



IHO Worldwide ENC Database Working Group (WENDWG)
2nd Meeting, London, United Kingdom, 21-22 September 2012

FINAL MINUTES

- Notes: 1) The paragraph numbering is the same as in the agenda (Doc. WENDWG2-02 Agenda)
2) The list of annexes is provided in the end of this report
3) All documents referred to in these minutes are available from the WENDWG page of the IHO website:

http://www.iho.int/mtg_docs/com_wg/WEND/WEND-WG2/WEND-WG2-Docs.htm

1. WELCOME, OPENING REMARKS, INTRODUCTIONS, APPROVAL OF AGENDA

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|------------------|----------------------|
| Doc. WENDWG2-01A | Logistics Details |
| WENDWG2-01B | List of Participants |
| WENDWG2-02 | Agenda |
| WENDWG2-03 | Timetable |

The second meeting of the IHO WEND Working Group (WENDWG2) took place at the Army and Navy Club in London (UK), 21 and 22 September 2012. The WENDWG Chair (Capt Jamie McMichael-Phillips, UK) opened the meeting and welcomed all 29 participants representing six RHCs (BSHC, NHC, USCHC, MBSHC, SWAtHC and EAHC), 13 Member States, three RENCs (IC-ENC, PRIMAR and AusRENC), two observers and the IHB. He then introduced Assistant Director Alberto Costa Neves, IHB, and recently assigned WENDWG Secretary. The Secretary then introduced the documentation and also served as rapporteur.

The List of Participants was updated (**Annex A**). WENDWG Chair informed the participants on the administrative arrangements in order to get a fruitful meeting, due to the short time available. The agenda was accepted with no changes.

Outcomes:

- The WG noted the documents introduced.
- The WG agreed the agenda.

2. APOLOGIES

WENDWG Secretary reported apologies from Mr. Mathias Jonas (Germany) and Capt. Abri Kampfer (South Africa and SAIHC representative).

3. WENDWG1 MINUTES

Doc. WENDWG2-04 WENDWG1 Minutes

WENDWG Chair presented the WENDWG1 Minutes.

Outcome:

- The WG noted the document introduced.

4. MATTERS ARISING FROM WENDWG1

Doc. WENDWG2-04 WENDWG1 Minutes (Action List)

WENDWG Chair presented the status of the actions agreed during WENDWG1 (**Annex B**). The WG debated whether other organisations could attend WENDWG meetings. Chair reported that Actions A04 and A02 were merged in order to get a better assessment of shipping industry needs and the ENC provision.

MBSHC stressed that this action list must be made available in the IHO website. The WG agreed to do so. Regarding the WENDWG submission to IHC18, EAHC emphasized the need to follow the procedures via IRCC. Chair explained that the time sequence of meetings restricted the opportunity for WENDWG proposals to be offered to IRCC4, but the proposals were approved by IRCC through correspondence. IHB explained that the next EIHC will be held in October 2014 and it will be better for WENDWG submissions.

Outcome:

- The WG decided to make the WENDWG1 Action List available in the IHO website (**Annex B** to this report)

5. WENDWG REPORTS TO IHC18 AND IRCC4

Doc. WENDWG2-05 WENDWG Report to IRCC4
WENDWG2-06 IRCC4 Report to IHC18

WENDWG Chair presented the WENDWG Report to IRCC4 and the subsequent IRCC4 Report to IHC18. He highlighted the main achievements and conclusions presented to the IHC18 and drew attention to an amendment to section 5 - Conclusions in the report (document CONF.18/WP.3). The following sentence should be inserted after the third sentence in conclusion a: "The proposed process below was generally accepted but there remain some participants who have not endorsed the process in its entirety and agree these can be further advanced through the XVIIIth International Hydrographic Conference discussion."

Outcome:

- The WG noted the document.

6. MATTERS ARISING

Chair reported on the outcomes of IHC18 (**Annex C**) and the IRCC4 list of actions and tasks related to WENDWG (**Annex D**). The WG debated over Action 14 (Provide revised Annexes B and C of the WEND principles) and agreed that this activity will take longer than proposed. Chair will write to IRCC Chair to inform accordingly. Outcomes of IHC18 and IRCC4 will be discussed in the appropriate

agenda items.

