

**5TH MEETING OF THE WORLDWIDE ENC DATABASE (WEND) WORKING GROUP
(WENDWG-5)**

Hotel Concorde, Singapore, 3-5 March 2015

FINAL MINUTES

Notes:

- 1) *The numbering of sections is the same as in the agenda, even if the order of the items was not exactly followed in the discussions.*
- 2) *The actions are listed in Annex B only. When reading the text in the main part of the report, click on the hyperlink to view the associated action if any. Then, when in Annex C, press **ALT+ left arrow** to get back to the original section in the main part of the minutes.*
- 3) *All documents and related presentations referred to in these minutes are available from the WENDWG page of the IHO website (www.iho.int > Committees & WGs > IRCC > WENDWG > WENDWG5).*

Annexes:

[Annex A](#) *List of Participants*

[Annex B](#) *List of Actions&Decisions arising from WENDWG-5*

1. Opening and Administrative Arrangements

<i>Docs:</i> WENDWG5-01A	List of Documents (IHB)
WENDWG5-01B <i>rev7</i>	List of Participants (IHB)
WENDWG5-01C	WENDWG Membership (IHB)
WENDWG5-01D	Terms of Reference for WENDWG (IHB)

Captain Jamie McMichael-Phillips (UK), Chair of the WENDWG, opened the meeting and welcomed the participants. On behalf of all the delegates, he expressed his thanks to Dr. Parry Oei, Chief of the Hydrographic Department of the Maritime and Port Authority (MPA) of Singapore for hosting the meeting and the excellent venue. Dr. Parry Oei welcomed the participants in Singapore, and confirmed that a visit of the Port Operations Control Centre of Singapore - Vista was planned on the first afternoon.

Twenty-six delegates from 14 Member States (Brazil, Canada, China, Finland, France, Germany, Japan, Norway, Poland, Singapore, South Africa, Turkey, United Kingdom, USA), representing ten Regional Hydrographic Commissions (ARHC, BSHC, EAHC, EAHC, MACHC, MBSHC, NHC, NSHC, SAIHC, USCHC), two Regional ENC Coordinating Centres (IC-ENC and PRIMAR), and the IHB attended the meeting. Australia (representing the SWPHC), which could not participate, provided written comments. Apologies were also received from Sean Hinds (CA), Vice-Chair of the WENDWG. Director Mustafa Iptes and Assistant Director Yves Guillam (Secretary) represented the IHB.

In his opening address, Director Mustafa Iptes highlighted the importance of the activities of the WENDWG for the IHO, making several references to the IHO performance indicators decided by the IHO Member States which rely on WENDWG inputs, the 5th Extraordinary International Hydrographic Conference debates and decisions, and to the IMO expectations. He concluded stating that the IHB was keen to monitor and facilitate the technical and policy developments in WEND matters.

The Chair noted that there were key issues to be discussed during the meeting and that it might be necessary to break out into ad hoc working groups after sessions to progress them and make the WENDWG more operational.

Then, participants were invited to introduce themselves.

2. Approval of Agenda and Timetable

Doc: WENDWG5-02A rev1.2 [Agenda and Timetable \(IHB\)](#)

Outcome:

- The WENDWG approved the agenda (rev1.2), with the addition of item 5E – *IC-ENC Policy on Overlapping Data & Production Responsibility* and agreed to discuss the participation of Expert Contributors from Industry in future WENDWG meetings, under Any Other Business.

3. Matters Arising from Minutes of 4th WENDWG Meeting

Docs: WENDWG5-03A [Minutes of WENDWG4 \(IHB\)](#)
WENDWG5-03B rev1 [Status of Actions List from WENDWG4 \(IHB\)](#)

The IHB listed the actions and provided short comments on their status.

Outcome:

The WENDWG noted the status of actions and agreed on the pending actions that had to be considered under the relevant agenda items.

