



17th Conference of the EAtHC / *17^{ème} Conférence de la CHAtO*

International charting coordination working group (ICC-WG)

Presented by France (Region G charting coordinator)
Présenté par la France (coordinateur cartographique pour la Région G)

Agenda Item 03.1A

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

AGENDA

International
Hydrographic
Organization

- 1- Opening**
- 2- Region G INT Chart Scheme**
- 3- Region G ENC Scheme**
- 4- World Port Index**
- 5- Permanent EAtHC actions related to ICCWG**
- 6- Evolution of the ICCWG scope regarding to IHO Strategic Plan**
- 7- Proposal of extension of ICCWG ToRs & RoPs**
- 8- WEND-100 Product Matrix UN-GGIM IGIF**
- 9- UKHO's intention to withdraw from paper chart production :
Impact assessment and transition plan for Region G**
- 10- Actions requested from EAtHC17**

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

1 - OPENING

International
Hydrographic
Organization

- Regional Charting Coordinator (RCC) for Region G : **France (Shom)**
 - Coordinator : Capt. Pierre-Yves DUPUY pierre-yves.dupuy@shom.fr
 - Coordinator assistant : Lt. Cdr. Julien SMEECKAERT julien.smeekaert@shom.fr
 - Generic email address : regionGcoord@shom.fr
- Access to Region G ICCWG ToRs & RoPs and Circular Letters (both languages FR & EN) :
<https://iho.int/en/eathc-region-g-iccwq>
- Current membership :
France (Chair) – Ghana – Morocco – Nigeria – Portugal – Spain – United Kingdom (Obs.)

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022

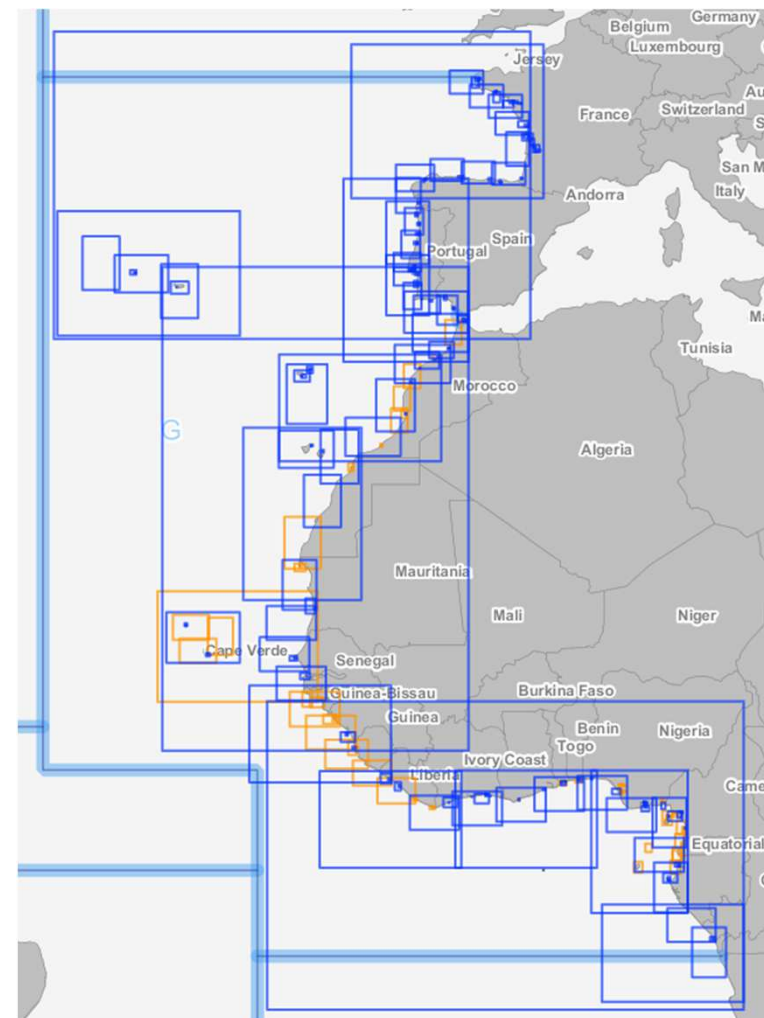
**IHO**

2 - REGION G INT CHART SCHEME

- 2.1 Evolution of the regional INT scheme

Since Decision EAthC16-12 (INT1903 – ES4430 – Puerto de Cadiz), no new proposals to update the INT scheme.

CHAtO / <i>EAthC</i>	14 th	15 th	Interim 16 th	16 th	17 th
Total Cartes INT <i>Total INT charts</i>	172	173	173	199	199
Cartes INT produites <i>Produced INT charts</i>	139	141	142	146	149
Cartes INT planifiées <i>Planned INT charts</i>	33	32	31	53	50
Ratio	80%	82%	82%	73%	75%



EAthC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO 2 - REGION G INT CHART SCHEME

International
Hydrographic
Organization

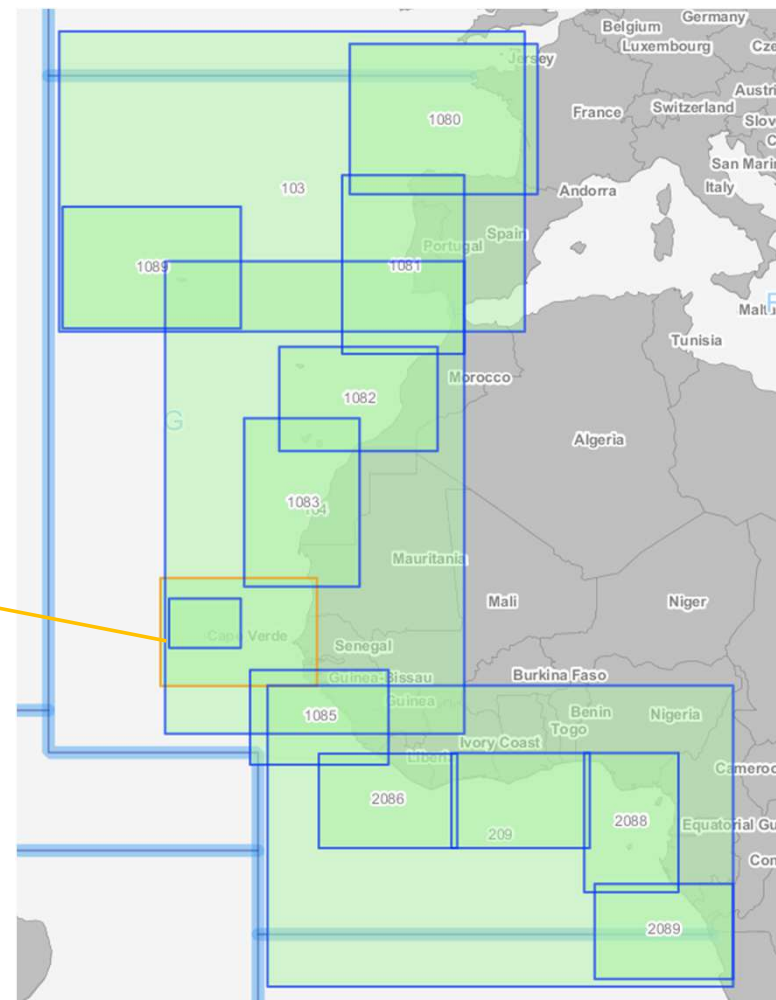
• 2.1 Evolution of the regional INT scheme

Chart Scale : Overview

Complete coverage of EAthC coastal waters for two chart series :

