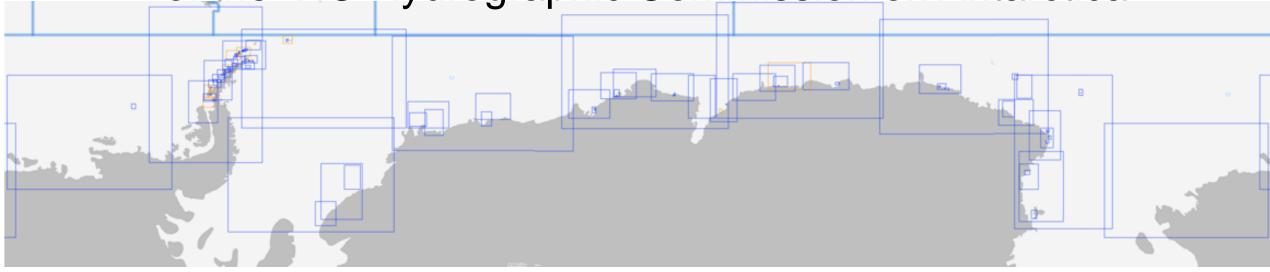


19<sup>th</sup> Conference of the IHO Hydrographic Commission on Antarctica



## Report of the INT Chart Coordinator – Region M

Agenda item 07.2C

HCA-19, Venice, Italy (hybrid), 15-18 April 2024



# **Ho** Agenda

International Hydrographic Organization

## **Chart Coordination Update**

- Region M Production Summary
- **Production Update** 
  - New INT Chart & ENC Published
  - Significant Updates
  - Planned INT Chart ENCs
- Scheme Progress Review
  - Published & Schemed Charts
  - Review of Previous Actions
  - Schemed Chart Status/Proposals
  - Overlap Report
  - INT Charts without ENCs
  - **ENCs** without INT Charts
  - New Requirements
- Recommendations for HCA



