

**Report of the Worldwide ENC Database Working Group (WENDWG)**

<b>Submitted</b>	Helen Wojcik, NSHC WENDWG
<b>Related Documents:</b>	Final minutes and Actions of IRCC-14 and 6th IHO Council Actions and Decisions

<b>Chair:</b>	John NYBERG, USA
<b>Vice-</b>	Annika KINDEBERG, SWEDEN
<b>Secretary</b>	Yves GUILLAM, IHO SECRETARIAT
<b>Member States, RHCs and RENCs:</b>	<a href="#">Membership</a>

*WENDWG is a subsidiary working group of the Inter Regional Coordination Committee (IRCC). The purpose of the WEND Working Group is to advise IRCC to enable the highest societal value of Member State effort by:*

- 1) *Facilitating a world-wide consistent level of high-quality, updated official S-57 ENC's through integrated services that support chart carriage requirements of SOLAS Chapter V, and the requirements of the IMO Performance Standards for ECDIS*
- 2) *Reviewing options, and recommending actions, that expand the value of the Worldwide ENC Database to all marine data users applying data management principles and*
- 3) *Supporting the S-100 based products implementation strategy.*

**Meetings Held During Reporting Period**

WENDWG13, Aalborg, Denmark, 21-23 February 2023

**Programme of Work**

The following key issues were discussed and are summarised in more detail further within this report:

- S-100 Implementation and Coordination
- Review of important matters raised by RENCs on S-100 Implementation
- S-128 discussions and INTOGIS III
- ENC Scheming Guidelines

**1. S-100 Implementation and Coordination**

WEND100-IGIF Matrix v1.0 was issued to RHC representatives after IRCC14 Recommendation 7. With responses from the survey (NSHC36 Agenda C2) conducted and collated by Belgium ICCWG chair and WENDWG Representative who completed a first attempt at the WEND100-IGIF Matrix for NSHC. It should be noted that the regional coordination of S-100 was not yet decided for NSHC. Upon completion of the matrix it was also noted that this reflected a feeling across the region and would need more authoritative work in future.

Upon discussion and agreement generally the WENDWG will pursue the development of a version 1.1

of the matrix based on the experience gained from version 1.0 and will provide more guidance to RHCs around objectives and practical guidelines to fill the spreadsheet. The completed RHCs matrix will be stored on WENDWG Repository webpage.

The WENDWG agreed on some principles and recommendations suggested by the EAtHC around Coordination and Management of the Development of S-100 Data Services in RHCs. Some will be included in amendments to WENDWG TORs, some in a possible Section 300 of S-11 Part A.

**IRCC14 Recommendation 6:** Consider how NSHC anticipate the role of S-100 Coordinator (Expansion of the role of Chart Coordinators, or establishment of a new function) and whether amendment is needed for a new Section 300 in S-11 Part A (or another Standard) as it is under the custodianship of NCWG.

## **2. Review of important matters raised by RENCs on S-100 Implementation**

The WENDWG commended IC-ENC and PRIMAR for their ongoing support to WENDWG. Reports were presented from both RENCs on activity ongoing and completed over the last year.

IC-ENC is developing Production Support, Validation, Distribution & Revenue Management services for: S-101 (and Conversion Readiness Service (S-57 to S-101)), S-102, S-104, S-111, S-122 and S-128. Also reported was the increase of frequency of ENC release to VARs, publishing a Daily Exchange Set to VARs to allow them to develop their receipt/upload processes. Process has been built to be able to increase frequency of release even further (i.e., multiple times per day) as required in the S100 era. An update was provided on the increased use of IC-ENCs Learning Management System which has been expanded to cover subjects such as HD ENCs and ENC Gridding (S57/S101), ENC Conversion, S100.