- 1: 3 500 000 – 1: 2 790 000
- 1: 1 100 000 – 1: 990 000

INT 1084 ENC <i>s</i>		×
Nation Title	De Trimiris à Guiné-Bissau e Cabo Verde	
Nation Chart No	62101	
Inclusion Year		
First Edition Year		
New Edition Year		
Producers	PT	
Chart Date Year		
Printer Nation		
Print Chart No		
Print format		
Frame Dimensions		
Scale	1 100 000	
INT Area	G	
Producing Status	Sched <i>ed</i>	
Record Update Date		
Region Version	4.0.6 JUL. 2022	



EAthC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

2 - REGION G INT CHART SCHEME

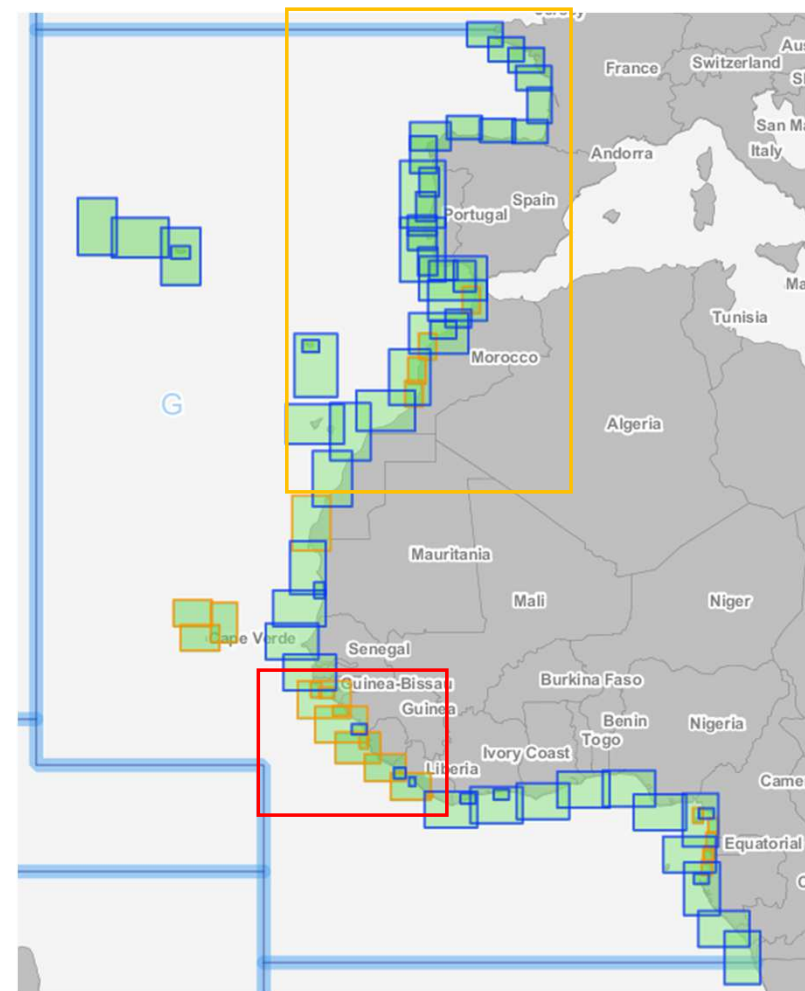
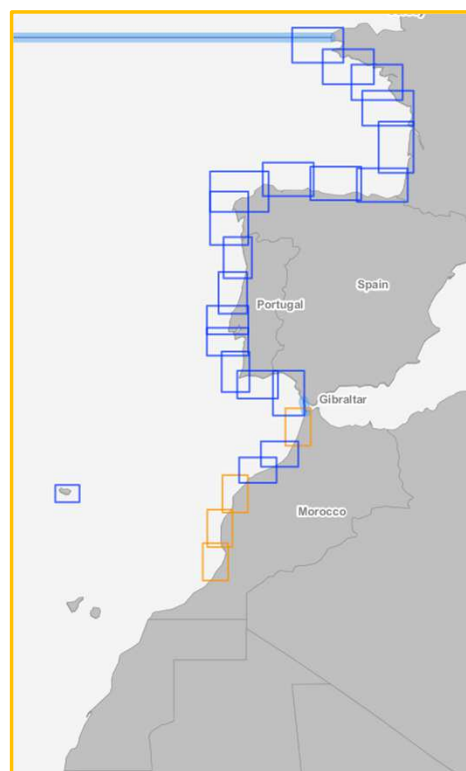
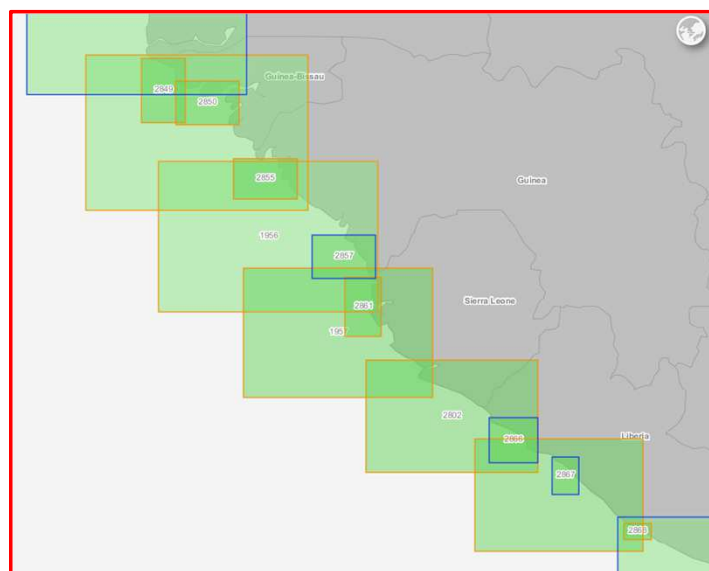
International
Hydrographic
Organization

• 2.1 Evolution of the regional INT scheme

Chart Scale : General & Coastal

Complete coverage of EAthC coastal waters :

