

ic-enc.org
International Centre for ENC's

Vaughan Nail, UKHO

RENC Models

Functions, Roles, Issues

WEND Principles

- 1.3 Member States are encouraged to distribute their ENC's through a RENC* in order to share in common experience and reduce expenditure, and to ensure the greatest possible standardization, consistency, reliability and availability of ENC's.
- 1.4 Member States should strive for harmonization between RENC's in respect of data standards and service practices in order to ensure the provision of integrated ENC services to users.

* RENC's are organisational entities where IHO members have established cooperation amongst each other to guarantee a worldwide consistent level of high quality data, and for bringing about coordinated services with official ENC's and updates to them

Functions and Roles

- WEND Principles do not define a clear operational model for RENCs
- Different models have been tried with varying success.
 - Virtual RENC
 - Integrated RENC
 - Hybrid
 - Focussed

- **Virtual RENC:**
 - Little or no central operations
 - Members coordinate activity through online virtual network
 - Unsuccessful
- **Integrated RENC:**
 - Central unit manages independent quality assurance plus delivery and promotion of ENC service through distributor network
 - Model followed by original PRIMAR cooperation, but proved expensive

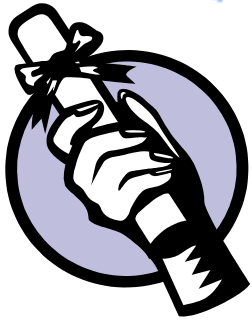
- **Hybrid:**
 - Central unit manages delivery and promotion of ENC service through distributor network
 - Provides virtual network to support members in their own quality assurance work, supported by targeted independent validation
 - Model followed by PRIMAR today
- **Focussed:**
 - Central unit focuses on providing comprehensive independent quality assurance service to members plus technical support and advice
 - Delivery and promotion of ENC services handled by service providers competitively, with each service sold through own distributor networks
 - Model followed by IC-ENC today

Issues

- Different models require careful coordination and harmonisation.
- Both IC-ENC and PRIMAR have Technical Working Groups for members to coordinate respective production and validation activities relevant to their RENC operations
- A Joint Technical Working Group also meets to discuss issues of common interest, and has contributed to the debate on important subjects at TSMAD / CHRIS (e.g. SCAMIN / Data Consistency)
- Different distribution philosophies, however, tend to frustrate closer cooperation and attempts to harmonise RENC activities. These are under active review.

IC-ENC Model in More Detail

- IC-ENC is a RENC, operating in accordance with WEND Principles.
- Controlled by its members and run for them by the UKHO
- A low cost, 'not for profit', government run organisation which is financed out of sales (i.e. no money required up front).
- No end-user service of its own. Distribution through existing companies (VARs).
- Emphasis on data QA and consistency.



Our Mission

- To deliver to our members a cost effective service;
- Designed to meet the needs of the users;
- By providing high quality, **fit-for-purpose**, ENC's that comply with IMO and IHO standards;
- And which are delivered to users within **integrated** and user friendly ENC services.

Cooperating Nations (28)

- Argentina
- **Australia**
- Kingdom of Bahrain
- Belgium
- Brazil
- Chile
- Colombia
- Cuba
- Ecuador
- Germany
- Greece
- Iceland
- India
- Indonesia
- Mexico
- Mozambique
- Netherlands
- New Zealand
- Pakistan
- Peru
- Philippines
- Portugal
- Russia
- South Africa
- Spain
- Turkey
- **UK**
- Venezuela



Main Functions

- Secure means of transferring data from HO to RENC and then to VARs.
- Quality Assurance of ENC's and updates:
 - Validation tools error message assessment
 - ECDIS loading checks
 - Data consistency / usability checks
- Feedback and support for Members.
- Database management.
- VAR appointment and management.
- Revenue collection.



Benefits of Membership

Independent validation service:

- ✓ It is the quality and consistency of the whole database which is important to the customer, not individual cells.
- ✓ Validation tools are complex, ambiguous and often report erroneously.
- ✓ Many consistency and usability issues cross national boundaries and so can only be detected centrally
- ✓ Consistent approach to validation therefore critical, and requires central independent check of whole database

Benefits of Membership

Independent validation service:

- ✓ Members have access to database of validation tool error messages, explaining their meaning and significance, to help support their own validation work

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Errors Database - Results [back]

3 recorded errors matching string 'lg0053' in all columns. - [Search again?](#)

< back 10 forward 10 >

| Error Name | Example | Description | Error Type |
|---|--|---|---------------|
| LG0053: (T1779) [view detail] | ERROR LG0053: (T1779) 'drval1' equal to 'drval2' | DRVAL1 and DRVAL2 have the same values. Fail: Where the values encoded do not correspond to the depths within the area. Accept: Where the values of DRVAL1 and DRVAL2 correspond to the depths within the area, or where a linear depth area has been used to emphasise the safety contour. | FAIL / ACCEPT |
| LG0053: (T1646) [view detail] | Warning LG0053: (T1646) 'drval1' equal to 'drval2' | DRVAL1 and DRVAL2 have the same values. | ACCEPT |

Benefits of Membership

Independent validation service:

- ✓ Members receive comprehensive feedback on the quality and consistency of their data, allowing them to easily focus on just those issues that merit their further attention.