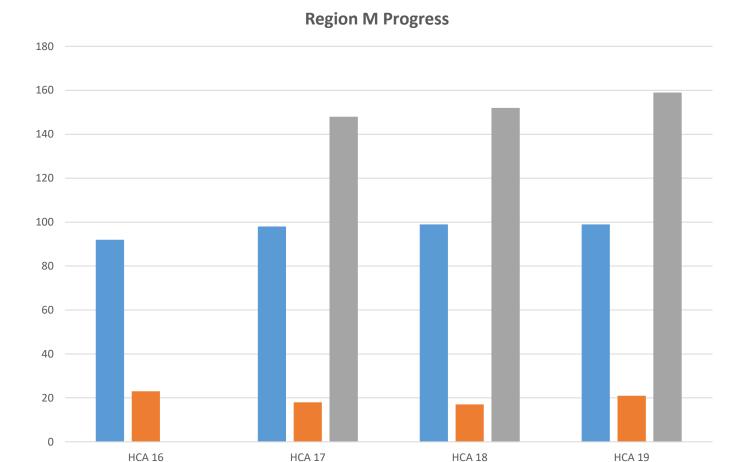
International Hydrographic Organization

# **Region M Production Summary**



# **IHO HCA Region M Production Summary**

International Hydrographic Organization



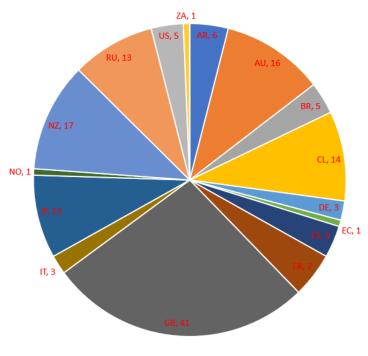
■ Published ■ Schemed ■ ENCs

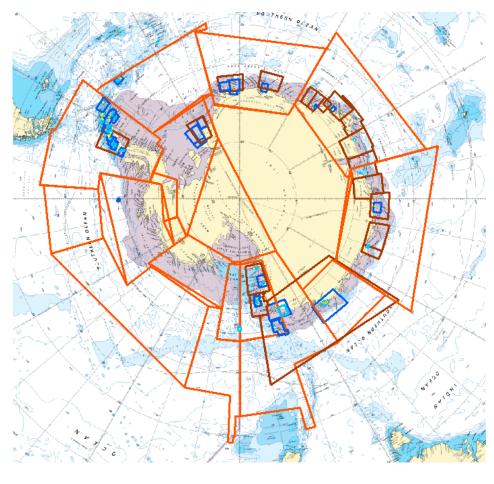


# HOA Region M Production Summary

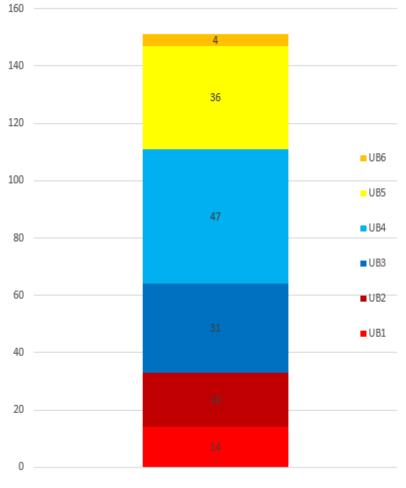
International Hydrographic Organization

### **Region M Producers**





## **151 Region M ENCs**



HCA-19, Venice, Italy (hybrid), 15-18 April 2024



International Hydrographic Organization

# **Region M Production Update**



# HCA Region M Production Update

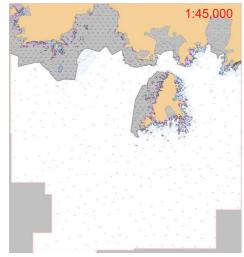
International Hydrographic Organization

### Regional M Production Update – New ENCs Produced Since HCA18 Report

### **United Kingdom**

GB4WWHA, GB4WWHE & GB4WWGD – Melchior Islands – Reschemed/new gridded ENCs providing additional MBES coverage of transit west of Melchor Islands (MSR M) and to remove coverage gap between adjoining CL ENC.

GB401779 – Signy & Borge Bay – New ENC corresponding to **INT9141** 







# HCA Region M Production Update

International Hydrographic Organization

### Regional M Production Update - Significant ENC & INT Chart Updates Since HCA18 Report

SHN - Argentina NTR

#### AHS - Australia

AU4602P0 & INT 9032 – Approaches to Davis Anchorage - Updated for survey HI 634 - Operation Southern Discovery & coastline AU468062 & INT 9036 – Approaches to Mawson - Updated for survey HI 607

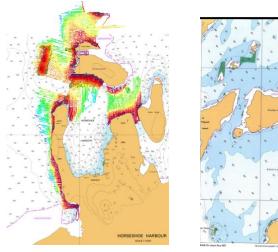
#### **DHN** - Brazil

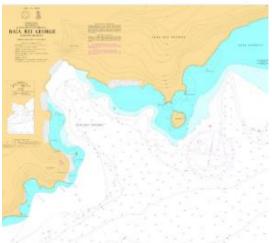
BR425120 & INT 9126 – King George Bay – updated to align positional accuracy with larger scale GB products.

**DIMAR – Colombia**NTR

SHOA – Chile NTR









# HCA Region M Production Update

International Hydrographic Organization

### Regional M Production Update - Significant ENC & INT Chart Updates Since HCA18 Report

**IOAA - Ecuador** NTR

**SHOM – France** 

INT 9016 & 9017 – Updated by NTM to include

survey data

**HNHS - Greece** NTR

**BSH – Germany** NTR

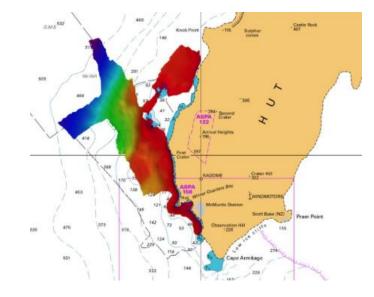
INHO - India NTR

IIM - Italy NTR

JHOD - Japan NTR

- Republic of Korea NTR

- Netherlands NTR



LINZ - New Zealand

INT 9001 & 9002 – McMurdo Station & Scott Base – updated to include USCG CGC Polar Star survey.

