



International Centre for Electronic
Navigational Charts

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ic-enc

IC-ENC Introduction

- ▶ IC-ENC is a RENC¹ as referenced in the IHO WEND principles
- ▶ IC-ENC was formed in 2002 with 6 members (participating HOs)
- ▶ Our focus is ENC Quality Assurance & Distribution

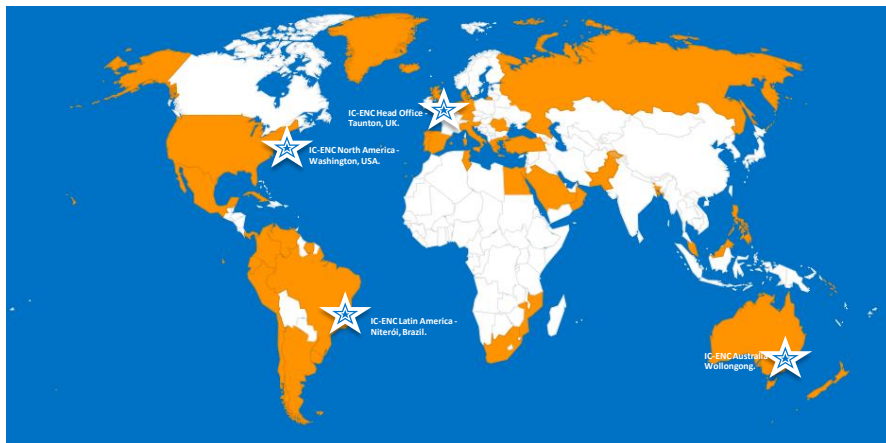
¹ Regional ENC Coordination Centre

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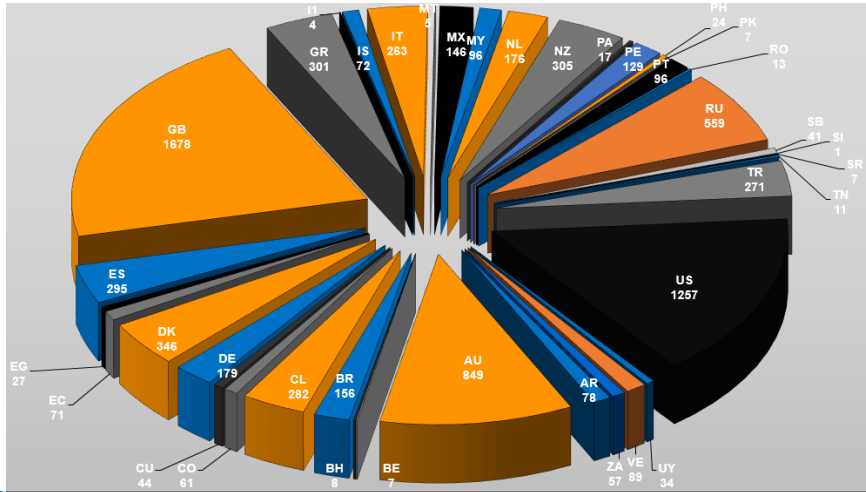
IC-ENC Members - 44

Argentina	Australia	Bahrain
Bangladesh	Belgium	Brazil
Chile	Colombia	Cuba
Denmark	Ecuador	Egypt
Germany	Greece	Iceland
Italy	Israel	Malaysia
Malta	Mexico	Mozambique
Netherlands	New Zealand	Oman
Pakistan	Panama	Peru
Philippines	Portugal	Romania
Russia	Saudi Arabia	Slovenia
Solomon Islands	South Africa	Spain
Suriname	Tunisia	Turkey
United Kingdom	United States	Uruguay
Venezuela		

Membership & IC-ENC Offices

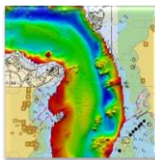


IC-ENC ENC Folio

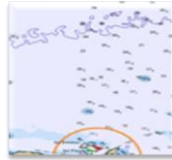


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IC-ENC Core Services



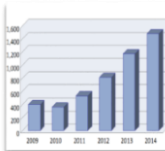
ENC Production Support



ENC Validation



ENC Distribution



Revenue Management

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ENC Production Support



- ▶ ENC Validation Training
- ▶ Technical Conferences
- ▶ Bespoke Support & Advice

IC-ENC Errors Database

Back to Site ERRORS

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List

Filter the list

ERR_SPEED

ERR_WRONG_USAGE

Error (3, 2)

Error (3, 9)

Error (5, 2)

Error (5, 4)

Error (5, 5)

Error (5, 6)

Error (5, 9)

Error (5, 10)

Error (6, 2)

Error (6, 4)

Error (6, 6)

Error (6, 7)

Error (6, 8)

Error (6, 9)

Error (6, 10)

Error (6, 11)

Error (6, 13)

Error (6, 15)

EXAMPLE

DESCRIPTION

Impact_Assess...

User_Impact

Ref

Cross_ref

Object_Grouping

Last_Updated

Error (5, 5)

Error (5, 5) in object FE000001987 (class HULKES) at hex offset 00001963. Inadmissible attribute in object: CONDITN.

HO TO CORRECT:

Any incorrect object/attribute value combination that has a detrimental affect on the product.

Variable impact depending on attribute, object and navigational importance of the actual object.

Variable, depending on the attribute in question. If the attribute is illegal or unreadable this may affect the ECDIS display / interrogation of the object.

UOC 4.6.8

V557_ERR_RECFAIL

Attribution - all objects

source

TRANSAS ECDIS

TYPE

HO MUST CORRECT / HO SHOULD CORRECT

Error_explanat...

An apparently invalid attribute has been

DESCRIPTION...

