

**SIXTH MEETING OF THE IRCC (IRCC06)**

**19-20 May 2014, Paris**

**Paper for Consideration by the IRCC**

**Draft procedure for ENC overlaps**

<i>Submitted by:</i>	<b>FR as chair of the WENDWG Task Group</b>
<i>Executive Summary:</i>	This paper provides a draft procedure to deal with overlaps after a chart has been issued. It is intended to form a basis upon which further discussion can take place and in particular the identification of any unresolved issues so as to enable the development of appropriate recommendations for consideration at IRCC6.
<i>Related Documents:</i>	WENDWG3 Report (Action WENDWG3/10) WENDWG3-05 (Risk assessment, submitted by GB) CL 06/2014 and CL xx/14 (Guidelines for the implementation of the WEND Principles)
<i>Related Projects:</i>	Proposed Pilot Project « <i>to investigate and find possible technical solutions to addressing reported unpredictability of ECDIS displays in areas of overlapping ENCs.</i> » (Action WENDWG4/xx, lead by SG)

**Introduction and Background**

1. WENDWG3 tasked the Task Group to further develop the policy, including communication arrangements, related to ENCs identified by RENCs to be inadequate or overlapping others, after they have been published (Action WENDWG3/10).
2. The Task Group developed this initial draft to serve as a basic document for further discussion and improvement.
3. At WENDWG4, the procedure was approved in its principles. The WENDWG Task Group was however invited to make some adjustments for the procedure to take into account the risk assessment methodology suggested at WENDWG3 (Document WENDWG3-05) and the relevant sections of the recently IHO-approved “*Guidelines for the implementation of the WEND Principles.*” (CL 06/2014 and CL xx/2014).

**Discussion**

4. This paper provides information intended for discussion in the IRCC and in particular to enable the identification of procedures to be followed to solve issues after ENCs have been issued and submit appropriate recommendations for consideration at IRCC6.
5. This procedure is to be implemented after approval at the IRCC and listed in the portfolio of documents providing recommendations on ENC production and distribution. The periodic revision of this procedure is part of the WENDWG programme of work. It will be

assessed annually and its success initially judged on the rate of reduction in the number of overlaps.

5. In addition, it is worth noting that the WENDWG has decided to investigate the possibility of taking up a pilot project to identify technical possible solutions for addressing overlapping issues in ECDIS. Lessons learned from this project will be included in the procedure in the future, if deemed necessary.

6. At this stage, the procedure is limited to overlap issues. It could be extended to other significant issues for mariners using ECDIS in the future, but it seems pragmatic to start as it is.

#### **Action Required of IRCC**

7. The IRCC is invited to:
- a. **Identify, discuss** and **agree** on the procedure to be followed to solve outstanding problems after an ENC has been issued,
  - b. **develop** appropriate recommendations for further consideration,
  - c. **take** any other action as deemed necessary.

Annex: Draft Procedures for Overlaps

## Draft Procedures for ENC Overlaps

### 1. Criteria for Assessing the Risks (source ref. WENDWG03-5, § 6)

The severity of risk presented by any overlap is likely to depend on the following factors:

- a. The geographical location of the overlap (port approaches worse than deep water) and shipping density in that area (many ships worse than few).
- b. The size of the area of overlapping data (large is worse than small).
- c. The scale of the overlapping cells (large scale probably worse than small scale but the quality of the different scales is also a factor as some ECDIS display the larger scale automatically where overlaps occur).
- d. Shipping route patterns - the direction that ships usually transit through the area covered by the overlapping data (where there is a large north to south overlap it would potentially present a greater risk where ships are normally heading north or south than where they are normally heading east or west).
- e. Differences in the overlapping data relating to positions of the same feature and also the existence or non-existence of features (many worse than few).

