



WENDWG Report to the BSHC 20th Conference

by Jarmo Mäkinen, BSHC WENDWG representative

WENDWG is a working group under the IRCC Committee. The purpose of the WEND Working Group is to advise IRCC and to assist in facilitating a world-wide consistent level of high-quality, updated official ENC's through integrated services that support chart carriage requirements of SOLAS Chapter V, and the requirements of the IMO Performance Standards for ECDIS. Its tasks are:

- 1. Monitor the development of adequate ENC coverage to meet any carriage requirements for ECDIS;*
- 2. Develop proposals for speeding up ENC production and ensuring uniform ENC quality and consistency, and for making data available worldwide, including SENC distribution, taking advantage of any offers for production assistance, or other ways of mutual assistance and co-operation;*
- 3. Advise MS, where appropriate, on the need, as well as on methods and tools for validating the data, and on any assistance which could be offered by the RENCs;*
- 4. Monitor the implementation of the WEND, in response to Decision 21 of the XVIIth IHC, and advise IRCC of appropriate measures for speeding-up the implementation process;*
- 5. Assist in harmonizing the policies of regional ENC Coordinating Centres (RENC) with respect to matters related to administration, legality, finances, technical processes, et cetera.*

1. Status of the work of WENDWG

The WENDWG is chaired by *Capt. Jamie Mc Michael-Phillips* (UK). Mr Sean Hinds (Canada) is Vice Chair and *Mr Yves Guillam* (IHB) is acting as a secretary.

Each Regional Hydrographic Commission should have a representative in the WENDWG. The BSHC has elected *Mr. Jarmo Mäkinen*, Finland, as its representative of the WENDWG.

2. Outcome of the WENDWG5 meeting 3-5 March 2015, Singapore

The WENDWG5 meeting took place on 3-5 March 2015 in Singapore, hosted by the Hydrographic Department of the Maritime and Port Authority (MPA) of Singapore. Twenty-six delegates from 14 Member States, representing 10 Regional Hydrographic Commissions, 2 Regional ENC Coordinating Centres, and the IHB attended the meeting.

The main issues, dealt in the meeting;

- Review of the decisions, outcomes and actions of IRCC6, EIHC5 and HSSC6 which affect the WENDWG
- Overlay Services
- Update report on the study of overlapping ENCs
- Review of the WEND Principles and governance
- ENC Coverage Status Review
- ENC Gaps, Overlaps and Quality Assurance
- ENC Distribution and RENC Reports
- IHO ENC Catalogue Development



- S101 in relation to WEND
- WEND Work Programme

Some of the important considerations are listed below (see WENDWG action list *annex 1*) listed:

AIO (Additional Information Overlay)

Following up on issue discussed at IRCC-6 and HSSC-6, WENDWG discussed further about overlay services. RHCs are encouraged to monitor these services. The WENDWG agreed that this type of services had to remain compliant with current IHO Resolutions and Standards. UKHO was tasked to provide a report on the benefits/risk assessments. See WENDWG5 action2.

Outcome:

- The WENDWG prepared a way ahead to progress with regard to information overlay services, and suggested to include some tasks into the WENDWG Programme of Work 2015-16 that will be submitted to IRCC-7 for approval.

→ Action [WENDWG5/01](#), [WENDWG5/02](#)

Action 56 from IRCC7; RHCs to provide comments on doc. WENDWG5-04B (Relevance of information overlay services and their status in the global IHO ENC programme) to IRCC (deadline: IRCC8).

ENC Coverage status review

The latest figures (2014) indicate that the following percentage of “adequate coverage” based on (UKHO) paper charts intended for international voyages, exists:

- Small-scale ENCs 100%
- Medium-scale ENCs 90%
- Large-scale ENCs 97%

ENC Gaps, Overlaps and Quality Assurance

WENDWG agreed that the analysis of gaps and overlaps should be a RHC permanent task to be carried out through their ICCWG.

Outcome:

- The WENDWG commended the different reports provided by the UKHO which provide a general and good overview of the ENC coverage, gaps and overlaps.

- Following the proposal made above for the establishment of a WENDWG documents repository (para. 5B refers), it was highly recommended to make available risk assessments methodologies and the List of Ports database so they can be used by, and the database updated by RHCs.

→ Action [WENDWG5/14](#), [WENDWG5/16](#)

ENC Distribution and RENC reports

Distribution of ENCs was reported by both RENCs.

