21th Conference of MBSHC
11 – 13 June 2019 (Cádiz, España (Spain))

IHO Work Programme 1 – "Corporate Affairs"

Information Management (IHO Website, IHO GIS,…)

(Agenda items MBSHC21-04.2)

IHO Secretariat

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Single Interface to IHO GIS Applications

IHO Country Information Database

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Actions to be considered by MBSHC

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Principles in Doc. MBSHC20-04.2 still applicable…

… but important evolutions in preparation

Sir ns

International Hydrographic Organization
Organisation Hydrographique Internationale

ENGLISH FRANÇAIS

Home | Letters & Documents | Standards & Publications | Committees & WG | Capacity Building | ENCs, ECDIS & S-100 | IHO Calendar | External Liaisons | IHO Membership | IHO GIS

Website Content Alert Service
- Website Content Alert Service

Upcoming Events/Evénements à venir
- Upcoming Public Events / Evénements publics à venir
- IHO Meetings & Events / Réunions & Evénements OHI

World Bathymetry
- The IHO DCDB
- IHO GIS
- Download World Bathymetric Data
- Contribute ENC Data to GEBCO

IHO Disclaimer, Privacy and Copyright Notice
- IHO Disclaimer, Privacy and Copyright Notice

You are here: Home > IHO GIS

GIS / SIG

Search
Search ... Go

IHO Geographic Information System	*Système d'information géographique de l'OHI*
Country Information System	*Système d'information sur les pays*
• IHO Membership	• *Composition de l'OHI*
• MSDI National Geoportals	• *Geoportails MSDI nationaux*
Regional Information Systems	*Systèmes d'information régionaux*
• Antarctic GIS	• *SIG Antarctique*
Chart Information Systems	*Systèmes d'information sur les cartes*
• INTernational Chart GIS	• *SIG des cartes INTernationales*
• IHO ENC Catalogue	• *Catalogue des ENC de l'OHI*
• Undersea Feature Name Gazetteer	• *Index des noms des formes du relief sous-marin*
Capacity Building Information	*Information sur le renforcement des capacités*
• CHART Project	• *Projet CHART*
World Bathymetry Information	*Bathymétrie mondiale*
• IHO Data Centre for Digital Bathymetry (DCDB)	• *Centre de données de l'OHI pour la bathymétrie numérique (DCDB)*
• Contribute ENC data to GEBCO	• *Contribuer des données ENC pour la GEBCO*

Last Updated: 17 May 2017

Menu | IRCC | IHB File N° TA-006-S1/302 | IHO Country Information S

Customize and control Opera

cis.monaco.ihb.mc/newcis/IHOCIS.php

BBR | ADCC | Busca | Langue | GIS | IHB | IHO | Finanças | Others | Home | Reisswolf-cagi2018 | Les routes de l'esclav | Alexis ROSENFELD - I | Garmin

IHO
Country Information System

Country / Area index

select the country

Download P5 from IHO website

Download Member State map

Download CSV data set

Download PDF data set

Display change logs

Register information

Publish files

Tutorial

Administrator

Charts diplaying maritime boundaries are for **INTERNAL IHO SECRETARIAT USE ONLY**

Country map | C55 Charting | C55 Surveying | C55 GMDSS | C55 Warnings | CATZOC | Boundary | RHC | Other GISs | Reset Token

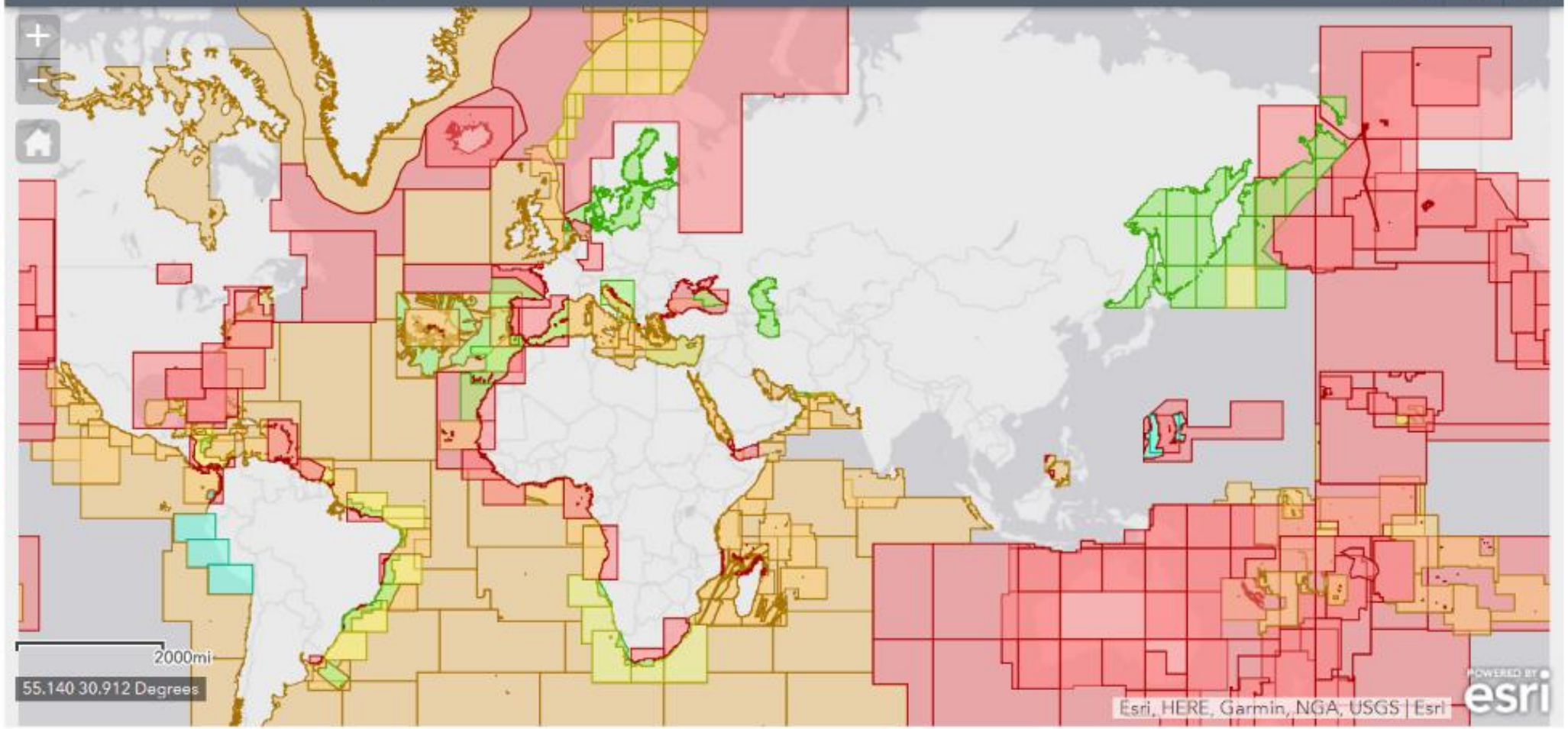
All (simplified) | GB charts extcd. | GB charts orig. | Un-assessed | Antarctic

UB1 simplified | UB2 simplified | UB3 simplified | UB4 simplified | UB5 simplified | UB6 simplified

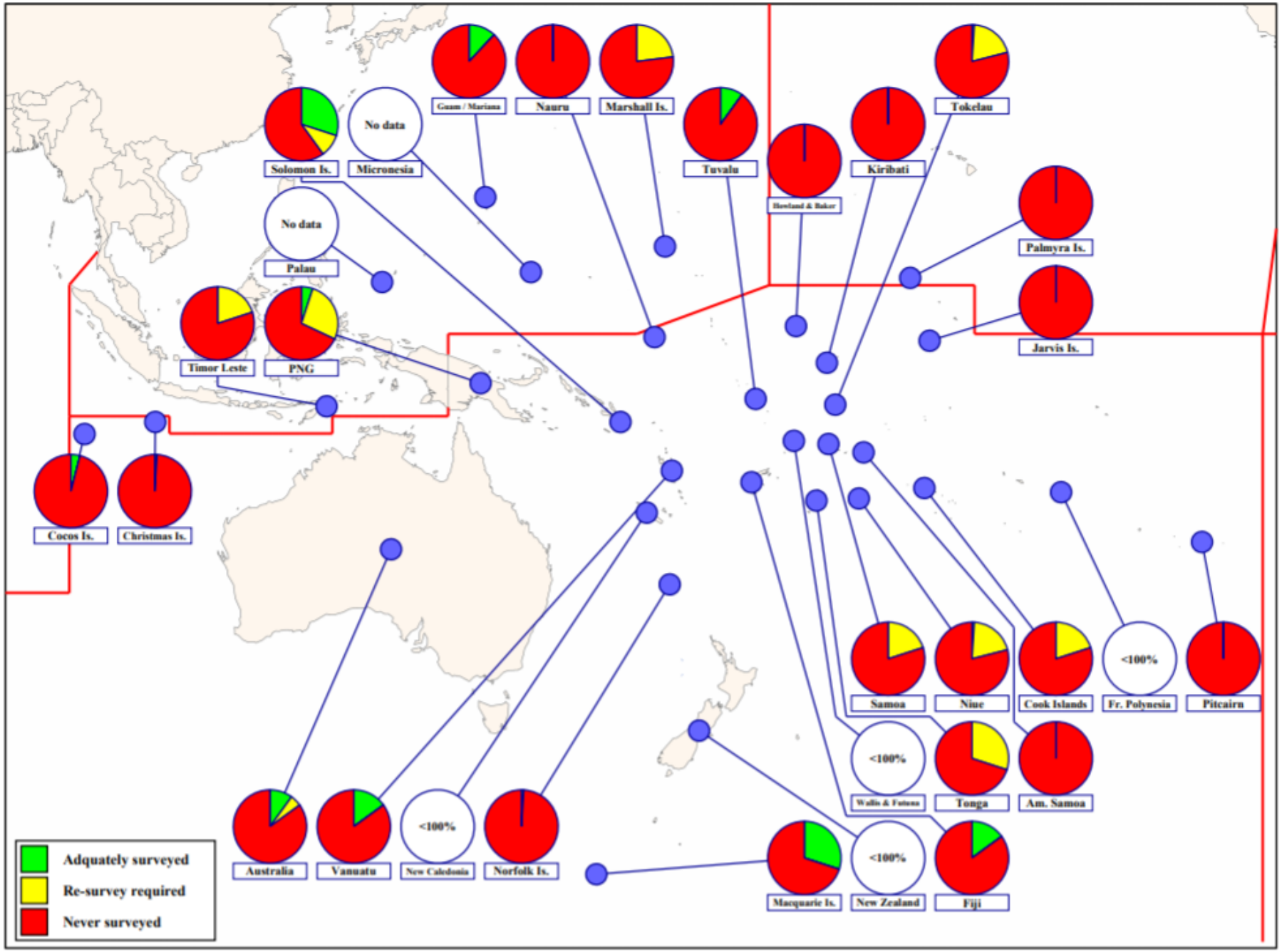
Set center Lat Lon Level 0

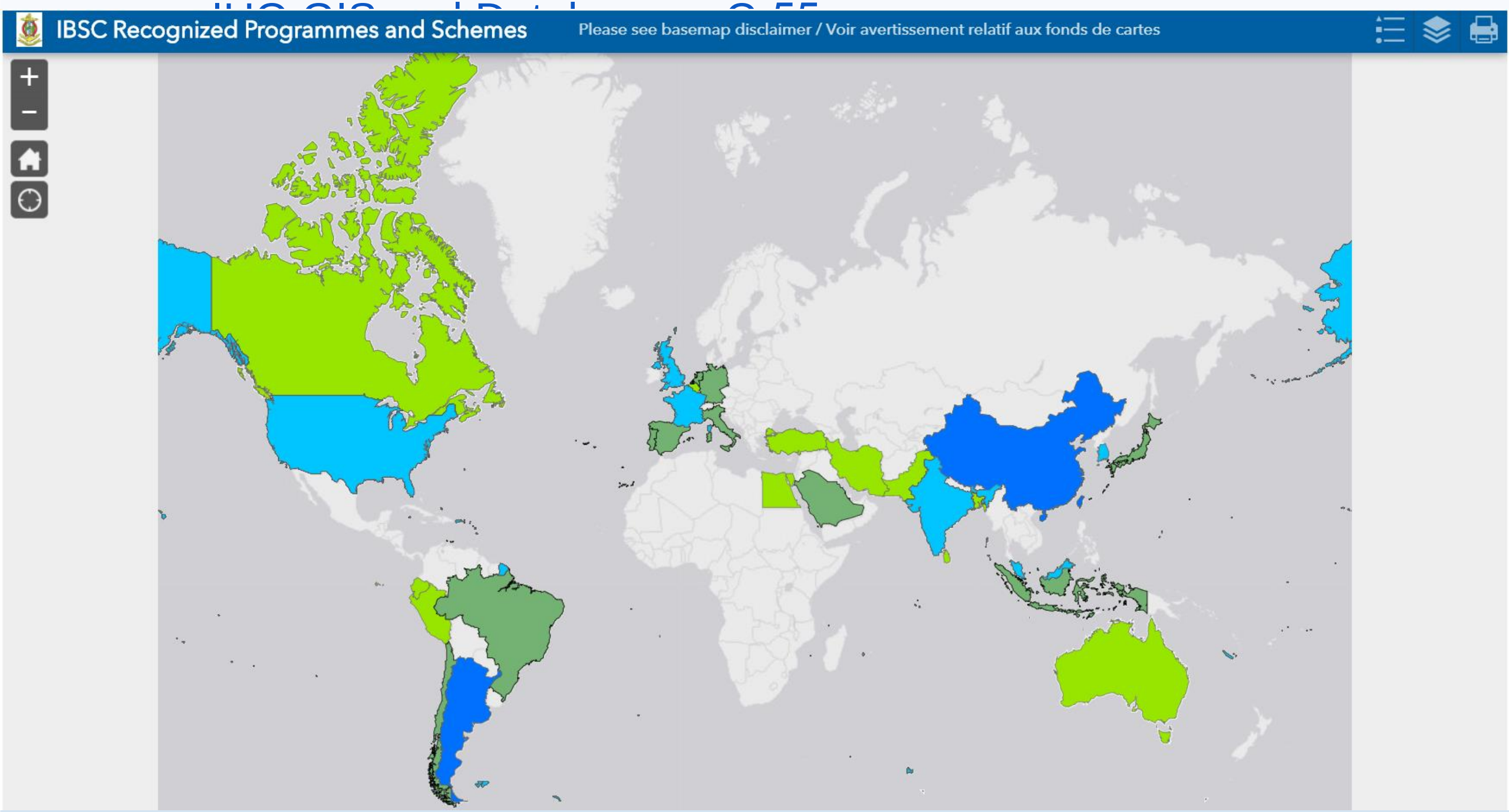
CATZOC All UB (Feb 2018)