4. Review of the decisions, outcomes and actions of IRCC6, EIHC5 and HSSC6 which affect the WENDWG

Doc: WENDWG5-04A [Decisions, outcomes and actions from IRCC6, EIHC5 and HSSC6 \(IHB\)](#)

The IHB presented the document and suggested to consider the different actions and decisions under the relevant agenda items.

An ad hoc working group (CA, IC-ENC, US, IHB) met after session and made a comprehensive review of the Strategic Performance Indicators (SPIs) and Working Level Performance Indicators (WPIs) that are related to WENDWG activities. Aligned with HSSC-6 conclusion where this issue was also addressed, the ad hoc working group suggested to keep the current SPI and WPIs for the time being until the next Conference/Assembly and to note the comments for further consideration. In plenary sessions, it was agreed that, for the future, indicator targets should be estimated. Most of the participants also agreed that WPI 16 (*Number of additional IHO MS starting to produce & maintain (with/without support) relevant ENC's (contributing to 'adequate coverage') in the reporting period relative to those already producing at 01 Aug. 2008*) should be displayed in a more positive way. Suggestions were made to use and display the indicator as the following ratio: *Number of IHO MS effectively issuing ENC's / Number of IHO Member States*.

The methodology and the timing for the WENDWG to deliver all the indicators (SPI 1 = WPI 21, SPI 2, SPI8 = WPI 21, WPI 5, WPI 15, WPI 16) were agreed.

Outcome:

- The WENDWG noted the paper and agreed to retain the current SPIs and WPIs until the next Conference/Assembly in 2017 when they will be reconsidered as part of the revision of the IHO Strategic Plan.

- The WENDWG recommended considering a different way for “displaying” WPI 16.
→ Action [WENDWG5/21](#)

Doc: WENDWG5-04B [Relevance of information overlay services and their status in the global IHO ENC programme \(France\) - Presentation](#)

Following up an issue discussed both at IRCC-6 and HSSC-6, France made a presentation on the relevance of information overlay services. Suggestions made by France were addressed by the WENDWG with different views depending on the nature of information overlays with regard to safety of navigation. It was agreed by the WENDWG that the consent of ENC Producers was deemed necessary, provided they receive advanced notices. UK added that if a navigationally significant difference remained unresolved, UKHO would reserve the right to include it in the AIO. Clarification was therefore needed on the information flow and exchanges between ENC Producers and the UKHO. The WENDWG agreed that this type of services had to remain compliant with current IHO Resolutions and Standards.

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](#)

Doc: WENDWG5-04C [Status and future of the RENC Harmonization Sub-Group \(RHSG Members\)](#)

Presented by the Chair of the IC-ENC Steering Committee, a proposal was made by the RENCs to modify the RENC Harmonization Sub-Group (RHSG) Terms of Reference. The WENDWG and the RENCs finally agreed that there was no further need to maintain such a sub-group as long as RENC harmonization activities on ENC data quality and distribution issues are kept as permanent task of the WENDWG Programme of Work.

Outcome:

- The WENDWG included a proposal for a work item, as a permanent task, into the WENDWG Programme of Work.
- In his report to IRCC-7, the WENDWG Chair will subsequently recommend to disband the RHSG.

→ Action [WENDWG5/03](#)

5. Report on the study for overlapping ENCs

Doc: WENDWG5-05A [Report Study on Addressing Overlapping ENCs within ECDIS \(SG\)](#)

SG (on behalf of the EAHC) reported on the ECDIS tests in progress with OEM support to address ENCs overlaps. ENCs test cases covering the Malacca and Singapore Straits will be considered. IC-ENC informed that this RENC was also preparing and running ECDIS and overlapping ENCs scenarios to assess the potential risks for mariners and to identify potential solutions or recommendations. IC-ENC informed that they would share their findings with SG.

Outcome:

- The WENDWG noted the report from SG and the information provided by IC-ENC.
→ Action [WENDWG5/04](#)

Doc: WENDWG5-05B [Resolving ENC Overlaps within the USCHC + Annex \(USCHC Rep.\)](#)
- [Presentation](#)

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

Outcome:

- The WENDWG noted the report and approved the creation of a documents repository on the WENDWG webpage to facilitate the sharing of experiences.