PRIMAR explained the extended scope continuing the cooperation between PRIMAR, CHS and CARIS related to production, management, and distribution of S-100 products. Expanding the S-100 Service with data from other nations/producers. Expanding the type of S-100 products in the Service. PRIMAR have expanded their Learnworlds training portal to include 8 modules on S100: Part 8 Imagery and Gridded Data, Part 10c HDF5 Data Model, as well as Product Specification, Data Encoding Format, Portrayal for S-102 and S-111 with the next step to understand and cover S-104 training needs. An update was also provided around the SECOM Project phase 1, which incorporates monitoring standards development and development of e-navigation services (project planning and management) and preparing a PRIMAR e-navigation technical service interface specification compliant with IALA G1128 and IEC SECOM. The next phase due in 2023 delivers ability to develop and make available PRIMAR E-navigation services in accordance with service specification and the make services available for testing in international IMO MCP E-Navigation trials.

## **3. S-128 and INTOGISIII**

The INTOGIS III project progress will be reported at IRCC15 with the recommendation that it should be reflected in the Roadmap of the S-100 Implementation Decade in the future. The WENDWG endorsed the strategy, way forward and timelines proposed by KHOA for the subsequent development of INTOGIS III (incl. catalogue of S-1xx products/services S-128 compliant), as presented at the meeting. Member states and RENCs are encouraged to supply their S-128 data for testing and development.

Based on the experimentation in progress, the WENDWG agreed on the need for a joint NIPWG/S-100WG concept paper on the operational use of S-128, drafted in liaison with the WENDWG. The RENCs provided updates: IC-ENC has developed the capability to generate S-128 datasets and PRIMAR planning to implement functionality for S-128 generation by the end of 2023.

The WENDWG recommended the S-100WG/NIPWG Chair, with RENC and VAR support, to develop this concept paper with use case#1 from the WEND100 Implementation Guidelines: SOLAS navigation, Route Monitoring products, as the top priority, and extend the scope of this concept paper for other use cases once step 1 is achieved).

An update from the RENCs and KHOA on progress of S-128 is now on the agenda for WENDWG14. The WENDWG noted Annex A - S-128 Service Provision Implications and is invited to provide feedback

to NIPWG.

#### 4. ENC Scheming Guidelines

An item was brought for reconsideration from WENDWG11/06 around ENC Scheming Guidelines. Based on the different presentations offered at the WENDWG13 meeting. Interesting positions from US, GB, FI and FR.

Noting the absence of agreement for a global common grid scheme, the WENDWG tasked the WENDWG Members/RHCs Reps to report, for each Charting Region, on their S-101 ENC planned Schemes (for every scale band equivalent to UB1 up to UB4 (no need for UB5&UB6 equivalent)) using INTogIS III, if available by 30 September (ROK/KHOA). RHC representative to present on plans at WENDWG-14.

The WENDWG agreed to keep the S-101 Scheming Guidelines Project Team active until the next meeting, at present the functions will be for monitoring and collation of case studies.

#### 5. 6th Council Meeting

The meeting was presented with the report from IRCC and decision to approve the recommendations made on amendment (addition of Appendix 1 to the Annex 3 version 1.0 of Guidelines on the Implementation of WEND-100 Principles) of the S-100 Implementation Roadmap as proposed by the WENDWG and contained in Annex B of the IRCC report. (IHO C6/34 2022).

The Council noted that the efforts on establishing a common global gridding system couldn't reach consensus and is put on hold.

The Council endorsed the recommendation made by France by which S-1xx naming corresponding to S-1xx Product Specification to be used for safe navigation, which encompasses data format and content, should carry S-1xx names (Doc. C6- 04.2B refers).

Decision C6/22: The Council endorsed the amendment to the S-100 Implementation Roadmap as proposed by the WENDWG and contained in Annex A of the IRCC report.

#### 6. The NSHC is invited to:

- a. **Commend** Belgium for the distribution and collation of the S100 questionnaire.
- b. **Note** the recommendation from IRCC for RHCs to consider the role of an S-100 Services Coordinator.
- c. **Note** the recommendation from IRCC for RHCs to develop regional organisational pathway for S-1XX priority products and the ongoing nature of updating the WEND IGIF.
- d. **Note** the IHO Council Decision to further update the S-100 Implementation Roadmap to include Guidelines on the Implementation of WEND-100 Principles.