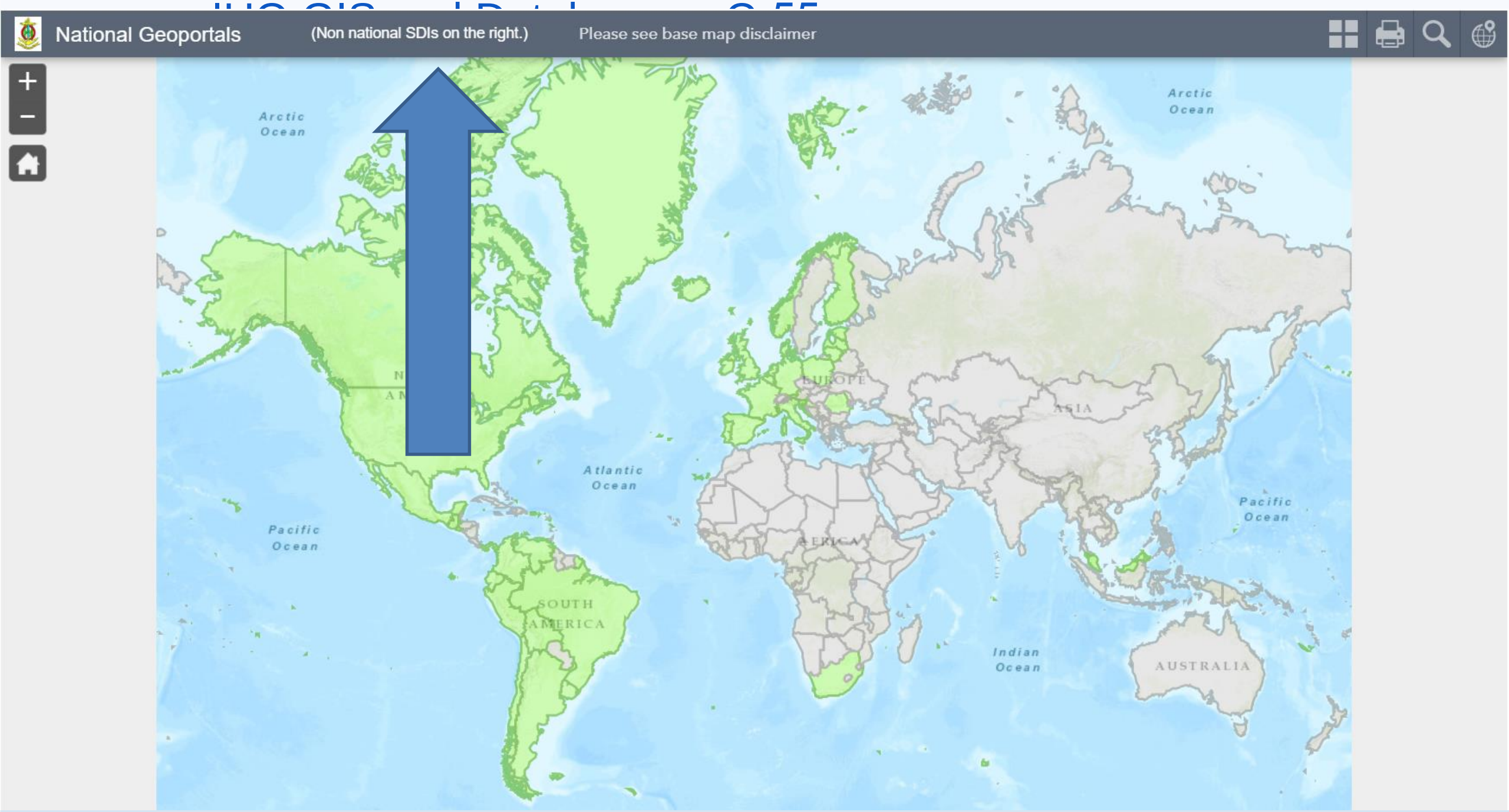
Please see base map disclaimer / Voir avertissement relatif aux fonds de cartes

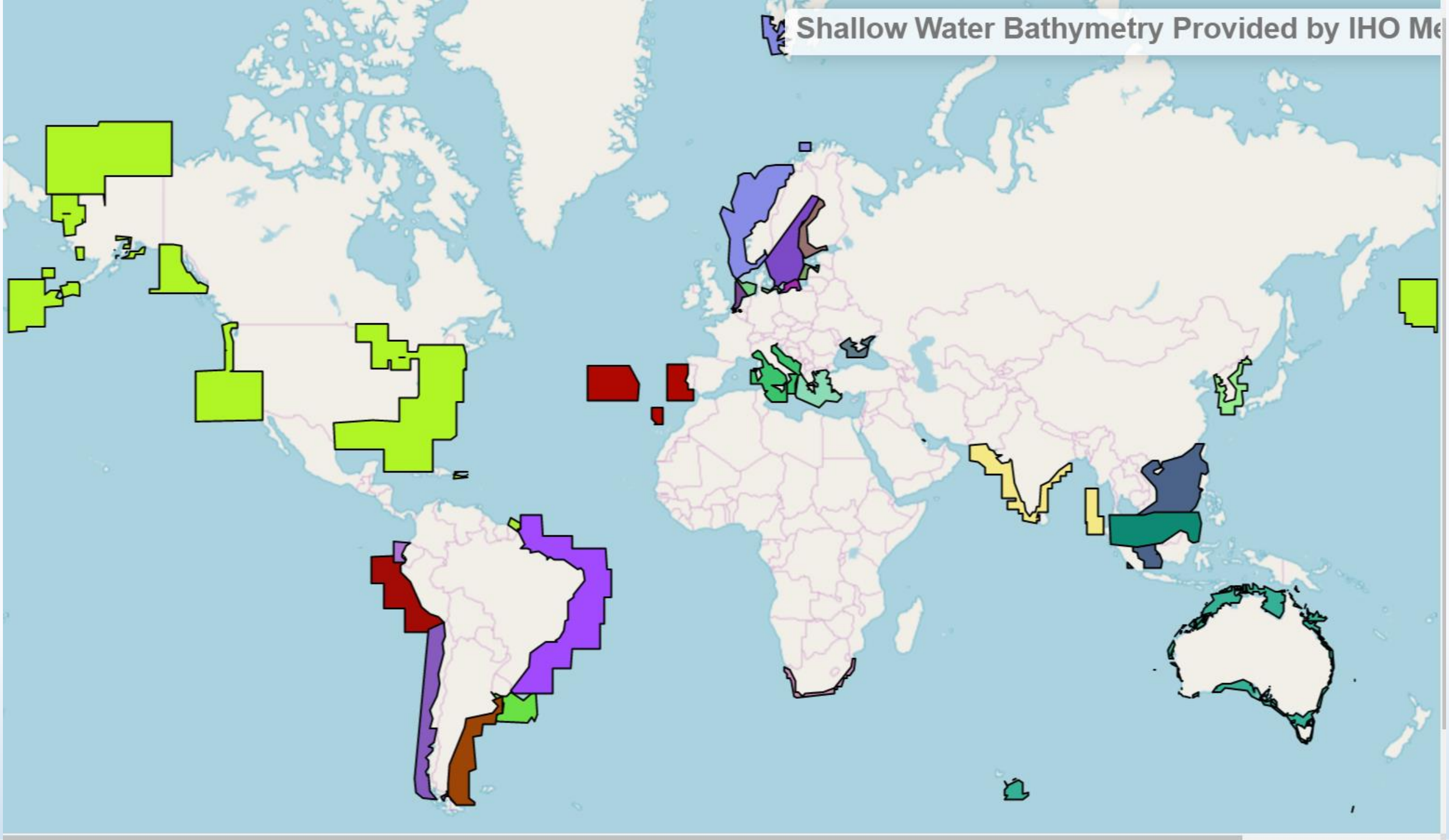


SWPHC - Survey in deep water (>200 m) -




IBSC Recognized Programmes and Schemes
Please see basemap disclaimer / Voir avertissement relatif aux fonds de cartes

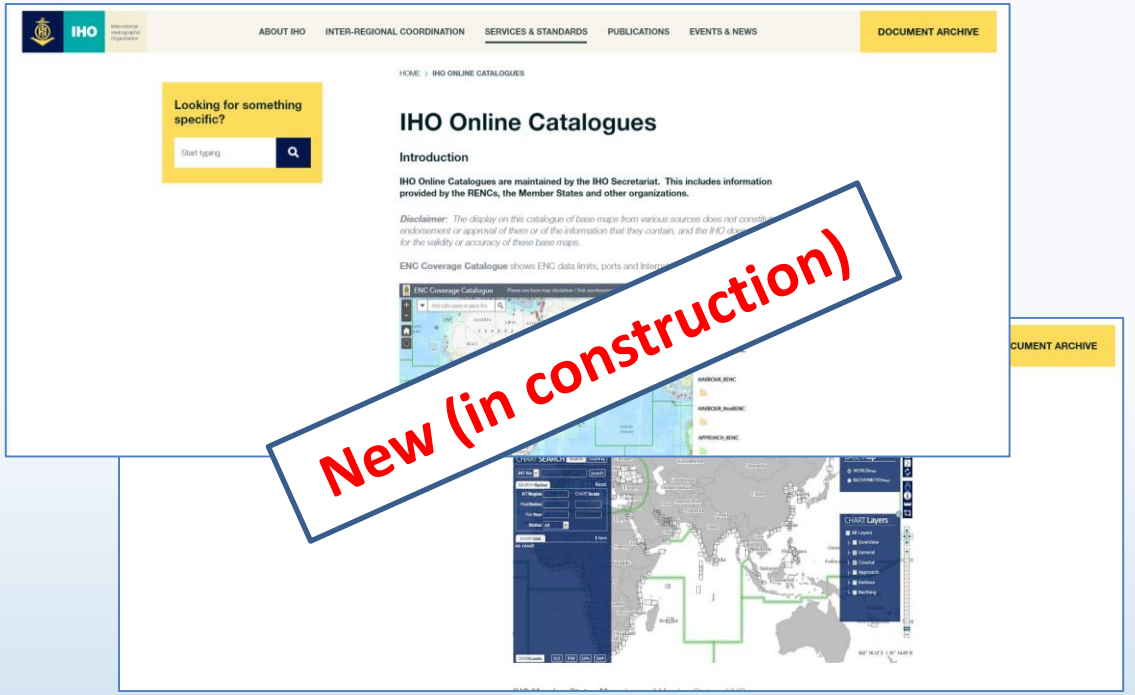

National Geoportals
(Non national SDIs on the right.)
Please see base map disclaimer
Arctic Ocean
Arctic Ocean
EUROPE
ASIA
Atlantic Ocean
Pacific Ocean
Pacific Ocean
AFRICA
SOUTH AMERICA
Indian Ocean
AUSTRALIA


Shallow Water Bathymetry Provided by IHO Me

New IHO website (in progress)

- In accordance with the new branding material of IHO (ref. IHO CL 24/2019), the new IHO website is being developed. (estimated to launch in Dec.)

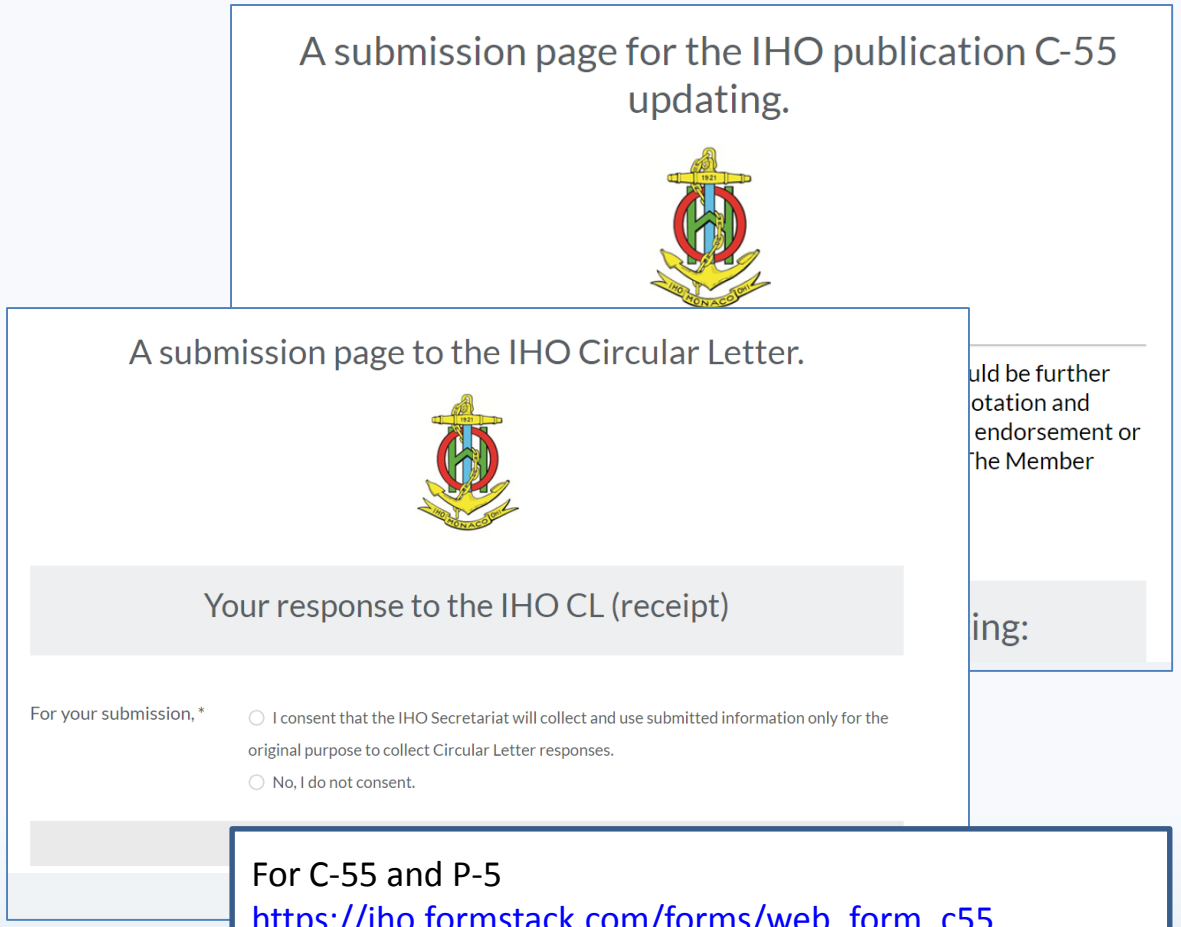
- In the new website which is expected to improve user experience, all IHO-GIS services will be available in a single page with intuitive images.