➤ 1: 150 000 – 1: 350 000



EAthC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

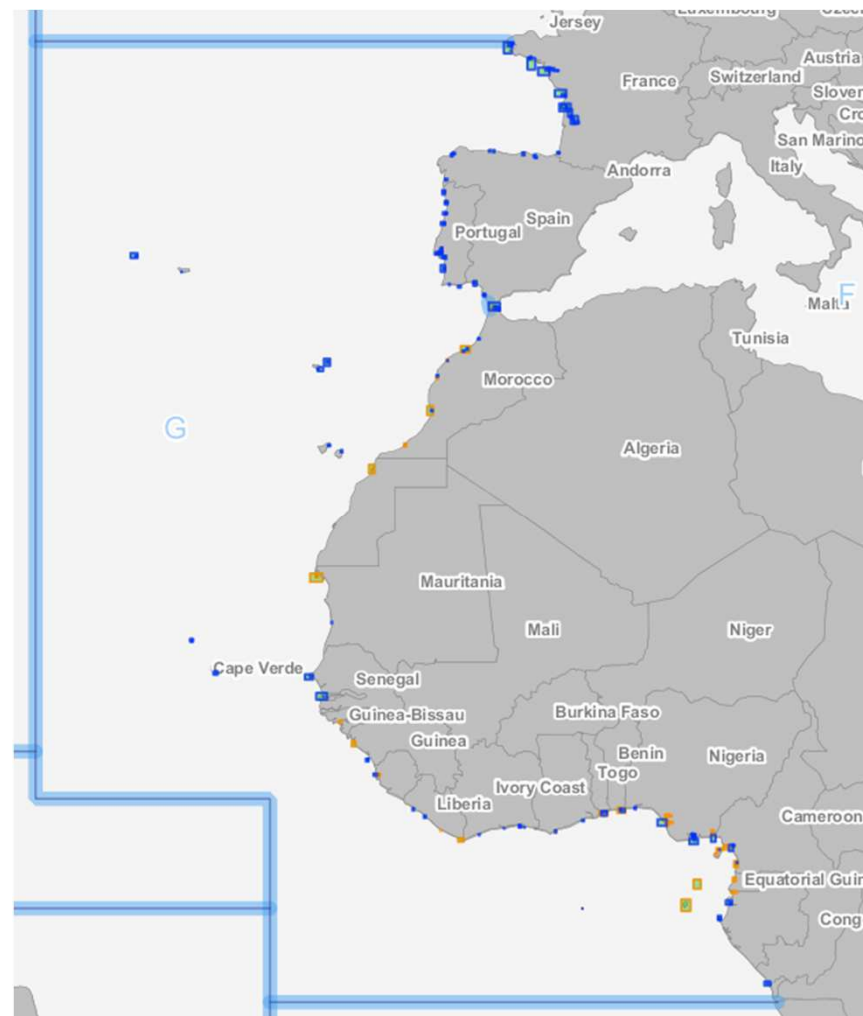
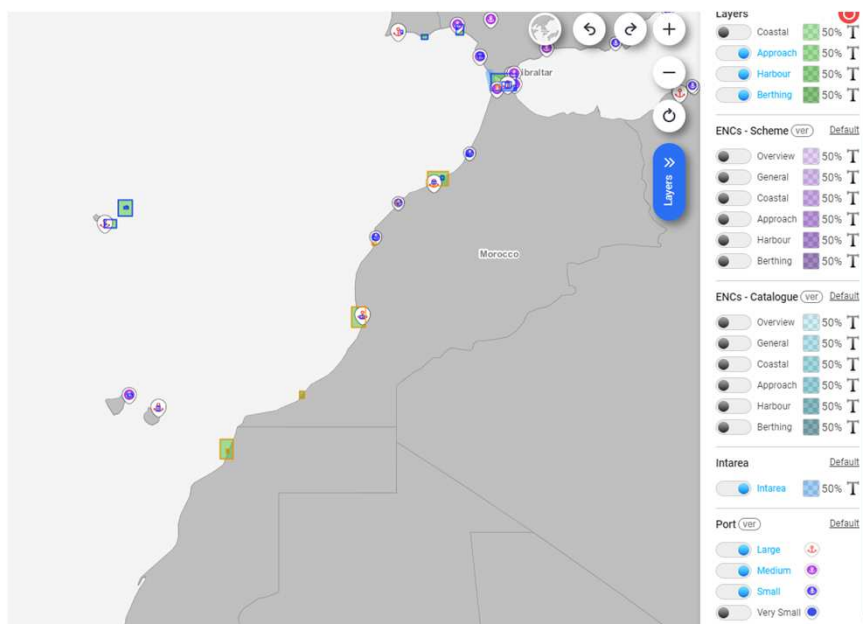
2 - REGION G INT CHART SCHEME

• 2.1 Evolution of the regional INT scheme

Chart Scale : Approach, Harbour & Berthing

EAtHC coastal countries to identify if some of their ports with significant traffic need INT coverage if not existing

(Possible use of INTGIS by filtering INT charts and displaying the port layers)



EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

2 - REGION G INT CHART SCHEME

International
Hydrographic
Organization

2.2 Proposal to update the INT scheme

No proposal from EAtHC INT chart producers since EAtHC16

Reminder : available form to submit to RCC major changes in INT scheme (new charts, deletion or changes in scale or coverage)



EAtHC ICCWG / ICCWG CHATO

PROPOSAL FOR UPDATING INT SCHEME / PROPOSITION DE MISE A JOUR DU SCHEMA INT

Instructions:

- 1- Fill in the form and send it by email to EAtHC ICC / Remplir le formulaire et le transmettre par courriel à l'ICC de la CHATO (dmi-rex-d@shom.fr)
The form can be accompanied by the concerned chart coverage in ESRI Shapefile format / Le formulaire peut être accompagné de l'emprise des cartes concernées au format ESRI Shapefile
- 2- Return from EAtHC ICC including proposal of INT numbers and agreement to fill in the IHO Web Catalogue / Retour de l'ICC CHATO incluant la proposition des numéros INT et l'accord pour renseigner le Catalogue OHI en ligne
- 3- Fill in the IHO Web Catalogue according to the form / Renseigner le Catalogue OHI en ligne conformément au formulaire (<http://chart.iho.int:8080/iho/main.do>)

Note:

Changes to charts already in the INT Scheme concerning title, new edition date or change of status (Schemed > Produced) do not require ICCWG approval and are to be made directly in the IHO Web Catalogue. ICCWG approval required for coverage limit and/or scale changes.
Les modifications de cartes déjà au schéma INT qui concernent le titre, la date d'édition ou le changement de statuts (Schemed > Produced) ne nécessitent pas d'approbation de l'ICCWG et sont à faire directement dans le catalogue OHI en ligne. Approbation de l'ICCWG requise pour les changements de limites et/ou d'échelle.

Producing country / Pays producteur	
Date of submission / Date de la soumission	
Date of ICC return / Date de la réponse ICC	(to be filled by EAtHC ICC / A remplir par l'ICC CHATO)

Boxes reserved for EAtHC ICC / Cases réservées à l'ICC CHATO

Not to be filled / Ne pas remplir

Ready for update in INTGIS	INT number	Nat Number	Panel ID	Title	South Limit	North Limit	West Limit	East Limit	Scale	Explanation / Reason of the proposal
New charts to introduce to INT scheme / Nouvelles cartes à introduire au schéma INT										
Existing charts to update in INT scheme (See Note) / Cartes existantes à mettre à jour dans le schéma INT (cf. Note)										
Fill in the new limits and/or scale / Renseigner les nouvelles limites et/ou échelle										

Charts to remove from INT scheme / Cartes à supprimer du schéma INT										

Illustrations of proposals (optional) / Illustrations des propositions (facultatif)

- 1/ Producer fills the form and submits it to RCC
- 2/ RCC examines the submission, proposes INT numbers, validate the proposals and return the form completed
- 3/ Producers apply the changes on INTGIS and transmit them to RCC
- 4/ RCC prepares CL to present the proposals to ICCWG

