

**8TH MEETING OF THE WORLDWIDE ENC DATABASE (WEND) WORKING GROUP
(WENDWG-8)**

Buenos Aires, Argentina, 20 – 22 March 2018

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 > WENDWG8).*

Annexes:

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

[Annex B](#) *Comments by Turkey*

[Annex C](#) *List of Actions & Decisions arising from WENDWG-8*

1. Opening and Administrative Arrangements

<i>Docs:</i>	<i>WENDWG8-01A</i>	List of Documents (IHO Sec.)
	<i>WENDWG8-01B</i>	List of Participants (IHO Sec.)
	<i>WENDWG8-01C</i>	WENDWG Membership (IHO Sec.)
	<i>WENDWG8-01D</i>	Terms of Reference for WENDWG (IHO Sec.)
	<i>WENDWG8-01E</i>	WEND Principles IHO Resolution 1/1997 (IHO Sec.)
	<i>WENDWG8-01D</i>	Guidelines for the Implementation of the WEND Principles (IHO Sec.)

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 Commodore Valentín Alejandro Sanz Rodríguez, Director of the Hydrographic Service of the Navy (SHN) of Argentina and his staff for hosting this meeting. The Director of SHN also welcomed the participants, and in his opening speech highlighted the key role played by the WENDWG within the IHO for the safety of mariners.

Thirty-two delegates from thirteen Member States (Argentina, Brazil, Canada, China, Finland, France, Iran (Islamic Republic of), Italy, Netherlands, Norway, Turkey, United Kingdom and United States) representing twelve Regional Hydrographic Commissions (ARHC, BSHC, EAH, EAHC, MACHC, MBSHC, NHC, NSHC, RSAHC, SAIHC, SWAHC and USHC), the Chairs of the IC ENC Steering Committee and PRIMAR Advisory Committee and the directors/managers of both RENCs attended the meeting. Additionally, five expert contributors from industry stakeholders and academia participated as observers by invitation of the WENDWG Chair. Director Mustafa Iptes and Assistant Director Yves Guillaum (Secretary) represented the IHO Secretariat.

The Secretary indicated that some Regional Hydrographic Commissions still needed to provide their updates to the WENDWG Membership List. Following the entry into force of the amendments to the IHO Convention, he also noted that editorial changes to the Terms of Reference of the WENDWG had been endorsed at the last IRCC meeting.

Outcome:

The WENDWG noted the need to keep the list of WENDWG Members updated (Representatives of RHCs in particular) and to update the WENDWG TORs.

→ Action [WENDWG8/01](#)

2. Approval of Agenda and Timetable

Doc: WENDWG8-02A [Agenda and Timetable](#) (IHO Sec.)

Outcome:

- The WENDWG approved the agenda and agreed to reconsider the question about the scope of the WENDWG at the end of the meeting, when addressing the proposal to support the Seabed 2030 global initiative.

→ Decision [WENDWG8/03](#)

3. Matters Arising from WENDWG-7 Meeting, from HSSC-9, IRCC-9 and C-1

Docs: WENDWG8-03A [Minutes of WENDWG7](#) (IHO Sec.)
WENDWG8-03B [Status of Actions List from WENDWG7](#) (IHO Sec.)

The IHO Sec. listed the actions and decisions from the last meeting and provided short comments on their status. Most of them had been, either implemented or completed.

Outcome:

The WENDWG noted the status of actions and agreed to consider some pending actions under the relevant agenda items.

Docs: WENDWG8-03C	<i>Outcome of IRCC9 affecting WENDWG (IRCC Sec.)</i>
WENDWG8-03D	<i>Outcome of IHO CL 65/2017 - Call for approval of an IHO Resolution on the elimination of overlapping ENC data in areas of demonstrable risk to the safety of navigation - IHO CL 19/2018 - (IHO Sec.)</i>
WENDWG8-03E	<i>S-11 Part A, Ed. 3.1.0, February 2018 - Guidance for the Preparation and Maintenance of International (INT) Chart and ENC Schemes (IHO Sec.)</i>

The Chair summarized the report he delivered at IRCC-9, while Director Mustafa Iptes reported on the outcome of IRCC-9 confirming the endorsement of the new Resolution on the elimination of overlapping ENC data, prepared by the WENDWG as part of its programme of work. The Secretary reported that this Resolution had been recently approved by the Member States (IHO CL 19/2018 refers). Some Members agreed that, with the aim to achieve the objectives set in this Resolution, it was important to decide on the mechanisms by which the one-year “clock” starts. This issue was discussed at length under this agenda item and highlighted with practical examples when the representatives of the RHCs reported on the situation in their Charting Regions.