IHO Online form system launched. (ref. IHO CL 20/2019)

- Member States are now invited to submit information for updating **C-55** and **P-5** “Yearbook” as well as CL responses through the system. (Password already announced.)

- Please put two email addresses (personal and official HO address listed in P-5) for credibility.
- Internet Explorer is not supported.
- Submission via fax, email etc. is still available.



IHO Online form system launched. (ref. IHO CL 20/2019)

- A PDF receipt (right) will be sent to the two addresses for record and the declared email addresses will be checked with Yearbook. In a few days, the submitted data will be reflected to the publications.

- Member States are kindly requested to keep updating the information on Yearbook (P-5).

Submission Time: January 31, 2019 4:08 pm
Unique ID: 474119437

Your response to the IHO CL (receipt)

The IHO Secretariat will collect and use submitted information only for the original purpose to collect Circular Letter responses. Do you agree with it?	Yes, I agree.
IHO CL number	9999/2019
	JP | Japan
Data provider's Name	Mr Test Person
Data provider's email address	naohiko.nagasaka@iho.int
Official email address of the hydrographic organization	naohiko.nagasaka@iho.int
Organization to which data provider is belonging	Test Organization
Phone of data provider	+377 93 10 81 00
Department, division of data provider	Test Department
Position or job title of data provider	Test Position

Q1

Does your country agree to the revision of IHO publication C-999?	Yes

Q2

Does your country have any idea on blahblah?	This is a test comment! French, Spanish characters also accepted! Ç é â, ê, î, ô, û à, è, ù!!

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Background information

Objective of the IHO ENC Catalogue

IMO NCSR 1/WP.8* “ECDIS – Guidance for Good Practice”

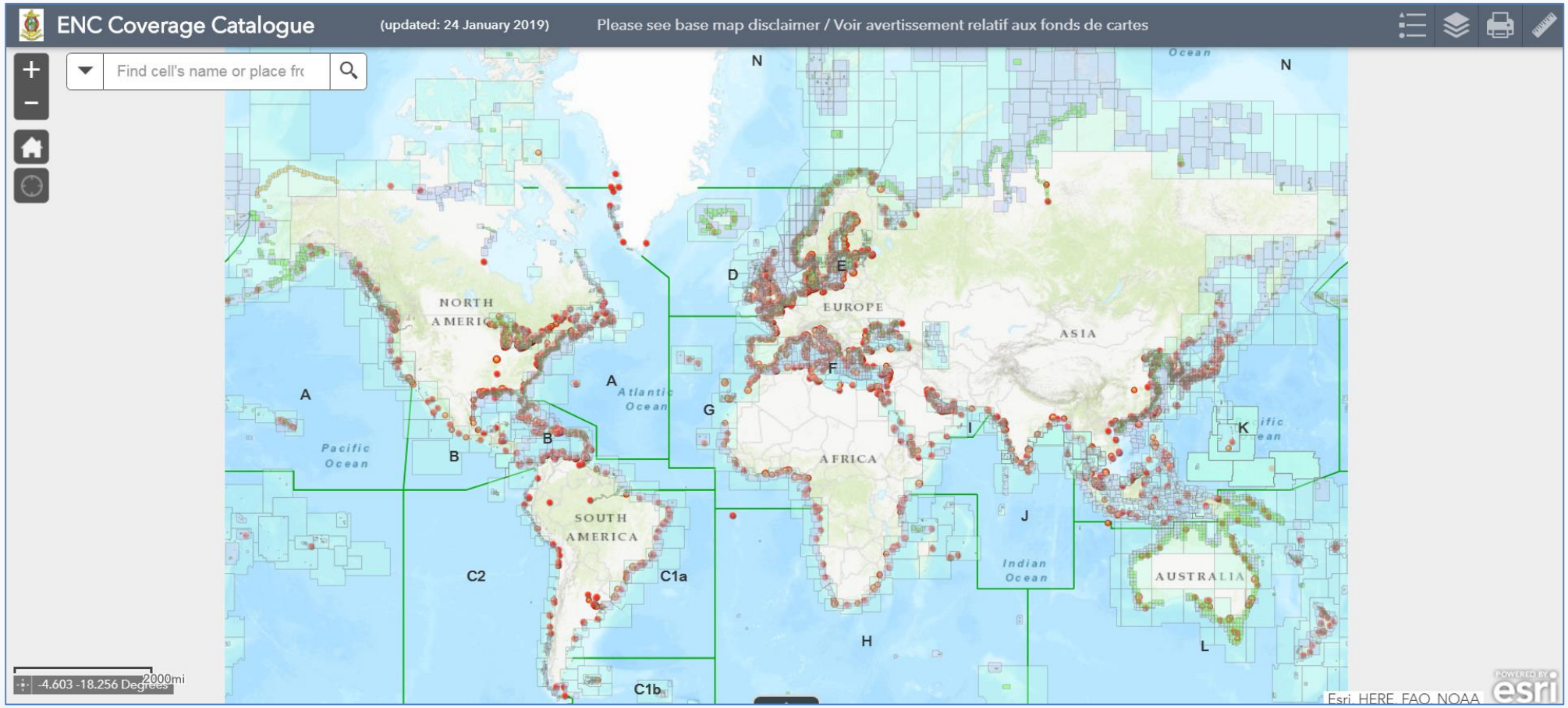
“…

The IHO provides an online chart catalogue that details the coverage of ENCs together with references to coastal state guidance on any requirements for paper charts (where this has been provided). The catalogue also provides links to IHO Member States’ websites where additional information may be found. The IHO online chart catalogue can be accessed from the IHO website.

…”

***now superseded by **MSC.1/Circ. 1503/Rev.1**, 16 June 2017

Background information



www.iho.int > ENCs & ECDIS > ENC Availability

Background information

WENDWG8/10

“…

The WENDWG agreed to commission the new and more comprehensive version of the IHO ENC Coverage Catalogue as presented at WENDWG-8. …”

Improvements on IHO ENC Catalogue

More frequent updating (monthly to weekly)

Cells derived from RENC and Non-RENC are integrated

IC-ENC data and PRIMAR data are used for the updating

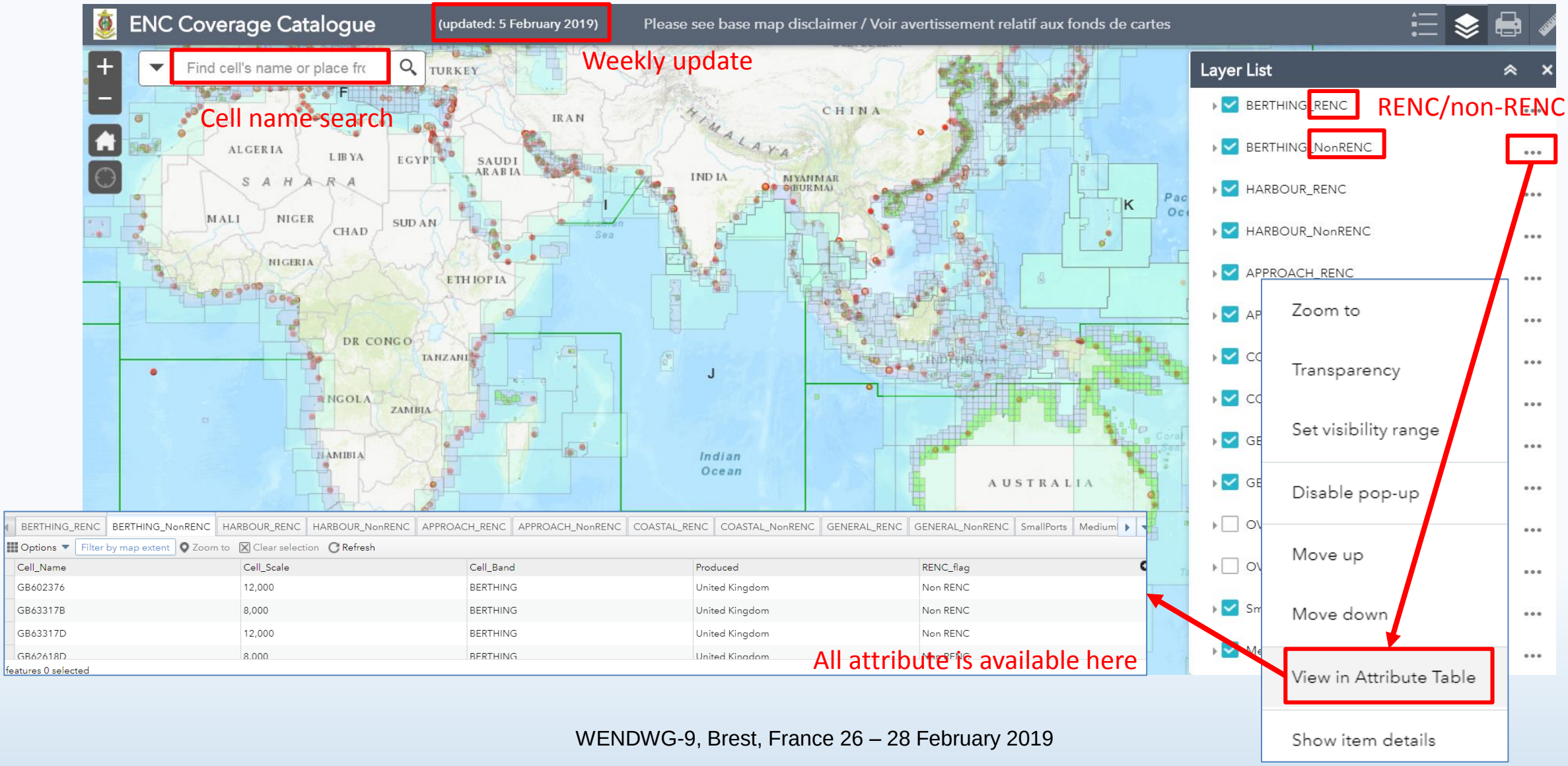
The classification is based on:

"RENC Update of the Data Flow Diagram"

Search function for cell names, attribute table is available

ENC database alignment with INToGIS II is in progress

Improvements on IHO ENC Catalogue



For more connected GIS services

Data pro vider

RENC

CATZOC

ENC coverage

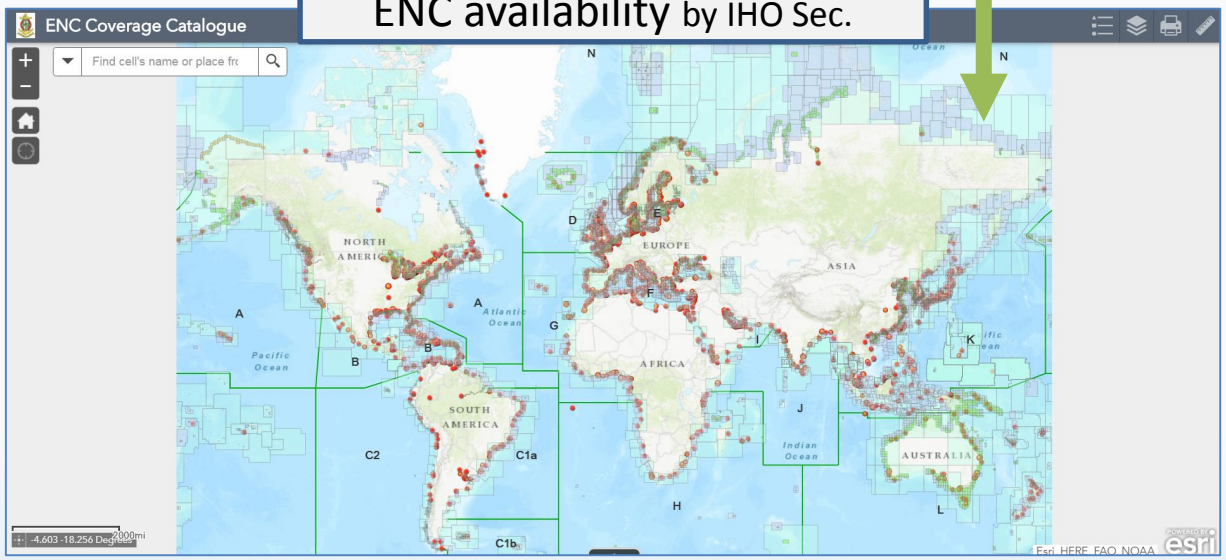
?

?