→ Action [WENDWG5/05](#), [WENDWG5/06](#)

Doc: WENDWG5-05C [Considering a Systemic Approach to Electronic Navigational Chart Schemes \(CA\) – Presentation](#)

CA offered an information paper for discussion on the concept of ENC grid-schemes and naming conventions. Most of WENDWG participants agreed that, in theory, it could solve a number of current issues. Written comments by and the experience from AU were considered. However, it was agreed that the workload to move from the current “scheming” derived from INT paper charts could not be under-estimated.

Finally, it was agreed to monitor the progress made by the S-100WG and the NCWG on this matter before any further consideration.

Outcome:

- The WENDWG thanked CA for the information provided on ENC schemes and naming, that might become an important topic to be considered in the transition towards the development of S-101.

→ Action [WENDWG5/07](#)

Doc: WENDWG5-05D [RENC Coverage and Overlap Checker + User Manual \(PRIMAR\)](#)

PRIMAR, on behalf of the two RENCs, made a presentation of the tools made available to the IHO for assessing ENC coverage and overlaps. The proposal was very welcome by the WENDWG and will be submitted to IRCC-7. It was noted that about 800 ENC, not distributed through the RENCs, remain outside the scope of these tools. The interfacing with the IHO ENC Catalogue will be considered for a second stage. Usernames and passwords to be used by every RHCs (ICCWG Coordinators) will be provided to the IHB by PRIMAR.

Post-meeting note: Complete.

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](#)

Doc: WENDWG5-05E [IC-ENC Policy Document \(Overlapping Data & Production Responsibility\)](#)

In relation to IRCC6/Decision 15, IC-ENC presented its member-endorsed policy for overlapping data and production responsibilities. The WENDWG recommended this topic to be considered by both RENCs as part of the RENC harmonization work items. IC-ENC noted that the member-endorsed policy differs from the IRCC-approved RENC approach to overlapping data, commenting that the IC-ENC Steering Committee sets IC-ENC operational policies, not any other body.

The Chair of the IC ENC Steering Committee stated that if these RENC policies may improve the situation in some cases, they are not intended to solve the allocation of production responsibilities in contentious areas. When these policies will be considered as mature enough, RENCs might propose relevant amendments to the WEND Principles and Guidelines, based on the lessons learned.

Outcome:

- The WENDWG thanked IC-ENC for sharing its policy and noted the action plan to be considered when overlapping data occur.

→ Action [WENDWG5/09](#)

6. Review of the WEND Principles and Governance

Doc: WENDWG5-06A [WEND Principles](#) - (Resolution 1/1997 as amended) (IHB)

WENDWG5-06B [Guidelines for the implementation of the WEND Principles](#) (IHB)

The IHB recalled that the WEND Principles and Guidelines had been amended in 2014 (IHO CL 04, 06 & 40/2014 refer).

Following IRCC6/37 and IRCC6/Decision 15, the WENDWG discussed whether there was a need to amend them again. Suggestions made by AU indicating that although “there is always room for revision of the wording, any changes are unlikely to have any significant practical impact” were supported by ZA followed by all WENDWG-5 participants.

In order to prepare the IRCC-7 meeting with recommendations to follow-up the EIHC-5 Decision No 12 on the full implementation of the WEND Principles, an ad hoc working group (BR, CN, FI, FR, GE, JP, NO, PL, SG, TR, UK, US, ZA) led by FR, met after session. This ad hoc group reported on the suggested work plan methodology to be submitted to IRCC-7 for its approval so it can be added into the WENDWG Programme of Work.

This methodology is as follows:

- a/ identification of the articles in the WEND Principles and Guidelines that are considered not fully implemented¹;
- b/ identification of barriers that prevent these Principles to be implemented;
- c/ proposals for corrective actions against these barriers;
- d/ if no action can be defined, assessment of long term consequences for the IHO;
- e/ interim report at WENDWG-6 and final report at IRCC-8.

