

**IC-ENC Electronic Chart Data Service**

**INFORMATION PACK**

## IC-ENC Background

IC-ENC is a regional ENC Co-ordinating Centre operated by the UK Hydrographic Office. IC-ENC works with ENC producers across the globe, helping make, validate, and distribute their ENCs for ECDIS use. For more details, including a HO membership list, you are welcome to visit: <http://www.ic-enc.org/>

## Summary of Concept

The primary motivation of the IC-ENC membership is to support safe navigation in their waters. At the moment, there is a somewhat fragmented and incomplete solution for making navigation data available to craft not using ECDIS so based on requests from its members, IC-ENC has developed a service: Electronic Chart Data (ECD) Service. Currently we have 26 members agreed in principle to participate in this new service (See Annex A)

IC-ENC will appoint companies into the distribution chain who will receive updated S-57 ENCs, convert the S-57 ENCs into their own proprietary format, and manage the supply of that data to their customer base. Sales will be declared to IC-ENC with revenue being collected and returned to the relevant Hydrographic Office. A Contract, under a single set of terms and conditions will be the main control over the service including an End User License Agreement.

The service will use existing IC-ENC principles, concepts, processes, and systems as far as possible, including:

1. IC-ENC will not provide an end user a service but appoint and manage companies ('Distribution Partners') into the distribution chain. The appointment process and criteria will be openly available.
2. A contract, which will describe all the terms and conditions the Distribution Partners must adhere to, and other important aspects such as ability to audit, sales reporting etc.

## Summary of the service

### Distribution Partners

IC-ENC will appoint companies to this service distribution chain via a transparent appointment and assessment process. The companies will be termed "Distribution Partners" (DPs).

### The Contract

The appointment will be through a full Contract containing detailed requirements and terms and conditions. This Contract, and the administration/management of it, will be the main control over the service. There will be an open and transparent application process to become a DP.

The Contract is the key management tool for this new IC-ENC service and is being drafted to provide HOs and IC-ENC with appropriate protection and controls over the service. The current draft version is enclosed with this information pack for discussion purposes.

The Contract will be between UKHO (as Operator of IC-ENC, and IC-ENC's legal personality) and Distribution Partner (the Company) and governed by English law.

For the avoidance of doubt, the Contract will expressly prohibit DPs providing untransformed S-57 ENC (or S-63 encrypted ENC) to users. There is an established VAR network to serve these users although it is conceivable that a company could be both a VAR and a DP, with two separate contracts covering the different purposes.

In addition to the Contract, an End User License Agreement (EULA) will be required to be in place for all End Users using a Distribution Partner Service.

## **Data Supply & Protection**

DPs will receive ENC data on a periodic basis from IC-ENC, transferred in a controlled and secure manner, and using the tools already in place for the IC-ENC ECDIS service. This ENC data will be supplied in the unencrypted format (i.e., S-57, not S-63). The DP will receive the data, conduct a check to confirm safe and complete receipt, hold it securely, and convert the ENC data into their Own Format Data (the format suitable for use within their Service, and display on the required equipment).

DPs will be responsible for managing their Service to the End Users. End Users will be able to receive the Service data under a subscription, with access control systems designed by the DP. These controls will need to ensure the Service conforms to the relevant terms and conditions as documented in the Contract.

## **Sales Reporting**

DPs will report the volumes of use, on which the HO has set the price that is required to be paid. IC-ENC will process the sales reports (monthly), invoice for money owed by the DP (monthly), and report sales to the HO (quarterly). The HO will invoice IC-ENC to receive payment. This sales processing and reporting process will use existing IC-ENC infrastructure.

## **Sales Unit**

The sales unit will be 'folio'. In other words, each HO will set a wholesale price which is valid for its folio(s) and most members will use their entire national folio as the 'folio'. However, some members may feel it is requirement to separate their ENCs into more than one folio, for reasons of geography.

All ENCs from an HO using this service will be included in the service, however the service does have the ability for an HO to select just a subset of its ENCs if this is required by the HO (one HO has requested this option).

The folio system is the initial approach.