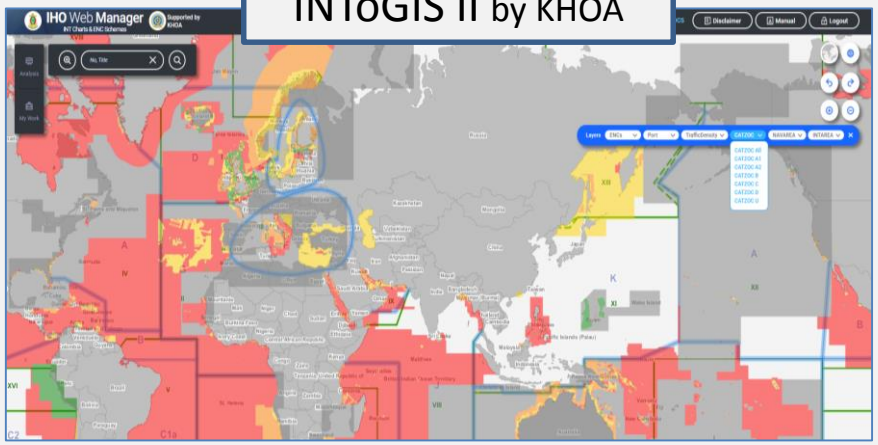
IHO GIS

IHO Sec. only

ENC availability by IHO Sec.

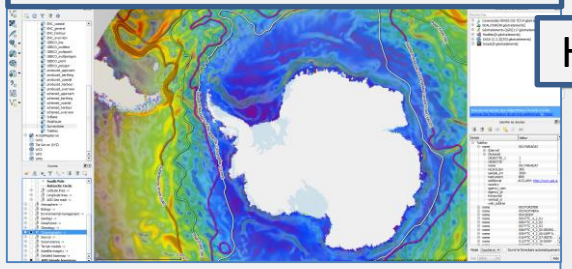


INToGIS II by KHOA

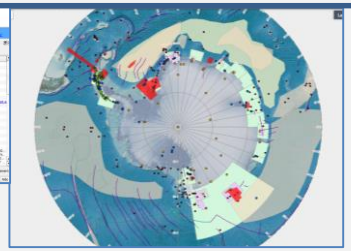


Quantarctica

by Norwegian Polar Institute



HCA GIS by IHO Sec.



Way ahead

Link the IHO ENC Catalogue and the **INT Chart & ENC Schemes Web Catalogue**
→ **In progress** (Reference: INToGIS Phase II Project), Charting Regions, etc.

Improve the automated generation of IHO Performance Indicators and information to be reported to IMO (NCSR)
→ **On hold**, waiting for outcomes of the Strategic Plan Review WG

Improve display to align with ENC Data Flow Diagram
→ **Done,** developed by RENCs in liaison with IHO Secretariat

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Background (1/2)

- **Purpose** of the INToGIS Project
  - Support **International Chart and ENC Scheme** of S-11
  - Provide **systematic management procedures** and functionality
  - **Share the digital data** among the IHO MSs and other parties with common data format such as EXL, SHP and GML (S-128)

- **History**
  - INToGIS Project I (2014 ~ 2015) : INT chart web-service and management via web system
  - Operation started since early 2016
  - INToGIS Project II (2017 ~ 2018) : adding ENC schemes to the system and overlay information, and improve the GUI

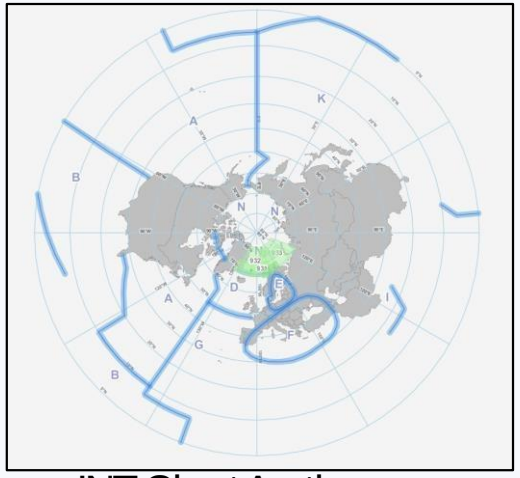
Background (1/2)

- **Key features for the Project II**
  - Base map for **Polar regions** (Artic & Antarctic)
  - **ENC scheme** management procedures (S-11 Part 1 Ed. 3.1.0)
  - **Additional layers** for 500 world ports and AIS traffic density
  - Set up **maintaining ENC catalogue** with IHO ENC catalogue data
  - Improve the chart **display functions**
  - **User Feedbacks** from HOs, regional coordinators (experimentation phase; late 2018), thanks to EAtHC&MBSHC (France), ARHC (Norway), BSHC (Finland)
  - And other improvements

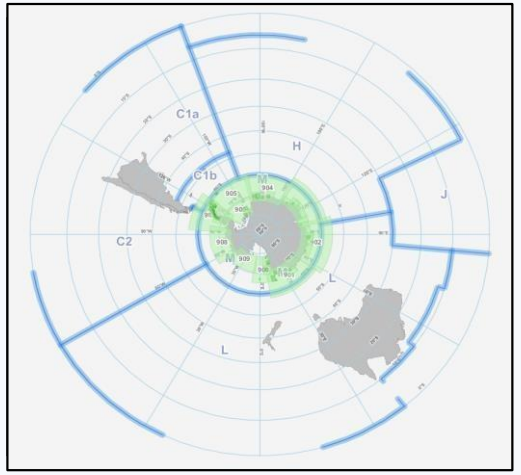
Improvement (1/9)

1. Base map of Polar region

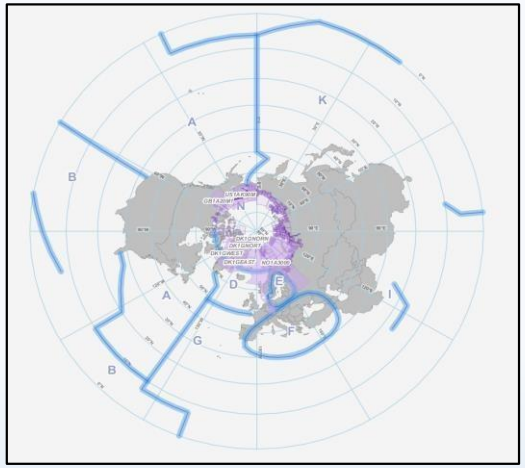
- Both INT Chart and ENC Scheme
- Apply to the management procedures
- Adding regional boundaries (feedback)



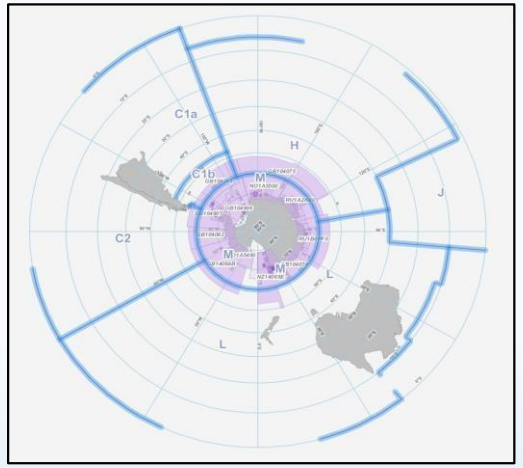
INT Chart Arctic



INT Chart Antarctic



ENC Scheme Arctic

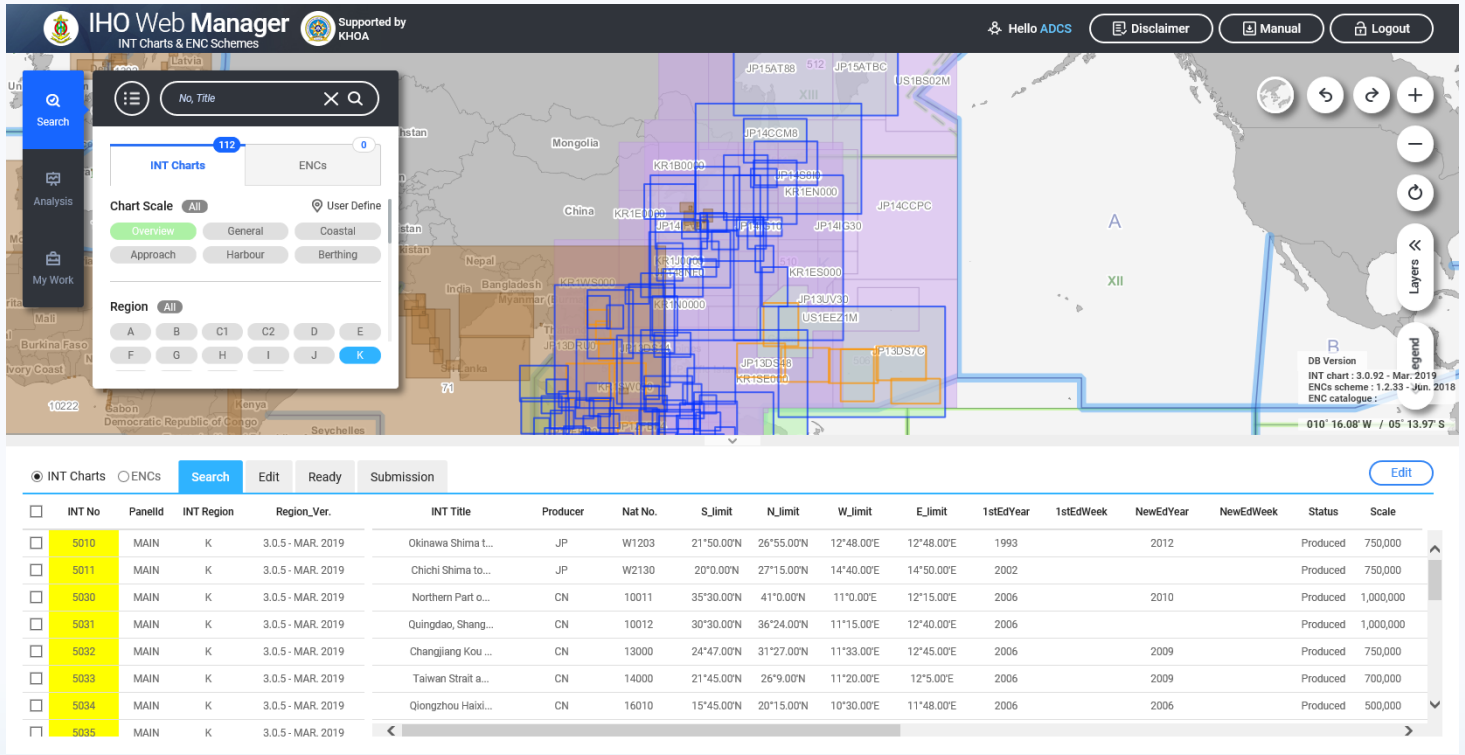


ENC Scheme Antarctic

Improvement (2/9)

2. ENC Scheme Management procedure

- Management workflow (HO →ICCWG→IHO Sec.→DB)
- Search options / Various Base Maps / Database for ENCs



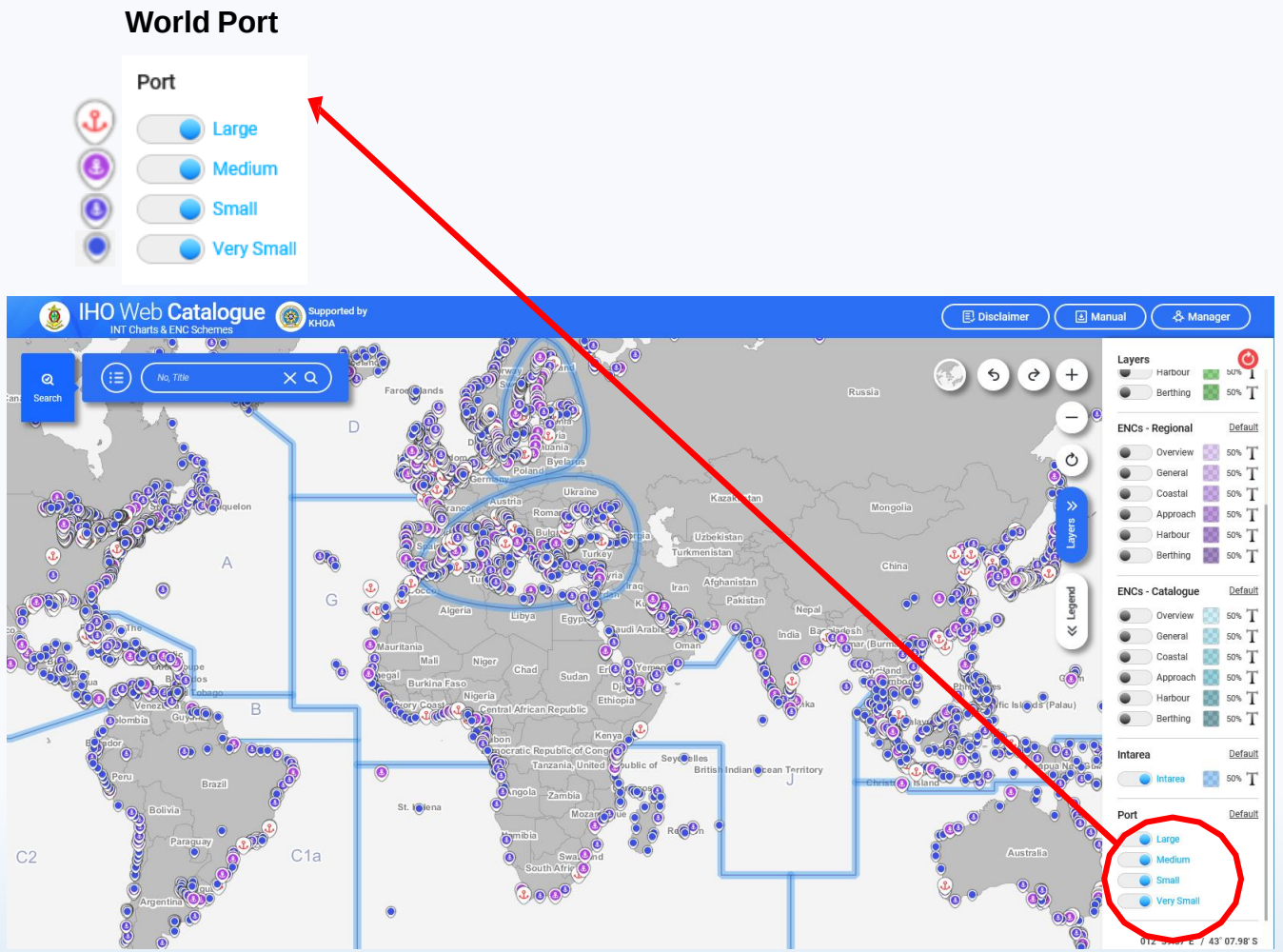
INT No	PanelId	INT Region	Region_Ver.	INT Title	Producer	Nat No.	S_limit	N_limit	W_limit	E_limit	1stEdYear	1stEdWeek	NewEdYear	NewEdWeek	Status	Scale
5010	MAIN	K	3.0.5 - MAR. 2019	Okinawa Shima t...	JP	W1203	21°50.00'N	26°55.00'N	12°48.00'E	12°48.00'E	1993		2012		Produced	750,000
5011	MAIN	K	3.0.5 - MAR. 2019	Chichi Shima to...	JP	W2130	20°0.00'N	27°15.00'N	14°40.00'E	14°50.00'E	2002				Produced	750,000
5030	MAIN	K	3.0.5 - MAR. 2019	Northern Part o...	CN	10011	35°30.00'N	41°0.00'N	11°0.00'E	12°15.00'E	2006		2010		Produced	1,000,000
5031	MAIN	K	3.0.5 - MAR. 2019	Quingdao, Shang...	CN	10012	30°30.00'N	36°24.00'N	11°15.00'E	12°40.00'E	2006				Produced	1,000,000
5032	MAIN	K	3.0.5 - MAR. 2019	Changjiang Kou ...	CN	13000	24°47.00'N	31°27.00'N	11°33.00'E	12°45.00'E	2006		2009		Produced	750,000
5033	MAIN	K	3.0.5 - MAR. 2019	Taiwan Strait a...	CN	14000	21°45.00'N	26°9.00'N	11°20.00'E	12°5.00'E	2006		2009		Produced	700,000
5034	MAIN	K	3.0.5 - MAR. 2019	Qiongzhou Haixi...	CN	16010	15°45.00'N	20°15.00'N	10°30.00'E	11°48.00'E	2006		2006		Produced	500,000
5035	MAIN	K	3.0.5 - MAR. 2019													

