision of B-160 *Updating System for the Specifications* to reflect the requirement for the change processes of S-4 to conform to Resolution 2/2007.
- 3.2 S-4 supplementary publications INT 1, INT 2 & INT 3:
- 3.2.1 INT1 *Symbols, Abbreviations and Terms used on Charts*. There are three official language versions of INT1. No revisions have been published within the reporting period. Their current status is:
- Spanish language version published by ES/IHM: Edition 4, October 2011
 - French language version published by FR/SHOM: Edition 5, 2012
 - English language version published by DE/BSH: Edition 7, January 2011.
- Revisions of all three official language versions of INT1 are expected to be published during 2015.
- 3.2.2 INT2 *Borders, Graduations, Grids and Linear Scales*. There are no current plans for a revision of Edition 4, 2007, published by NL.
- 3.2.3 INT3 *Use of Symbols and Abbreviations*. There are no current plans for a revision of Edition 5, 2011, published by UK.
- 3.3 S-11 Part A Guidance for the Preparation and Maintenance of International Chart Schemes
- Current status is Edition 2.0.5, published May 2012. A draft revision is in preparation, in collaboration with NSEHWG and engagement with the WENDWG, to develop and incorporate guidance on the preparation and maintenance of ENC schemes (in pursuance of Work Plan item B.3).
- 3.4 S-49 Standardization of Mariners' Routing Guides
- There are no current plans for a revision of Edition 2, 2010.
- 3.5 Chart specifications, symbols and abbreviations
- The following new and revised symbols and specifications are currently under consideration:

- The charting of bathymetry (e.g. representation of dredged areas; minimum depth and maximum authorized draught) and aids to navigation (including representation of light vessels; obsolescence of the terms *interrupted quick* and *interrupted very quick* for lights; proliferation of AIS aids to navigation; inclusion of Racon wavelengths in ENC).
- The charting of covered berths and dangerous cargo berths.
- Inclusion of topographic contours covering glaciers.
- A new Section V for INT1 to group all the data quality indicators used on paper charts. This is considered an optimal method of appropriately communicating 'uncertainty' in INT1 symbols to the mariner.
- Guidance for the use of QR Codes on paper charts.
- The use of seals of non-IHO members/organizations on INT charts is the subject of an Paper HSSC6-05.5C.

3.6 Lessons learned from Marine Incidents

- The case of the *USS Guardian* grounding in January 2013 was presented. A presentation is made available on the IHO SNPWG-16 webpage.
- The final investigation report of the grounding of the passenger ship *Deutschland* in January 2012 was issued in March 2014 by the German Federal Bureau of Maritime Casualty Investigation, the reading of which is recommended. It has not been addressed by the CSPCWG and the DQWG yet.

4. Progress on HSSC Action Items

HSSC Action 5/05: *WG chairs to ensure that the level of detail in their respective work plans is homogeneous and that the work plans identify clearly the work items which are expected to be completed in the subsequent one or two Years: done.*

HSSC Action 5/07: *Contributions for the 2013 period to be provided by HSSC WG Chairs (Performance Indicators no 2 and 3) ... by 31 January 2014: done.*

5. Problems Encountered

5.1 Ongoing resource stretch at participating HOs.

6. Any Other Items of Note

6.1 The activity of CSPCWG continues at a high level:

- The volume of detailed input to CSPCWG's work is extensive and thanks are recorded to all contributor MS' representatives.
- CSPCWG has the highest MS participation of any HSSC WG and this is matched by a very high level of active participation in its meetings and deliberations. (The latest two meetings of the WG have been attended by 17 and 12 MS, plus industry representatives and IHB/ADCS. WG correspondence routinely receives considered responses from >20 participants.) I interpret this to be a continuing indicator of the relevance and value to each participating MS. This is supported by the fact that MS remain supportive of the WG when personnel change (e.g. the reporting period has seen the replacement of 8 WG members).
- Further, a good level of MS' response is received from the wider IHO membership in reply to IHO Circular Letters generated from CSPCWG work.

6.2 Advice and guidance continues to be exchanged with DIPWG, DQWG and TSMAD as required, enhancing the collaboration between the WGs. The WG Chair continues to provide perspectives and liaison across CSPCWG, DIPWG, HDWG and TSMAD and advice on the technical consequences of decisions for each.