### 2. Initial Procedures for Addressing the Risks at the ENC Producer MS<sup>1</sup> level (source ref. WENDWG03-5, § 7)

The following procedures are suggested to accelerate the task of eliminating overlaps and reducing the risks presented by them:

- a. ENC Producer MS which have overlaps within their own coverage should, as soon as possible, crop the cells to eliminate the overlap.
- b. Where possible, ENC Producer MS which have overlaps with another ENC Producer MS' coverage should take the initiative in discussing arrangements with the other ENC Producer MS for cropping either or both cells to eliminate the overlap. Agreeing an exchange of data may be helpful to facilitate such cropping.
- c. Where eliminating overlaps is not possible, ENC Producer MS should nonetheless examine the data within the areas of overlap with a view to ensuring, wherever possible, that the data is the same. In prioritizing this work, account should be taken of the criteria in paragraph 1 above. Agreeing an exchange of data may be helpful to facilitate the comparison.
- d. When it is not possible to eliminate overlaps the ENC Producer MS should align their updating regimes within the overlap areas.

### 2. Following Procedures at the RHC<sup>2</sup> level (source ref. *Guidelines for the implementation of the WEND Principles*, § 1.7))

The assessment of what may be navigationally significant should be guided by the best practices in this regard, acknowledged and approved on a proposal by the WENDWG, by the IRCC. The RHC may seek the assistance of a Regional ENC Coordination Centre (RENC) to assist in the implementation of this risk assessment and should take a proactive approach with the ENC Producer MS, to resolve overlap issues within the region.

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<sup>1</sup> IHO Member State.

<sup>2</sup> Regional Hydrographic Commission.

To support this task, the RENCs should use the following procedure:

Who	Step	Activity
RENC	1	On all new ENC cells (first release and subsequent new editions) delivered to and distributed through a RENC, an overlap check is to be performed.
RENC/ENC Producer MS	2	<p>For the RENCs own members data, any overlap discovered will be reported during the standard validation. For data received from other RENCs, any overlap will be reported back accordingly.</p> <p>An overview and assessment of the discovered overlap will be sent to the relevant ENC Producer MS or RENC. The release process will then be decided among the ENC Producer MS and the relevant RENC but it is expected that resolution of any such overlap should be done, when identified by a RENC, and <u>before</u> the new ENCs are released. It is also assumed that there should be no overlapping data by a MS with its own data.</p>
RENC/ENC Producer MS	3	<p>In the cases where overlap is discovered from HOs who are non-RENC member nations, contact information can be found here:</p> <p><a href="http://www.iho.int/mtg_docs/enc/enc_prod/ENC_OverlappingContacts.pdf">http://www.iho.int/mtg_docs/enc/enc_prod/ENC_OverlappingContacts.pdf</a></p> <p><i>(HO Contact Persons Regarding Overlap Issues.pdf)</i></p> <p>The standard text below can then be used in the ensuing email communication:</p> <hr/> <p>Dear ...</p> <p>We refer to S-57 Appendix .B.1, Annex A – Use of the Object Catalogue for ENC regarding seamless ENC coverage. Chapter 2.1.8 recommends that “...<i>there must be no overlapping data between cells of the same Navigational Purpose (see S-57, Appendix B.1 clause 2.2), except at the agreed adjoining national data limits, where, if it is difficult to achieve a perfect join, a 5 metre overlapping buffer zone may be used.</i>”</p> <p>We would like to inform you that during validation an overlap situation has been identified between ..... and ..... ENCs, please find a graphic overview of the overlap attached. When overlaps are</p>

		<p>identified at .... RENC, our standard routine is to notify the nations involved and encourage them to resolve the situation. .... RENC will not interfere in any discussions between the nations, but will offer our assistance if needed for data exchange, technical questions etc. We can also include overlap information in the README.txt file.</p> <p>We are confident that you will find a solution and kindly ask you to keep us informed about your further plans and actions.</p> <p>Kind regards</p> <hr/> <p>The standard procedure is then to release the data and overlap information will be added to the README.TXT in the weekly exchange set.</p>
RENC	4	In accordance with §1.7.2 of the “ <i>Guidelines for the implementation of the WEND Principles</i> ”, RENC to inform the RHCs’ Chair about the overlap discovered, and IHB.
RENC/RHC/ ENC Producer MS	5	<p>ENC Producer MS should always confirm that they have received information about overlap issues. If possible, the RENC should be informed about plans for removing overlap.</p> <p>In accordance with §1.7.2 and 1.7.3 of the “<i>Guidelines for the implementation of the WEND Principles</i>”, and if agreed by the RHCs’ Chair, the RENC should inform directly the ENC Producer MS, the RHCs’ Chair, the IRCC Chair, the IHB, if the overlap is not solved within 6 months.</p>