WENDWG Secretary updated the WG regarding the Single Unified Database being developed in the IHB (Member States Database and Antarctica GIS that will be expanded to incorporate all the RHCs). These two activities were presented at IHC18 in a side event. This unified database will provide the framework for several IHO publications and tasks.

Outcome:

- **Action WENDWG2/01 – Chair** to inform IRCC Chair that Action IRCC4/14 deadline will not be met.

7. WEND PRINCIPLES AND GUIDING, INCLUDING ACTIONS ARISING FROM IHC18 PRO-3

Doc. WENDWG2-08 Overlap issues
WENDWG2-10 Answers from RHCs and MS on IHB CL 78/2012

Chair reported on Circular Letter No 78/2012 (Input to the Guidelines for the implementation of the WEND Principles) and the feedback from MSs (*Doc. WENDWG2-10 Answers from RHCs and MS on IHB CL 78/2012*). He explained that the proposal was meant to improve and expand the principles and guidelines, and the concerns from MSs are just and need to be addressed.

Chair proposed three points to discuss:

- Worldwide scheme for ENCs
- Criteria for dealing with overlaps and critical issues
- Principles and guidelines

Australia stated that the amended WEND Guideline and supporting Annex proposal to 18thIHC was not well expressed and that it is important to have one simple document, without expanding annexes. USA expressed that the separation (principles and guidelines) was due to the need to approve the principles because the guidelines can create conflicts and risk the approval of the principles.

EAHC stressed the need to get back to the history of the principles and guidelines and the need to simplify the document. He raised the questions of understanding what is the problem with the principles and why people are not implementing them. France agreed with EAHC on the need to simplify the documents.

AusRENC stressed the need to address the reasons behind the problems the WG needs to solve. UK expressed there is a need to address the problems the users face and try to solve them. USA stated that the Principles are not technical and the guidelines are. These guidelines need to be well explained to allow the execution.

WENDWG Secretary stressed the need to give a priority list on gaps and overlaps to RHC Chairs in order to allow them to properly address the problems. Chair expressed the need to modernize the principles and guidelines to reflect the changes in the IHO structure.

USCHC reminded that IRCC is in fact the WEND Committee. USCHC and Turkey supported the idea of having the guidelines as a technical resolution annex to the Principles. Australia expressed the need to focus on overlaps. Chair suggested that one possible solution is to open to commercial partners to deregulate the ENCs.

France presented *Doc. WENDWG2-08 Overlap issues* with numerous examples of problems identified in overlapping areas. UK reminded that the current distribution of ENCs does not allow for the seamless distribution because no change to ENC is allowed.

USA reminded the WG that even the amicable resolution of USA – Canada overlaps took more the

eight years to settle and is not yet complete. She also stressed the need to assess risk to indicate the priorities of overlap solution.

Saudi Arabia provided examples of new coastal surveys and the discovery of numerous uncharted dangers. He also suggested that it should be mandatory for MSs to be RENC members in order to allow them to harmonize the ENC.

PRIMAR expressed that there have been good responses from MSs to solve the overlaps but a RENC cannot enforce a solution. Nevertheless the RENCs know where the problems are. AusRENC indicated that it operates aligned with the IHO guidelines and the RENCs are able to address the overlaps by applying a cartographic decision.

USCHC stated that a significant challenge is that, compared to the RENCs, it lacks some of the local knowledge to implementing the cartographic decision. Maybe it is necessary to challenge and allow IHO or RHC to issue Nav Warnings when detecting overlaps problems. RENCs have informed MSs of a lot of those problems and no Nav Warning have been issued. WENDWG should do a recommendation on how this type of Nav Warning should be issued.

IHB reminded the WG that the IHO, being a consultative body, does not have the power to enforce a solution, but can help raise the awareness of the problems (gaps and overlaps), especially in the RHCs.

Saudi Arabia stressed the need to move with more urgency to implement S-100. EAHC reported that the issue was discussed in the region and stated that 90% of the overlaps are unintentional and only 10% are intentional and should be addressed. He also noted the need to classify the overlaps into suitable categories in order to solve them in priority.

MBSHC stated that it is difficult to create a worldwide ENC scheme to make MSs comply with. It is a technical and not a political solution.