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022

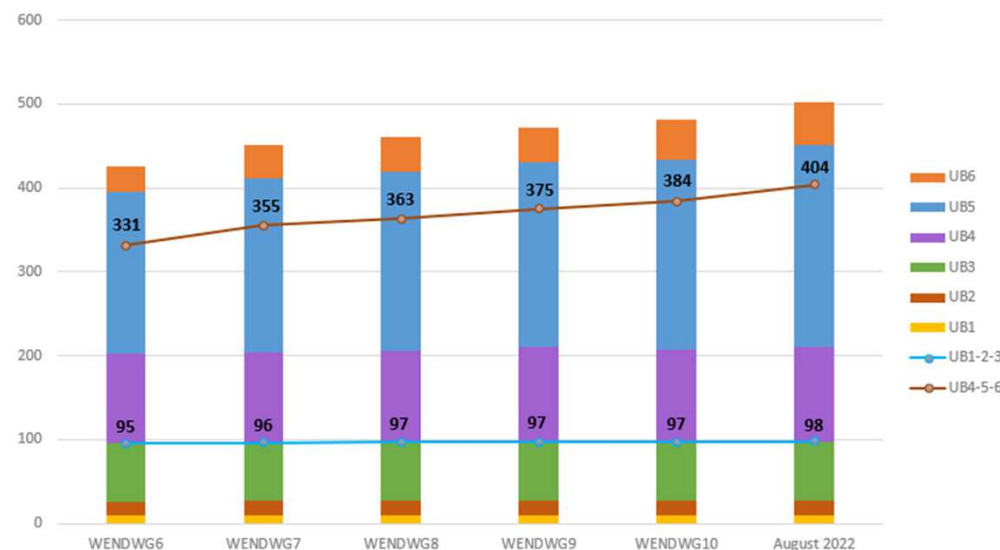


IHO 3 - REGION G ENC SCHEME

International
Hydrographic
Organization

• 3.1 Status of the ENCs

Region G	WEND-6	WEND-7	WEND-8	WEND-9	WEND-10	Aug. 2022
UB1	9	9	9	9	9	9
UB2	17	18	18	18	18	18
UB3	69	69	70	70	70	71
UB4	108	108	108	113	111	112
UB5	192	208	215	220	226	242
UB6	31	39	40	42	47	50
Total	426	451	460	472	483	502



The number of ENC categories available in the region continues to increase but the increase is with two trends:

- certain maturity of the scheme for UB 1, 2 & 3
- publication of more :
 - ❖ harbour ENC categories (UB5 : + 10% in the last 3 years)
 - ❖ berthing ENC categories (UB6 : + 19% in the last 3 years)

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



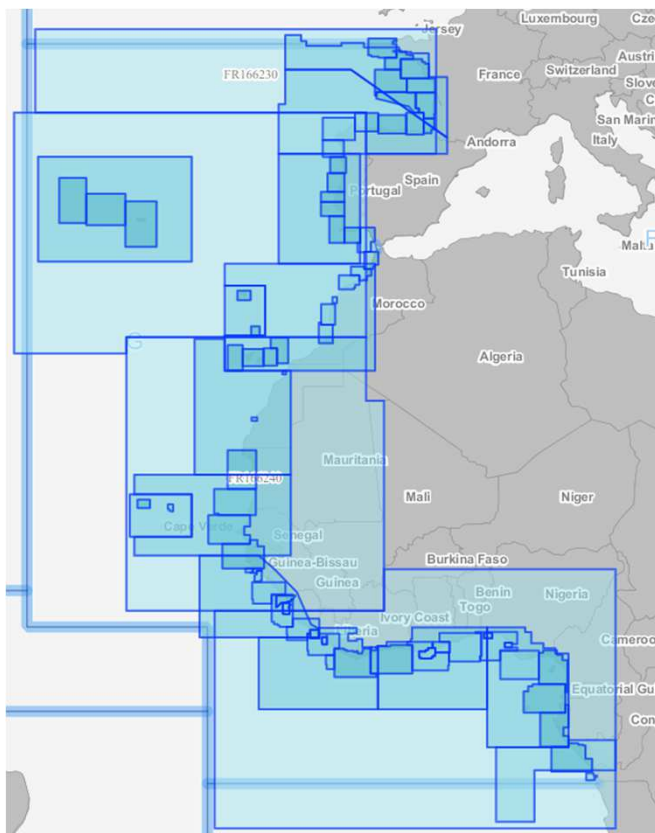
IHO

3 - REGION G ENC SCHEME

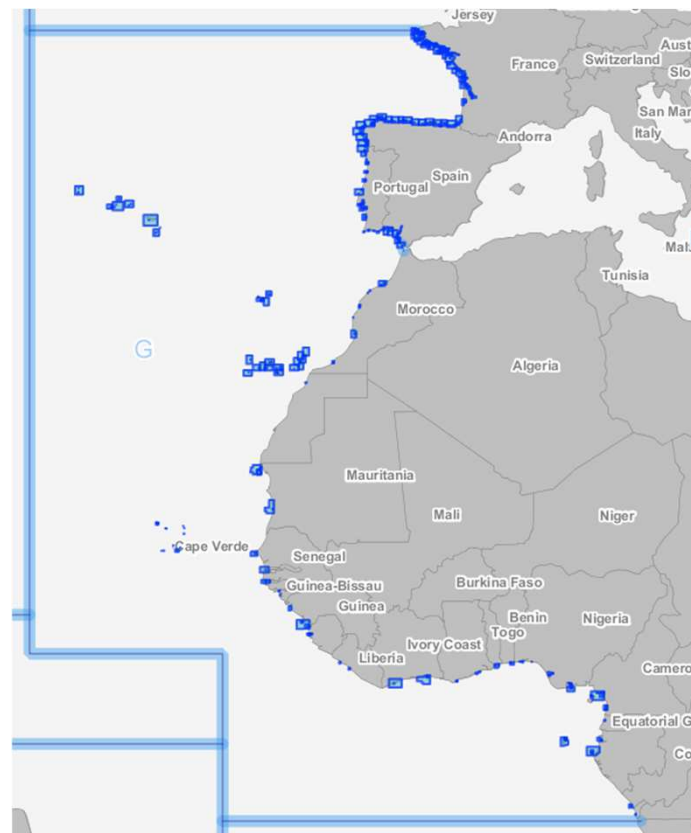
International
Hydrographic
Organization

- 3.1 Status of the ENCs**

**Usage Bands
1, 2 & 3**



**Usage Bands
4, 5 & 6**



EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO 3 - REGION G ENC SCHEME

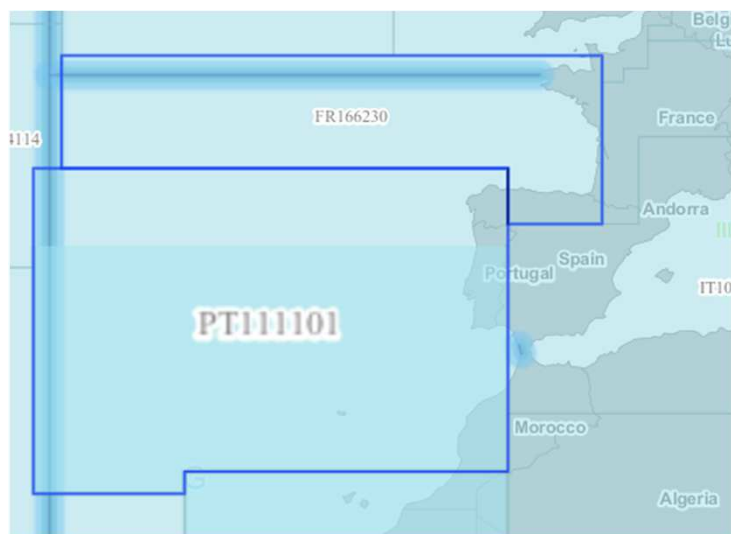
International
Hydrographic
Organization

• 3.2 ENC overlaps

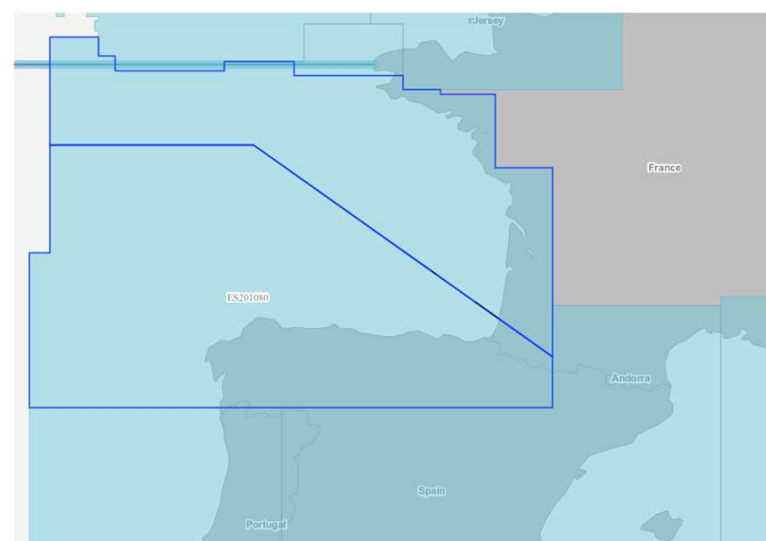
Source : IC-ENC EAthC Overlap Report presented during WENDWG12