## **ENC Issuing Authority**

IC-ENC members will remain the only ENC issuing authority. Manufacture of any new ENCs that are requested to support this service will be at the discretion of the HO (many consider it unlikely that this will be needed, others will assess on a 'case by case' basis).

## **Future iterations**

The new service is designed to provide a credible, yet minimum, approach. It is structured in such a way as to be able to iterate/continually improve over time as all our experience grows. In future, the membership may choose to introduce more of the licensing options into the new service, as experience grows.

**Annex B** provides further information on the licensing options as part of the service and also contains a flow diagram showing the proposed distribution chain and revenue reporting cycle.

## **Obligations of the Distribution Partners**

1. The DP shall demonstrate and maintain to the IC-ENC's reasonable satisfaction a broad, current knowledge of maritime navigation; the shipping industry; IMO/Safety of Life at Sea (SOLAS) regulations; information technology/systems that relate to maritime navigation from time to time and shall remain conversant with which systems on which the Service can be used; information technology transmission systems and data protection.
2. The DP shall not describe itself as the distributor, agent, employee or representative of the IC-ENC or as being entitled to bind the IC-ENC in any way except as expressly authorised by this Agreement.
3. The DP shall have its own commercially available Service within 6 months of its appointment by the IC-ENC. If, after a period of 12 months from the DP appointment, the DP has not launched a commercially available service, the agreement will be automatically terminated.
4. The DP shall achieve minimum sales volumes of not less than 1,000 per quarterly sales reporting period.
5. The DP shall, to the satisfaction of the IC-ENC at all times, work to protect and promote the interests of the IC-ENC to help it to achieve its mission of contributing to the safety of life at sea.
6. Where the Service contains digital chart, data produced from sources other than ENC data received from IC-ENC, the DP shall ensure that this data is distinguished in such a way that End Users cannot be confused as to the originating source of the data.
7. The DP shall ensure that any text related to the Service is not, or is not likely to, mislead, contravene trademark, and copyright laws in the jurisdiction within which it is published or to be detrimental to the interests of safety of life at sea.
8. The DP shall not make any representations to Subscribers or End-Users or give any warranties in relation to the ENC Data other than those contained in such material as the IC-ENC may provide.
9. The DP shall not pledge the credit of the IC-ENC in any way.
10. The DP shall not enter any arrangement with, or assume any obligation towards, a third party which impedes or may impede the DP's performance of this Agreement.
11. The DP shall ensure that the General Terms and Conditions for Subscribers are included in its End User licences with Subscribers.
12. The DP shall immediately notify the IC-ENC of any complaints received from Subscribers or End-Users relating to the ENC Data in the Service.

- 13.** The DP shall ensure that its end-user licences with Subscribers comply with the local law applicable in the DP's jurisdiction.
- 14.** The DP shall convert the ENC Data provided by the IC-ENC into its Own Data Format and ensure the accuracy of the conversion.
- 15.** The DP shall be responsible for establishing a Service which functions on non-ECDIS equipment, ensuring always that safety of navigation is protected. This includes, but is not limited to, system functionality, clarity of display and accuracy.
- 16.** The DP will implement security measures to help ensure that the ENC Data are protected against illegal duplication.
- 17.** Other than the sale of the Service in accordance with the terms of this Agreement, the DP shall not otherwise sell, hire out, sub-license, re-supply, or in any way transfer the ENC Data, encrypted or otherwise, to a third party without the IC-ENC's prior written agreement.
- 18.** The DP shall supply to the IC-ENC, within one month of signing this agreement a forecast of the DP's sales of the Service to cover the forthcoming twelve months.
- 19.** The DP shall not permit access to any of its employees, contractors or agents to data which has not been protected using the measures defined in the agreement, except in accordance with the agreement.
- 20.** The DP shall notify IC-ENC as soon as it becomes aware of any actual or attempted unauthorised access of any IC-ENC ENC Data stored within the DP's premises.
- 21.** The DP shall ensure that the Service includes the ability for End Users to access Own Data Format data that is at least current to the content of the ENC Data that IC-ENC has made available to the DP in the previous seven (7) days.
- 22.** The DP shall make available to Subscribers and/or End Users (as applicable) relevant information provided to it by IC-ENC in respect of national considerations related to the use of ENC Data and the Service.
- 23.** Where access to the Service ceases on expiry of the licensed subscription period, the DP shall use its best endeavours to ensure that Subscribers are notified prior to the licence expiry date.
- 24.** DPs shall ensure that End User and Subscriber access to the Service will not be provided without a valid license.