Noting that ENC Producers had to take early action in any case in application of the WEND Principles, there was a general consensus (See also Annex B, [Comment TR1](#)) to consider that the one-year “clock” should start once the overlapping issues, starting with potential “highest” risk cases, have been reported to the ENC Producers¹ (See also Annex B, [Comment TR2](#)). It was also agreed that the management of these cases had to be implemented by the RHCs, keeping the WENDWG informed and report to IRCC.

¹ As stated in the Resolution, last sentence of paragraph 5.

TR objected on this proposal, stating that the IC-ENC Policy was the only existing “standard” applicable at this stage for defining the level of demonstrable risk (high, medium, low) (See also Annex B, [Comment TR3](#)). FR and IT replied that this policy was recognized by IRCC as a useful 1st step to assess the potential risk for mariners of overlapping ENC data, but noted that it was a decision aid only and not an IHO standard as such. In other words, a case assessed as “medium” by IC ENC for instance, should be fixed as well, first of all because it is against the core of the WEND Principles, and secondly because the potential risk needs to be really assessed (in an ECDIS test bed environment for instance). Nevertheless, TR confirmed its objection (See also Annex B, [Comment TR4](#)), as a matter of policy.

Outcome:

The WENDWG noted the entry into force of the new IHO Resolution on the elimination of overlapping ENC data in areas of demonstrable risk to the safety of navigation and of Ed. 3.1.0 of S-11 Part 1 providing guidance for the preparation and maintenance of ENC Schemes.

→ Decision [WENDWG8/04](#)²

4. Review of progress made on the work items of the WENDWG 2017-18 Programme of Work

4.1 ENC Coverage and Overlapping Issues

Docs: WENDWG8-04.1F1 *Report on [Global ENC Coverage Report](#) (UK) – [Presentation](#)*
WENDWG8-04.1F2 *Risk Assessment Methodologies and Existing Gaps (RHCs Reps)*
WENDWG8-04.1B3a *[Joint RENC Feedback on ENC Overlaps from VARs/Distributors](#)*
(RENCs)
WENDWG8-04.1B3b *[IC-ENC's Overlapping Data Reporting and Analysis](#) (IC-ENC)*
WENDWG8-04.1B3c *PRIMAR [Overlap Checker](#) and [User Manuel Rev1](#) (PRIMAR)*
WENDWG8-04.1F3 *List of Ports and Mooring Database: US NGA Pub. 150 (small, medium, large ports) used on the IHO ENC Catalogue.*

One of the main objectives of the WENDWG is to monitor the application of the WEND Principles by the Hydrographic Offices and the Regional Hydrographic Commissions (RHCs). This encompasses the monitoring of ENC coverage and the efforts made to progress with the elimination of overlapping ENCs.

UK provided its annual assessment on global ENC coverage and provided some statistics on historic ENC overlaps from 2012 to 2017. The WENDWG agreed that although there was some duplication with the reports provided by the RHCs, this composite and consolidated global report on ENC coverage was much appreciated. With regard to the statistics on historic overlaps, the meeting noted that this information was useful in general but suggested to get rid of the colour code which was misleading. The meeting also considered that it was useful to get different and complementary views from several sources (from the RENCs, from the VARs, from the RHCs, from the ENC Producers themselves) to make an objective assessment, once a year, on ENC coverage and on the risk significance of overlapping ENC data in general.

The RENCs provided an interesting feedback from their VARs/Distributors on the consequences of ENC overlaps following a questionnaire that was issued by both RENCs. It was concluded that these overlaps do create confusion on board ships, which leads the shipping companies/mariners to make their own decisions about what ENC data should be displayed in their ECDIS, and not the Hydrographic Offices (See also Annex B, [Comment TR5](#)). It was noted though that this was exactly why the WEND Principles were established: for preventing end-users from making their own choice on criteria (such commercial) that are not directly linked to safety of navigation.

² With the objection of Turkey.

IC ENC reported on the various sources of information regarding ENC overlaps which differ. It also confirmed that the IC-ENC Overlapping Policy applies to IC ENC Members data only which should not prevent the stakeholders (RHCs, ENC Producers) to harmonize their overlap categorization (*unlikely to be resolved, unlikely to be resolved but technical alignment in progress, etc. ...*).

PRIMAR offered an update of its Overlap Checker tool and a revised version of its User Manual.