HO MUST CORRECT:

Any incorrect object/attribute value combination that may lead to a potentially dangerous situation. E.g unreadable DR

Validator_Notes

The original classification was FAIL / ERRONEOUS

SEE EDCFC_06_124.

When reviewing this error, look at the re

object in the ECDIS to confirm that the

Required_action

If this error has been reported genuinely attribution of the object should be amended to conform to the S-57 Standard. When assessing the error remember that there be other software test errors (both Diarr

Analyses) that refer more specifically to same problem. If so, use these other en

Cross_referenc...

c_But

DESCRIPTION

HO TO CORRECT:

If the encoded object class does not exist in S57 Appendix A (Object Catalogue) Chapter 1 or its use is not permitted in S57 Appendix B.1 (ENC Product Specification)

HO MUST CORRECT:

If the encoded object class does exist in S57 Appendix A (Object Catalogue) Chapter 1 and its use is permitted in S57 Appendix B.1 (ENC Product Specification)

SPONSORS:

If the encoded object class does exist in S57 Appendix A (Object Catalogue) Chapter 1 and its use is permitted in S57 Appendix B.1 (ENC Product Specification)

IC-ENC Validation

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- ▶ Software analysis and testing
 - Assessment of S-58 errors
 - Exchange set checks

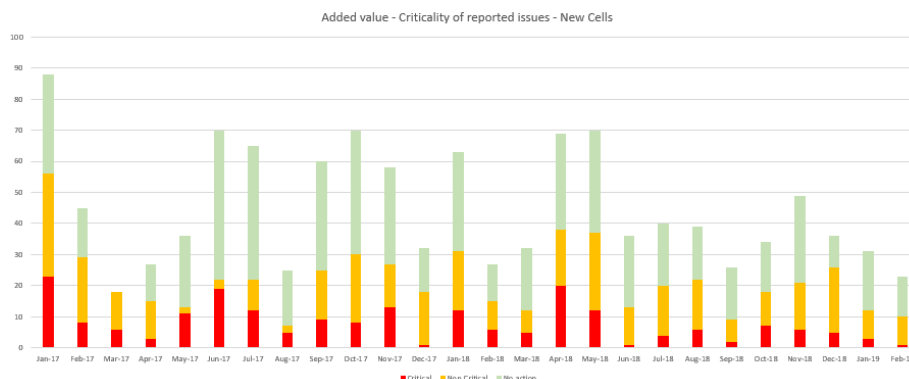
- ▶ IC-ENC validation team expertise
 - Consistency Checks
 - ECDIS Checks



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New Cell Validation – severity of issues identified

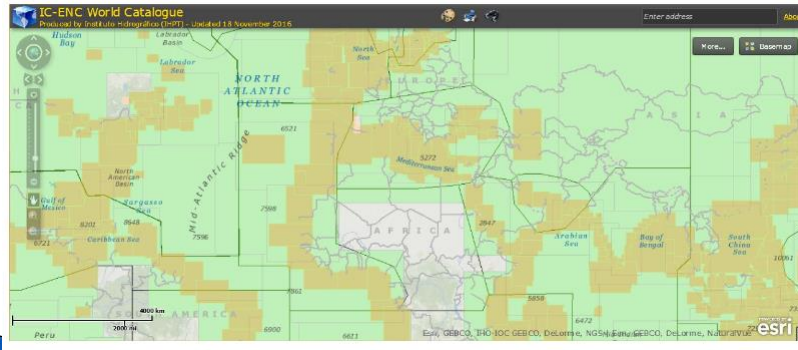
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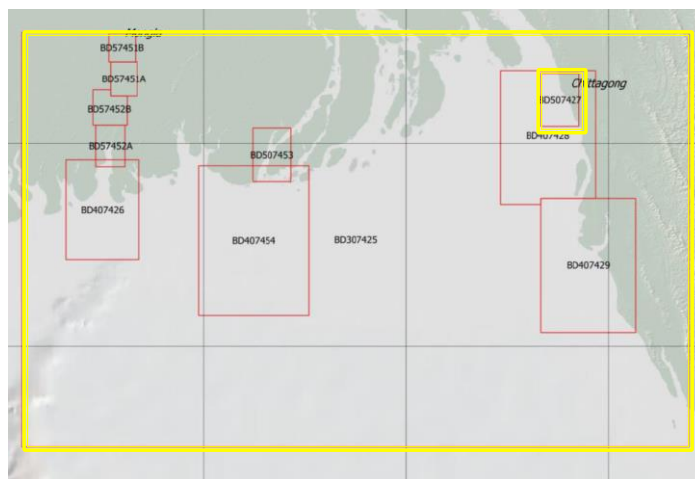
Ensuring seamless coverage ic-enc

- ▶ IC-ENC act as coordinators for consistency between HOs in resolution of overlap and gaps
- ▶ Coordinate cancellation and replacement coverage on behalf of new and developing producers



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March 2019: BD replacing GB ic-enc



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ENC Distribution - VARs



Value Added Resellers

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What next for ENC & RENCs?

- ▶ S-101 ENC Standard
 - Interoperability with other S-10x data standards
- ▶ S-10x new data types
- ▶ Using ENC & RENCs more widely
 - Licensing service to support safe navigation of non-ECDIS equipped craft

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Non-ECDIS navigation management service ic-enc

- ▶ Proposal for consideration by IC-ENC members is in development.
- ▶ Challenge is to replicate the benefits of ECDIS distribution, but without the 'backing' of such strong regulation, nor the Standards

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IC-ENC Steering Committee ic-enc

- ▶ Agrees IC-ENC services, budget, provides support and guidance. Next convenes in July to consider future opportunities.



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