## Technical Capabilities

1. The technical infrastructure to support the sales and updating of electronic products.
2. Equipment for, and experienced personnel with a good working understanding of:
  - the process of creating an accurate and complete Service.
  - exchanging data via secured electronic transmission.
3. Suitable equipment and qualified personnel capable of implementing and administering a Service incorporating ENC Data.
4. Professionally administered.

5. Suitable equipment and qualified personnel capable of ensuring the ENC Data are reasonably protected from unauthorised use, the Service is reasonably protected from unauthorised use, and access to the Service is limited to only the licensed user.

## Financial Capabilities

1. Sound financial standing.
2. A system for providing accurate and true sales reports to the IC-ENC within the appropriate timescale.
3. Accounting systems for handling international in/out going invoices.
4. A robust audit regime to verify sales reports.

## General Criteria

1. Complete and verifiable responses to all questions in the standard Distribution Partner application form.
2. The ability to apply and protect the intellectual property, including copyright, in the ENC Data in accordance with national and international law.
3. No current and reasonably expected court actions against them at the time of application.
4. A robust Quality Management System

## Distribution Partner Benefits

The primary motivation of the IC-ENC membership is to support safe navigation in their waters. This new service will embrace this source of motivation and the benefits to the Distribution Partners will be:

1. Receiving a weekly updating data supply service which will allow access to the most up to date ENC data each week.
2. Having simple access to a combined ENC dataset from an FTP site.
3. Safe Navigation, the same data is provided to the Distribution Partners as to the ECDIS VARs.
4. Quality assured ENC data made available to as many craft as possible.
5. A single source of accessing ENC data in the non-Core market (A central, single source of data in the same format, from a variety of Hydrographic Offices).
6. A single contract to manage the Electronic Chart Data Service.
7. Marketing statements such that the Distribution Partners new service will be “based on official and updated data”.

## Collaboration

In order to develop the new service to maturity, IC-ENC will require input from members and distribution partners. In order to achieve maximum value from the service, IC-ENC would welcome all feedback which will be used to develop our thinking collaboratively both.

Please do not hesitate to direct any comments to Tom Mcilwaine ([thomas.mcilwaine@ic-enc.org](mailto:thomas.mcilwaine@ic-enc.org)) where responses will be collated.

## Annex A

The table below shows an overview of the HO's who have agreed to participate in the ECD Service, who have indicated an interest and the HO's who have declined. It is expected that this will change overtime as the service develops and matures.

Member	Country	Yes	Later	No
<b>TOTALS</b>		<b>26</b>	<b>7</b>	<b>1</b>
AR	Argentina	1		
AU	Australia		1	
BD	Bangladesh	1		
BE	Belgium	1		
BH	Bahrain		1	
CL	Chile		1	
CO	Colombia	1		
CU	Cuba	1		
DK	Denmark	1		
EC	Ecuador	1		
EG	Egypt	1		
DE	Germany			1
FO	Faroe Islands	1		
GR	Greece	1		
IS	Iceland	1		
IT	Italy		1	
MT	Malta	1		
MX	Mexico	1		
MY	Malaysia	1		
NG	Nigeria	1		
NL	Netherlands	1		
NZ	New Zealand		1	
PCA	Panama Canal Authority	1		
PMA	Panama Maritime Authority	1		
PT	Portugal	1		
RO	Romania		1	
S1	Saudi Arabia		1	
SI	Slovenia	1		
ZA	South Africa	1		
SR	Suriname	1		
TN	Tunisia		1	
TR	Turkey		1	
US	United States	1		
UY	Uruguay	1		
GB	United Kingdom	1		
VE	Venezuela	1		