The Secretary confirmed that the only database in force at the moment for assessing the ENC coverage of ports, was the US NGA Publication 150. This database can be updated by providing inputs to the NGA designated point of contact (Mr Gerard Walter), as it was done by Italy since the last meeting. The Secretary also informed that, with the commissioning of INTOGIS Phase II expected by the end of 2018, it would be very useful to take appropriate actions for setting up an AIS traffic density database which would be made available to all RHCs and Member States. Used in conjunction with INT charts and ENC's actual coverage, it would provide another useful tool for International Charting Coordination Working Groups.

Outcome:

- The WENDWG commended the global ENC coverage report made by UK.
- In accordance with Decision WENDWG7/04, the WENDWG agreed that it was up to the RHCs to make their own assessment of the level of navigational risk for ENC overlaps, using the IC-ENC Policy on Risk Assessment as a 1st step.
- The meeting agreed to investigate the possibility of acquiring a world-wide AIS (Automatic Identification System) traffic density database to facilitate the assessment of gaps in the ENC coverage by ENC Producers and the International Charting Coordination Working Groups (ICCWG).
- Several complementary actions were agreed to improve the adequacy of ENC coverage and reduce overlapping ENC's.

→ Actions [WENDWG8/05](#), [WENDWG8/06](#), [WENDWG8/07](#), [WENDWG8/08](#), [WENDWG8/09](#)

4.2 IHO ENC Catalogue

Docs: WENDWG8-04.2H1 Progress Report on the Development of the IHO ENC Catalogue – [Presentation](#) (IHO Sec.)

The Secretary reminded that the IHO ENC Coverage Catalogue was referred in the IMO MSC.1/Circ. 1503/Rev.1 dated June 2017 – *ECDIS Guidance for Good Practice*. He reported that the development of the link between the INT Chart Web Catalogue was in progress through the development of INTOGIS Phase II, while the automated generation of IHO Performance Indicators in relation to WEND activities had been put on hold since the 1st Session of the Assembly and the establishment of the Strategic Planning Review Working Group.

Finally, he reported that the improvement of the display of the IHO ENC Coverage Catalogue for a better alignment with the ENC flow diagram maintained by the RENC had been finalized.

Outcome:

- With regards to the ENC coverage and availability, the WENDWG agreed to commission a more user-friendly version of the IHO ENC Coverage Catalogue that was under development since 2016 by the RENCs as part of the actions identified for a better implementation of the WEND Principles.
- It was noted that some adjustments to the base maps were needed beforehand.

→ Decision/Action [WENDWG8/10](#)

4.3 RENC Harmonization and Distribution

Docs: WENDWG8-04.3C2 Report on Harmonization Issues (IC-ENC, PRIMAR, RECC Asia) – [PRIMAR Report 2017](#) and [Presentation](#) – [IC-ENC Report 2017](#) – [Progress Report on the Establishment of EA-RECC](#) (RENCs)

*WENDWG8-04.3D3&J5 [RENC Update of the Data Flow Diagram](#) (IC-ENC, PRIMAR)
- Status report on the ENC Producers who distribute their ENCs through a RENC – Progress Report on ENC full accessibility (All, RENCs, IHO Sec.)*

The WENDWG commended the high quality support provided by IC-ENC and PRIMAR to hydrographic offices ensuring data quality control and capacity building, and also in relation with end-user service providers. The establishment of the East Asia-Regional ENC Coordination Centre (EA-RECC) was noted and the representative of the EA-RECC was invited to participate in the future Joint RENCs e-meetings.

The efforts by PRIMAR on research and innovation for the future validation and distribution of S-101 ENCs and more generally S-100-based products were noted. IC-ENC confirmed that they had launched a “watching” brief mechanism to monitor and anticipate what should be considered in the future for S-101 ENCs.

PRIMAR introduced the new performance indicators set up in PRIMAR for quality control and validation services. The US indicated that it might be useful to consider in the future the possibility of developing minimum standards to be applied by the RENCs. The RENCs indicated that these issues were discussed at the Joint RENC Technical Meetings on a regular basis, but some benchmarking was considered useful.

Outcome:

- The WENDWG reconfirmed the need for the RENCs (incl. EAHC-RECC) to develop further the possibility of exchanging ENC data for ensuring quality control in general (overlapping risk assessment in particular).
- In addition to the annual update of the ENC Flow Diagram provided by the RENCs, it was agreed that RHCs had to monitor the availability of ENCs in their regions.

