

**Paper for Consideration by WEND-WG  
Update on IC-ENC & PRIMAR RENC Co-operation activities**

<b>Submitted by:</b>	IC-ENC & PRIMAR
<b>Executive Summary:</b>	For information. An overview of the progress of IC-ENC & PRIMAR RENC Co-operation activities
<b>Related Documents:</b>	WENDWG ENC Data Flow diagram (January 2023).
<b>Related Projects:</b>	N/A

**Introduction / Background**

IC-ENC & PRIMAR have an ongoing approach to co-operate on topics of mutual interest. Annex A of this paper describes the progress on these activities. It is the meeting record from a face-to-face workshop hosted by PRIMAR in June 2022, and an online meeting in January 2023.

**Analysis/Discussion**

The enclosure illustrates the breadth of IC-ENC & PRIMAR Co-operation activities and the progress being made in a variety of areas.

**Conclusions**

IC-ENC & PRIMAR RENC Co-operation activities continue under the support of their respective groups of Members and governing boards.

**Recommendations**

N/A

**Justification and Impacts**

N/A

**Action Required of WEND-WG**

The WEND Committee is invited to:

- a. note this report.

Annex A

**RENC-RENC Co-operation Progress - January 2023 FINAL**

IC-ENC team: James Harper, Tom Richardson, Su Marks, Jake Sharland  
PRIMAR team: Hans Christoffer Lauritzen, Daria Mulyarenko, Stig Osaland, Svein Aas

Workshops/meetings:  
Teams Meeting 09 JAN 2023  
Workshop Stavanger JUNE 2022

**Purpose of document:** Document to track and record progress on RENC-RENC co-operation activities

**Summary of RENC-RENC co-operation activities:**

**1. ENC Co-operation**

**JUNE 2022:**

There is an existing agreement between RENCs to allow access to each others' members ENCs for quality assurance purposes. It was agreed that the RENCs will propose to their governing boards that this will continue for S-10x. **JUNE 22 ACTION IC-ENC & PRIMAR.**

PRIMAR will consider how to include PRIMAR Associate Members' data in this exchange  
**ACTION PRIMAR**

The WEND Data Flow Diagram was reviewed. It was agreed that the RENCs will continue to maintain this diagram and evolve it for the S-100 era, (informal ideas included with a new page for each product type, and include other use cases, such as non-ECDIS, etc). **ACTION IC-ENC & PRIMAR**

PRIMAR offered for IC-ENC to have access to its tools it has available for its distributors, especially the CTL format of the catalogue file. This could give IC-ENC operational efficiencies, IC-ENC to follow up and assess. **ACTION IC-ENC**

The RENCs discussed the likelihood that amongst the RENC membership there is likely to be a range of future circumstances that RENCs will need to be able to support in order to receive the full suite of ECDIS navigation S-10x products from a nation. i.e. more than one national authority per nation will be involved, and the RENC coordination of these relationships.

**JAN 2023 Update:**

IC-ENC Steering Committee 23 Decision achieved: DECISION SC23/03: IC-ENC Members support the principle of S-1XX data sharing between RENCs for quality assurance purposes. IC-ENC provided outcome of SC discussion on this in the SC23 Report to PRIMAR. PRIMAR indicated support from PAC is in principle, no specific decision to reference.

**ACTION: PRIMAR to provide IC-ENC a report from PAC November 2022 when finalised.**

Agreed to update the WENDWG Dataflow diagram for the WENDWG meeting. Agreed that evolving this into S100 era was a low priority and so any work on this aspect is paused for now.

PRIMAR provided a link to a web service which provides an XML Catalog file. IC-ENC to investigate ingesting Primar coverage data from this source.

<http://primar.ecc.no/primar/catalogue.ctl?version=3> **ACTION IC-ENC.**

PRIMAR will provide cell keys for “others” nations ENC’s to IC-ENC

## 2. ENC Conversion

### JUNE 2022:

It was agreed that there remains a lot of uncertainty about how automated conversion of ENC’s between S-57 to S-101, and vice versa, may work. There is the additional factor that most work to date has focussed on base cells, not the problem of converting updates. It was agreed to look at options for sharing the individual RENC work done to date (IC-ENC’s analysis, and PRIMAR’s ENC Conversion Task Force which also includes software providers) with a view of drawing consistent RENC conclusions. **ACTION IC-ENC & PRIMAR.**

Any conversion service on behalf of others introduces liability questions. PRIMAR will expect their members to remain responsible for agreeing converted ENC’s are fit for release.