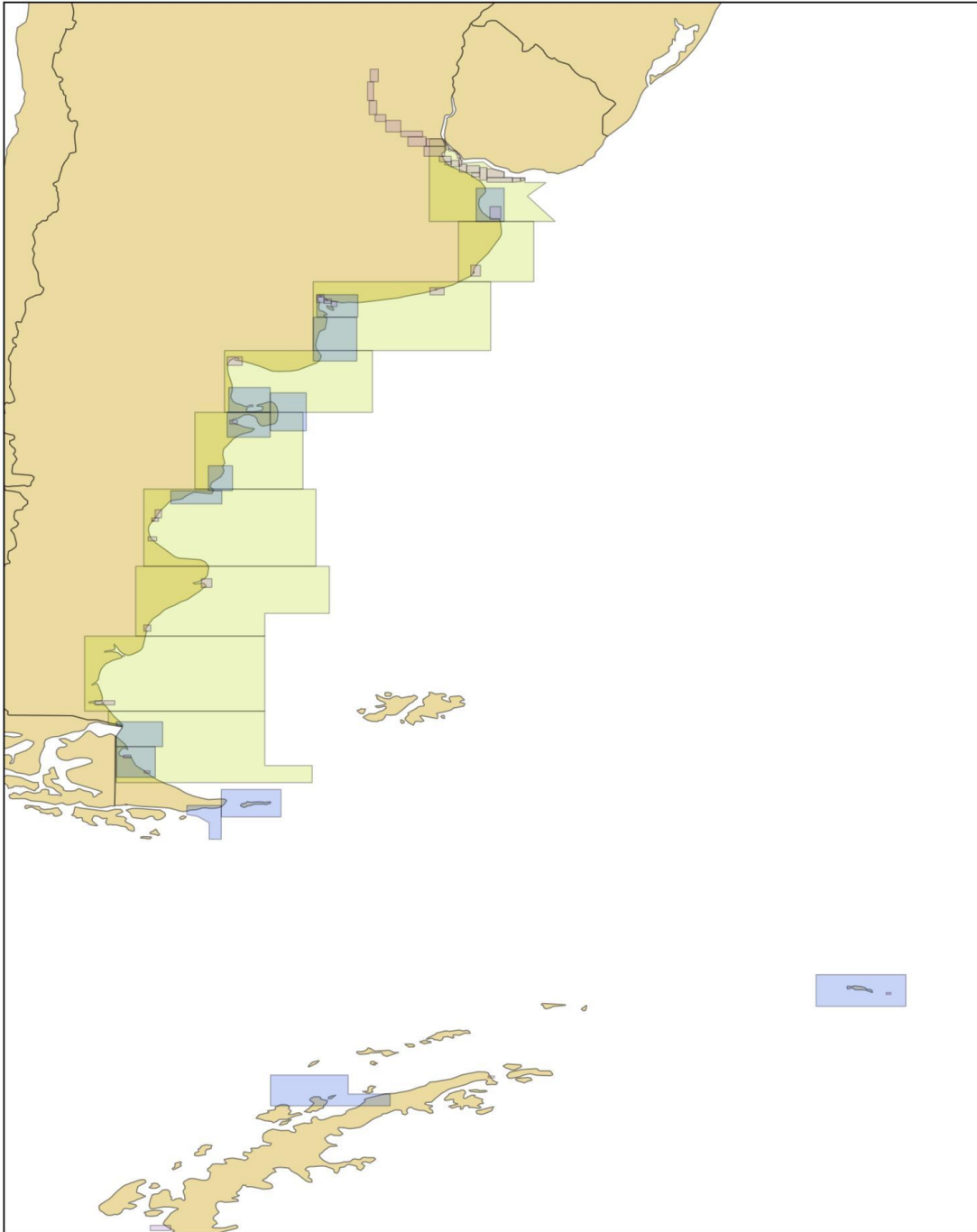
There are also several organisations who have yet to formally respond, these include: Brazil, Israel, Mozambique, Oman, Pakistan, Peru, Solomon Islands and Spain. IC-ENC will continue to work with these members to clarify their position.