It was agreed that there was no further need for the RENC Harmonization Sub Group (RNSG). Instead work should be absorbed in the business-as-usual bilateral work undertaken between the 2 RENCs in order to take forward harmonization and the WENC concept. WENDWG will monitor RENC harmonization, technical and distribution issues as a permanent item of its work program.



IHO ENC Catalogue development

The IHB has made significant progress on the ENC catalogue and this will be launched by the end of March 2015. The catalogue will provide an invaluable resource that can be used by all users subject to the adequate provision of metadata by IHO Members States, RHCs and RENCs. In parallel, PRIMAR on behalf of the RENCs offered to make the RENC ENC database catalogue and overlap checking tool available to RHCs and IHB so that they can monitor coverage, overlaps and gaps within their areas of responsibility. See also IHO Circular letter 58/2015.

Outcome:

- The WENDWG welcomed the offer made by the RENCs for the benefit of RHCs and the IHB to use the RENC Coverage Catalogue and Overlap Checker.

→ Action [WENDWG5/08](#)

IHO ENC Catalogue development

The implementation of this new standard should be carefully considered in the preparation of the transition plan, in particular with regard to ENC updates (S-57, S-101, equivalent paper charts). From a WENDWG perspective, the possibility for ENC updates to have a completely different scheme and the consequences of the revised concept of usage bands will have to be monitored.

Report on the studies for overlapping ENC updates

Singapore (on behalf of the EAHC) reported on the ECDIS tests in progress with OEM support to address ENC updates overlaps. The plan will be to work with OEMs to carry out ECDIS testing to address ENC updates overlaps using test cases in the Malacca and Singapore Straits.

US on behalf of the USCHC reported on the lessons learned from the US-Canada [ENC] Trans-Boundary Agreement.

Both RENCs (IC-ENC and Primar) are also monitoring overlapping of ENC updates to assess potential risks and to identify potential solutions.

Review of the WEND Principles and Governance

Noting that the WEND Principles and Guidelines were amended in 2014, the WENDWG discussed whether there was a need to amend them again. After discussion it was agreed that there are no proposed changes at this time.

During the session, WENDWG established an ad-hoc group (BR, CN, FI, FR, GE, JP, NO, PL, SG, TR, UK, US, ZA, led by FR) to examine EIHC5 Decision 12, in response to PRO7, and to consider issues surrounding the full implementation of the WEND Principles.

- Identification of the articles in the WEND Principles and Guidelines that are considered not fully implemented. From an initial assessment the group considered that articles 2 a b c ; 3 (a) g j ; 4 a b and the Annex on boundaries not fully implemented
- Identification of barriers that prevent these Principles being implemented.
- Proposals for corrective actions against these barriers.
- If no action can be defined, assessment of long term consequences for the IHO.
- Interim report at WENDWG-6 and final report at IRCC-8.
- The work will be carried out by correspondence.

This has been included in the WENDWG 2015-16 work program ([Annex 2](#))



3. Future work of WENDWG

WENDWG Work Programme 2015-16 (Annex 2) was approved by IRCC-7. The Work programme includes, among other things;

- Monitor global ENC Coverage (Oct 2015).
- Provide relevant SPIs and WPIs on ENC adequate Coverage and ENC Producers (Dec 2015).
- Develop scenarios and test cases on ECDIS with overlapping ENCs (2016).
- Develop policy on overlapping data and production responsibilities (2017).
- Pilot project using OEM tools to resolve ENC overlapping issues.
- Report on RENC Harmonization issues and progress made (permanent).
- Using risk assessment methodologies, identify and consider ENC Gaps (permanent).
- Provide systematic advanced notices of AIO to ENC Producers in case of safety issues and seek agreement and report on progress made on the information flow (permanent).
- Provide AIO benefits/risks evaluation, description of information flow, views from NCWG and final recommendations.

4. Actions for the BSHC 20th Conference

- note on this report
- give further guidance to BSHC WENDWG representative.

Annexes:

1. WENDWG- Status of Actions.
2. WENDWG Work Programme 2015-2016.

LIST OF ACTIONS&DECISIONS FROM WENDWG-5

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 25 Aug 2015)
4. Review of the Decisions, Outcomes and Actions of IRCC6, EIHC5 and HSSC6 which affect the WENDWG					
4B	Additional Information Overlays	WENDWG5/01	In response to IRCC6/29, UKHO to provide ENC Producers systematically with advanced notices of AIO when safety of navigation issues are identified, and following-up, ENC Producers to consider whether they provide their consent before AIO are issued (if not, AIO should not be published for those ENC Producers). While RHCs are encouraged to monitor AIO issues and ENC Producers are invited to solve them on a bilateral basis, WENDWG Members to report on the progress made for solving these issues at WENDWG meetings.	Permanent WENDWG-6	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 25 Aug 2015)
4B	Additional Information Overlays	WENDWG5/02	In response to IRCC6/29, WENDWG to make a proposal to IRCC to include AIO issues into the WENDWG PoW (detailed work items to be listed in the PoW as follows): a/ UKHO to provide a report on the AIO benefits/risk assessments (including clarifications on whether AIO can be issued as complementary information for navigation safety or as an “add-on only” by service provider) b/ UKHO to include in this report an Annex depicting the AIO workflow process (including liaison with other HOs). c/ WENDWG Members to provide comments on this report d/ WENDWG Chair to provide HSSC-7 with an interim report (including recommendations from NCWG on the outcome of Task A22) as an information paper	End of April End of April End of August End of September	Done (Report dated 15 May 2015) Done
4C, 14	RENC Harmonization	WENDWG5/03	In response to IRCC6/30, WENDWG Chair to make a proposal to IRCC: a/ to include RENC Harmonization issues into the WENDWG PoW as a permanent task and RENCs to report on the progress made on an annual basis b/ to disband the RENC Harmonization Sub-Group	By 6 May (IRCC-7 submission deadline)	Done
5. Report on the Study for Overlapping ENCs					
5A	ECDIS scenarios and ENC overlapping test cases	WENDWG5/04	SG (on behalf of EAHC) and IC-ENC to report (including potential impact on WEND Principles if any), on scenarios and outcomes of case studies for solving ENC overlapping issues through OEM software solutions within ECDIS	WENDWG-6	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 25 Aug 2015)
5B	Repository of Relevant Documents	WENDWG5/05	IHB to establish a document repository on the WENDWG webpage	April 2015	In progress
5B	Best practises to solve overlap issues	WENDWG5/06	In response to IRCC6/22, RHCs Representatives to WENDWG to consider the USCHC case study available on the WENDWG repository, then document and report on their own achievements in resolving ENC overlaps in their charting Region	WENDWG-6	
5C, 11A	ENC Schemes	WENDWG5/07	ICCWG's Coordinators to consider on case-by-case basis, possibilities and impact of grid-schemes in the perspective of S-101 developments, in accordance with recommendations / outcome from NCWG Task B.3 on ENC Scheming (when available) and report at WENDWG	WENDWG-6	
5D, 10A, 14	ENC Coverage and Overlap Checker	WENDWG5/08	WENDWG Chair to report at IRCC-7 on the offer made by the RENC ¹ s (RENC coverage and overlap checker on-line tool), and recommend that IRCC invites the IHB to issue a CL announcing the availability of this tool for RHCs/ ICCWG Coord., IHB (password protected for every Charting Region)	By 6 May (IRCC-7 submission deadline) June 2015	Done (IHO CL 58/2015)
5E	RENC Harmonization and Policy on ENC Overlap Issues	WENDWG5/09	In response to IRCC6/Decision 15, RENCs to develop their policy on overlapping data and production responsibilities, operate it for a year, incorporate this issue in the RENCs harmonization programme of work, and then report to WENDWG	WENDWG-6	

¹ PRIMAR leads.