→ Actions [WENDWG8/11](#), [WENDWG8/12](#), [WENDWG8/13](#), [WENDWG8/14](#), [WENDWG8/15](#)

4.4 The Full Implementation of the WEND Principles – Report by RHCs’ Reps on the implementation of ENC Schemes (in accordance with Action IRCC8/13)

*Docs: WENDWG8-04.4H3 Report by RHCs: [ARHC](#), [BSHC](#), [EAHC](#), [EAHC](#) & [MBSHC](#), [MACHC](#), [NIOHC](#), [NSHC](#), [RSAHC](#), [SAIHC](#), [SWAHC](#), [SWPHC](#), [USCHC](#)
[HSSC911A-INF1 Rev1 Project INTOGIS Phase II](#) - [Presentation](#)³*

Action IRCC8/13 states “RHC Chairs to work to reduce overlaps by applying the WEND Principles in defining approved ENC schemes.”

As a consequence, some representatives of the RHCs reported on the progress made on the implementation of ENC schemes in their charting region. The situation varies significantly from one region to another. Most of the RHCs have a pragmatic approach to address this issue. In order to save a significant amount of time for the Charting Regions Coordinators, the Secretary also confirmed that INTOGIS Phase II – which will include ENC Schemes – will take into account the actual ENC coverage to initiate the process of establishing ENC Schemes officially. Then, it will be up to the RHCs to amend the initial database.

³ See also videos for INTOGIS II: INT Charts and ENC Schemes Web Catalogue (<https://youtu.be/QktOEDu2Mz0>) and INT and ENC Schemes Web Manager (<https://youtu.be/9XNrqlLlzzc>)

The WENDWG noted that some RHCs' reports were missing again (EAHC and NIOHC in particular) in these very charting regions where there is, at the IHO level, a need to better understand what the issues are, to know what the plans are, so appropriate recommendations can be provided to fix the issues (including those affecting adjacent areas).

The Secretary gave a presentation of the new functionalities (Polar regions, link between ENC coverage and INT charts, etc.) that will be made available when INTOGIS Phase II is commissioned, thanks to the support provided by KHOA⁴ on this project.

Outcome:

- The WENDWG Chair thanked the representatives of the RHCs for their reports which provided useful complementary information and highlighted some issues on the WEND database covering their regions.
- The representatives of the six RHCs present, agreed to experiment with INTOGIS II, before its commissioning.

→ Decisions [WENDWG8/16](#), [WENDWG8/19](#)
 Actions [WENDWG8/17](#), [WENDWG8/18](#)

4.5 Capacity Building

Docs: WENDWG8-04.511 Requests (if any) for capacity building support for compelling requirements in the scope of the WENDWG activities (RHCs Reps.)

There was nothing to report on this matter.

5. Review of Information Papers – Stakeholders and Experts Contributors

Docs: WENDWG8-05A [Nominal ENC Coverage and Navigational Risks](#) (NTOU)
WENDWG8-08B1 [Facilitation of chart providers for leisure market through harmonized license arrangements](#) (IHO Sec.)
WENDWG8-05B [Public-Private Partnership...Serving All Mariners](#) (C-MAP)
WENDWG8-08B2 [PRIMAR S-57 Distribution](#)
WENDWG8-05C [Unveiling of ENC depth information](#) (SevenCs)
WENDWG8-05D [Seamless transition from ENCs S-57 to ENCs S-101](#) (Teledyne-CARIS)
WENDWG8-05E [Proposal to support the Seabed 2030 global initiative by requesting the RENC's establish processes for Coastal States to authorize and extract bathymetry data from ENCs for delivery to the IHO DCDB](#) (US/NO)

Every second year, subject matter experts from industry or academia, are invited by the Chair to participate in the WENDWG meetings.

Several documents and important topics were considered in the order as described above.

The first presentation reported on some important safety of navigation issues around the island of Taiwan (IALA buoyage system, availability of new surveys, etc.). The US noted that they were significant enough to be reported to the primary charting authority of this area, noting that it was possibly not realistic in the nearest future. Director Mustafa Iptes stated that the WENDWG was not in a position to consider the recommended actions by NTOU at this stage.

Then, the IHO Secretariat set the scene about the possible facilitation of chart providers for supporting the leisure market through harmonized S-57 data licence arrangements, the aim of which being to ensure the provision of accurate and adequate data for safety of navigation to all classes of boats. That was well advocated by the representatives of C-MAP highlighting the need to facilitate public-private partnerships relations, making the best of existing infrastructures such as the RENCs, without duplication. PRIMAR depicted its future portal for S-57 distribution service noting that technical and marketing solutions already exist which aims precisely at providing the right data and associated WMS services, at the right time to licensors.

⁴ Korea Hydrographic and Oceanographic Agency, Republic of Korea.