- 6.3 CSPCWG discussions are progressing regarding greater 'cross-format' engagement and maintaining and supporting the continued relevance of nautical cartography, including the future of the paper chart. This was explicitly included in the agenda and actions of CSPCWG10.
- 6.4 Chair and Secretary continue to provide responses to a variety of miscellaneous enquirers. This includes providing advice to ICCWG/RCG coordinators and to individual MS on charting matters and the application of IHO specifications and standards.
- 6.5 As required for Action HSSC5/08, the CSPCWG Chair participated in the activities of the Correspondence Group on HSSC Working Group Restructuring (CGHR). This included initiating a discussion at CSPCWG10 on the recommendations (at that time) of the CGHR. Concerns were raised by the WG over the proposal to merge the CSPCWG and SNPWG. Opinions expressed included the risk to the effectiveness of the WG in its present format; availability of experts with wide enough knowledge to effectively staff such a WG; willingness of MS to commit to such a WG; and emergence of greater synergies between the CSPCWG and other proposed WG (such as the S-101 WG). The conclusion reached at CSPCWG10 was that as no previous concern has been expressed over the functions and effectiveness of the CSPCWG, the CGHR should restrict its discussions to the major identified area of concern, this being the re-structure of the TSMADWG.

7. Conclusions and Recommended Actions

- 7.1 HSSC6 is invited to endorse the continued activity of the WG under its current Terms of Reference.
- 7.2 HSSC6 is invited to approve the Work Plan as submitted at Annex B. This Work Plan was formally reviewed in detail at CSPCWG10, January 2014 and has been updated in the version at Annex B. Following any direction or guidance from HSSC6, this will be subject to further review and revision at CSPCWG11, April 2015.

8. Justification and Impacts

- 8.1 Justification for the continued activity of the WG is to fulfil the remit of its Terms of Reference which includes:
 - Improving the standardization and currency of nautical charts (in accordance with SOLAS V (2002, regulation 9));
 - Improving the guidance provided to nautical chart compilers, whatever the product's format, including support for 'Capacity Building';
 - Improving the interface and, where feasible, commonality of presentation between paper and digital chart products, whilst acknowledging their inherent differences.
- 8.2 The principal impact is the resource commitments of participating HOs.

9. Action Required of HSSC

The HSSC is invited to:

- Note this report;
- Endorse the continued activity of the WG, subject to the outcomes of the review of the structure of HSSC WGs;
- Approve the Work Plan at Annex B.

Annexes:

- A. Membership of CSPCWG (at 17 September 2014)
- B. CSPCWG Work Plan

ANNEX A

MEMBERSHIP OF CSPCWG
(at 17 September 2014)

Member State	Name	Email
Australia	Mr Jeff WOOTTON (Chairman)	jeff.wootton@defence.gov.au
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CSPCWG Work Plan

September 2014

(updated following CSPCWG10 and subsequent activity)

- *Objectives, Tasks and Work Items are pursued in accordance with IHO Work Programme 2013-2017, Programme 2 (Services and Standards):*
 - *Element 2.3. Nautical Cartography:*
 - *Task 2.3.1 Conduct annual meetings of relevant HSSC WGs dealing with nautical cartography.*
 - *Task 2.3.2 Maintain and extend the relevant IHO standards, specifications and publications.*
- *The focus is on maintaining and enhancing cartographic standards and specifications for nautical charts to suit the needs of the modern mariner in support of safe navigation and protection of the marine environment.*
- *As a Plan it will and should evolve; accordingly, contributions from WG members and others are welcomed at any time.*

CSPCWG Tasks

- A Maintain and extend Publication S-4 'Chart Specifications of the IHO & Regulations of the IHO for INT Charts' (IHO Task 2.3.2 refers)
- B Maintain and extend Publication S-11 Part A 'Guidance for the Preparation and Maintenance of INT Chart schemes' (IHO Task 2.3.2 refers)
- D Development of new (and revised) symbology (IHO Task 2.3.2 refers)
- E Maintenance of S-4 supplementary publications INT 1, 2 & 3 (IHO Task 2.3.2 refers)
- F Maintain and extend Publication S-49 'Recommendations concerning Mariners' Routeing Guides' (IHO Task 2.3.2 refers)
- G Conduct meetings of CSPCWG (IHO Task 2.3.1 refers)