Improvement (3/9)

3. World Port layer

Size Code	Count	Harbor Size
L	159	Large
M	362	Medium
S	992	Small
V	2166	Very Small

Source from NGA

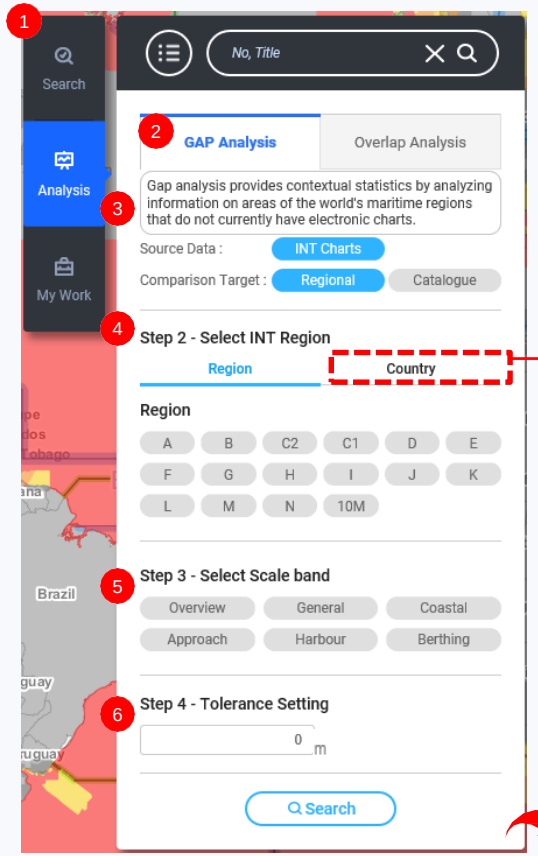


Improvement (4/9)

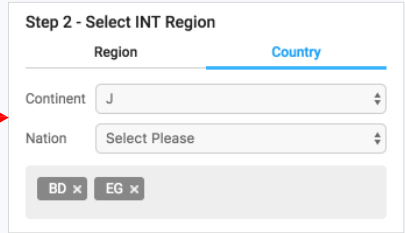
4. ENC scheme : Gap finder

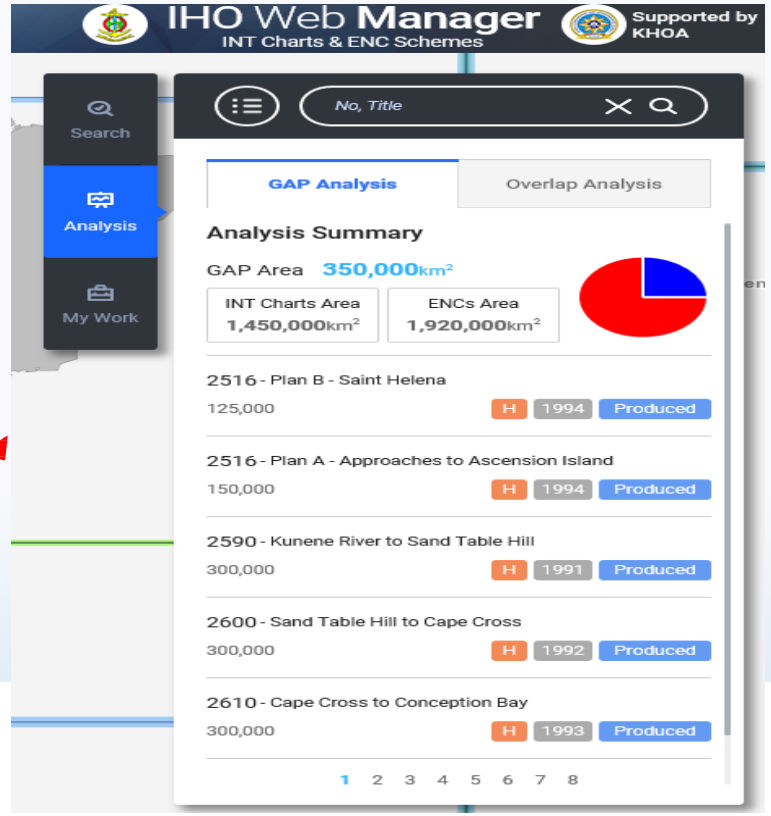
- Comparison between ENC and INT Chart coverage as reference

Analysis button: Show analysis window
Gap Analysis Menu: Show detailed conditions for gap analysis
Step 1: Select an INT chart and ENC to be analyzed
Step 2: Select INT Region or country
Step 3: Select a scale
Step 4: Set tolerance (+ / -)



* Select a country

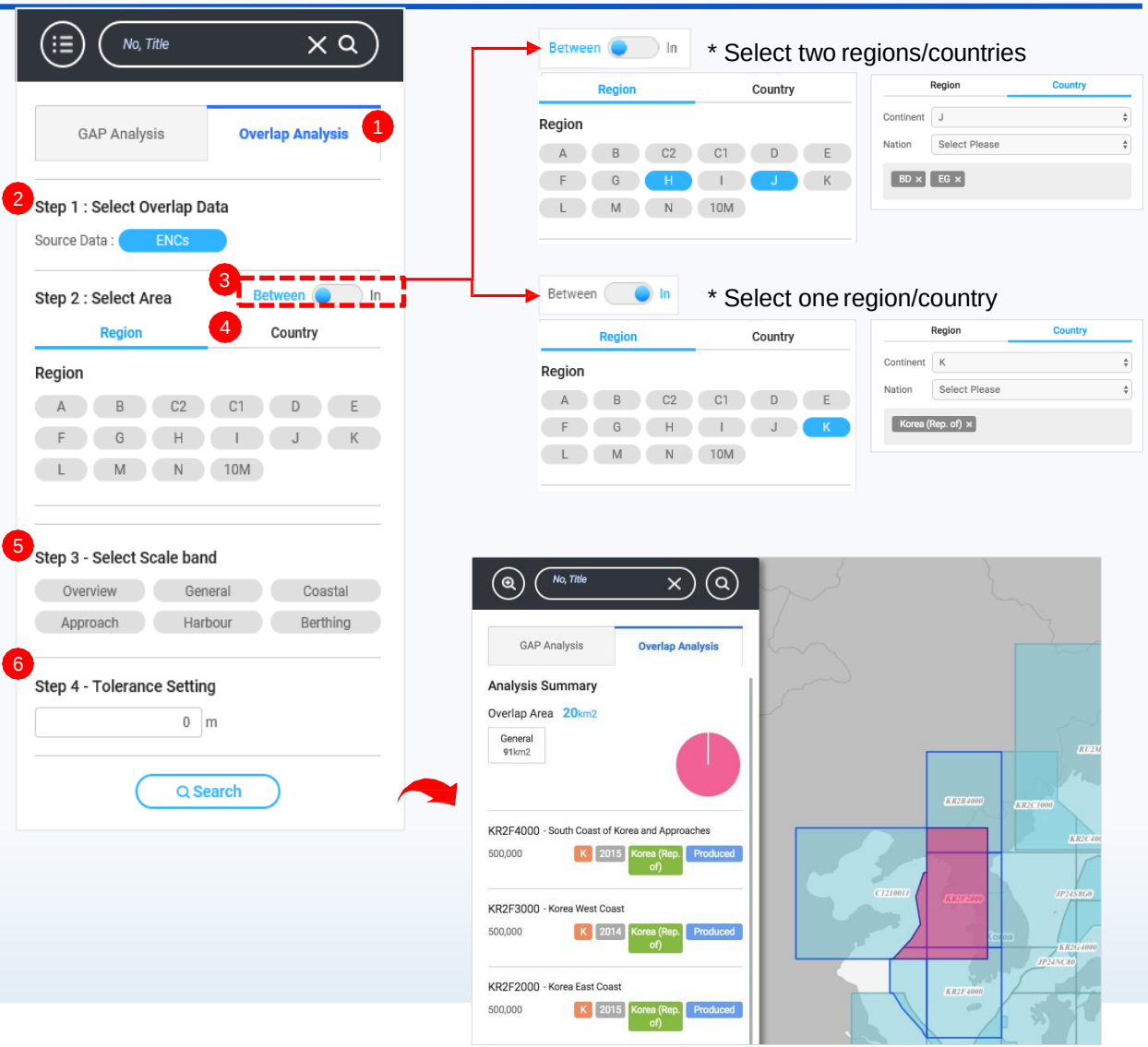




Improvement (5/9)

5. ENC scheme :

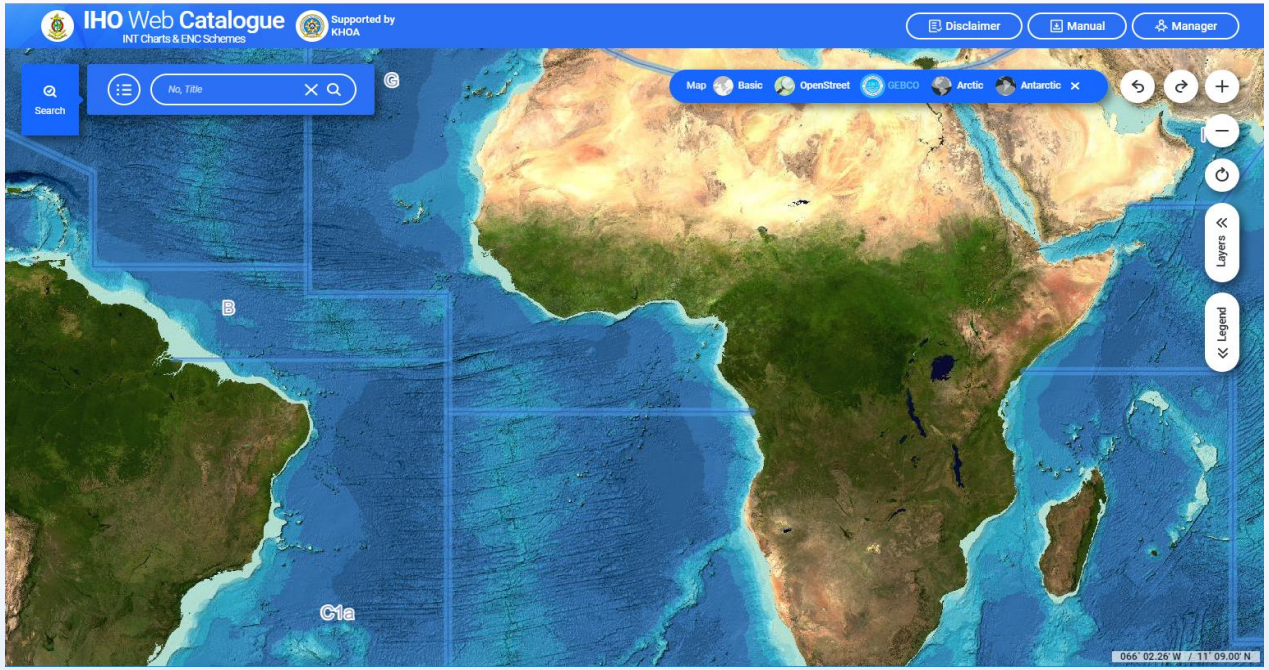
Overlapping checker (inc. with adjacent charting regions)