The following examples are used to illustrate this:

## Non ECDIS Folio - Argentina

ARF1 - Argentina

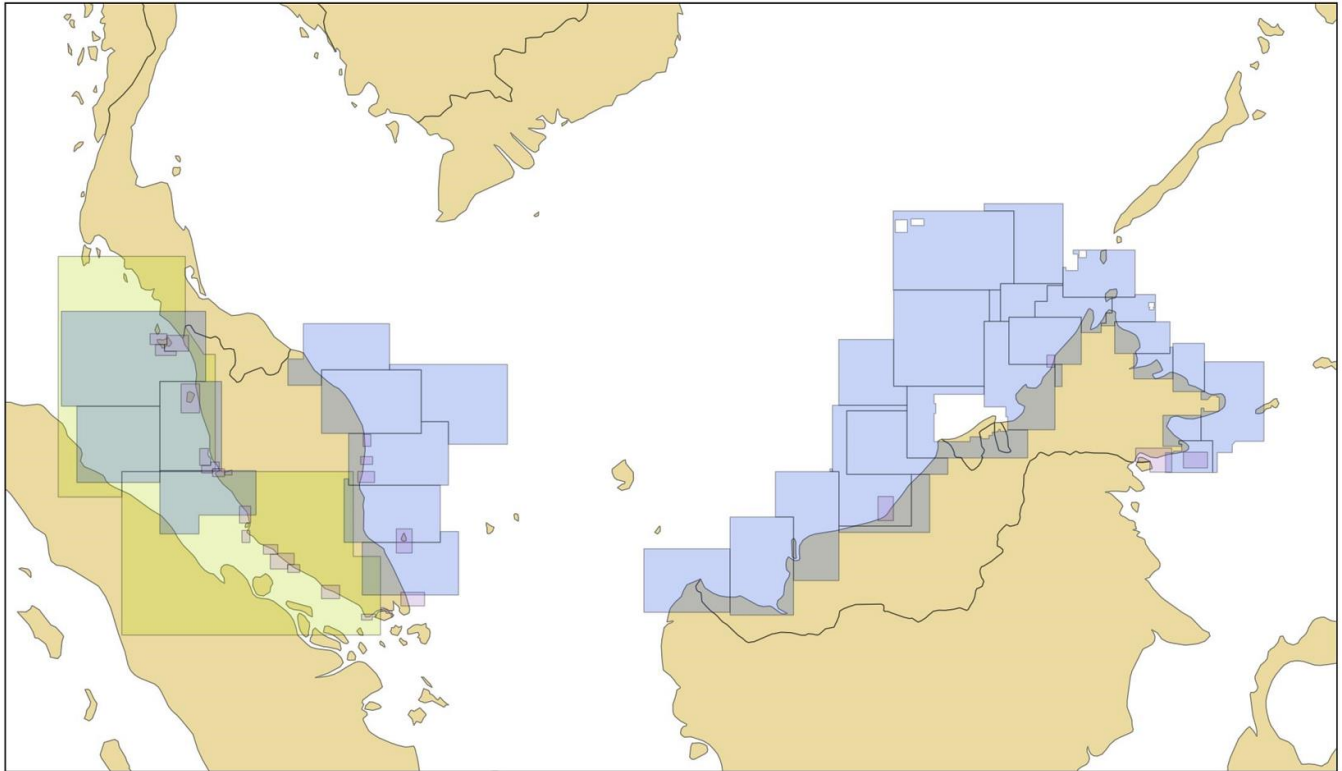


### Usage Bands

APPROACH   BERTHING   COASTAL   GENERAL   HARBOUR   OVERVIEW

## Non ECDIS Folio - Malaysia

MYF1 - Malaysia

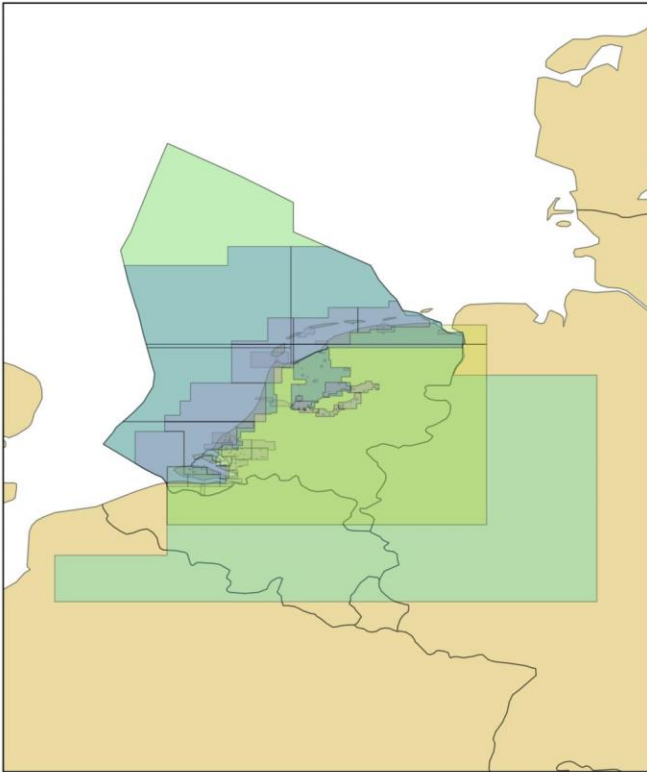


### Usage Bands

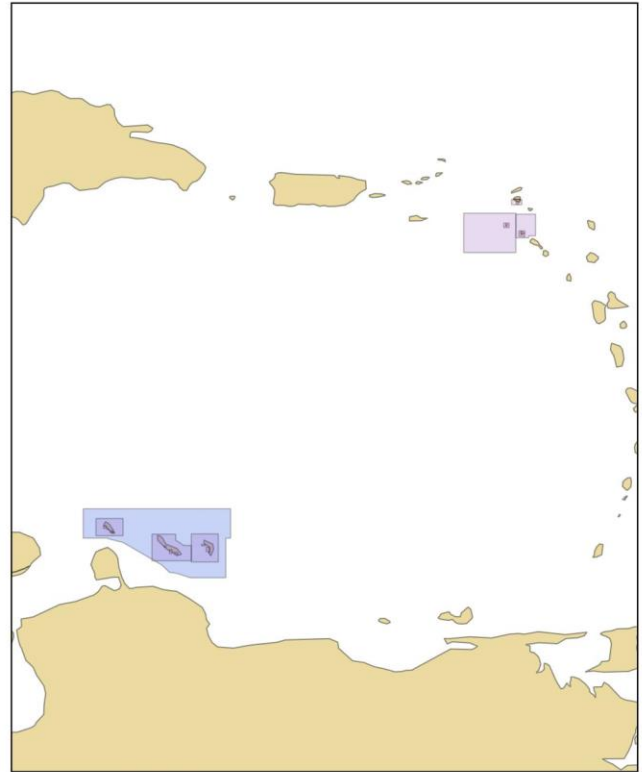
APPROACH    BERTHING    COASTAL    GENERAL    HARBOUR    OVERVIEW

## Non ECDIS Folio - The Netherlands

NLF1 - The Netherlands - North Sea



NLF2 - The Netherlands - Caribbean



Usage Bands

- APPROACH
- BERTHING
- COASTAL
- GENERAL
- HARBOUR
- OVERVIEW

## Annex B

### Licensing Options

This annex shows that the Electronic Chart Data licensing options take parts of the existing ECDIS licensing model. This therefore gives us the ability to swiftly introduce new options in the future, without the need for significant system development (i.e. policy change only, not technical change).

Licensing Option	ECDIS Navigation	ECD Service
Sales Unit	ENC	Regional or National Folio Dataset
3 months	✓	X
4 months	✓	X
5 months	✓	X
6 months	✓	X
7 months	✓	X
8 months	✓	X
9 months	✓	X
10 months	✓	X
11 months	✓	X
12 months	✓	✓
PAYS (3 months)	✓	X
Demonstration (12 months)	✓	NO, but method for demonstration purposes is being considered (e.g. 'dummy' dataset)
R&D (12 months)	✓	NO, but method for demonstration purposes is being considered (e.g. 'dummy' dataset)
Training (12 months)	✓	X
Trial (3 months, free of charge)	✓	X
Multi devices?	YES (for ship navigation)	YES – Up to 5 devices

This diagram shows the process flow of the new service:

