



## CHART STANDARDIZATION & PAPER CHART WORKING GROUP (CSPCWG)

[A Working Group of the Hydrographic Services and Standards Committee (HSSC)]

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### CSPCWG Letter: 09/2013

UKHO ref: HA317/010/031-10

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To CSPCWG Members

Date 27 June 2013

Dear Colleagues,

### **Subject: Name of Working Group and Future of the Paper Chart**

1. The record of the 9<sup>th</sup> CPSCWG meeting, November 2012, placed an action (#54) on me as your Chairman “*to revisit previous discussions about the naming of this working group and draft a new proposal*”. The relevant extracts from the report of CPSCWG9, along with the previous discussions in the period 2006-07, are summarised at Annex A. In 2007, CSPCWG4 participants voted unanimously for ‘Chart Specifications WG’. Now that the WG’s name is being reconsidered, please respond using the voting form at Annex B. Depending on the outcome, I can make a proposal for any change to HSSC5 in November.
2. Within the same agenda item of CSPCWG9, we discussed the future use and relevance of paper charts. The relevant brief extract from the report of CPSCWG9 is at Annex A, also. This discussion generated Action 53. Please consider your views on this matter and forward any notes or documents that you may consider to be relevant to the action addressees, copy to Andrew Heath-Coleman, our Secretary. To stimulate your thoughts, a discussion paper from US/NOAA is at Annex C (reproduced with the kind permission of its author, Dave Enabnit). It is likely that this will prompt discussion at HSSC5, so your views need to be heard and your national representatives briefed accordingly; hopefully this explains why I have included a further question at Annex B. At this stage, I cannot anticipate where this discussion may be by the time of our next CSPCWG meeting, in January 2014 in Wellington, but it will undoubtedly need to be an agenda item and places more emphasis on WG9 Actions 53 and 54.
3. Please let me have your **responses by 08 August**, using the response form at Annex B. This will allow me time to submit any proposed name change and prepare for discussion on ‘the future’, as required, at HSSC5.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Peter G.B. Jones', with a stylized flourish at the end.

Peter G.B. Jones,  
Chairman

Annex A: Extract of Report of Meeting CSPCWG9

Annex B: Response form

Annex C: Future of the Paper Chart? – US/NOAA informal paper

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**Extract of Report of Meeting CSPCWG9****[Agenda item] 10.3 Discussion on INT charting (Chairman)**

The Chairman provided the opportunity for a discussion about the on-going relevance of the INT chart concept, which was then widened to consider the future of the paper chart generally. In brief, the meeting supported the continuing principles of the INT chart concept and encourages all RHCs and their International Charting Coordination WGs to be active in this field.

It was opined that, while ENCs are particularly useful for navigation at larger scales, paper charts at smaller scales are still very useful for planning and overview. It was suggested that a paper could be drafted on this subject; D Prince (CA), J Wootton (AU) and M Wallhagen (SE) agreed to make an initial draft.

**ACTION 53:** AU/CA/SE to consult and prepare a paper on the future of the paper chart.

In course of the discussion about the future of paper charts, M Huet suggested that it is time to revisit the name of this WG. The main task of the WG is chart standardization or specification, the application to paper charts being a secondary task. Nevertheless, the inclusion of 'Paper Chart' within the title appeared to be causing a misconception about the business of the WG. J Wootton explained that TSMADWG and DIPWG are very dependent on the work of the CSPCWG and that S-4 remains the fundamental guide on chart specifications whatever format the chart is delivered in.

**ACTION 54:** Chairman/Secretary to revisit previous discussion about the naming of this working group and draft a new proposal.

**After meeting note:** this was originally discussed at CSPCWG3, resulting in Action 7: 'All WG members to consider possible new names\* for WG under [a proposed] new structure [of IHO technical WGs] and advise Secretary of preference by 31 January 2007'.

At CSPCWG4, from a selection of possible names, the participants voted unanimously for 'Chart Specifications WG'.

However, at CSPCWG5, the Chairman advised that he had decided not to press for the CSPCWG name to be changed (to Chart Specifications WG). He explained that now the roles were not changing (as part of the process of setting up HSSC, especially the relationship with DIPWG, formerly CSMWG) part of the reason for change had gone away. Further, that the WG, operating under its existing name, had garnered considerable credibility, which might be diminished by a name change. This was accepted by the participants.