IHB emphasized that the USCHC is a good example of a solution for the disputed areas and shows the importance of the RHC coordination process. IHB will help the regions to go in this line.

MBSHC suggested creating an ENC scheme with gridded cells by usage band. Australia supported MBSHC and stated that it already did a project like this and said it works fine. Turkey stated that it may work in Australia but would be hard to implement in MBSHC. USCHC agreed with Turkey.

USA gave the example of the work being done in MACHC region with the joint management of ENC and INT Charts. USCHC expressed that the S-11 scheme for paper charts should be copied to ENCs.

Brazil presented the examples of its negotiation with SHOM (France) and SOHMA (Uruguay) in order to solve the ENC overlaps and gaps. He stressed that the main actors are the MSs, under the coordination of the RHCs.

UK reminded that a significant number of overlaps are due to the provision of ENC cells beyond a producer nation's national jurisdiction, particularly at smaller scales.

WG discussed the nature of overlaps, identifying those that were 'intentional', usually related to territorial issues; those that were 'incidental', usually smaller scale ENC cells beyond a producer nation's national jurisdiction; those that were 'derived' from the paper-to-ENC conversion, most often within a single producer; and those that were more genuinely 'accidental' or 'technical'.

EAHC argued that, since the IHO does not have power to enforce any single solution, he does not see how to make a global scheme work. Another problem pointed was how to define the usage bands for the scheme. USA agreed with EAHC and suggested that bilateral agreements were the most effective way to solve overlaps.

Canada suggested WENDWG should engage with CSPCWG to extend their work to more fully cover ENC schemes. CSPCWG already has the responsibility to publish agreed ENC schemes.

EAHC suggested that IHO should accept and tolerate that some overlap exists. Turkey suggested that ENC's should have a cautionary note when there are overlaps.

MBSHC called the attention that all RHCs are expected to implement an ICCWG to solve these issues. He mentioned that the guidelines are not applicable in some cases. Australia agreed and suggested to rewrite the guidelines.

USA suggested that, in cases where an overlap cannot be solved, the two MSs should update their charts with the neighbouring MSs latest NtoM, so that where deliberate overlaps persist, they will at least be synchronised.

MBSHC suggested RENCs should be more willing to remove the two overlapping cells and report directly to IMO, to oblige the two MSs to resolve it.

USCHC suggested that the IHO/IRCC should invite RHCs to assess the risks of the overlaps and to solve them.

IHB highlighted that the current global ENC coverage represents around 90% of the expected coverage, recognising there are opportunities to introduce larger-scale ENC's in many places. The outstanding coverage needs to be addressed otherwise the reputation of the IHO could be compromised.

MBSHC suggested going over the guidelines and making them more workable. USCHC suggested some questions leading to set the principles for drafting the guidelines and the current annex. The WG agreed to discuss the questions:

1. Should role of IRCC in association with the RHC's be heightened and clarified in revision of these documents?
The WG indicated Yes; the problem is how to fund these activities. Suggest that is conducted by ICC Coordinators.
2. Is the IRCC, in association with the RHC, the right body to facilitate the overall risk assessment of gaps and overlaps and their resolution within their regions?
The WG indicated Yes, by:
 - a) seeking assistance outside the region
 - b) working with RENCs
3. Will ENC gaps, that are already covered by paper charts under informal or bilateral arrangements, be resolved either by mutual agreement with the Coastal State, facilitated by IRCC in association with RHCs, or alternatively reported to a higher authority (e.g. IHO, IMO)?
The majority of the WG indicated Yes.
4. Should the RHCs report their findings from the risk assessment to IRCC (copy to WENDWG) for appropriate action?
The WG indicated Yes.
5. Should the section on resolving overlaps include any reference to EUSPs as part of the trusted circle of ENC data quality chain?
The WG indicated No.
6. Should the essential technical guidance of the Annex be merged with the Guidelines?
Yes.
7. Should either combination of Guidance and Annex be recommended as a Technical Resolution to IRCC?
The WG indicated Yes.

WG general feeling is that RHCs don't have the resources to monitor gaps and overlaps, and

therefore they currently act accordingly. On the other hand RENCs could probably do that on a regional basis. This could perhaps be facilitated with the establishment of a Worldwide ENC Database (WENC).