Fruitful discussions supported the strategy and the principles in general but the WENDWG agreed to seek for further guidance from the IRCC on this matter. UK objected on this proposal noting that the role of the RENCs was not in the remit of the WENDWG. IT suggested to make sure that during the Strategic Plan Review, undertaken by the Council, a clear statement was made on the global role of the IHO with regards to data knowledge and support to non-SOLAS vessels as well and to industry.

Outcome:

- The WENDWG endorsed the recommendation by which the existing RENCs consider to offer a license management as a service to their Members.

→ Decision [WENDWG8/20](#)

→ Actions [WENDWG8/21](#), [WENDWG8/22](#)

Following an action from the Council (Action C1/34), NO and US presented a joint proposal (GE, NO, NZ, SE, US) to support the Seabed 2030 global initiative by requesting the RENC's establish processes for Coastal States to authorize and extract bathymetry data from ENC's for delivery to the IHO DCDB. They also suggested to promote this initiative in the RHCs. The WENDWG Members agreed in principles to consider supporting the GEBCO Seabed 2030 Initiative, but noted that it was not strictly possible to do it under the current TORs of the WENDWG. The Chair of the IC-ENC SC indicated that one easy option was to provide the .000 based files to the IHO DCDB, once the ENC Producers have agreed on the release of their data.

Outcome:

- The WENDWG agreed to consider the way forward and explore some options for supporting the GEBCO Seabed 2030 Initiative. Subsequent actions related to the scope of the WENDWG were endorsed.

→ Actions [WENDWG8/23](#), [WENDWG8/24](#), [WENDWG8/02](#)

6. Review and update of the WENDWG Programme of Work – Preparation of IRCC-10

Doc: WENDWG8-06A
(Chair/Sec)

[WENDWG Programme of Work 2017-18 as approved at IRCC-9](#)

Outcome:

- Based on the previous programme of work, the update of the WENDWG Programme of Work for 2018-19 was agreed and the work items updated in accordance with the actions raised during the meeting.
- Decision was made to recommend to the IRCC that the WENDWG continues its activities.

→ Action [WENDWG8/25](#)

7. Review of the WENDWG8 Action List

Outcome:

- The participants agreed on the list of decisions & actions during the review made at the end of the meeting.
- The WENDWG noted the objection by TR on action WENDWG8/04 and the acceptance of the consensus on Action WENDWG8/05 (See also Annex B, [Comment TR6](#)).

- NL suggested to add a caveat at the top of the List of Decisions and Actions from WENDWG-8 to mitigate the wording used in this list as, strictly speaking, the WENDWG cannot “task” the RENCs, the RHCs and other bodies in general.

8. Any other business

At the end of the meeting, and in accordance with the ROPs (Art. 4.3) of the WENDWG, an election was organized for the positions of Chair and Vice-Chair. NO nominated UK (Jamie McMichael-Phillips) for the position of Chair, while CA nominated US (John Nyberg) as Vice-Chair.

Outcome:

- Mr Jamie McMichael-Phillips (UK) and Mr John Nyberg (US) were re-elected as Chair and Vice-Chair of the WENDWG respectively.

→ Decision [WENDWG8/26](#)

9. Next Meeting Dates and Venue

Outcome:

- The WENDWG welcomed the offer made by France to host the next meeting (WENDWG-9) back-to-back with the 4th Joint RENC-IHO Sec. meeting, from 26 to 28 February 2019 in Brest, France.

→ Action [WENDWG8/27](#)

The Chair, on behalf of the participants, expressed his sincere gratitude to the SHN and its staff for its outstanding hospitality and the great support provided to the meeting. He thanked the participants for their active participation and the progress made by the WENDWG in general as shown in the review of former actions and work items. Special thanks were addressed to the subject matter experts for their valuable inputs during the meeting. Director Mustafa Iptes commended, once again, the work achieved by the WENDWG, one of the key component of the working groups in the IHO structure. Captain Fabian Vetere (SHN) closed the meeting reiterating the words from the welcome address made by the Director of SHN: the WENDWG is a core component of the IHO as its role is to recommend the appropriate measures that contribute to the safety at sea.