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 25 Aug 2015)
6. Review of the WEND Principles and Governance					
6A, 14	Implementation of WEND Principles	WENDWG5/10	Following EIHC-5 Decision No12, WENDWG Chair , in his report to IRCC-7, to provide recommendations on the way ahead to address the issue related to the full implementation of the WEND Principles	By 6 May (IRCC-7 submission deadline)	Done (See IHO CL 58/2015)
6B, 14	WEND Principles and Guidelines	WENDWG5/11	In response to IRCC6/37 and IRCC6/Decision 15, WENDWG Chair , in his report to IRCC-7, to recommend that no further actions is taken for amending WEND Principles or Guidelines at this stage	By 6 May (IRCC-7 submission deadline)	Done (See IHO CL 58/2015)
6C, 14	WEND Principles and Guidelines	WENDWG5/12	WENDWG Chair to recommend to HSSC, in his report to IRCC-7, that changes to the WEND Principles and some sections of the Guidelines need to be reflected into S-65 and that it is up to HSSC (and its ENCWG) to initiate this revision of S-65	By 6 May (IRCC-7 submission deadline)	Done
7. ENC Coverage Status Review					
7B	ENC Coverage, IHO Report to NCSR	WENDWG5/13	For the time being, UKHO to provide coverage statistics for IMO / NCSR 3 (business as usual) and WENDWG Chair to provide IHB with any recommendation to be brought up to the attention of the IMO/NCSR in terms of coverage (moorings, ports, etc.), inconsistencies...	End of October 2015	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 25 Aug 2015)
8. ENC Gaps, Overlaps and Quality Assurance					
8A	ENC Gaps, Risk Assessment	WENDWG5/14	Considering ENC coverage requirements, IHB to publish available risk assessment reports on the WENDWG repository webpage (NZ methodology for SWPHC, US for MACHC, ...) and RHCs to report to WENDWG on their own practises, and if no methodology is in place, to consider the implementation of best practises already available (AIS, Cruise Line International Association Reports, etc.)	September 2015 WENDWG-6	In progress
		WENDWG5/15	<i>Left intentionally blank</i>		
8A	ENC Gaps, List of Ports	WENDWG5/16	UKHO to provide the IHB with a controlled-version of the List of Ports (Top 2000) that will be published on the WENDWG repository webpage and made available on the IHO GIS ENC Catalogue, and RHCs to update the List on a regular basis based on mariners requirements, risk assessment analysis, etc.	May 2015 Permanent	
9. ENC Distribution, RENC Reports					
9A, 9B, 9C	Benefits of distributing ENCs through a RENC	WENDWG5/17	Following @WENDWG4/10 and IHO CL72/2014, RENCs to provide IHB with a paper on the benefits for ENC Producer Nations either to join a RENC or to distribute their ENCs through a RENC. IHB to make it available on the WENDWG documents repository webpage	End of May 2015 IRCC-7	
10. IHO ENC Catalogue Development					
10A	ENC Catalogue Principles	WENDWG5/18	IHB to pursue the development of the IHO ENC Catalogue based on the principles agreed at WENDWG5 (WENDWG5-10A and Presentation refer)	WENDWG-6	In progress

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 25 Aug 2015)
12, 14	Programme of Work	WENDWG5/24	WENDWG Chair to submit the updated WENDWG 2015-16 Programme of Work (Tasks only) for the approval of IRCC as part of the report to IRCC-7	By 6 May (IRCC-7 submission deadline)	Done (Programme of Work posted on the main WENDWG webpage)

ANNEX2_WENDWG Report_BSHC20

Annex A to the WENDWG Report to IRCC-7 (IRCC7-08D)

WENDWG Work Programme 2015-16 (for approval by IRCC-7)

Objectives ([WENDWG TORs](#) refer)

1. Monitor the development of adequate ENC coverage to meet carriage requirements for ECDIS;
2. Develop proposals for speeding up ENC production and ensuring uniform ENC quality and consistency, and for making data available worldwide, including SENC distribution, taking advantage of any offers for production assistance, or other ways of mutual assistance and co-operation;
3. Advise MS, where appropriate, on the need, as well as on methods and tools for validating the data, and on any assistance which could be offered by the RENCs;
4. Monitor the implementation of the WEND, in response to Decision 21 of the XVIIth IHC, and advise IRCC of appropriate measures for speeding-up the implementation process;
5. Assist in harmonizing the policies of regional ENC Coordinating Centres (RENC) with respect to matters related to administration, legality, finances, technical processes, et cetera.

Tasks (IRCC6-07D and IRCC6/Decision No 20 refer)

A	To develop a proposal for a pilot project using OEM software tools to resolve overlapping ENC data issues for consideration at WENDWG5
B	To finalise paper on Guidelines on Assessing and Eliminating the Risk of Overlapping ENC Cells
C	To provide a revised RHSG paper on WENC
D	To continue working to attract ENC producer nations to join the RENCs or distribute their ENCs through a RENC
E	To produce a paper on the benefits for ENC producer nations to join a RENC
F	To monitor and report ENC coverage report to WENDWG
G	To monitor and report the statistics on those ENCs not distributed via RENCs
H	To provide a scoping paper of the ENC Catalogue and to progress catalogue development
I	To develop capacity Building activities
J	To propose way ahead for assessing the long term consequences of not achieving full implementation of the WEND Principles
K	To address the relevance of information overlay services and their status in the global IHO ENC Programme