UK raised the point that RHCs will not solve problems unless they receive the mandate and the motivation to do so.

WG discussed risk assessment and whether this can be done by the RHCs, who would do that and the range (global or regional) of the methodology.

Saudi Arabia made the point that the IHO should stay in its consultative role and should not get involved with political and legal stages.

WG decision was made to update the Guidelines in its current standalone format without incorporating any technical details that are time sensitive in hopes it could be adopted as a Technical Resolution in the future.

Outcomes:

- The WG noted the document presented and decided to incorporate the proposed Tasks to the WWG-TF work programme.
- The WG agree to leave the guidance as it is until a technical resolution is adopted.
- The WG answered the questions leading to set the principles for drafting the guidelines and the current annex to help the designated drafting group.
- **Action WENDWG2/02 – Chair** to create a task group to develop a simple risk assessment tool.
- **Action WENDWG2/03 – USA, Canada, Turkey, UK, Secretary** to form a drafting group for the guidelines until 31 October (first draft) with comments by the end of December and final version by 31 January.

8. COVERAGE - GAP / OVERLAP ISSUES

Doc. WENDWG2-11 Ports not covered by larger scale ENCs

UK presented Doc. WENDWG2-11 Ports not covered by larger scale ENCs. Several participants reported some flaws in the document. UK explained the limitations of the list and invited RHC Chairs to feed back to improve the list. The list can be an important tool to define gaps in large scale ENCs.

Chair invited BSHC to report on the region's experience on gaps and overlaps (**Annex E**).

Handling international boundary issues: USA gave the example of the US-Canada case as a technical solution for solving gaps and overlap in RHCs where the boundary is a problem. In the USCHC case, significant time and effort was invested to educate government officials on the aspects of ENCs in order to obtain the necessary policy decisions for the technical work to proceed.

IHO suggested to RHC Chairs to report back to IRCC to allow the subject to be discussed with other RHC Chairs.

Outcomes:

- The WG noted the document presented.
- **Action WENDWG2/04 – Chair** to send amplification letter on the limitations of the list of ports not covered by larger scale ENCs.

- **Action WENDWG2/05 – RHC Chairs** to feedback on problems in the list of ports not covered by larger scale ENC.

9. QUALITY, CONSISTENCY AND UPDATING ISSUES

Doc. WENDWG2-06A WENDWG Task Force programme of work
WENDWG2-09 Gap and Overlap Analysis for RHCs
Annex F WEND Task Group Discussion document

UK presented *Doc. WENDWG2-09 Gap and Overlap Analysis for RHCs* and also explained the significant body of work that UKHO had completed in assessing the variations between ENC and paper charts. This work, driven by concern for the consistency of safety information being presented to the mariner, contains the analysis of official ENCs against the prevailing paper charts worldwide. A huge number of differences were found and categorised. The ones posing greatest risk to navigation were analysed. After this big effort the number of critical differences was reduced from many thousands to 900, and now 800. Most of them are solvable and in general there is good cooperation from other nations' HOs to solve the discrepancies.

USCHC called attention to the fact that using the CARIS-Hydrographic Production Database (HPD) environment it is possible that ENC maintenance will result in new source data being incorporate on the ENC that is not represented on the paper chart that is maintained only by NtM. This inevitably leads to inconsistencies between an ENC and its equivalent paper chart though the differences should not be navigationaly significant.

USA agreed with USCHC and stressed that ENCs and paper charts are not the same and some differences do occur.

MBSHC recalled that the IHB issued CL 40 reporting the work done by the UKHO on consistency between ENCs and corresponding paper charts. The WG invited UKHO to amplify policy and procedures regarding the verification process.

Chair introduced **Annex F** (*WEND Task Group Discussion document*) for discussion on overlap issues; he will circulate the paper for additional comments.

USCHC reported that they had submitted a paper to HSSC4 on validation checks, incorporating the validation checks (S-58) inside the S-57/S-100 to become mandatory rather than recommended.

France presented *Doc WENDWG2-06A WENDWG Task Force programme of work* with the inputs to WENDWG TF Work Plan.