Norway NTR



# HOA Region M Production Update

International Hydrographic Organization

### Regional M Production Update - Significant ENC & INT Chart Updates Since HCA18 Report

DHN - Peru

NTR

**Poland** 

NTR

Russia

NTR

SANHO - South Africa

NTR

IHM - Spain

NTR

Türkiye

NTR

### **United Kingdom**

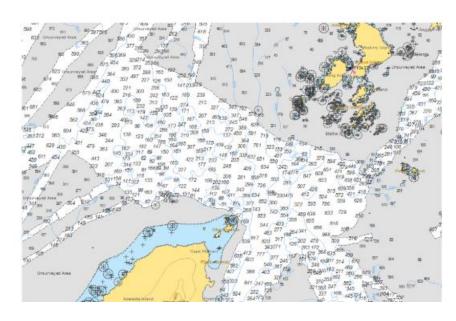
INT 9120 – Deception Island – modified reproduction

INT 9121 - Point Barnard to Camp Byres – modified reproduction

GB53463C – Detaille Island – updated to include 2022 MBES

GB403207 – Gerlache Strait – updated to include 2017 MBES

GB302975 & GB203572 – Matha Strait – updated to include 2021 MBES





# **IHO** HCA Region M Production Update

International Hydrographic Organization Regional M Production Update - Significant ENC & INT Chart Updates Since HCA18 Report

**United States** 

NTR

**SOHMA – Uruguay** 

**NTR** 

DHN - Venezula

**NTR** 



# HOA Region M Production Update

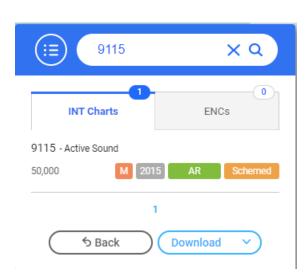
International Hydrographic Organization

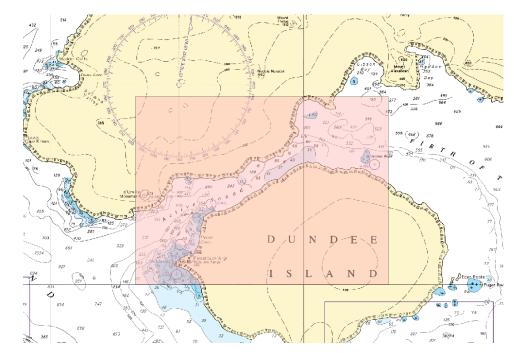
### Regional M Production Update – New INT Chart or ENC Proposals

The following outline proposals for new charts received from Member States:

### **Argentina:**

INT 9115 – Active Sound





Although this chart was previously approved the coordinator recommends the scale and limits are reviewed prior to production. Action: AR to coordinate with Region M coordinator (see action HCA19 ICCWG 19/01)



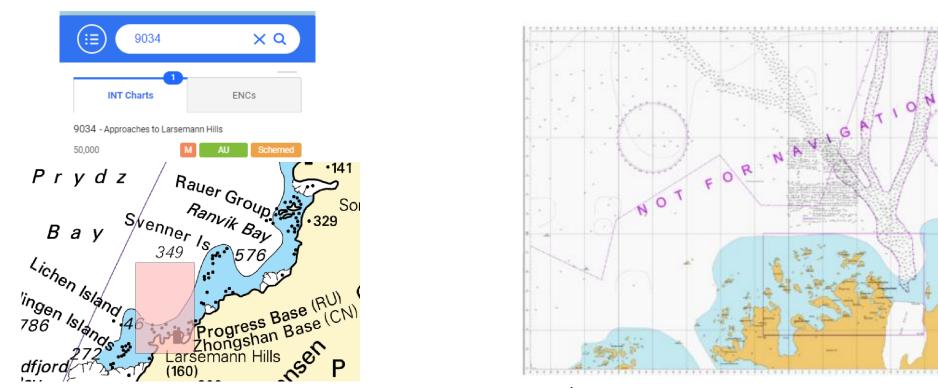
# **HO HCA Region M Production Update**

International Hydrographic Organization

### Regional M Production Update - New INT Chart or ENC Proposals

#### Australia:

INT 9034 – Approaches to Larsemann Hills



Action: AU to update limits in INToGIS - see action HCA19 ICCWG 19/02



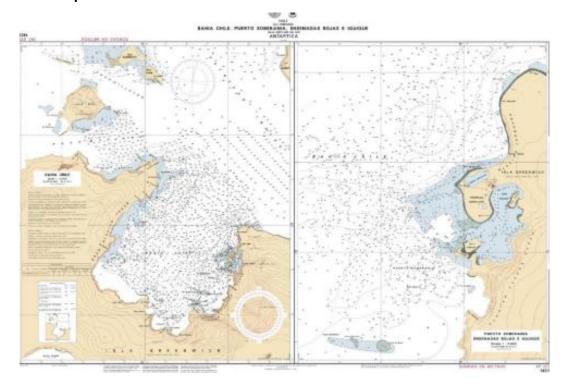
# **IHO** HCA Region M Production Update