The work will be carried out by correspondence.

Outcome:

¹ This task started during the WENDWG-5 meeting and some articles were already agreed as “not fully implemented” (WEND Principles 2a, 2b, 2c (Service Provision), 3a, 3g, 3j, 3l (Rights and Responsibilities, 4a, 4b (standards and quality management) and Annex (Guidance for the establishment of ENC Production boundaries).

- The WENDWG prepared recommendations on the WEND Principles to be reported to IRCC-7.

→ Action [WENDWG5/10](#), [WENDWG5/11](#)

Doc: WENDWG5-06C [Harmonizing S-65 to the WEND Principles \(US\)](#)

The US reported on the need to revise the IHO S-65 – *Electronic Navigational Charts, Production, Maintenance and Distribution Guidance* for valid reasons such as the alignment with the *WEND Principles* and the larger publicity to be made of the *Guidelines for the implementation of the WEND Principles* which remains a “WENDWG-only” stand-alone document for the time being. It was noted that S-65 was not consistent with other IHO documents anymore.

The WENDWG agreed that, in any case, it was not satisfactory for the IHO to keep inconsistent resolutions and standards, likely due to cross-references in documents that are not maintained at the same tempo.

Outcome:

- The WENDWG thanked the US for drawing the attention on the existence and maintenance issues of the IHO S-65 – *Electronic Navigational Charts, Production, Maintenance and Distribution Guidance*.

→ Action [WENDWG5/12](#)

7. ENC Coverage Status Review

Docs: WENDWG5-07A *Global ENC Coverage (UK) (pdf and xls files)*
WENDWG5-07B *Report on ENC coverage to IMO/NCSR – [NCSR 2/22/2](#) (IHB)*

UK and the IHB gave a general report on global ENC coverage issues and stressed the importance of being able to monitor the different issues in ENC coverage so they can be reported by IHO to IMO/NCSR (Navigation, Communications, Search&Rescue).

With regard to the percentage (%) of ENC coverage at small, medium, large scales which is reported every year to the IMO/NCSR, the UKHO was thanked for the figures provided to the IHB. The UKHO was also requested to provide further explanations on how these % were defined.

In terms of statistics for “adequate” coverage, it was acknowledged to make sure that RHCs share a common understanding on the benchmark to be used. As an illustration, IHB referred to NGA World Port Index (Pub. 150) which could be used in the IHO GIS, and to the 2015 Report of the Cruise Lines International Association in which one can read “... Cruise lines are enticing travelers with nearly 1,000 ports of call in new, exotic locations...”.

Based on the timelines for IMO/NCSR3, it was agreed that business would be conducted as usual for the provision of figures to be included in the IHO report to the IMO.

Post-meeting note: UKHO kindly informed the WENDWG Sec. that “where the report to NCSR 2/22/2 mentions (para. 11) “paper charts intended for international voyages” this means UKHO paper charts:

Planning Charts	= scales of <1:350,000 (equivalent to ENC usage band 1 and 2)
Medium scale	= scales of 1:90,000-1:349,999 (equivalent to ENC usage band 3)
Large scale	= scales of >1:21,999 (equivalent to ENC usage band 4,5 and 6).

Outcome:

- The WENDWG thanked the UKHO for its support in the annual provision of relevant figures to the IHO that are included in the report to IMO/NCSR.

→ Action [WENDWG5/13](#)

8. ENC Gaps, Overlaps and Quality Assurance

Docs: WENDWG5-08A [Global ENC Gap Analysis \(UK\)](#)
WENDWG5-08B [Global ENC Overlaps Analysis \(UK\)](#)

Following the global analysis given by the UKHO on gaps and overlaps, the WENDWG tentatively examined ways and means to improve the analysis and agreed that it was a permanent task to be carried out by RHCs through their ICCWG. Part of this task is the necessary periodic update of the List of Ports (and anchorage areas) by the RHCs on one hand, and the possible adoption and harmonization of risk assessment methodology against surveying and charting.