The WG discussed CL 51 (*Continuous provision of ENCs and RNCs to the IHB*). This is a mandatory action arising from Article 19 of the IHO General Regulations and has several benefits for the organization: populate and update the IHO ENC Catalogue and provide web mapping and web feature service based on the authoritative metadata, quality assessment, etc.

MBSHC reported the article in Hydro International about SeaZone's recent Data Producer Code supplementary registry. The article states that ENCs produced by SeaZone will have its own Producer Code. The point to this news release is the encroaching marketing of some digital chart producers that are blurring the lines between what is an official ENC and what is not.

The article can be seen in the following web address:

http://www.hydro-international.com/news/id5507-SeaZone_Accepted_as_IHO_Producer_Agency.html

WENDWG Secretary will further discuss the issue in the IHB and inform Members accordingly.

Outcomes:

- The WG noted the documents presented.
- **Action WENDWG2/06 – Chair** to invite UKHO to amplify CL 40 with the policy and procedures to verify consistency between ENC's and the corresponding paper charts.
- **Action WENDWG2/07 – Chair** to circulate Annex F (*WEND Task Group Discussion document*) for additional comments.
- **Action WENDWG2/08 – Secretary** to discuss the Hydro International article in the IHB and inform Members.

10. A - SERVICE PROVISION (CHAIR/RENC REPRESENTATIVES)

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| <i>Doc. Annex G</i> | <i>RENC Harmonization Activities</i> |
| <i>Annex H</i> | <i>Licensing Status of MSs and other Coastal States</i> |
| <i>Annex I</i> | <i>Feedback licensing from CLIA</i> |

AusRENC did a presentation (**Annex G**) on the current status of harmonisation and cooperation amongst the RENCs. Norway stated that the presentation demystifies the RENCs and maybe non members have to start thinking about joining the RENCs. MBSHC agrees with Norway and stressed the importance of RENCs for distribution of ENC's that ease the life of mariners.

Chair presented the updated licensing status of MSs and other coastal states (originally presented by *doc. WENDWG1-14 Status of Licensing Note*). The updated list is in **Annex H**.

Chair presented the feedback from CLIA on ENC Licensing (**Annex I**). Regarding item 1 on the spreadsheet, the limit of five licenses per vessel, the WG agreed that it is indeed enough for a ship. Item 2 on the differences in periods and costs the WG agreed that it is important to have standard policies. The WG tasked the Chair to write to IHB to invite MSs to adopt standard periods for the licenses.

Regarding item 3 on the problems of withdrawing charts and publications after they are issued, the WG Members presented examples of policies for withdrawing ENC's. The WG agreed that there is no uniformity on this issue and that it is important to support producers to encourage MSs to communicate such withdrawals more effectively.

USA suggested that if an ENC is withdrawn the RENCs should cancel the license to avoid its use in the ECDIS, for the sake of safety of navigation. EAHC called the attention for the WEND principles on this. USCHC expressed that there is a need to put in place a system to inform the master in the ship of any issues within the ENC, maybe via a Nav Warning. The WG agreed an action to the TG to develop a policy to address item 3.

Outcomes:

- The WG noted the documents presented.
- **Action WENDWG2/09 – Chair and UKHO** to invite IHB to send a CL inviting MSs to adopt standard periods for ENC's licenses.
- **Action WENDWG2/10 – Task Group** to develop a policy to address the withdrawn of ENC's and nautical publications after they are issued.

10. B - ECDIS RELATED ISSUES

Chair invited the WG to discuss the relationship with HSSC with respect of the IHC18 outcomes. MBSHC called the attention to the implementation of an ENC scheme and performance indicators (PI) to be reported to HSSC.

IHB explained the need to be specific when establishing PIs, in order to avoid ambiguities and to characterize the goals, the figures and contingencies, to properly monitor the performance. The WG agreed to task USCHC to intervene on behalf of WENDWG during HSSC4 as stated in the actions below.