International Hydrographic Organization

### Regional M Production Update – New INT Chart or ENC Proposals

#### Chile:

INT 9122 New ENC equivalent on publication of NE in 2025



**Action**: CL: To ensure new ENC is produced and to consider ensuring production availability of ENC in time for 2024/25 season. See action HCA19 ICCWG 19/03

HCA-19, Venice, Italy (hybrid), 15-18 April 2024



International Hydrographic Organization

# Region M Scheme Progress Review



Organization

### **Outstanding Schemed Coastal & Approach Scale Coverage**

Status HCA-18, Berlin, Germany (May 2022)



Status HCA-19, Venice, Italy (April 2024)



\*INT9157 deleted from scheme

# Minimal progress in 2 years



International Hydrographic Organization

The preceding section emphasizes the minimal advancement on chart progress over the past two years following HCA 18, despite the considerable potential of collaborative endeavours involving the largest commission comprising 27 member states.

There still remains 17 outstanding INT charts, with further new coverage identified only adding to the requirement.

Member states need to move away from exclusive National Schemes and adopt an INT or hybrid series.

The following summarised INT chart recommendations from HCA17 & 18 remain incomplete as summarised:



International Hydrographic Organization

### Deception Island HCA17 & 18 (AR, CL, ES) – Action 18/29

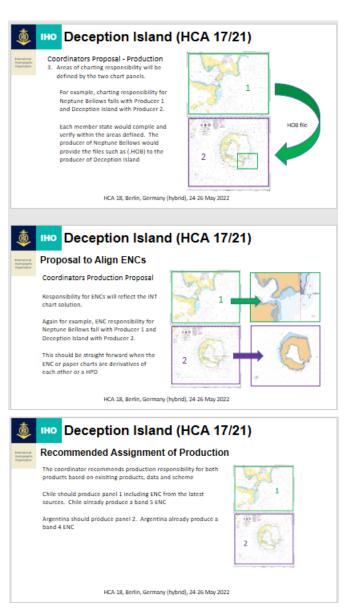
- Co production between AR & CL was rejected
- CL UB4 ENC was withdrawn to reduce overlap conflict
- Coverage of Neptune Bellows remains unaligned (AR INT9120 & CL5MA870).
- Survey data has been shared by MS (CL,ES & UK)
- Spain remain open to co production collaboration
- Challenging to include additional ES plans on INT9120

### **Proposed HCA19 Action:**

- NE of INT9120 to consider inclusion of Spanish requirements in next edition of INT 9120
- Align ENC and INT chart of Neptune Bellows for data content
- CL to remain as producer for Neptune Bellows ENC
- AR to remain producer for Port Foster ENC

#### **HCA19 Decision:**

1. Agreed in principle, detail to be agreed - see action HCA19 ICCWG 19/04



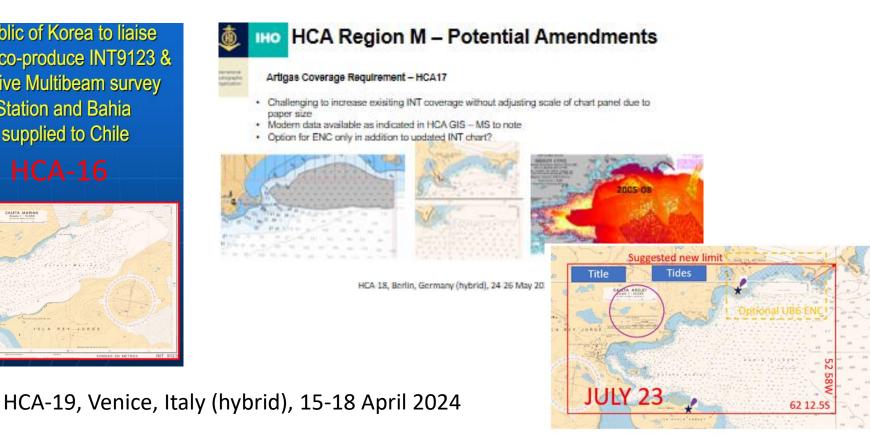


Artigas Coverage HCA 16, 17 & 18 (CL, RoK, UY) - Action 18/35 & 18/37

International Hydrographic Organization

- In July 2023 Co-Ordinator has proposed to CL a minor rescheme of INT 9125 to improve coverage of Artigas, this must be considered by CL in the planed NE of INT9123
- National chart produced by UY due to coverage & currency of existing INT chart
- New national charts produced by RoK providing enhanced resolution in comparison to INT chart and equivalent ENC
- Option to include UB6 UY ENC only coverage of Artigas