List of Participants
(Based on the WENDWG Membership List)

Member State	RHC ⁵		
Argentina		Fabian VETERE	fvetere@hidro.gov.ar
Australia	SWPHC	Mike PRINCE	Mike.Prince@defence.gov.au
Brazil	SWAtHC	Nickolas ROSCHER	nickolas.roscher@marinha.mil.br
Canada	USCHC	Douglas BRUNT	douglas.brunt@dfo-mpo.gc.ca
Denmark		Jens Peter HARTMANN	jepha@gst.dk
Finland	BSHC	Jarmo MÄKINEN	jarmo.makinen@fta.fi
France	EAtHC, MBSHC	Laurent KERLEGUER	laurent.kerleguer@shom.fr
Germany		Thomas DEHLING	thomas.dehling@bsh.de
Hong Kong, China	EAHC	Michael Chun Ming CHAU	michaelchau@mardep.gov.hk
Hong Kong, China		Kelly POON	nypoon@mardep.gov.hk
Iran (Islamic Republic of)		Saeid PARIZI	sparizi@pmo.ir
India	NIOHC	Vinay BADHWAR	ia-inho@navy.gov.in
Italy		Carlo MARCHI	carlo.marchi@marina.difesa.it
Japan		Yukihiro KATO	ico@jodc.go.jp
Netherlands		Marc Van Der DONCK	mcj.vd.donck@mindef.nl
Norway	ARHC, NHC	Evert FLIER	evert.flier@kartverket.no
Oman	RSAHC	Thani AL MAHROUKI	los@omantel.net.om
Poland		Stanislaw PIETRZAK	s.pietrzak@mw.mil.pl
Singapore		Parry OEI	Parry_OEI@mpa.gov.sg
Turkey		Burak INAN	binan@shodb.gov.tr
United Kingdom		Jamie McMICHAEL-PHILLIPS (Chair)	Jamie.McMichael-Phillips@ukho.gov.uk

⁵ RHC : Regional Hydrographic Commission

United Kingdom	NSHC	Nigel SUTTON	nigel.sutton@ukho.gov.uk
South Africa	SAIHC	Theo STOKES	hydrosan@iafrica.com
United States	MACHC	John NYBERG (Vice-Chair)	john.nyberg@noaa.gov
United States		John LOWELL	John.e.lowell@nga.mil
United States		Gerard WALTER	walterg@nga.mil
United States		Ruth PEREZ GAMEZ	ruth.c.perezgamez@noaa.gov
RENCs	RENCs		
IC-ENC	SC Chair	Marc van der DONCK	MCJ.vd.Donck@mindef.nl
IC-ENC	Manager	James HARPER	james.harper@ic-enc.org
PRIMAR	PAC Chair	Rainer MUSTANIEMI	Rainer.Mustaniemi@liikennevirasto.fi
PRIMAR	Director	Hans Christoffer LAURITZEN	hans.christoffer.lauritzen@kartverket.no
IHO Secretariat	IHO Secretariat		
Director	Director	Mustafa IPTES	mustafa.iptes@iho.int
Assistant Director	Assistant Director	Yves GUILLAM (Secretary)	yves.guillam@iho.int
Observers			
C-Map		Egil ÅRSTAD	egil.aarstad@c-map.com
		Ivano COLOMBO	ivano.colombo@c-map.com
National Taiwan Ocean University		Shwu-Jing CHANG	sjchang@mail.ntou.edu.tw
SevenCs		Friedhelm MOGGERT-KAEGELER	mo@sevenscs.com
Teledyne CARIS		Juan CARBALLINI	juan.carballini@teledyne.com

LIST OF COMMENTS MADE BY TURKEY

Comment TR1: TR objected so there is no consensus on this issue. New wording should be used as "it was agreed by large majority" or "by majority " or "general consensus except TR".

Comment TR2: TR objected the wording "potential highest risk" and requested to change it to "high risk" taking into consideration the decision WENDWG7/04 and the definitions in the IC-ENC Policy.

Comment TR3: TR stated that according to the IHO 1/2018 Resolution 1.7.1 "The assessment of what may be navigationally significant should be guided by the best practices in this regard, acknowledged and approved by the IRCC". So there need to be standard approved by the IRCC and the only option at this moment is the IC-ENC Overlapping Policy which was endorsed by WENDWG7.

Comment TR4: ...with the following clarification "TR believes that the overlapping issues should be solved according to a standard and step by step starting from the "High Risk".

Comment TR5: TR was disagree with the statement. TR stated that standards should be set for ECDIS manufacturers to display overlapping data and also stated that overlapping data should not be afraid because it is believed that in most cases conducting technical activity like aligning data can reduce the impact/risk of overlapping data.

Comment TR6: TR wanted to reword the WENWG8/04 as follows:

"The WENDWG agreed that the one-year "clock" should start once the overlapping issues, starting with ~~potential~~ "highest risk" cases, have been reported to the ENC Producers, the management of these cases to be implemented by the RHCs, keeping the WENDWG informed and report to IRCC, as appropriate."