The interventions will be as stated below (post meeting note):

"HSSC Performance Indicators

The WENDWG interest to contribute to the HSSC Performance Indicator (PI) for the uptake of ENCs was well received. In fact, there was general agreement that the WENDWG is best suited to be the Data Source for the activity of monitoring and measuring this PI. As such, the HSSC now has identified the WENDWG in its Committee documentation as the source for this information. It was re-iterated that the WENDWG would not be able to provide results of its intent to gather industry-wide ENC distribution figures for the HSSC 2012 PI requirements but rather it would use the next 12 months to advance its work and report its findings in this regard at HSSC5. In this respect, for the short-term of the 2012 PI, the WENDWG is likely to have to rely on the original identification of IC-ENC as the Data Source.

Other points of discussion:

With ECDIS mandation programme now engaged, ENC distribution is likely to be driven more by regulatory requirements than user preference – this may influence that analysis.

Identifying a trend in S-57 ENC distribution will have value in assessing the rate of transition to S-101 as it becomes available in the future.

HSSC4 ACTION 03: WENDWG to provide its 2012 figures for ENC distribution to Chair HSSC by 31 January 2013.

CSPCWG ENC Scheme work item

There was widespread appreciation of the WENDWG intervention to the CSPCWG Report regarding cooperation with NSEHC and CSPCWG to advance work on development of ENC Schemes. No specific action is recorded in the HSSC4 report on this item but, through discussion with Sean Hinds and the CSPCWG Chair, there is an expectation for communication channels to be opened between the WENDWG Chair, the WENDWG TG Chair and the CSPCWG Chair to evolve next steps.

Outcomes:

- **Action WENDWG2/11 – USCHC** to intervene on behalf of WENDWG to HSSC4 on the interest on investigating ENC scheme in conjunction with the NSHC ENC harmonization group.
- **Action WENDWG2/12 – USCHC** to intervene on behalf of WENDWG to express its intention to assess EUSP ENC databases and the RENCs database, as this work can contribute to the development of PIs and inform findings in advance of HSSC5.

11. STATUS OF WEND WG

Doc. WENDWG2-07A ToR Original (2009)

WENDWG2-07B ToR (Amend 1, 2011)

Chair presented *Doc. WENDWG2-07A ToR Original (2009)* and *WENDWG2-07B ToR (Amend 1, 2011)* and invited the WG to discuss the current relationship between WENDWG and IRCC. The consensus is that it should stay as a WG rather than a Sub-Committee.

USA suggested that the TOR should have an item on the maintenance of the guidelines for the risk assessment criteria.

Regarding the election of the Chair and Vice Chair, the WG agreed that its officers should serve from IHC to IHC, and that the IRCC should amend the WENDWG TOR's accordingly. The WG then agreed on the two actions below.

Outcomes:

- The WG noted the documents presented.
- **Action WENDWG2/13 – Chair** to propose to IRCC5 to endorse the changes in TOR.
- **Action WENDWG2/14 – Chair** to seek nominations for Chair and Vice Chair to WENDWG3.

12. ANY OTHER BUSINESS

Doc. Annex J *Saudi Arabia Surveys*

Saudi Arabia briefed the WG on the surveys (**Annex J**) being conducted in its waters, emphasizing the need to update the ENC's and paper charts, as many new features were discovered. He also emphasized the importance of capacity building to achieve the necessary updates.

Saudi Arabia also suggested including a reference to S-100 together with S-57 Standards when it applies.

Outcomes:

- The WG noted the document presented.

13. REVIEW OF ACTIONS

Doc. Annex K *List of Actions*

Secretary reviewed the list of actions agreed during the meeting (**Annex K**).

14. CLOSING REMARKS & DATE OF NEXT MEETING

Venue and dates of the next meeting will be decided at a later stage and informed accordingly.

On behalf of the meeting, the Chair warmly thanked the UKHO for the excellent arrangements for the meeting. He also thanked all participants and observers for their valuable contribution to the meeting.

WENDWG2 closed at 14:00 on 22 September 2012.

ANNEXES:

- A - List of Participants
- B - Status of the Actions Agreed During WENDWG1
- C - Outcomes of IHC18
- D - IRCC4 List of Actions and Tasks Related to WENDWG

- E - BSHC Report on the Region's Experience on Gaps and Overlaps
- F - WEND Task Group Discussion
- G - Current Status of Harmonization and Cooperation Amongst the RENCs
- H - Licensing Status of MSs and other Coastal States
- I - Feedback from CLIA on Licensing
- J - Report on Saudi Arabia Surveys
- K - List of Actions