IC-ENC REGIONAL HYDROGRAPHIC COMMISSION OVERLAP REPORT - East Atlantic RHC - FEBRUARY 2022

ID	STATUS	RENC Membership	RHC	ENC 1	ENC 2	Usage Band	ENC 1 Scale	ENC 2 Scale	ENC 1 Version	ENC 2 Version	Overlap extent (Kmxkm) (m/square NM)	Content difference	Geog. Location	Shipping density	Size	Scale	Route patterns	ECDIS	Overall Severity of Risk	Justification
201	ACCEPT	IC-ENC - PRIMAR	EAthC	ES201080	FR272110	2	700000	700000	3 (25)	2 (1)	1.6km x 39.8km	LOW	LOW	HIGH	LOW	LOW	LOW		ACCEPT	Small overlap in coastal location. High cells due to extent of cell.
198	ACCEPT	IC-ENC - PRIMAR	EAthC	PT111101	FR166230	1	1500000	1500000	6 (11)	2 (2)	53m x 277745m	LOW	LOW	HIGH	LOW	LOW	LOW		ACCEPT	Small overlap on band 1 cell in coastal location, high sales due extent of cell



FR166230 – PT111101
Overlap : 14,7 km² (0,0009% of FR ENC area)



ES201080 – FR272110
Overlap : 63,7 km² (0,02% of FR ENC area)

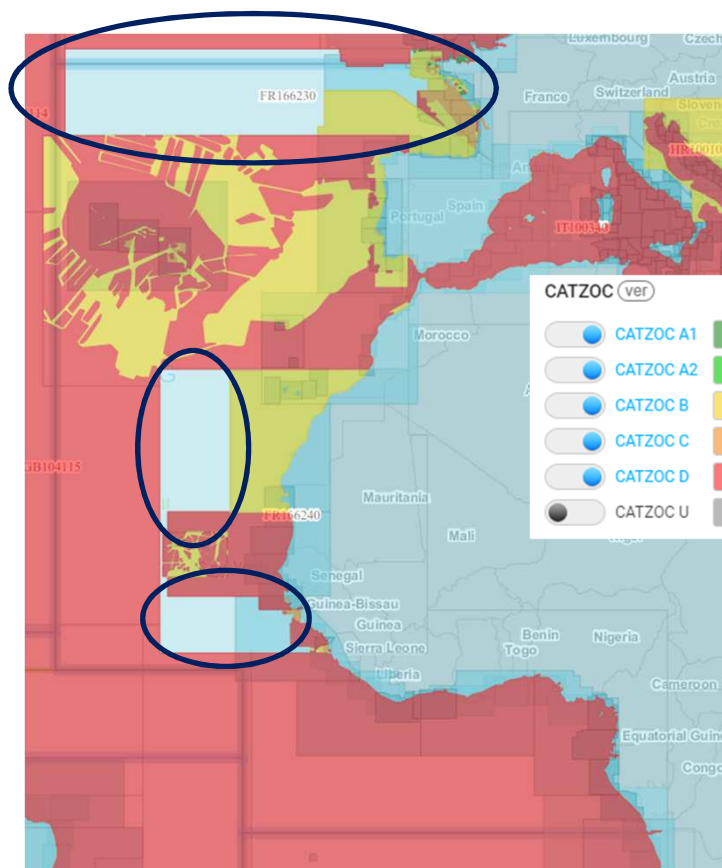
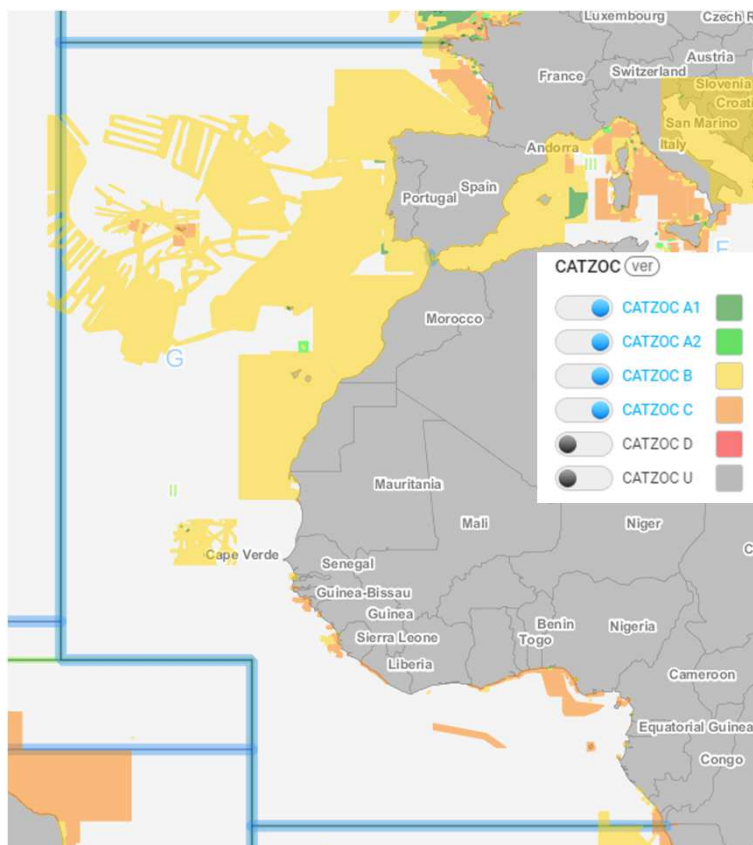
EAthC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO 3 - REGION G ENC SCHEME

International
Hydrographic
Organization

• 3.3 Implementation of CATZOC in ENCs



Action EAtHC (ICC) 16-13

Member states ENC producers to populate the CATZOC values (1 to 5) of their ENC cells

Source : INToGIS (August 2022)

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

3- REGION G ENC SCHEME

International
Hydrographic
Organization

- **3.4 Implementation of an ENC Scheme for the region**

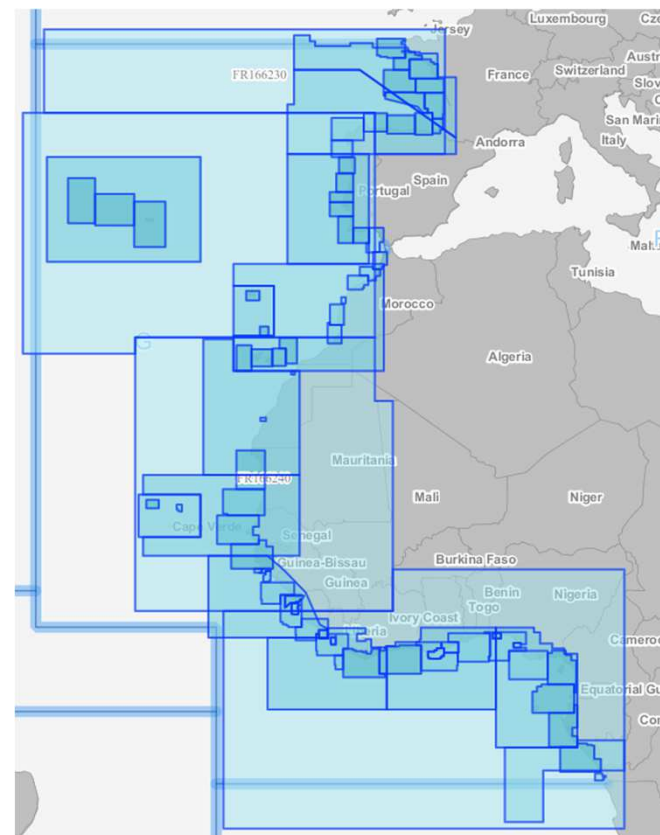
Part A: Section 200 of S-11 provides guidance for the preparation and maintenance of ENC schemes, similar to what is done for INT charts schemes.