Comment by the WENDWG Chair: These comments from Turkey are duly noted.

LIST OF ACTIONS&DECISIONS FROM WENDWG-8

Note: In this list of decisions & actions, when using “*RHCs, HOs, IHO Member States XX, RENCs, IHO Sec. to consider, to do, to...*”, it means that decisions and actions are assigned to the representatives of these entities in the WENDWG. Subsequent actions are then to be considered by appropriate bodies.

AGENDA ITEM/WORK ITEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 4 May 2018)
1. Opening and Administrative Arrangements					
	WENDWG Membership	WENDWG8/01	RHCs to review the WENDWG Membership List and provide updates to the IHO Sec.	Permanent	Done for NHC
	TORs	WENDWG8/02 (See WENDWG8/23)	Depending on the outcome of IRCC-10, NO and US to submit draft amendments to the WENDWG TORs in order to expand the scope of the WENDWG, if appropriate.	WENDWG-9	In progress for IRCC-10
2. Approval of Agenda					
	Agenda	WENDWG8/03	The WENDWG approved the agenda.		Decision
3. Matters arising from WENDWG-7 Meeting, from HSSC-9, IRCC-9 and C-1					

AGENDA ITEM/WORK IEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 4 May 2018)
	IHO CL 19/2018	WENDWG8/04	The WENDWG ⁶ agreed that the one-year “clock” should start <u>once</u> the overlapping issues, starting with potential “highest” risk cases, have been reported to the ENC Producers, the management of these cases to be implemented by the RHCs , keeping the WENDWG informed and report to IRCC, as appropriate.		Decision
4. Review of progress made on the work items of the WENDWG Programme of Work					
4.1 Overlapping Issues and ENC Coverage					
	ENC Global Coverage and Overlapping Report	WENDWG8/05	<p>UKHO to continue the provision of global statistics and numbers on ENC coverage and overlaps, with no colour code.</p> <p>In accordance with Decision WENDWG8/04, RHCs to make their own assessment of the level of navigational risk for ENC overlaps, using the IC ENC Policy on Risk Assessment as a 1st step, when and where applicable.</p>	<p>2 months prior to WENDWG-9</p> <p>Permanent</p>	

⁶ **TR** objected on this decision. See Annex B.

AGENDA ITEM/WORK IEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 4 May 2018)
	Gap Analysis - AIS Traffic Density	WENDWG8/06	US to investigate the possibility of providing the IHO Sec with a worldwide coverage statistical database of AIS traffic density, available to all RHCs and IHO Member States. IHO Sec to make this AIS database available to all Member States as part of the risk assessment tools (INToGIS, etc.). NO to consider the possibility of providing these statistics for the Arctic and FI for the Baltic Sea.	WENDWG-9	In progress
	Feedback from VARs/Distributors	WENDWG8/07	WENDWG Chair to report on the feedback on ENC overlaps by the RENCs from the distribution chain at IRCC-10.	IRCC-10 (16 April 2018)	
	Overlap Checker	WENDWG8/08	RHCs and ICCWG encouraged to make use of the Last Release of the PRIMAR Overlap Checker and to comment back on functionality and available options. WENDWG Chair to include this topic in its report to IRCC-10	WENDWG-9 IRCC-10	
	List of Ports	WENDWG8/09	RHCs/HOs invited to report to NGA directly (Gerald Walter, Gerard.J.Walter@nga.mil) if inconsistencies need to be corrected in the List of Ports (based on the NGA NP 150).	Permanent	
4.2 IHO ENC Catalogue					

AGENDA ITEM/WORK IEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 4 May 2018)
	IHO ENC Catalogue	WENDWG8/10	The WENDWG agreed to commission the new and more comprehensive version of the IHO ENC Coverage Catalogue as presented at WENDWG-8. PRIMAR/NO , being the developer, to consider the possibility of modifying the base map to remove any disputed information.	April 2018	<u>Decision</u> Done
4.3 RENC Harmonization and Distribution					
	Data validation and quality insurance	WENDWG8/11	The RENCs to benchmark their ENC's data validation, updates and release processes and provide a set of recommendations at the next meeting, if appropriate.	WENDWG-9	
	RENC-RENC Cooperation	WENDWG8/12	The EAHC RECC to consider participating in Joint RENC meetings and e-meetings in the future.	Joint RENC meeting, WENDWG-9	
	ENCs not distributed through a RENC yet	WENDWG8/13 (former WENDWG8/12)	In order to make "exclusive" ENCs accessible through the RENC system for distribution, UKHO to give a timeline on when that will happen. RHCs to report to WENDWG where exclusive cells in the respective usage bands exist within their regions. WENDWG to monitor the progress made on an annual basis (ENC Data Flow diagram updates).	1 June 2018 WENDWG-9 WENDWG-9	