The US, also, gave an interesting [presentation](#) to illustrate the use of AIS data to determine the adequacy of ENC coverage in the MACHC Region. Finally, it was suggested to consider the risk assessment methodology used by NZ, as primary charting authority of small island states in the SWPHC Region, as one of the most comprehensive process so far. It was noted though, that other RHCs, such ARHC, have developed their own.

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](#)

9. ENC Distribution, RENCs Reports

Docs: WENDWG5-09A [IC-ENC Report \(IC-ENC\) – Presentation](#)
WENDWG5-09B [PRIMAR Report \(PRIMAR\)](#)
WENDWG5-09C *ENC Distribution Census - [IHO CL 72/2014](#) (IHB)*

Outcome:

- The WENDWG thanked the two RENCs for their reports and key roles in the achievement of the IHO ENC programme.
- The IHB commended the RENCs for their constant support along the year (ENC catalogue, figures for SPIs and WPIs, monitoring of the implementation of S-63 Ed. 1.1, etc.). The participation of the IHB in the meetings of IC-ENC and PRIMAR will be considered on case-by-case basis.

→ Action [WENDWG5/17](#)

10. ENC Catalogue Development

Doc: WENDWG5-10A [ENC Catalogue development \(IHB\) - Presentation](#)

The IHB gave an update on the development of the new IHO ENC Catalogue to be launched by the end of March, as part of the IHO GIS environment. The IHB also recalled the information of interest already available on the ad hoc section of the IHO website > ENC's & ECDIS > ENC Availability.

It was noted that the various search functions available through this IHO ENC Catalogue will rely on the metadata that can be and are (already) really made available to the IHB with the agreement of IHO MS, RHCs and RENCs.

Outcome:

- The WENDWG agreed on the general principles applying to the development of the IHO ENC Catalogue.

→ Action [WENDWG5/18](#), [WENDWG5/19](#)

11. S-101 Update in relation to WEND

Doc: WENDWG5-11A *S-101 Development (US) - [Presentation](#)*

The S-100WG Chair (US) gave a clear update on the IHO S-101 developments and timelines. It was noted that the impact of 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's to have a completely different scheme and the consequences of the revised concept of usage bands will have to be monitored.

Outcome:

- The WENDWG thanked the S-100WG Chair for the highlights provided on the development of the IHO S-101 Product Specification.

→ Action [WENDWG5/20](#)

12. Review and update of the WENDWG Programme of Work

Doc: WENDWG5-12A [WENDWG Programme of Work \(Chair\)](#)
WENDWG5-12B *Developing Capacity Building Activities (Chair)*

In order to better monitor the progress of the WENDWG work items and identify associated priorities and responsibilities, the WENDWG Sec. suggested to align the format of the WENDWG programme of work with those of the other IHO subordinate organs.

The WENDWG 2015-16 programme of work will result from the discussions and topics discussed at WENDWG-5. It will be submitted at IRCC-7 for approval.

The Chair reported on the capacity building initiatives that may impact the WENDWG activities: speeding up ENC production for some IHO Member States, identification of compelling needs for capacity building activities in the scope of the WENDWG, etc.

ZA, supported by US, indicated that the RHCs were in a better position than the WENDWG to identify the necessary capacity building requirements in their Region, and was therefore in the view that no duplication of effort was needed. It was also noted that RHCs were represented at the WENDWG.

Outcome:

- The WENDWG agreed to align the format of its programme of work with those of the other IHO subordinate organs.
- The WENDWG agreed not to duplicate CBSC activities so far, but to offer its support on request if and when compelling requirements are identified and are clearly in the scope of WENDWG.

→ Action [WENDWG5/24](#)

13. Review of the WENDWG5 Action List

The draft List of Actions from WENDWG5 was presented by the Chair and reviewed at the end of the meeting by the participants.