Cell Information:

Cell Name - CO400410.000
Edition Number - 1
CRC - 70839C30
Cell Status - FAILED VALIDATION

IC-ENC Contact:

Name - Graham Reeks
Phone - (+44) (0) 1823 723390
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Validated by:

Name - Graham Reeks
Phone - (+44) (0) 1823 723390
E-Mail - therenc@ic-enc.org
Validation Date - 10/03/2005

Validation Summary:

Data errors/warnings not accepted:

- [FE-000952] UWTRQC Warning LG0058: (T1772) spot sounding shallower than enclosing 'depere' <Underwater/awash rock> -
9°47'31.38"N : 75°51'41.76"W

VS57_UOC_135

UWTRQC with EXPSOU equal to 1 or undefined should have a value for VALSOU that is greater than the DRVAL1 and less than or equal to the DRVAL2 of the covering DEPARE

S57 Reference: S-57 Appendix B.1 - Annex A Ed 2.1: 6.1.2; S-58 Ed 2.0: check 1772

FE0000000952 Feature Type: UWTRQC_Underwater/awash rock

Related Object: FE0000000207 Feature Type: DEPARE_Depth area

(NB. The above 2 errors occurred because EXPSOU has not been encoded on this UWTRQC. Please add EXPSOU = 2 (shallower than the range of depth of the surrounding depth area))

Benefits of Membership

International distribution:

- ✓ SOLAS market looking for a choice of professional, integrated services (one-stop-shops) which meet all of their navigational needs within a single end-user licence.
- ✓ Service providers need consistent and flexible supply terms, and the fewest points of supply, to develop such integrated services to meet the need of their customers.
- ✓ IC-ENC coordinates and manages this wholesale supply function on behalf of its members who then automatically have their data available through a range of competing integrated services in accordance with WEND principles



Benefits of Membership

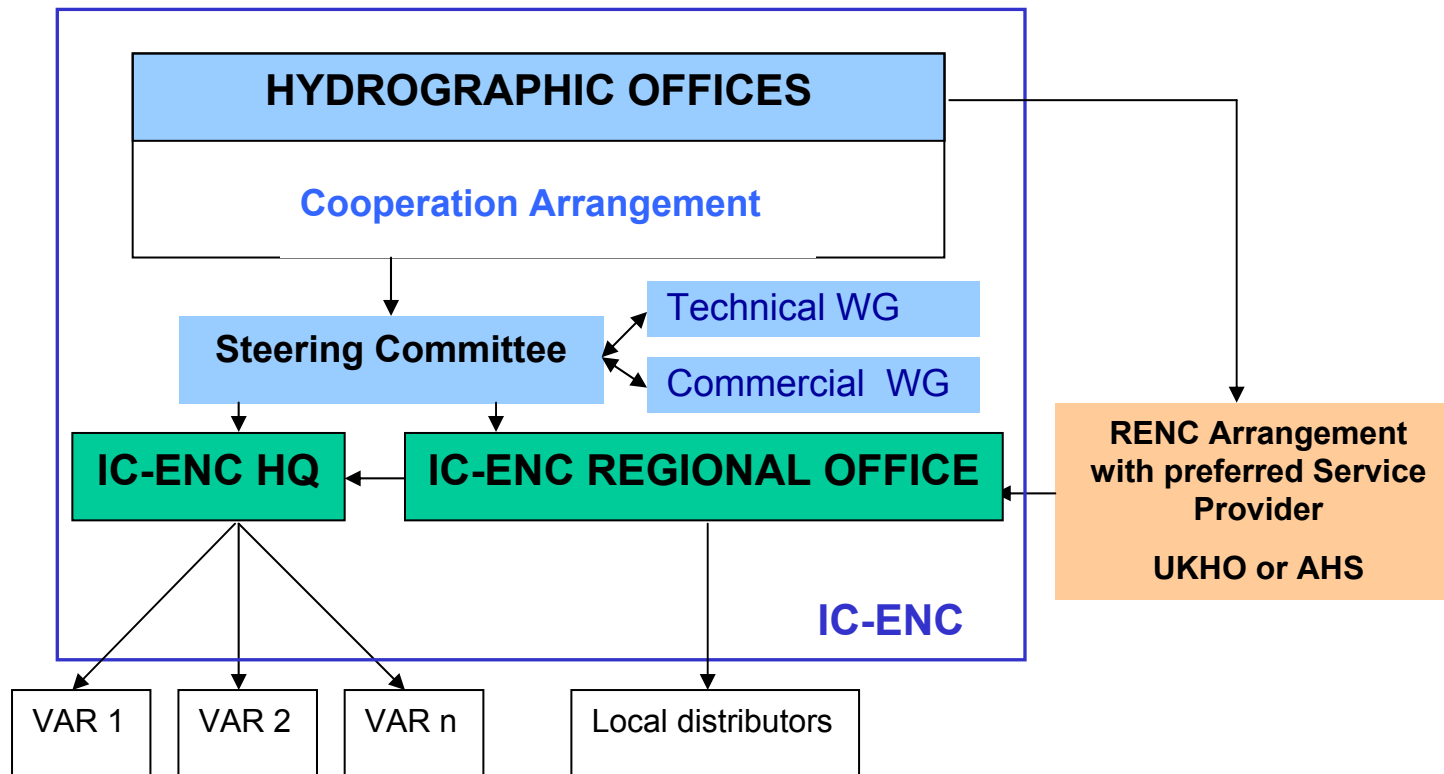
International distribution:

- ✓ IC-ENC members avoid:
 - ✓ Cost of developing and marketing their own services
 - ✓ Managing extensive distributor networks
 - ✓ Need for complex and expensive service delivery systems

- ✓ IC-ENC can act as single point of supply offering consistent terms that give VARs the flexibility to offer a range of integrated services to meet the needs of the international mariner.

- ✓ Members retain the freedom to manage their own supplemental distribution, particularly to local markets

IC-ENC Organisational Structure



The IC-ENC Framework

- Fits the WEND concept.
- Promotes consistency, efficiency and partnership.
- IC-ENC can provide VARs with a broader coverage of ENC's produced in a consistent and standardised way.

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For more information, please contact:

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