AGENDA ITEM/WORK IEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 4 May 2018)
	Quality control, risk assessment	WENDWG8/14 (former WENDWG8/13)	WENDWG Chair to report to IRCC that all Produced ENC <u>data</u> (incl. “exclusive”) must be made available to every RENC for them to ensure quality control (overlapping checks, risk assessment, etc.).	IRCC-10 (16 April 2018)	
	Quality control, risk assessment	WENDWG8/15 (former WENDWG8/14)	IC-ENC and PRIMAR to develop further the possibility of exchanging ENC <u>data</u> for harmonization purposes, improving overlapping risk assessment and quality control in general.	WENDWG-9	
4.4 The Full Implementation of the WEND Principles – Report by RHCs’ Reps on the implementation of ENC Schemes (in accordance with Action IRCC8-13)					
	ENC Schemes	WENDWG8/16	The WENDWG agreed to use the existing ENC coverage catalogue as the initial mechanism to easily build version 0.0.1 of the ENC Schemes database in the INTToGIS II system.		Decision
	ENC Schemes	WENDWG8/17	As soon as INTToGIS II is commissioned, RHCs to define and adopt ENC Schemes (as it is done for INT Charts Schemes) and submit their update.	WENDWG-9	
	ENC Schemes	WENDWG8/18	WENDWG Chair to report at IRCC that reports from the EAHC and NIOHC are not delivered at WENDWG meetings as requested.	IRCC-10 (16 April 2018)	
	INTToGIS II	WENDWG8/19	CA (for USCHC), FI (for BSHC), FR (for EAHC and MBSHC), NO (for ARHC), UK (for NSHC) and US (for MACHC) agreed to participate in the testing phase of the beta-version of INTToGIS II.-		Decision

AGENDA ITEM/WORK IEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 4 May 2018)
5. Review of Information Papers – Stakeholders and Expert Contributors					
	Harmonized licensing approach to support all vessels (leisure boats, etc.)	WENDWG8/20	Noting the requirements from non-ECDIS mandated crafts for using up-to-date navigational products, WENDWG endorsed the recommendation from the IHO Secretariat by which the existing RENCs consider to offer a license management as a service to their Members.	IRCC10 (16 April 2018)	Decision
	Harmonized licensing approach to support all vessels (leisure boats, etc.)	WENDWG8/21	RENCs to consider the way forward for offering such license management service to their Members, and report at the next WENDWG meeting on the feasibility.	WENDWG-9	
	IHO Strategic Plan	WENDWG8/22	HOs involved in the review of the IHO Strategic Plan to consider making clear that the IHO is engaged in the provision of nautical products and charts regardless of the size of vessels.	SPRWG deadline (5 June 2018)	In progress
	Seabed 2030	WENDWG8/23	Following Action C1/34, the WENDWG noted the submission paper on Seabed 2030 and recommended to NO and USA to re-submit it to IRCC, seeking their guidance on the possible expansion of the WENDWG scope for addressing this proposal.	IRCC-10 (16 April 2018)	In progress
	Seabed 2030	WENDWG8/24	Depending on the outcome of IRCC-10, and without waiting for the endorsement of new WENDWG TORs expected in 2019 only, WENDWG to consider the way forward for supporting the Seabed 2030 Initiative, by correspondence (WENDWG CL).	August 2018	
6. Review and update of the WENDWG Programme of Work					

AGENDA ITEM/WORK IEM	SUBJECT	ACTION No.	ACTIONS&DECISIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 4 May 2018)
	IRCC-10 Preparation	WENDWG8/25	WENDWG Chair to submit the WENDWG report to IRCC-10, highlighting the top priority work items (for C-2), including the WENDWG 2018-19 Programme of Work and recommend to IRCC-10 in accordance with Article 4.4 of WENDWG TORs, that the WENDWG is kept active .	By 16 April (IRCC-10 submission deadline)	
8. Any other business - Election of Chair and Vice-Chair					
	Election of Chair and Vice-Chair	WENDWG8/26	Jamie McMichael-Phillips (UK) and John Nyberg (US) were elected as Chair and Vice-Chair of the WENDWG.		<u>Decision</u>
9. Next meeting dates and venue					
	WENDWG-8 and RENCs Co- operation	WENDWG8/27	WENDWG-9 and the Joint RENCs meeting will be held in Brest, France (26 – 28 February 2019)		<u>Decision</u>