14. Preparation and Review of the WENDWG Chair Report to IRCC7

Outcome:

- The timelines and responsibilities for the preparation of the WENDWG report to IRCC-7 were agreed as well as the main topics.

→ Action [WENDWG5/23](#)

Post-meeting note: The status of the actions from IRCC-6 has been updated since the WENDWG-5 meeting and is now available on the IRCC webpage.

15. Any Other Business

The IHB reported that a request had been received from SevenCs to participate in WENDWG meetings. Art. 4.1 and 4.2 of the TORs of the WENDWG were recalled.

Different views were given during the discussion which occurred. Some participants considered that WENDWG issues were quite politically sensitive and also that the opening to industry participants could become an additional workload and cost for host countries. Some others thought that there was obviously nothing to hide in IHO activities. The true question was actually whether it could be really beneficial, both for the WENDWG, and the company, for them to participate in such meetings.

Outcome:

- The WENDWG decided to make an experiment at WENDWG-6 with an invitation sent to this company and then to reconsider the participations of expert contributors from industry in WENDWG meetings.

→ Action [WENDWG5/22](#)

16. Next Meeting Dates and Venue

Outcome:

- The WENDWG welcomed the offer made by Norway to host the next meeting (WENDWG-6) in Stavanger, from 8 to 9² March 2016.

- UK offered to host the WENDWG-7 in 2017 in London (tbc). Dates of this meeting will be decided in 2016 taking into account the 19th International Hydrographic Conference/1st Assembly.

The Chair and Director Iptes, on behalf of the participants, expressed their sincere gratitude to the staff of the Hydrographic Department of Singapore MPA and noted that it had been an outstanding venue. The Chair also thanked the participants for their active participation for the “operational” results obtained from this meeting. He included Sean Hinds (CA), Vice-Chair and Mike Prince (AU) in his thanks for their most valuable inputs in the preparation of the meeting and following written contributions. Lastly, he informed the WENDWG that he will retire soon from the UK Royal Navy, and then, will be appointed in Singapore, as Head of the UKHO Singapore Office. UKHO has accepted that he retains his position as Chair of the WENDWG.

² Up to 10 March, if deemed necessary when preparing the draft agenda.

List of Participants

(Based on the WENDWG Membership List)

Member State	RHC ³		
Australia	SWPHC	Mr. Mike PRINCE	Mike.Prince@defence.gov.au
Australia		Mr. Nick LIGACS	nick.ligacs@defence.gov.au
Brazil		Capt Nickolas ROSCHER	nickolas.roscher@dhn.mar.mil.br
	SWAtHC		
Canada	USCHC	Mr. Sean HINDS (Vice Chair)	Sean.Hinds@dfo-mpo.gc.ca
Canada		Mr. Laurent TARDIF	laurent.tardif@dfo-mpo.gc.ca
Denmark		Mr. Jens Peter HARTMANN	jepha@kms.dk
Finland	BSHC	Mr. Jarmo MÄKINEN	jarmo.makinen@fta.fi
France	EAtHC, MBSHC	Ing en chef Michel EVEN	michel.even@shom.fr
Germany	-	Dr. Mathias JONAS	mathias.jonas@bsh.de
Hong Kong, China	EAHC	Mr. NG Kwok-chu	kc_ng@mardep.gov.hk
India	NIOHC	Cdre Vinay BADHWAR	ia-inho-navy@nic.in
Japan	-	Dr. Tatsuo KOMORI	ico@jodc.go.jp
Norway	NHC, ARHC	Mr. Evert FLIER	Evert.Flier@statkart.no
Oman	RSAHC	Commander Thani AL MAHOKI	los@omantel.net.om
Poland		Mr. Stanislaw PIETRZAK	s.pietrzak@mw.mil.pl
Singapore		Dr. Parry OEI	Parry_OEI@mpa.gov.sg
Singapore		Mr. Jamie CHEN	Jamie_Chen@mpa.gov.sg
Singapore		Mr. Weng Choy LEE	Weng_Choy_Lee@mpa.gov.sg
Singapore		Ms. Jenny GOH SIEW NGOH	Siew_Ngoh_Goh@mpa.gov.sg