\* The record of CSPCWG3 (November 2006) reads:

Concern was expressed that the proposed new name 'Paper Chart Presentation WG' does not adequately reflect this WG's role in providing a core of expertise on the basic concepts of charting (whatever the physical form of the chart), as stated in the Terms of Reference. Various possibilities were proposed, including:

- Nautical Charting WG
- Nautical Cartography WG
- Charting Standards WG
- Chart Specifications WG
- Chart Content & Paper Chart Presentation WG (CCPCPWG!)
- Chart Development WG

**Name of Working Group and Future of the Paper Chart****Response Form**(please return to CSPCWG Secretary by **08 August 2013**)[andrew.coleman@ukho.gov.uk](mailto:andrew.coleman@ukho.gov.uk)

WG9 Action	Question	Yes	No
54	Do you agree with the recommendation to propose a new name for CSPCWG?		
	If 'Yes' what should the new name be (tick one box only):		
	Chart Specifications Working Group (CSWG)		
	Another name – please put your suggestion below		
53	Do you agree to engage in the discussion on the future of the paper chart, providing input to any draft paper and by briefing your national representatives to HSSC5 (in anticipation of discussion in that forum).		

Further comments:

Name:

Member State:

## Future of the Paper Chart?

**Please Note:** this paper provides some thoughts from Dave Enabnit, US/NOAA – however, it does not state NOAA’s position on the matter nor is there any current action based upon it.

**The Situation** – A shrinking role for paper charts.

1. By July 2018, mandatory carriage of electronic charts will encompass all SOLAS vessels and it may no longer be legal to navigate on a paper chart.
2. U.S. electronic chart carriage regulations will be more inclusive than SOLAS and will also cover most smaller commercial vessels (those required to carry AIS).
3. ECDIS manufacturers are successfully selling dual ECDIS systems thus eliminating the role of paper charts for backup.
4. Only about 1/3 of recreational boaters carry any type of nautical chart product and not all of those are NOAA charts.
5. Recreational boaters are moving to electronic devices for information consumption. Reduced capability, e.g. field of view, is being accepted in exchange for the other features of those electronic devices.
6. Many users of charts as “base maps” and other non-navigation purposes are converting to GIS.
7. U.S. Paper chart sales are 30% of the level of 30 years ago in spite of increased vessel traffic.
8. With the ‘regulated carriage’ use of paper charts removed, the traditional rules driving chart content, availability, form factor, coverage, user and uses, etc. are no longer applicable.
9. DoD are committed to going paperless and to use ePODs for residual hard copy needs.

**Conclusion** – By July 2018 the paper chart will be an outmoded product that may not be accepted for its original purpose of regulated navigation. Usage may be so low as to question the need for its continued production.

**Meanwhile,** further investment in paper charts is needed.

1. OCS is facing a \$7.5M ( ± ), multiyear work item of building “templates” to be able to make paper charts from its new NCS II production system.
2. There will be further expense to attribute with depiction information all the items in the NCS II data base – both for paper charts and for S-101.
3. Additional development effort and expense will be needed to complete NCS II to the point where it can efficiently make paper charts.
4. Work is needed to make the paper chart printing and distribution services (both lithographic and Print-on-Demand) more responsive and robust.
5. IHO is completing a multi-year effort to rewrite the S-4 Standard for paper charts with an expected completion date in 2014.

**Conclusion** – These investments may be unnecessary if the traditional paper chart is discontinued. Now is a good time to consider alternatives that recognize the situation – work might be avoided and the paper chart redesigned to be better tailored to its remaining uses.

### **Alternative courses of action**

1. Do nothing. Continue to bear the paper chart compilation, printing and distribution costs. Continue NCS II to its full completion for paper chart production.
2. Continue paper charts but abandon the NCS II paper/raster software and continue to use Bentley Maps for that purpose.
3. Contract for paper chart compilation and provide the ENC database as the source of data.
4. Discontinue the paper chart but develop a “Printed ENC” as a minimum product for navigation.
5. Exit the paper chart market and let the private sector fill those needs since an official paper chart will no longer be needed for regulatory compliance.