INToGIS Phase II extends the visualization / management of INT charts scheme to ENCs.

Actions EAtHC (ICC) 16-08, 16-09 & 16-10 related to this issue

Implementation of EAtHC ENC Scheme for UB 1, 2 & 3

Necessary exchange between IHO Secretariat and Region G RCC to specify how to manage ENC scheme via the dedicated interfaces of INTToGIS when operational.



EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

3- REGION G ENC SCHEME

International
Hydrographic
Organization

- 3.4 Implementation of an ENC Scheme for the region

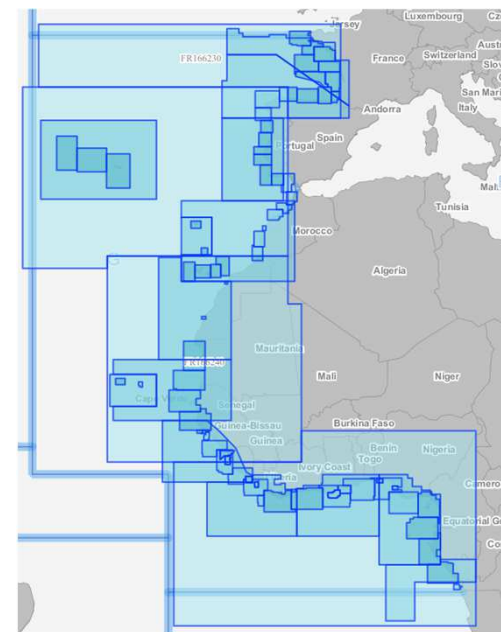
Transition from S-57 ENC to S-101 ENC schemes

HSSC Report for C-6 :

12. In addition to the Dual Fuel Concept for S-100 ECDIS it should also be noted that the **ENCWG has developed a S-57 ENC to S-101 Conversion Guidance which was approved in its first edition at HSSC14 (S-65 Edition 1.0.0)**. Since it is the first edition, it is for implementation and testing and then to be further developed. **HSSC14 also tasked the ENCWG to develop an encoding guidance for the backward conversion from S-101 to S-57.**

All these initiatives are aimed to support the transition from S-57 ENC to S-101 ENC, so IHO MS can achieve substantial coverage of S-101 ENC in advance of the new IMO ECDIS Performance Standards in force dates.

Question : Considering the dual fuel period, and the need to make the management of the schemes as easiest as possible, do MS agree here to move towards an identical transition scheme from S-57 ENC to S-101 ENC ?



EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



International
Hydrographic
Organization

IHO 4 - WORLD PORT INDEX

- Coastal States have the possibility to verify and update the information concerning their ports

Available on INToGIS without logging

Source : World Port Index (Pub. 150 – NGA)

Links and contact information :

- World Port Index Contributors Map direct link

<https://nga.maps.arcgis.com/apps/MapSeries/index.html?appid=f9515d53e3e24ae7919f02eb8f554c96>

- World Port Index page on NGA's Maritime Safety Information website

<https://msi.nga.mil/Publications/WPI>

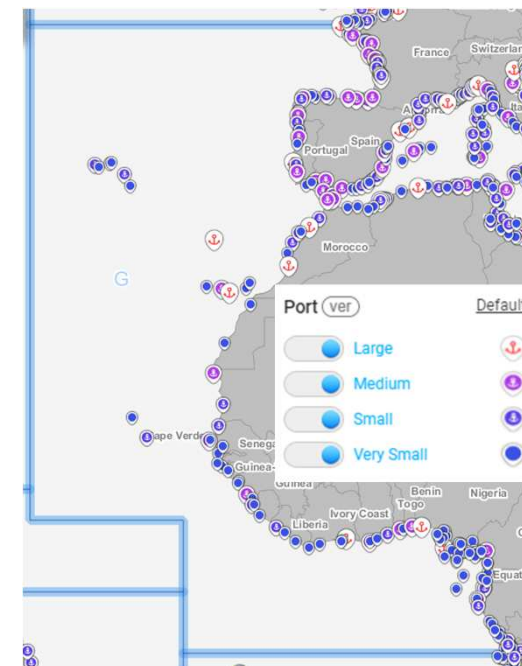
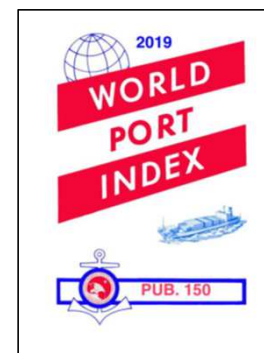
- Notify for New Port Submissions or Editing Port Data:

MCDWPI@nga.mil

- Questions, Issues, Feedback:

MarHelp@nga.mil

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



- Detailed NGA presentation after last update

(NIPWG9-13.1) :

https://iho.int/uploads/user/Services%20and%20Standards/NIPWG/NIPWG9/NIPWG9_2022_13.1A_EN_New_WorldPortIndex.pdf



IHO

4 - WORLD PORT INDEX

International
Hydrographic
Organization

- **Proposed New Permanent Action**

EAtHC Members States to examine their ports with their information and location in the World Port Index and to submit to NGA proposal for correction or modification through the dedicated interface

(<https://nga.maps.arcgis.com/apps/MapSeries/index.html?appid=f9515d53e3e24ae7919f02eb8f554c96>)

or via email (MCDWPI@nga.mil).

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022

**IHO**

5 - PERMANENT EATHC ACTIONS RELATED TO ICCWG (1/2)

International
Hydrographic
Organization

Action	Description	Responsible
EAtHC (ICC) 16-01	INT & ENC Chart producers to check the consistency of the existing set of ENC with NGA's list of ports (Pub 150). To provide the regional charting coordinator with a set of proposals to complete large scales ENC schemes	INT & ENC Chart producers in liaison with Coastal States
EAtHC (ICC) 16-02	INT chart producers to provide first editions and details of the new editions of INT charts to the INT Chart Coordinator (or ICCWG) at least three months prior to every EAtHC or ICCWG meeting in accordance with S-11 (3.14.1 – c)	INT chart producers
EAtHC (ICC) 16-03	The newly adopted INT charts, with the agreement of the INT Chart Producer Nation to be subsequently transferred to the IHO SECRETARIAT for its chartroom reference collection and internal use (database validation, consultation, etc.)	INT Chart Coordinator France
EAtHC (ICC) 16-04	Chart producers to provide the regional charting coordinator with an update of the list of on-line chart catalogues, either directly or systematically when updating the Yearbook	INT chart producers
EAtHC (ICC) 16-05	Chart producers to update INT chart details (limits, scale, format) using INTOGIS 'web manager' interface	INT chart producers
EAtHC (ICC) 16-06	Regional Charting Coordinator to submit the new INT proposals/ major updates to the approval of the Region G ICCWG in accordance with the ICCWG ToRs & RoPs and using the form made available	INT Chart Coordinator