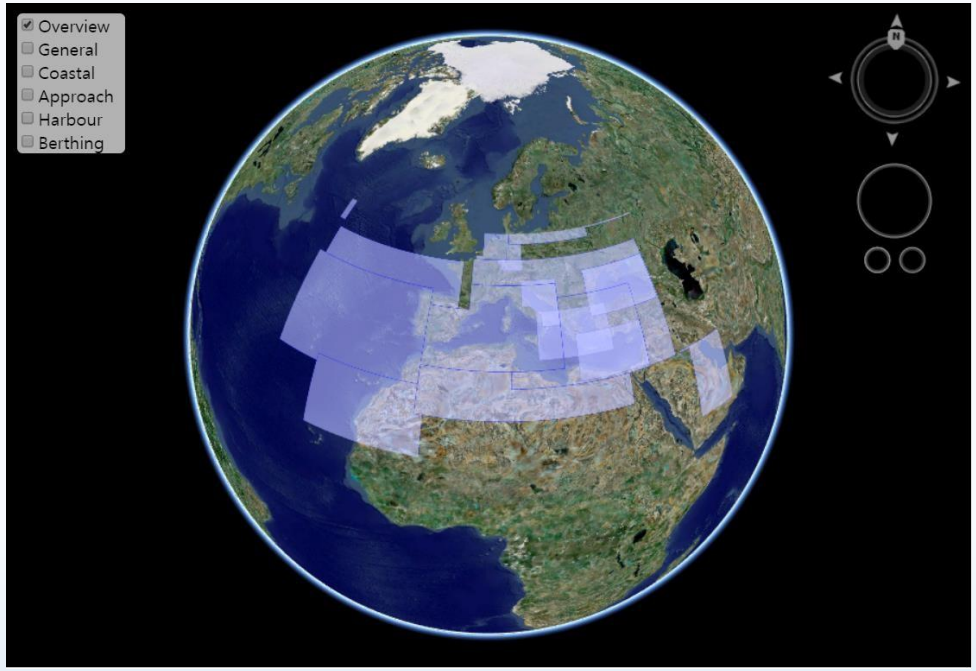
Improvement (6/9)

6. Other improvements

1) GEBCO Base Map



2) 3D Globe (removed)

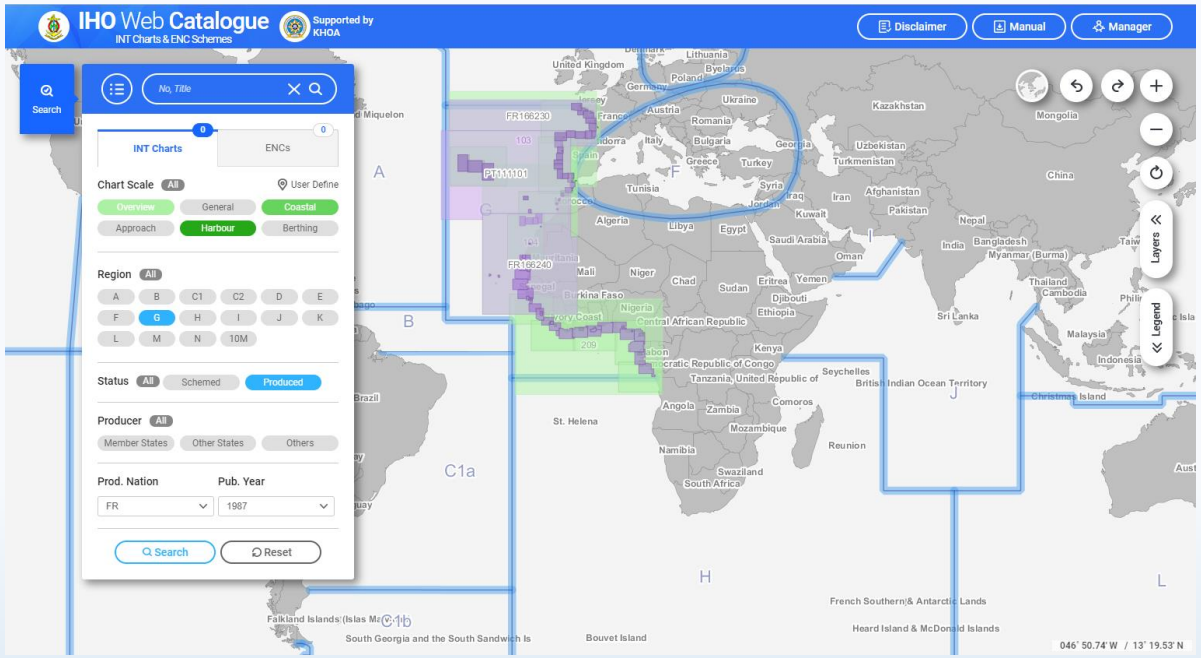


Improvement (7/9)

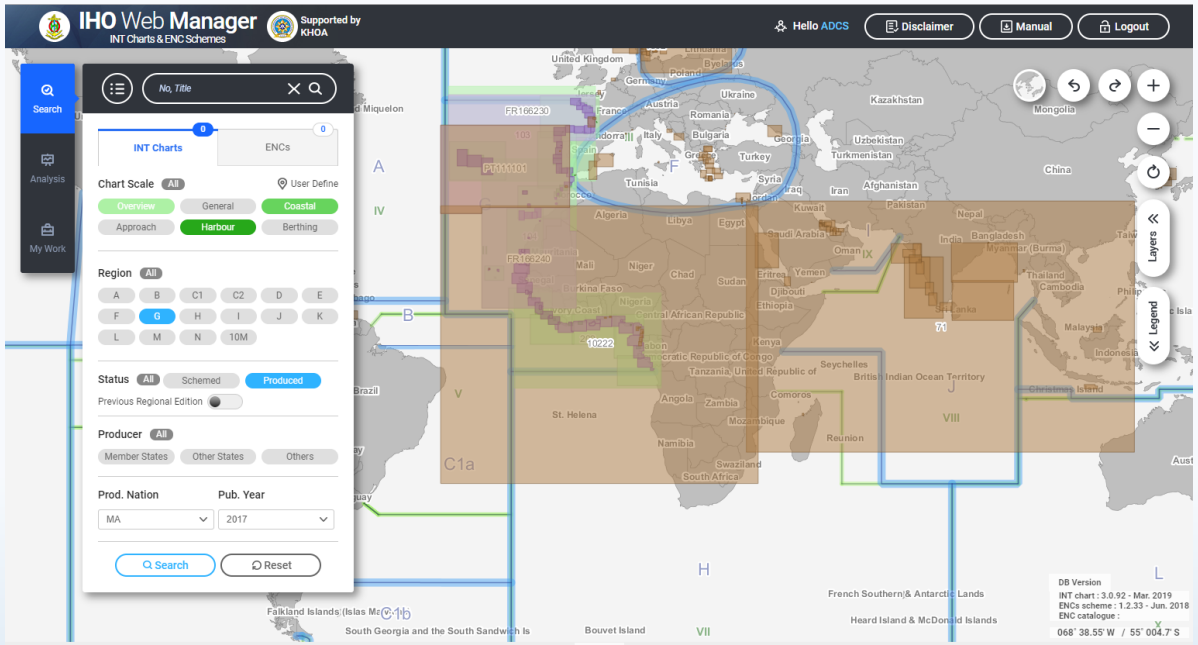
6. Other improvements

3) Renewal of INToGIS interface

Web Catalogue



Web Manager



Improvement (8/9)

6. Other improvements

4) Additional layers

- AIS traffic density layer (on going)
- IHO meeting & event layer (removed)
- IHO member states layer (removed)
- CATZOC layer (improved with distinguishable colors)

d. Functions

- Email notification
- S-128 applied
- Update contents …

Improvement (8/9)

7. User feedbacks

- **Total comments : 63**
- **Completed by April 2019**

Require to Improve the GUI for the remain

Feedbacks from some Regional coordinators and HOs

Feedback Experimentation INToGIS II

See http://119.198.137.98/chartBeta/iho/main.do

(as of 17 Dec 2018) + Yves in blue + Yong with memo

1. ARHC – Region N – Edward Hands

As Norway is the only country producing INT charts in Region N I have focussed on ENCs in my testing.

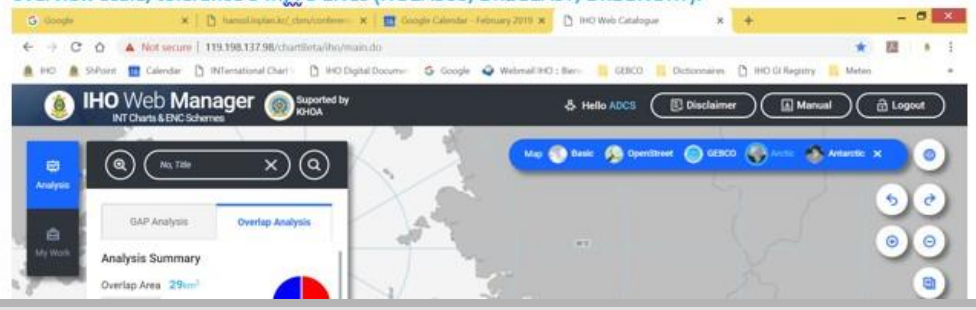
I have the following comments:

1.1 The inclusion of polar projections is very welcome and functions well. However I note that the INT area boundaries are not displayed when choosing arctic projection. This could be useful. I agree, same for Antarctic projection

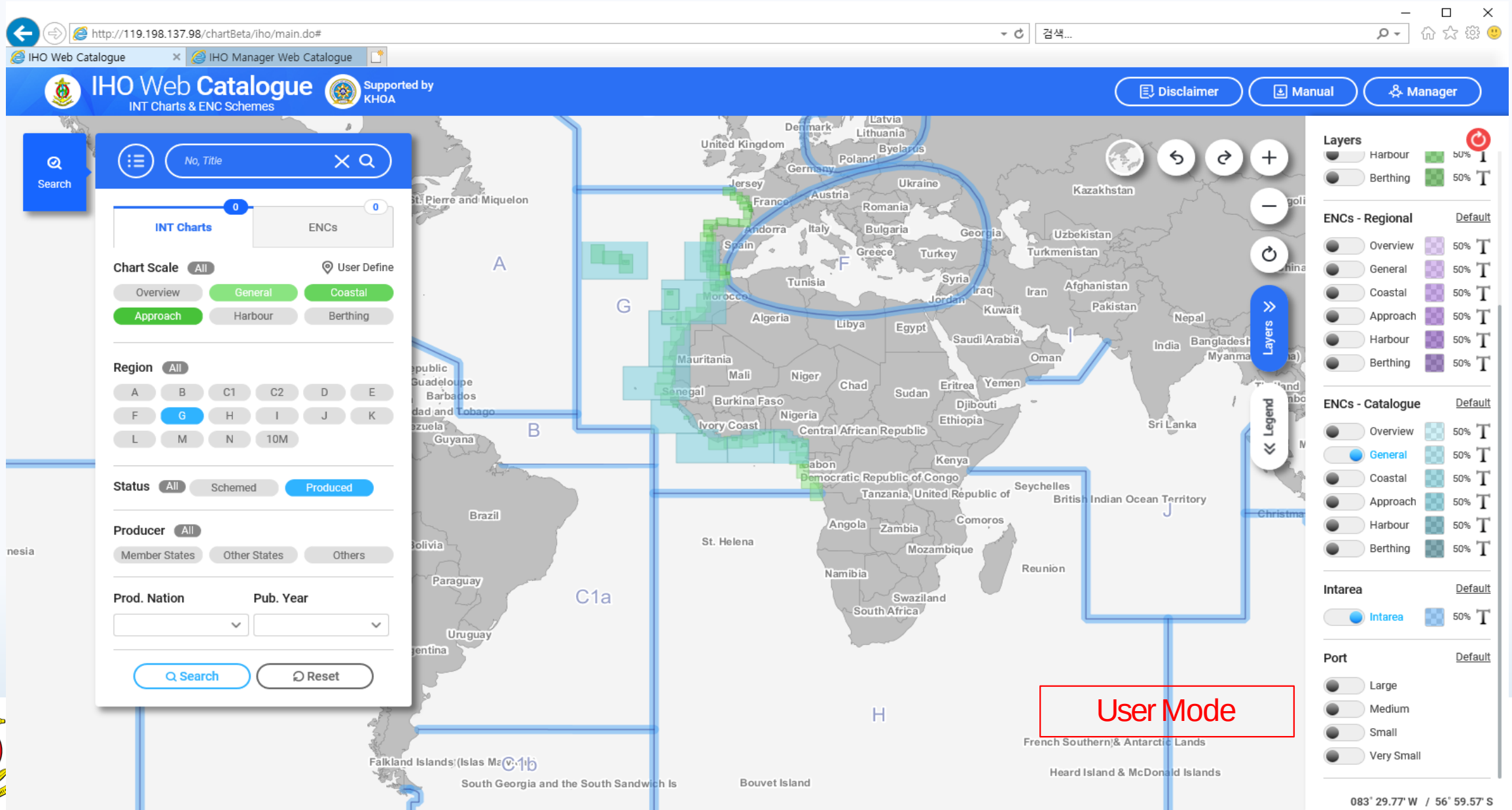
1.2 I think the overlap analysis will prove to be very useful. Is it such that overlaps between ENCs can be checked at the edit and submission stage so that changes can be amended to eliminate overlaps before ENC's are published? Yes, I believe so

When the window "please add more search criteria provides more than 200 results" appear in the general user mode, little spelling mistake in the menu. Read: "Ignore", rather than "Igonre"