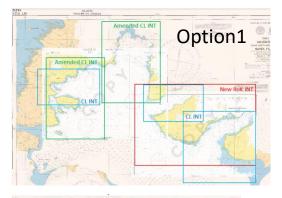
Artigas Coverage HCA 16, 17 & 18 (CL, RoK, UY) - Action 18/35 & 18/37

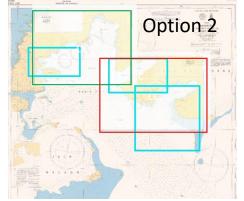
International Hydrographic Organization

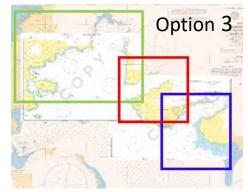
### **Proposed HCA19 Action:**

- CL & RoK to explore options to efficiently use the most recent data whilst reducing duplication of resource and without increasing the INT paper scheme
- CL and RoK to review the proposals and provide a technical solution that efficiently delivers the data and suitable coverage to meet user requirements (options 1,2 or another)
- Solution to avoid ENC overlaps and increasing the size of the INT chart portfolio

- 1. CL & RoK propose production responsibility:
  - Ardley Cove & Colins Hbr Chile
  - Marian Cove RoK
  - Potter Cover Chile
- 2. CL, RoK & UK as coordinator to test the feasibility of proposed decision. see action HCA19 ICCWG 19/05









International Hydrographic Organization

## Mackellar Cove HCA17 & 18 (BR, CL & PE) – Action 18/36

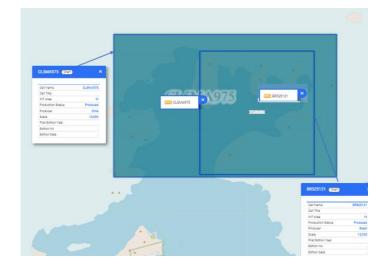
- INT 9125 co-produced by Brazil & Peru
- National ENCs:
  - PE507113 data should agree with INT 9125
  - CL5MA975 should be withdrawn
- Peru have supplied national product to Brazil

### **Proposed HCA 19 Action:**

- Brazil and Peru to ensure both INT9125 and PE507113 are in agreement for data and maintenance and confirm how this may be achieved
- Brazil and Peru to agree updating regime/process for chart & ENC.
- CL to clip national ENC CL4MA975 on publication of PE ENC
- Option for co-ordinator to have conference call with BR & PE

- No decision
- BR do not intent to produce ENC of all INT9125 panels
- ICCWG Chair to facilitate further discussion by VTC
- Discussions to include PL (ref plan B Arctowski)
- See action HCA19 ICCWG 19/06







International Hydrographic Organization

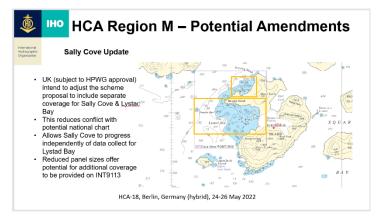
## Sally Cove & Lystad Bay HCA 18 (TR & UK) - Action 18/38

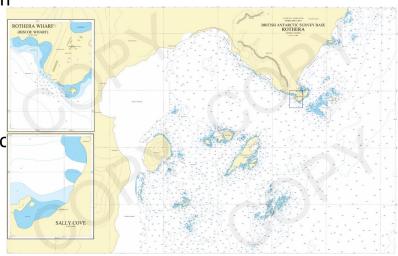
- HCA18 agreed to decouple charting of Sally Cove and Lystad Bay, assigning to UK and TR respectively
- Extensive surveys to support production have been undertaken by Türkiye
- UK has reschemed INT 9109 as agreed at HCA 18
- UK had provided supporting survey and chart data to Türkiye
- UK and TR held technical discussions in conference margins in Antwerp, UK & Norfolk