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022

**IHO**

5 - PERMANENT EATHC ACTIONS RELATED TO ICCWG (2/2)

International
Hydrographic
Organization

Action	Description	Responsible
EAtHC (ICC) 16-07	Regional G ICCWG to validate ENC schemes for UB1/2/3 and report back to the IHO SECRETARIAT. RCC to study with IHO Secretariat the possibility to copy the ENC catalog in the ENC scheme	Regional Charting Coordinator
EAtHC (ICC) 16-08	Specify how to manage ENC schemes (proposals for new cells, scheduled cells) with INTOGIS II	IHO Secretariat
EAtHC (ICC) 16-09	ENC producers to enter their ENC projects via the "manager" interface of the INTOGIS II portal. WHEN OPERATIONNAL	ENC Producer Nations
EAtHC (ICC) 16-10	ENC producers to send their ENC projects (production plan in shape format) to the charting coordinator	ENC Producer Nations
EAtHC (ICC) 16-11	Upon the recommendations based on the proposals made by the NCWG on the Future of the Nautical Paper Chart, Member States should focus on ENC Schemes, but still follow applicable IHO Resolutions and Standards for any continuing INT chart production	Member States
EAtHC (ICC) 16-12	Member States to note the information on ECDIS anomalies and support the implementation of the recommendations given by the ENCWG	Member States
EAtHC (ICC) 16-13	Member states ENC producers to populate the CATZOC values (1 to 5) of their ENC cells	ENC Producer Nations

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

International
Hydrographic
Organization

6 - EVOLUTION OF THE ICCWG SCOPE REGARDING TO IHO STRATEGIC PLAN

- **New IHO Strategic Plan** focuses on 3 main cross-sectional objectives :
 - New services for the mariners (S-1xx products)
 - Increase consistency, quality and distribution efficiency of hydrographic data
 - Improve seabed knowledge
- **Current scope of ICC-WG** : management of INT chart and ENC (S-57) schemes (coverage regarding to navigational needs, ENC overlaps, CATZOC attributions, information updates...)



IHO

6 - EVOLUTION OF THE ICCWG SCOPE REGARDING TO IHO STRATEGIC PLAN

- Roadmap for the S-100 Implementation Decade (2020-2030) – Annex 2 : S-100 Timelines

Draft revision submitted to C6 :

https://iho.int/uploads/user/About%20IHO/Council/council6/C6_2022_04.1A_HSSC_Report%20Annex%20B-ver1.0.pdf

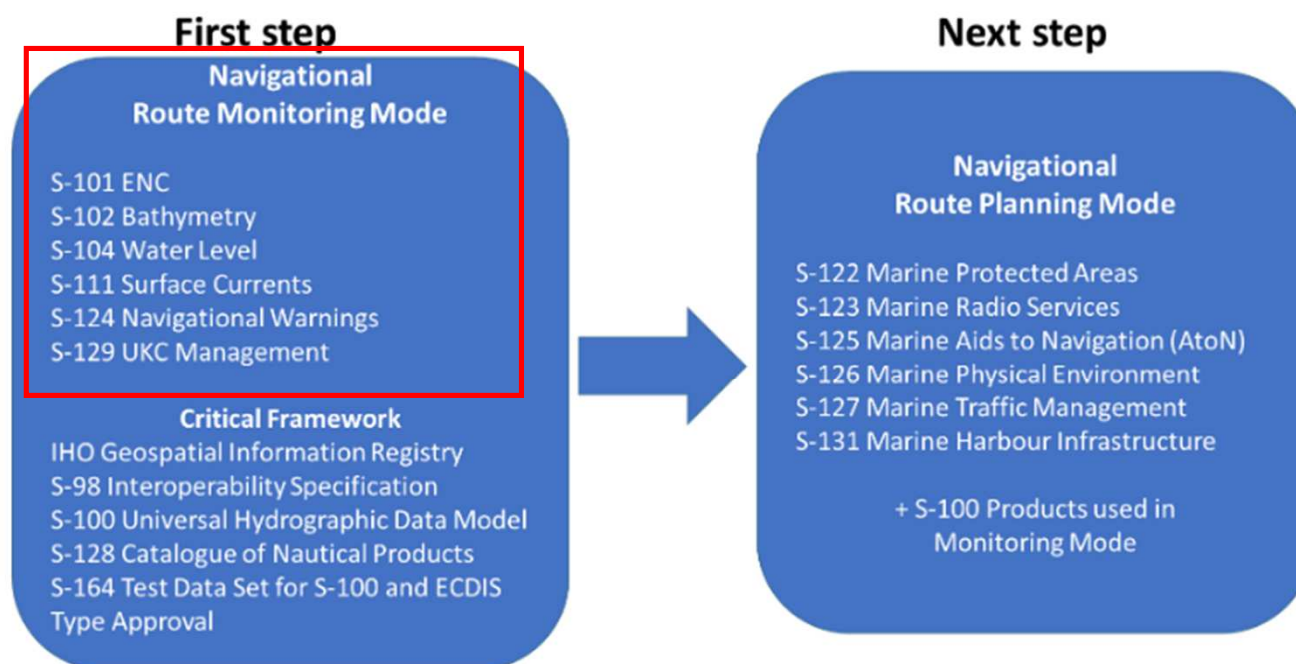


Figure 2 The IHO Navigational Package to be handled by the Interoperability Specification S-98. Additional layers may be added in the future.