Work Item	Title	Priority H-High M-Medium L-Low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C - Completed S - superseded	Contact Person(s). Participants	Deliverable	Remarks
A.1	Pilot project using OEM tools to resolve ENC overlapping issues	M	WENDWG6	2014	2016	O	Singapore/EAH C	Recommendations and potential impact on WEND Principles	See HSSC6-05.6B Action WENDWG5/04
A.2	Develop scenarios and test cases on ECDIS with overlapping ENCs	M	WENDWG6	--	2016	O	IC-ENC	idem	Action WENDWG5/04
B.1	Finalise paper on Guidelines on Assessing and Eliminating the Risk of Overlapping ENC Cells	M	WENDWG5	2013	IRCC-7	C	WENDWG	Proposal to be included in the Guidelines for the implementation of the WEND Principles	First step (procedure for RENC): see IRCC6-08C Action WENDWG5/09
B.2	Develop policy on overlapping data and production responsibilities	M		2014	2017	O	RENCs Manager, RENC Chair		Complete for IC-ENC Action WENDWG5/09
C.1	Provide revised RHSG paper on WENC	M	WENDWG5	2013	June 2015 (IRCC7)	C	RENCs		WENDWG5-04C. Action WENDWG5/03: Recommendation is that RHSG is to be disbanded while RENC Harmonization issues remain in the programme of work (C.2)

Work Item	Title	Priority H-High M-Medium L-Low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C - Completed S - superseded	Contact Person(s). Participants	Deliverable	Remarks
C.2	Report on RENC Harmonization issues and progress made	M	WENDWG6	--	Permanent	O	RENCs		Action WENDWG5/03
D.1	Provide a joint RENC paper a paper on the benefits for ENC Producer Nations either to join a RENC or to distribute their ENCs through a RENC	M	May 2015	2014	WENDWG6	P	RENCs		Action WENDWG5/17
D.2	Create a documents repository on the IHO WENDWG webpage	H	April 2015	2015	June 2015	P	IHB		Action WENDWG5/05
D.3	Monitor ENC Producers who distribute their ENCs through a RENC	H		2014	Permanent	O	RENCs, IHB		IHO CL 59/2014 refers. Action WENDWG5/17
F.1	Monitor global ENC Coverage	H		2014	October 2015	O	UK		Action WENDWG5/13

Work Item	Title	Priority H-High M-Medium L-Low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C - Completed S - superseded	Contact Person(s). Participants	Deliverable	Remarks
F.2	Using risk assessment methodologies, identify and consider ENC Gaps	H	September 2015	2014	Permanent	P	RHCs, IHB		Action WENDWG5/14
F.3	Provide and update the List of Ports (and moorings) database	H	May 2015	2014	Permanent	P	UK, RHCs, IHB		Action WENDWG5/16
F.4	Provide relevant SPIs and WPIs on ENC adequate Coverage and ENC Producers	H		2014	December 2015	O	Chair (supported by UK), RENCs, IHB		WENDWG5-04A refers Action WENDWG5/21
H.1	Continue the development of the IHO ENC Catalogue	H	March 2015 Dec. 2015	2014	WENDWG6	O	IHB		Actions WENDWG5/18 & 19 Including back-up paper charts.

Work Item	Title	Priority H-High M-Medium L-Low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C - Completed S - superseded	Contact Person(s). Participants	Deliverable	Remarks
H.2	Deliver the RENC ENC Catalogue and Overlap Checker to RHCs and IHB	H	March 2015	2014	June 2015	O	RENC (PRIMAR), IHB		Action WENDWG5/08
I.1	Provide support to CBSC on request for compelling requirements in the scope of the WENDWG activities	M		2015	WENDWG6	P	RHCs		
J.1	Identify articles in WEND Principles and Guidelines that are considered not fully implemented	M		2015	WENDWG6	P	FR, and correspondence group		Actions WENDWG5/10 & 11
J.2	Identify barriers that prevent these articles to be implemented	M		2015	WENDWG6	P	FR, and correspondence group		Actions WENDWG5/10 & 11

Work Item	Title	Priority H-High M-Medium L-Low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C - Completed S - superseded	Contact Person(s). Participants	Deliverable	Remarks
J.3	Make proposals for corrective actions	M		2015	WENDWG6	P	FR, and correspondence group		Actions WENDWG5/10 & 11
J.4	If no action identified, assess long term consequences	M	WENDWG6	2015	IRCC8	P	FR, and correspondence group		Actions WENDWG5/10 & 11
K.1	Provide systematic advanced notices of AIO to ENC Producers in case of safety issues and seek agreement and report on progress made on the information flow	H		2015	Permanent WENDWG6	P	UK All		Action WENDWG5/01
K.2	Provide AIO benefits/risks evaluation, description of information flow, views from NCWG and final recommendations	H	Sept. 2015 (for HSSC7)	2015	WENDWG6	P	UK, All, Chair		Action WENDWG5/02