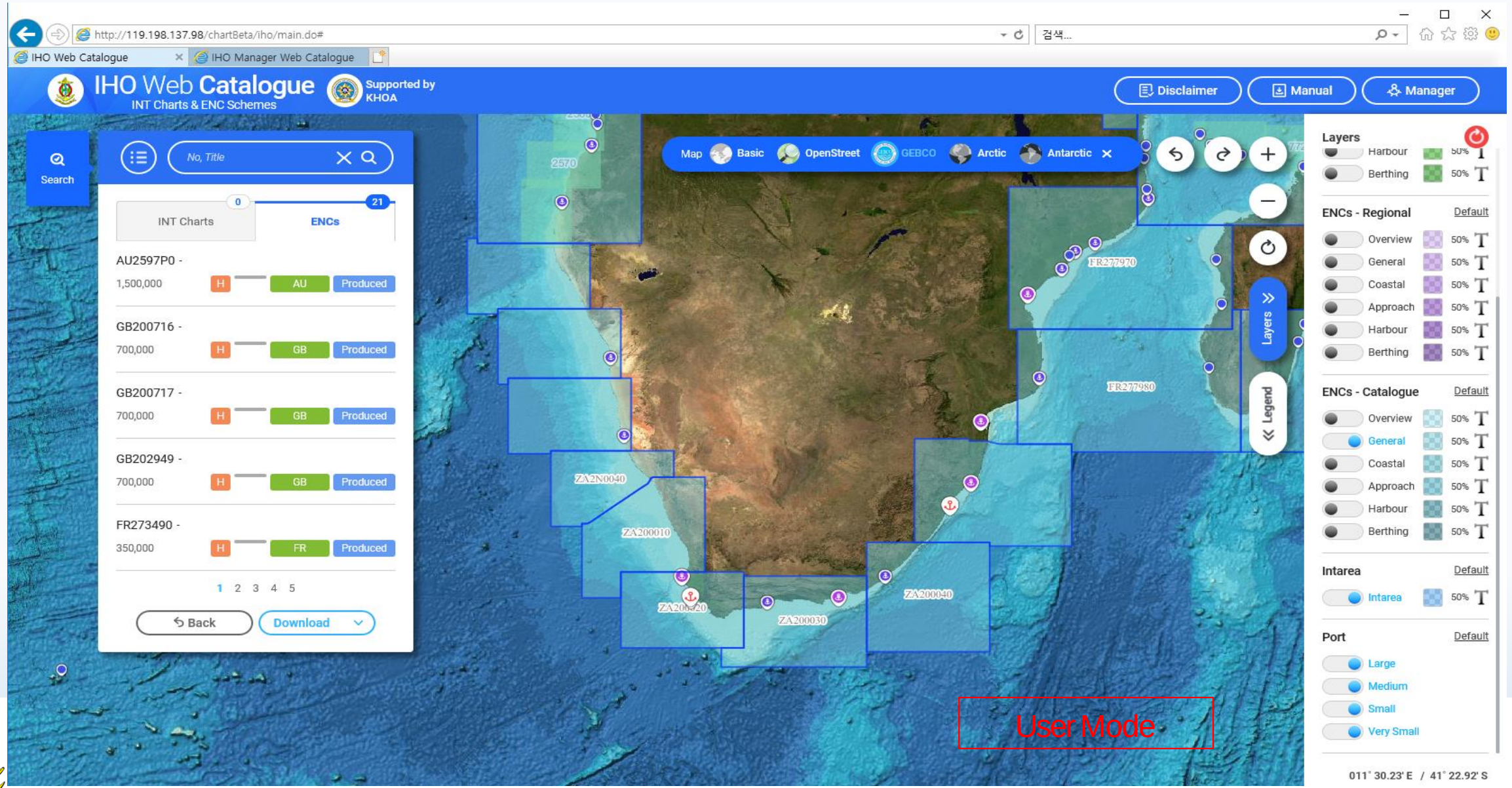
When doing an Overlap Analysis, here are the results in such conditions (In, Region N, ENC overlap, overview scale, tolerance 5 m) : 3 ENCs (NO1A300, DK1GEAST, DK1GNORT).



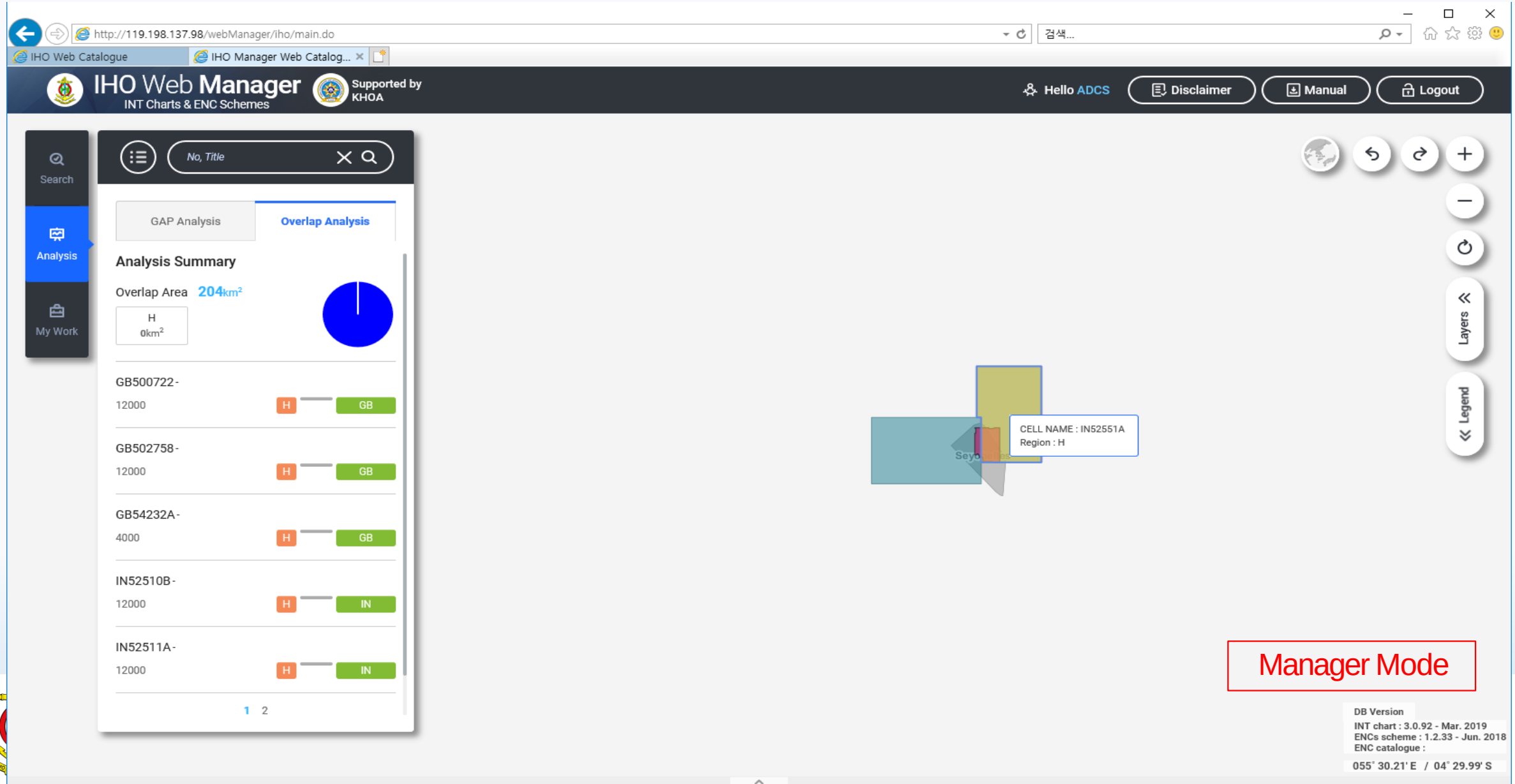
INT Chart Coverage (General, Coastal, Approach) overlayed by ENC Coverage (General)



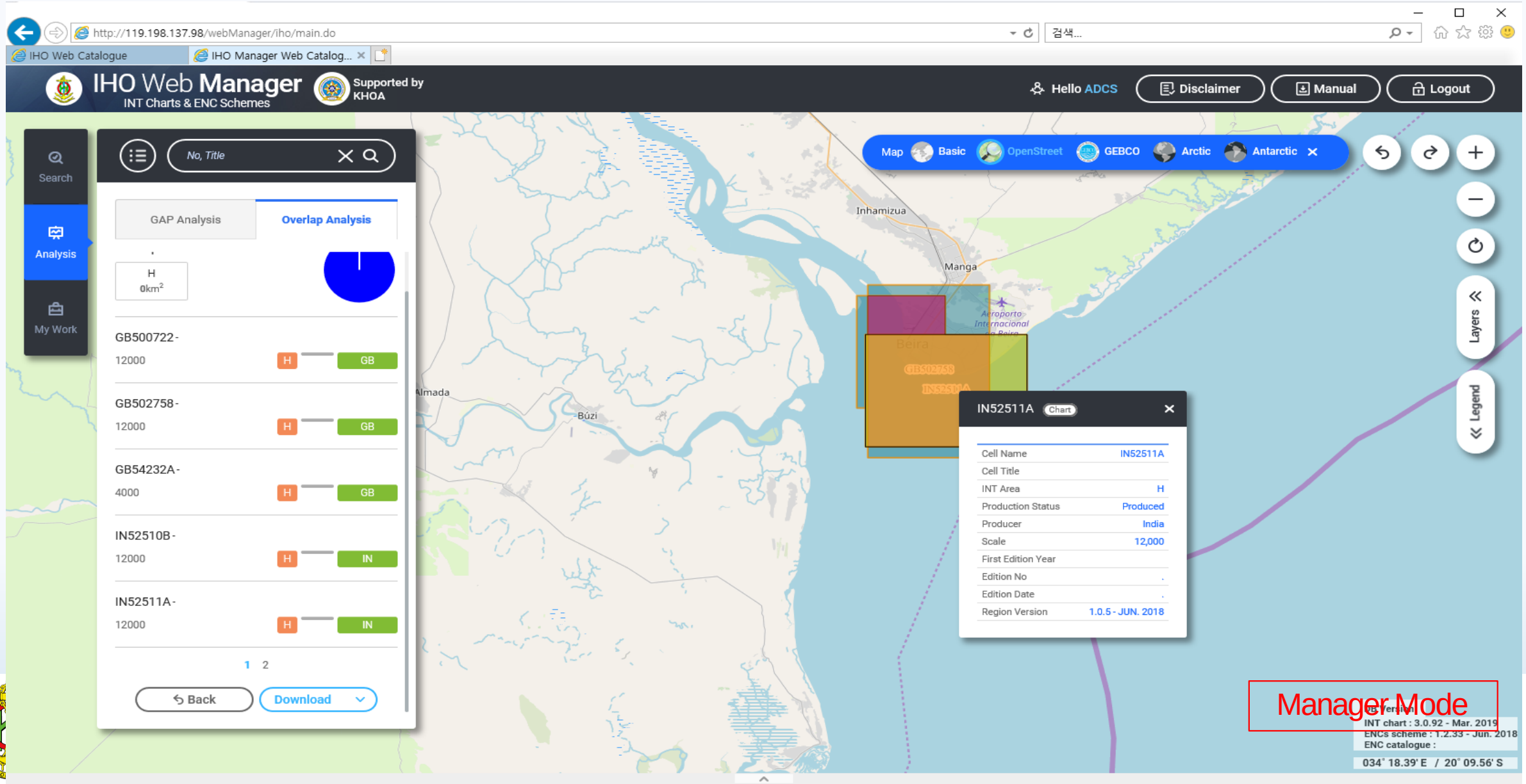
ENC Search Results (Harbour) overlayed by ENC Coverage (General) and Ports, GEBCO Base Map



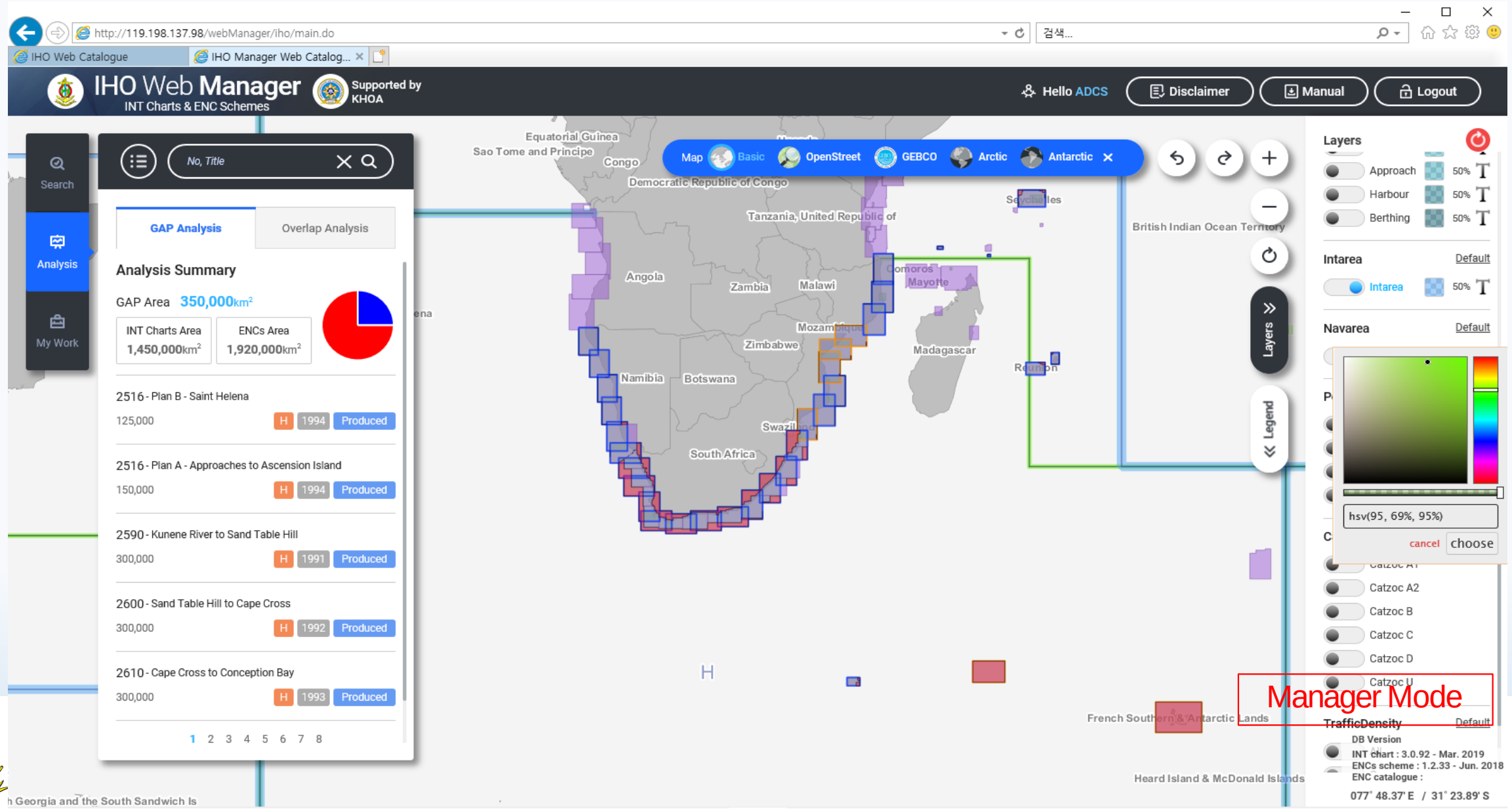
ENC Overlap Analysis: Port Victoria (Harbour)