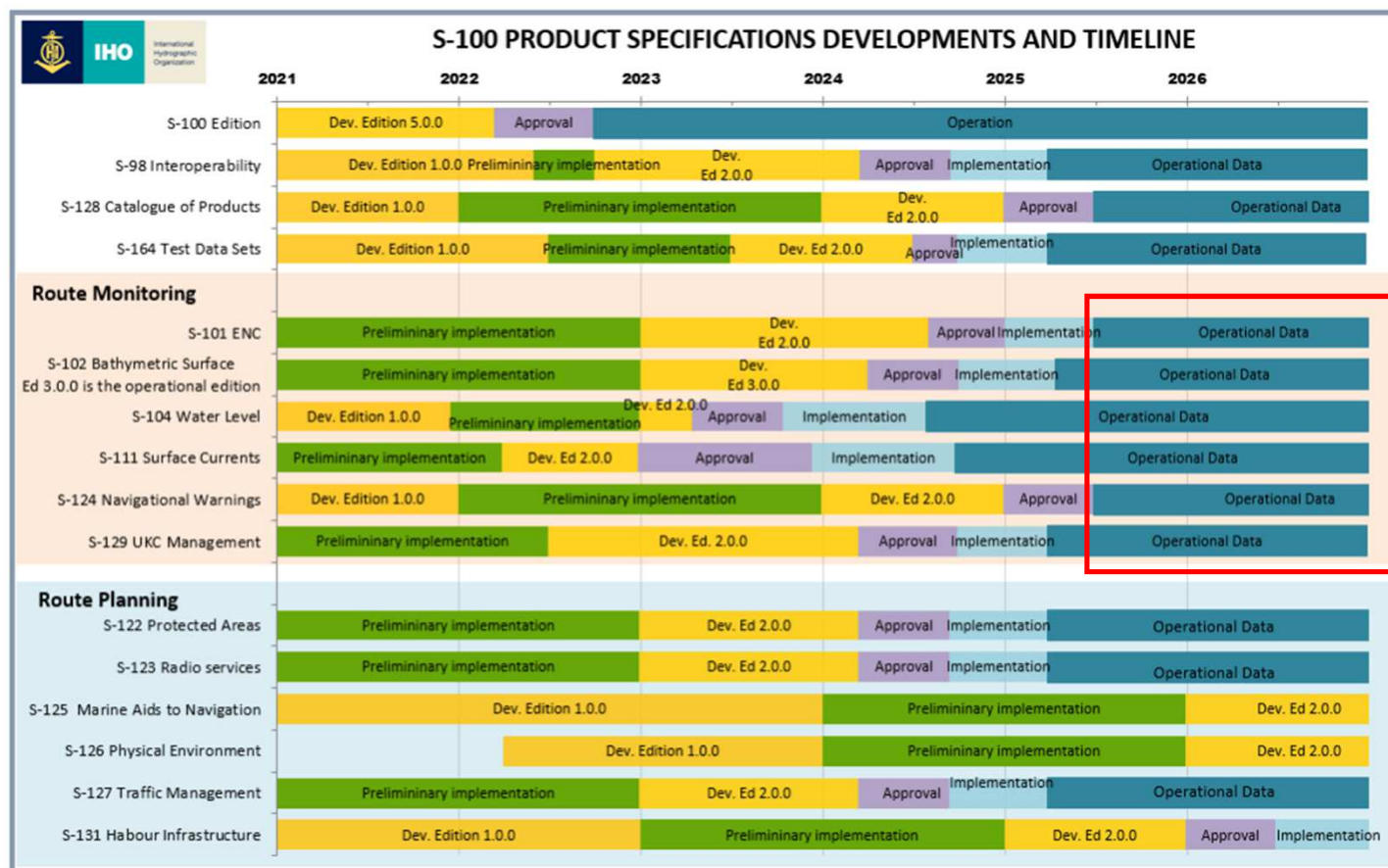
EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

6 - EVOLUTION OF THE ICCWG SCOPE REGARDING TO IHO STRATEGIC PLAN

• Roadmap for the S-100 Implementation Decade (2020-2030) – Annex 2 : S-100 Timelines



- Development of Edition 2.0.0 of S-101 Product Specification by the end of mid-2024
- Mid-2025 / 2026 > Start of the S-101 operational data production

- **Priority to put on S-101**
- To extend ICCWG scope to S-101 ENCs, the first step is to implement the S-57 ENC scheme via INTOGIS and to maintain it with **planned** and produced ENCs

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

6 - EVOLUTION OF THE ICCWG SCOPE REGARDING TO IHO STRATEGIC PLAN

International
Hydrographic
Organization

- Principles of the WEND for S-1xx products (Adopted - IHO CL 37/2021)

<https://iho.int/en/wendwg-repository>

5. Coordination of S-1XX products and dissemination services

5.5. Member States will address coverage of S-1XX products on a regional basis through Regional Hydrographic Commissions (RHCs), and the WENDWG will monitor the overall coverage on a global basis, reporting to IRCC .

5.6. The applicable RHC may facilitate arrangements for production and dissemination of S-1XX products. RHCs should engage with data owners, product and service providers, and other stakeholders as appropriate to ensure that a coordinated and cohesive regional approach is considered . Also, the existing RENC structure may facilitate co-operation between individual Member States and support RHC's to achieve appropriate S-1XX product coverage.

➤ Action WENDWG12/21

The WENDWG to invite IRCC / RHCs Reps to consider how they anticipate the role of S-100 Services Coordinator in their future (expansion of the role of Chart Coordinators, or establishment of a new function) ...

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

7 - PROPOSAL OF EXTENSION OF ICCWG TORS & ROPS

International
Hydrographic
Organization

- **Proposed Decision**

The EAtHC takes note of Action WENDWG12/21 and approves the extension of the scope of the region G ICCWG to the coordination of S-100 services.

- **Proposed Action**

Region G ICCWG to take propose to EAtHC a draft revision of its ToRs & RoPs to include coordination of S-100 services and study possible actions and/or recommendations for the benefit of EAtHC Members in the coming years.

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

International
Hydrographic
Organization

8 - WEND-100 PRODUCT MATRIX UN-GGIM IGIF

- **WENDWG Letter 02/2022 (10 August 2022) > S-100 Implementation – WEND100-IGIF Matrix**

https://iho.int/uploads/user/Inter-Regional%20Coordination/WEND-WG/WENDWG%20Letters/WENDWG_CL02_2022_EN_WEND100-IGIF_Matrix%20Letter.pdf

Designed using the United Nations Committee of Experts on Global Geospatial Information Management (UNGIM) Integrated Geospatial Information Infrastructures' (IGIF) 9 strategic pathways as a guide

Intention: to help ensure that we are not leaving individual Member States or Regions behind as we progress through the S-100 Implementation Decade and that we work to ensure that geospatial best practices are being considered and agreed upon as new S-100 products are made available

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

8 - WEND-100 PRODUCT MATRIX UN-GGIM IGIF

- Evaluation of **7 S-1XX** (S-101, S-102, S-104, S-111, S-122, S-124 & S-128) and **MSDI** on **9 criteria** :
 - Governance and Institutions
 - Policy and Legal
 - Data
 - Financial
 - Innovation
 - Standards
 - Partnerships
 - Capacity and Education
 - Communication and Engagement

Each criteria has **5 levels** depending on the state of progress

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

International
Hydrographic
Organization

8 - WEND-100 PRODUCT MATRIX UN-GGIM IGIF

- **First step :**

To decide who is concerned by the implementation of this matrix and to task them to think about an implementation strategy

- **Proposed Decision**

The EAtHC instructs the Region G ICCWG Members to develop a regional strategy to implement the WEND-100 IGIF matrix.

- **Proposed Action**

RCC to organize a dedicated ICCWG Workshop on the implementation of the WEND-100 IGIF Matrix and more generally on the S-100 implementation on the EAtHC Region.

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

International
Hydrographic
Organization

9- UKHO'S INTENTION TO WITHDRAW FROM PAPER CHART PRODUCTION : IMPACT ASSESSMENT AND TRANSITION PLAN FOR REGION G

- **UKHO announces intention to withdraw from paper chart production**
 - **Fully digital chart portfolio by end of 2026**

<https://www.gov.uk/government/news/ukho-announces-intention-to-withdraw-from-paper-chart-production>

- **Opened questions :**

- How many African ports are now using ENC's for traffic control ?
- Consequences where UKHO is PCA ?
- Consequences on reproduction agreements for paper charts used by commercial shipping ?
- What will happen to SOLAS ships using back-up paper charts in the area ?
- How this will impact the INT charts and consequently on the INT scheme ?

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022



IHO

International
Hydrographic
Organization

10 - ACTIONS REQUESTED FROM EATHC17

1. To take note of this report
2. To consider the proposal of new Permanent Action for the update of WPI
3. To consider the extension of the scope of Region G ICCWG to S-1xx Products coordination as proposed in item 7
4. To task ICCWG to review its current ToRs & RoPs to extend the scope to S-1xx coordination and to propose a draft version to the EAtHC Chair as proposed in item 7
5. To task ICCWG to study the way forward to prepare the future coordination of S-100 services, with the support of the IHO Secretariat, for the benefit of EAtHC Members
6. To endorse the proposed decision and action about WEND-100 IGIF Matrix

THANK YOU

EAtHC17, Hybrid, Mindelo, 28 - 30 September 2022