³ RHC : Regional Hydrographic Commission

Singapore		Ms. Carrie ANG	Carrie_Ang@mpa.gov.sg
Turkey	-	Lcdr. Eşref GÜNSAY	egunsay@shodb.gov.tr
United Kingdom	NSHC	Capt Jamie MCMICHAEL-PHILLIPS (Chair)	Jamie.McMichael-Phillips@ukho.gov.uk
United Kingdom		Dr. Paul CANHAM	paul.canham@ukho.gov.uk
United Kingdom		Mr. Tim SEWELL ⁴	Tim.sewell@ukho.gov.uk
South Africa	SAIHC	Capt Abri KAMPFER	hydrosan@iafrica.com
United States	-	Ms. Julia POWELL ⁵	julia.powell@noaa.gov
United States	MACHC	Mr. John NYBERG	john.nyberg@noaa.gov
United States		Mr. John LOWELL	John.E.Lowell@nga.mil
RENCs	RENCs		
PRIMAR	PAC Chair	Mr. Stanislaw PIETRZAK	s.pietrzak@mw.mil.pl
PRIMAR	Operator	Mr. Evert FLIER	Evert.Flier@statkart.no
PRIMAR	Manager	Mr. Hans Christoffer LAURITZEN	hans.christoffer.lauritzen@kartverket.no
IC-ENC	SC Chair	Dr. Mathias JONAS	mathias.jonas@bsh.de
IC-ENC	Operator	Mr. Paul CANHAM	paul.canham@ukho.gov.uk
IC-ENC	Manager	Mr. James HARPER	james.harper@ic-enc.org
IHB	IHB		
Director	Director	Mr. Mustafa IPTES	mustafa.iptes@iho.int
Assistant Director	Assistant Director	Mr. Yves GUILLAM (Secretary)	yves.guillam@iho.int

⁴ On 3 March only.

⁵ Chair of the S-100WG.

LIST OF ACTIONS&DECISIONS FROM WENDWG-5

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 5 March 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 5 March 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	
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)	
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 5 March 2015)
5B	Repository of Relevant Documents	WENDWG5/05	IHB to establish a document repository on the WENDWG webpage	April 2015	
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 ⁶ 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	
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	

⁶ PRIMAR leads.

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 5 March 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)	
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)	
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)	
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 5 March 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	
		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	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 5 March 2015)
10A	ENCs updated back-up paper charts lists	WENDWG5/19	IHB to remind IHO MS that “back-up paper charts lists” need to be kept updated (See www.iho.int > ENCs&ECDIS > ENC Availability) and IHO ENC Producers to provide IHB with their updated lists	June 2015 Dec. 2015	
11. S-101 Update in relation to WEND					
11A, 6B	S-101	WENDWG5/20	WENDWG (US Rep. in liaison with S-100WG Chair) to monitor the development of S-101 and its transition plan on an annual basis, and consider if the WEND Principles and Guidelines will need to be amended	WENDWG-6	
12. Review and Update of the WENDWG Programme of Work					
12, 4A	Performance Indicators	WENDWG5/21	WENDWG Chair&Sec. to provide the IHB with the SPIs and WPIs on an annual basis using the methodology presented at WENDWG5 (and adopted for the 2014 IHO annual report)	December 2015	
12, 15	Participation of Expert Contributors in WENDWG meetings	WENDWG5/22	In accordance with WENDWG TORs, WENDWG Chair to invite subject matter expert (private company) at the next WENDWG meeting as a “test case”	WENDWG-6	
12, 14	IRCC-7 Preparation	WENDWG5/23	WENDWG Chair to prepare the draft report to IRCC-7 and circulate it WENDWG Members to provide comments on the draft WENDWG Chair to submit the report to IRCC-7	By 1 April By 15 April By 6 May (IRCC-7 submission deadline)	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 5 March 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)	