### JAN 2023 Update:

IC-ENC provided an update to PRIMAR on work completed, which included exploring the feasibility of a third-party conversion service, the complexity of converting updates, and a resulting TC paper presented to TC in December 2022. IC-ENC described progress with the IC-ENC Conversion Readiness service. IC-ENC to receive further input from Members at hybrid TC23\_1 in March 2023. To date IC-ENC has received very little interest/demand for a conversion service.

PRIMAR has provided access to dKart/CARIS conversion tools and SevenCs validation tool to their members, split into groups by country. Communication with Members is via GitHub/e-mail, and a report with conclusion will be created in Q3/Q4 2023 based on the feedback/discussions.

## 3. S-100

### JUNE 2022

PRIMAR demonstrated their various S-100 case studies. S-124 Navigation Warnings will be processed by PRIMAR RENC (currently out of scope for IC-ENC). S-111 is being processed every 6 hours, S-102 is not processed on a fixed schedule – automated system so human intervention by exception. This aligns with IC-ENC developments.

PRIMAR confirmed its desire to remain a VAR of IC-ENC into the S-100 era.

PRIMAR will join the IC-ENC Product Development and Testing license, and the 6 monthly feedback interviews process was discussed. PRIMAR to return the signed PDT license.

**ACTION PRIMAR. COMPLETE.**

### JAN 2023 Update:

PRIMAR confirmed no progress on S-124 as no test data received yet, priority focus on S-104.

PRIMAR commented about missing text files in the BE S101 data available via PDT.

**ACTION IC-ENC.**

## Distribution

### JUNE 2022:

The existing joint RENC approach to ENC licensing was discussed, and it was agreed to continue the joint RENC manner into the S-100 era. **ACTION IC-ENC AND PRIMAR.**

PRIMAR (VAR) was satisfied its point of view had been considered by IC-ENC in recent dialogue regards developing the S57 licensing model. For example, retaining the trial period option. On the review of the licencing options PRIMAR felt Trial and R&D are still very much valued.

### JAN 2023 Update:

Both parties agreed that the joint RENC approach to ENC Licensing in the S-100 should continue, and IC-ENC look to begin work on the future model.

## 4. SENC

### JUNE 2022:

PRIMAR members have confirmed that they will not support SENC for S-100 products. IC-ENC members have not yet set their policy. It was agreed to jointly review/refresh the current S-57 SENC specification **ACTION IC-ENC AND PRIMAR.**

### JAN 2023 Update:

Work to be picked up again in Q1. PRIMAR to share its material regarding its members' decisions to not allow SENC in S100 era to IC-ENC in order to allow IC-ENC to reference this it is material to IC-ENC members in making recommendations. **ACTION PRIMAR.**

## 5. S-100 Part 15

### JUNE 2022:

IC-ENC is beginning the 'learn by doing' S100 Part 15. there was general discussion on how S-100 could or could not make things more secure for example an option for IC-ENC to provide encrypted data to its VARs. PRIMAR indicated Robert Sandvik as the point of contact for any further technical questions.

### JAN 2023 Update:

Confirmed that IC-ENC does not intend to provide encrypted data to VARs (although will be signed), transfer mechanism, e.g., API will be explored. PRIMAR implemented S-100 Edition 4.0.0, Part 15, before going live with the new PRIMAR service. There is an issue of supporting numerous versions of the Standard.

## 6. Web Map Services

### JUNE 2022:

PRIMAR explained their two options for the price in their WMS systems. 1 – based simply on the ECDIS price, 2 – some PRIMAR members and cooperating partners supports a pricing model where they set a percentage amount. This is to make WMS more affordable and so to gain uptake.

IC-ENC described its goal of gaining Steering Committee approval/endorsement for a single (i.e. “whole IC-ENC”) approach to a WMS licensing/price model. IC-ENC will report back to PRIMAR following SC23 **ACTION IC-ENC**.

**JAN 2023 Update:**

Final proposal is to be sent to IC-ENC SC regarding WMS, with voting period to be closed before the end of Jan-23. Update to be provided to PRIMAR as part of upcoming visit.

**7. IC-ENC VAR Assurance**

**JUNE 2022:**

IC-ENC explained that it will be more active in its VAR assurance activities, including developing a future audit regime. PRIMAR welcomed this noting that audits should be seen as a positive thing. IC-ENC explained about its sales audit tool developments, and PRIMAR described its approach to ensuring IMO and/or vessel name fields are completed by PRIMAR Distributors to allow PRIMAR to maintain a unique vessel entry in its sales system.

**JAN 2023 Update:**

IC-ENC SC have approved initiative to conduct auditing of VARs, and PRIMAR are happy to participate as a VAR. Update also provided regarding IC-ENC’s ENC Audit Tool and further information to be shared during visit.

**8. Non-ECDIS services**

**JUNE 2022:**

IC-ENC described progress to date, and PRIMAR explained that they will develop a similar system for 2 or 3 of their members (initial interest). The approaches differ in several ways, in particular pricing. IC-ENC Members set an amount for their folios, PRIMAR system is based on the member setting a percentage of revenue achieved on its data.

**JAN 2023 Update:**

IC-ENC continue to drive improvements to existing Non-ECDIS service, with increased interest since the notice of many HOs intending to withdraw paper. PRIMAR service remains in development but nearing completion.

**9. S-128**

**JUNE 2022:**

The catalogue of catalogues. Both RENCs are developing systems to achieve this. IC-ENC to propose a formal work plan item to SC23 and update PRIMAR afterwards. PRIMAR will begin discussions on S-128 with members at PAC this year. **ACTION IC-ENC**

**JAN 2023 Update:**

IC-ENC Steering Committee endorsed S-128 as a new Work Plan item in July 2022, and consequently S-128 generation capability has been developed. IC-ENC intend to produce S-128 datasets for VARs at release to ensure only valid ‘ready for release’ datasets are included, and therefore will not ingest Members S-128 datasets. PRIMAR agreed with IC-ENC’s conclusion on S-128.

PRIMAR’s S-128 project proposal was approved by PAC, for implementation by end of 2023. PRIMAR was supportive of providing a joint RENC paper on S-128 to WENDWG.

**ACTION: IC-ENC to draft WENDWG paper on S-128 for PRIMAR to review.**

## 10. IC-ENC frequency of release

### JUNE 2022:

PRIMAR gave their thoughts on the IC-ENC intermediate release and were supportive of this development. They gave information on which metadata file content was important to them given plans to refine these files. The way ahead is for IC-ENC to commence limited trials to allow PRIMAR and other VARs to gain experience of the content and operating cycle.

### JAN 2023 Update:

PRIMAR are happy to participate in receipt of intermediate release. **ACTION: IC-ENC**

## 11. Miscellaneous topics

### JUNE 2022:

1. IC-ENC shared their intention to rebrand, with a web refresh ahead of SC23.
2. PRIMAR commented that it was pleased with IC-ENC services as a VAR
3. There was a concern raised by PRIMAR that they have reached the maximum 10 cancellations per 30 days. It was agreed that this was a guideline and further cancellations can be authorised in extenuating circumstances.
4. PRIMAR are keen to proceed with the API Sales reporting as a VAR, however require time to schedule with their development team. **Action: PRIMAR to confirm when ready to proceed**
  - a. Jan 2023: **ACTION IC-ENC (JS) to contact PRIMAR (SRA) regarding their development resource to improve reporting process.**
5. It was agreed to meet as a RENC-RENC group annually, via face-to-face workshop, supported by quarterly online meetings.
6. Neither RENC is in a position to make financial payments to Russian entities, however both are continuing to process Russian ENCs.

### January 2023:

1. **ACTION IC-ENC and PRIMAR:** to review IHO Assembly red book to identify if there is value in agreeing a joint RENC position on any item(s) ahead of Assembly plenary discussions.
2. Sharing of views on Maritime Connectivity Platform: PRIMAR has a PAC funded project to explore SECOM and MCP. Investigation is required to see whether PRIMAR supports MCP and at what level, for a recommendation by the end of 2023.
3. **ACTION IC-ENC and PRIMAR:** Date of 2023 Taunton face-to-face workshop to be agreed via correspondence.