Tasks and numbers from IHC XVIII Conf.18/Rep/01

No	Work item	Priority H-high M-medium L-low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C-Completed	Contact Person(s)	Affected Pubs/Standard	Remarks
A.6	Revise S-4 Part B Section 500	M	Publish S-4 Ed 4.5.0	2012	2014	O	Sec CSPCWG	S-4 / B-500	CL38/2014
A.11	Clarify guidance on dredged/maintained areas	M	WG letter with draft specification	2011	2015*	O	Sec CSPCWG	S-4, INT1	CSPCWG9 Action 43 CSPCWG10 Action 10
A13	Provide guidance on charting maximum authorized draught	M	WG letter with draft specification and symbol	2012	2015*	O	Sec CSPCWG	S-4, INT1	Draft guidance approved by WG but on hold pending development of symbol, D34 refers.
A14	Provide guidance on updating large scale charts first	M	Publish S-4 Ed 4.5.0	2012	2014	O	Sec CSPCWG	S-4 / B-100.5	CL32/2014
A16	Initiate consideration of the 'future of the paper chart'	M	Discussion paper by AU / CA / SE/ UK CSPCWG reps	2014		O	Chair CSPCWG	tbd	CSPCWG10 Action 36
A17	Provide guidance on charting wind farms under construction at sea	M	WG letter with draft specification	2014	2015	O	Sec CSPCWG	S-4 B-445	CSPCWG10 Action 20
A18	Provide guidance on charting covered berths	M	WG letter with draft specification	2014	2015	O	Sec CSPCWG	S-4 B-300	CSPCWG10 Action 21
A19	Provide additional guidance on charting AIS where on most AtoN in region	M	WG letter with draft specification	2014	2015	O	Sec CSPCWG	S-4 B-489	CSPCWG10 Action 28
A20	Provide guidance on use of QR codes	M	WG letter with draft specification	2014	2015	O	Sec CSPCWG	S-4 B-200?	CSPCWG10 Action 38
A21	Provide guidance on adding reminder about T & P NMs on charts	M	WG letter with draft specification	2014	2015	O	Sec CSPCWG	S-4 B-200?	CSPCWG10 Action 41

B.3	Develop guidelines for preparation & maintenance of small / medium scale ENC schemes.	H	2 nd draft by NSEHWG	2009	2014	O	Vice Chair CSPCWG	S-11A	Draft by NSEHWG; keep WENDWG engaged
D32.1	Lights issues: Major lights, Direction lights, Highlighting	M	Publish S-4 Ed 4.5.0	2012	2014	O	Sec CSPCWG	S-4 / B-470	CL32/2014
D32.2	Interrupted lights	M	Publish S-4 Ed 4.5.0	2012	2015*	O	Sec CSPCWG	S-4 / B-470	CSPCWG9 Action 13 CSPCWG10 Action 22,23
D32.4	Reinstate (simplified) symbol for light vessels	M	CL for MS approval	2012	2015*	O	Sec CSPCWG	S-4 / B-474, INT1	CSPCWG9 Action 18; CSPCWG10 Action 16
D34	Devise new symbol for 'Maximum authorized draught'	M	Draft to WG	2014	2015	P	Sec CSPCWG	S-4 / B-400	CSPCWG10 Action 12; see also A13.
D35	Dangerous cargo berth	M	WG letter with draft specification	2014	2015	P	Sec CSPCWG	S4 / B-300	CSPCWG10 Action 18
E.1	Maintain official INT 1s		Planning for next editions by INT1 sub-WG (following Cadiz meeting July 2013)	2013	2015?	O	DE: S Spohn FR: S Guillou ES: A Guitart	INT 1	English version 2011 (Ed 7) French version 2012 (Ed 5) Spanish version 2011 (Ed 4)
E.4	Symbols for vacant entries in INT 1	L				P	Sec CSPCWG	INT 1, S-4 part B	Consider subsuming into E8 Not subsumed
E8	Reorganize INT1 to exclude composite symbols	L				P	INT1 sub-WG	INT1	Not to be progressed at present; use CSPCWG10-11.2A when progressed.
E9	Develop new section V for INT1 for 'data quality'	M	Draft to WG	2014	2016	O	Chair CSPCWG	INT1	CSPCWG10 Action 35

* Allowing for approval via HSSC (in accordance with Resolution 2/2007) before MS and publication.

G. CSPCWG Meetings (IHO T2.3.1 refers)

Date	Location	Meeting	Date	Location	Meeting
03-05 Nov 04	IHB, Monaco	CSPCWG 1	23-26 Nov 10	Simon's Town, S Africa	CSPCWG 7
19-21 Oct 05	IHB, Monaco	CSPCWG 2	29 Nov–02 Dec 11	Turku, Finland	CSPCWG 8
22-24 Nov 06	IHB, Monaco	CSPCWG 3	13-16 Nov 12	Seoul, Rep of Korea	CSPGWG 9
13-15 Nov 07	IHB, Monaco	CSPCWG 4	21-24 Jan 2014	Wellington, New Zealand	CSPCWG 10
18-21 Nov 08	Sydney, Australia	CSPCWG 5	28-30 April 2015	Rostock, Germany	CSPCWG 11
01-03 Dec 09	IHB, Monaco	CSPCWG 6			

Chairman: Peter Jones (UK) until 31/03/14

Chairman: Jeff Wootton (AU) from 01/04/14

Vice Chairman: Jeff Wootton (AU) until 31/03/14

Vice Chairman: Chris Thorne (UK) from 01/04/14

Vice Chairman: Nick Webb (UK) from 01/09/14

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