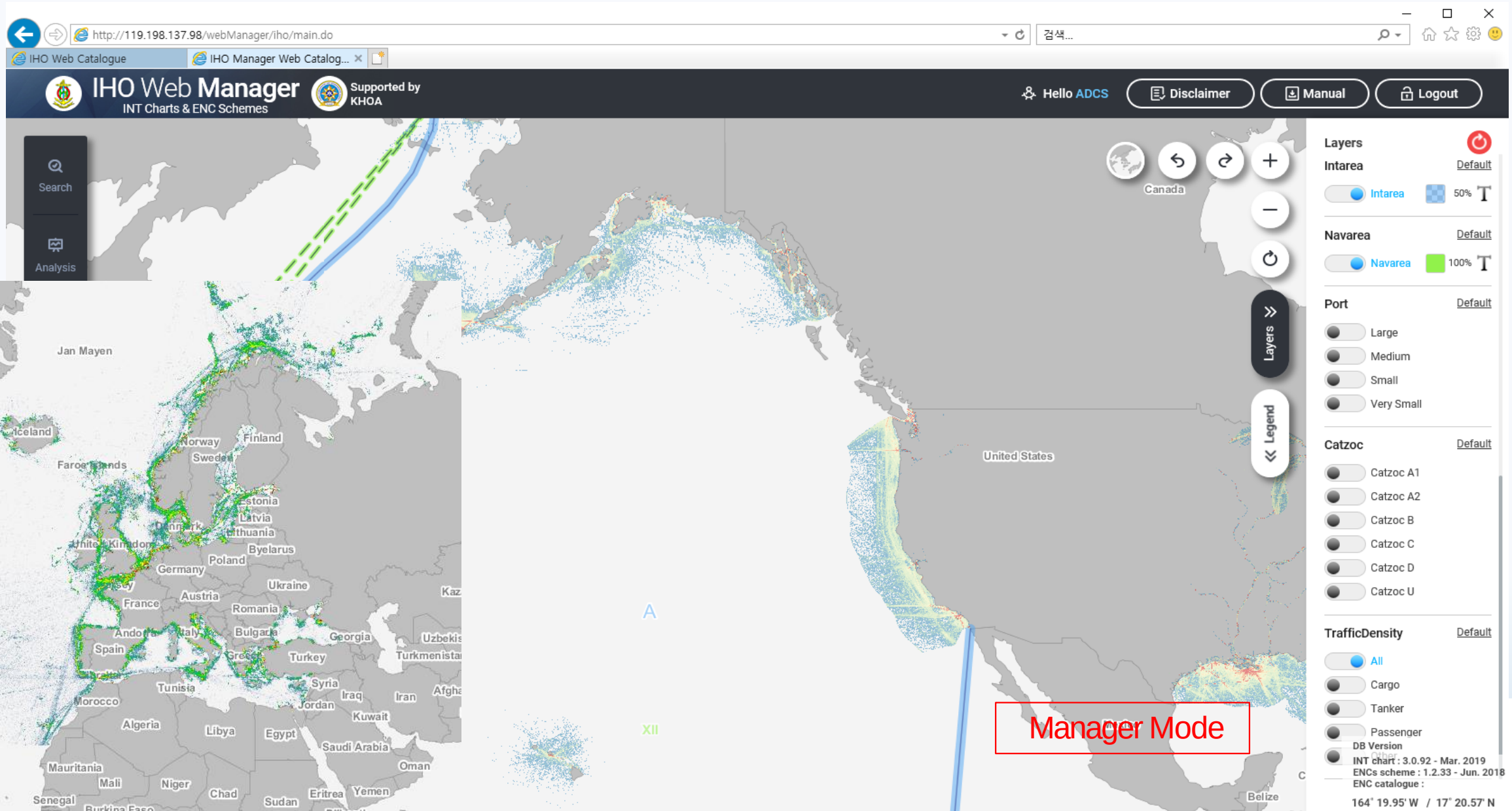
ENC Overlap Analysis: Porto da Beira (Harbour)



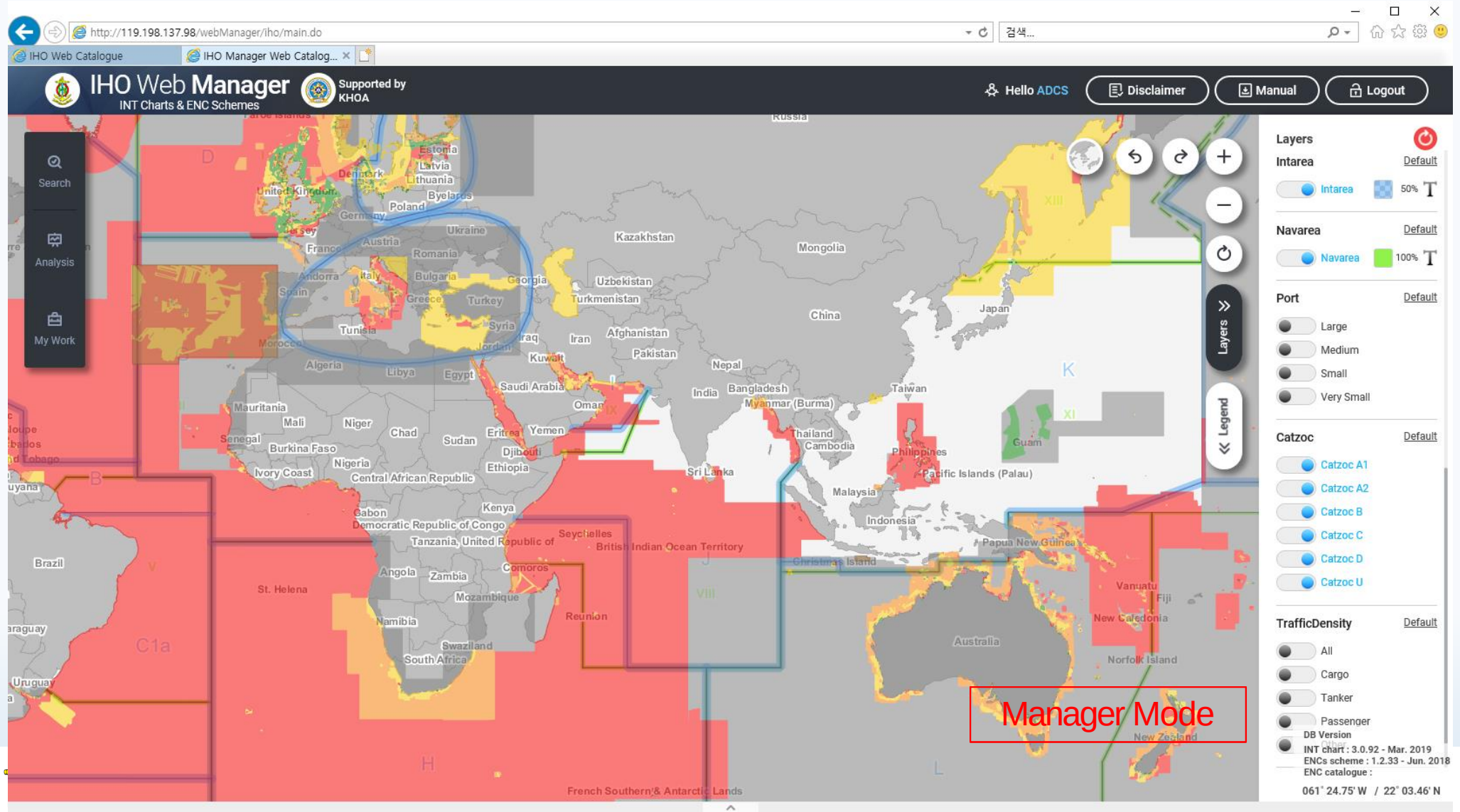
ENC Coverage Gap Analysis: Region H (coastal) , reference is INT chart coverage, plus NAVAREA limits

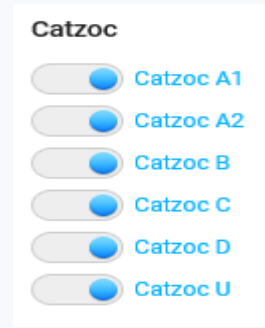


AIS traffic density: Sample to display density data

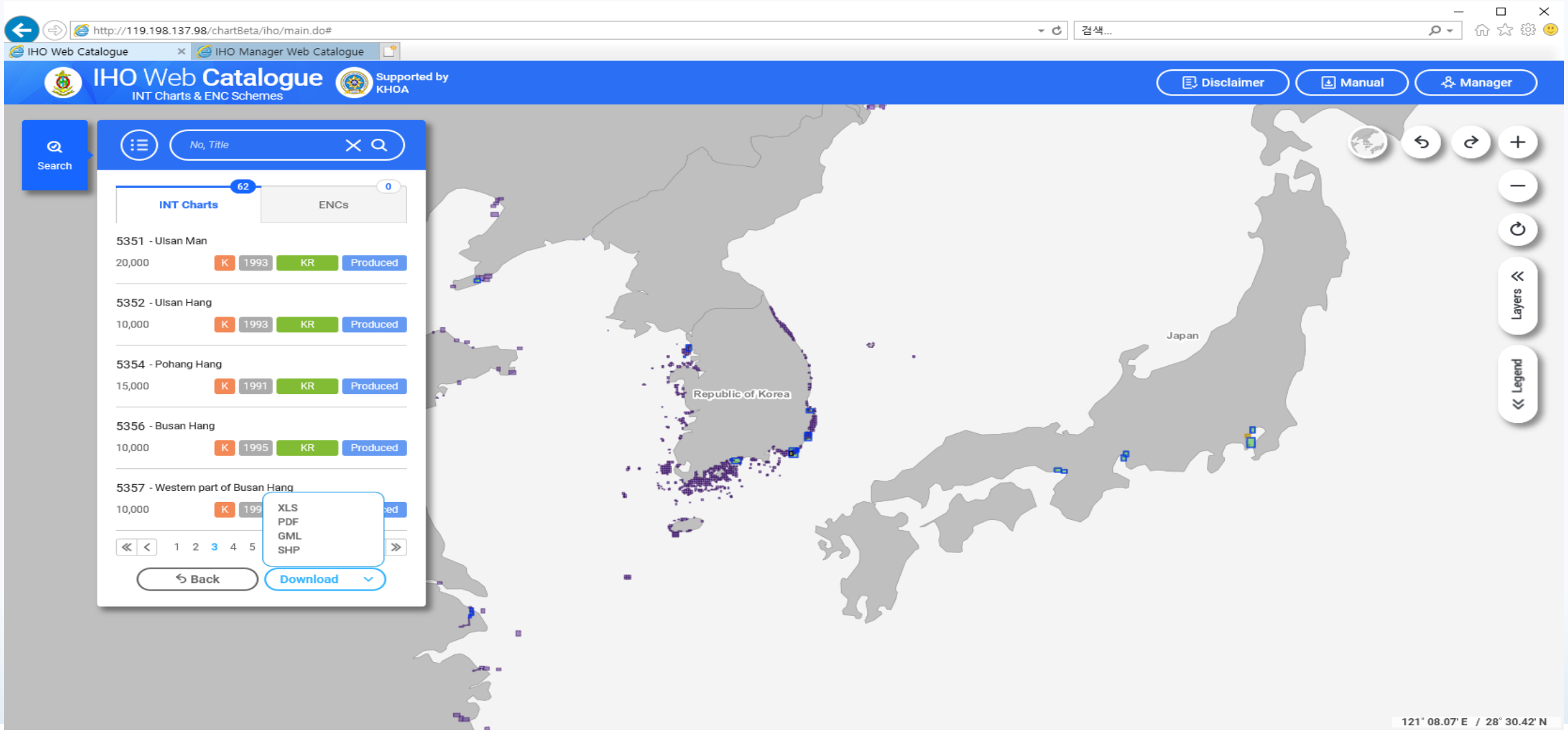


Additional layer : CATZOC with colors





S-128 application



Status of INToGIS II Project

- Design and develop DB (Oct. 2017) , Develop the new interface and functions (Nov. 2017)
- Create additional layers (2018), Test operation (late 2018), Project Management Meeting (January 2019)
- Fixing anomalies and implementing improvements suggested by Charting Regions Coordinators (April 2019)
- Demo at WENDWG-9, and at HSSC-11
- Commissioning of INToGIS II (mid-2019, tbc), workshop back-to-back with NCWG-5 (tbc)
- Pending Questions for the Future: Need to update the current (20017) experimental CATZOC database (every quarter?) AIS data/categories ? Towards INToGIS III for Management and Co verage of S-100 based products? → *To be discussed*

Actions to be considered by MBSHC

- Note the report
- Invite MBSHC MS to use the digital formstack for modifying/updating entries (P-5, C-55) and responding to IHO CL (see IHO CL 20/2019)
- Invite the Producer countries to use INToGIS II in the future
- Invite the Region F Chart Coordinator to consider the possibility of participating in the INToGIS II workshop (tbc), back-to-back with NCWG-5

Thank you