### **Proposed HCA 19 Action:**

- Türkiye to provide Sally Cove survey data to UK on completion of processing for the production
- Türkiye to provide Region M coordinator draft version of new chart proposal in accordance with S11 Annex A

- 1. TR to provide survey data for Sally Cove to UK
- 2. UK to review alternative option for Sally Cove in the vicinity of Horseshoe Island, (see section; New Requirements)
- 3. TR to provide coordinator with limits and draft version of proposed INT chart of Lystad Bay
- 4. See action HCA19 ICCWG 19/07







International Hydrographic Organization

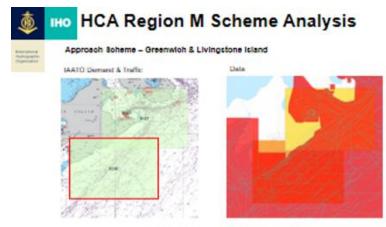
## Livingstone Island - McFarlane Strait HCA 18 (ES) -Action HCA 18/31

- HCA 18 agreed to remove INT 9136 due to lack of user requirement
- Data exists to support production of both INT 9136 & 9137
- Discussions between IHM and regional co-ordinator at WEND identified a requirement for topographic detail to facilitate production
- UK will supply imagery topo-plot at HCA 19

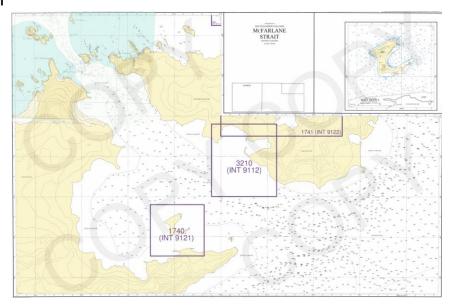
### **Proposed HCA 19 Action:**

- INT 9136 & 9137 are amended to 1:40,000 to provide consistency with adjoining INT 9121 and to provide full coverage of McFarlane Strait.
- INT 9137 production is prioritised over INT 9136

- INT9137 limits and production agreed
- INT 9136 limits proposed by ES to be reviewed.
- See action HCA19 ICCWG 19/08



HCA-18, Berlin, Germany (hybrid), 24-26 May 2022





International Hydrographic Organization

## Adelaide Island – HCA 18 Workshop (CL)

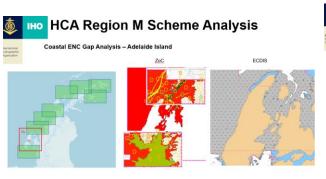
- INT9161 & 9162 remain outstanding (schemed)
- Proposals made at HCA 18 workshop to consider reducing to one INT chart to reduce production overhead
- Subsequent and refined proposals made to CL in July 2023 which aligns with INT scheme and provides customer VFM
- Users navigating on Olex (https://mvdirona.com/2023/02/the-gullet/)
- As conveyed at HCA18 data exists to support initial product creation and support safe navigation
- No further progress by CL

### **Proposed HCA 19 Action:**

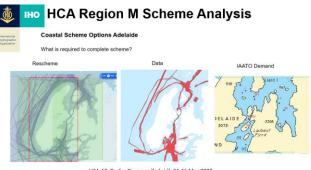
INT 9161 & 9162 is replaced with a single landscape A0 chart as demonstrated

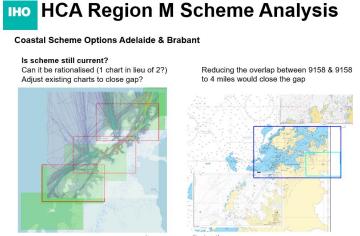
#### **HCA 19 Decision:**

1. Agreed – see action HCA19 ICCWG 19/09

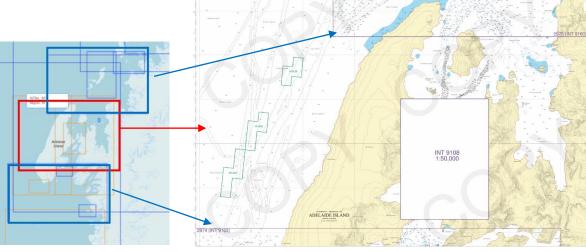


HCA-18, Berlin, Germany (hybrid), 24-26 May 2022





HCA-18, Berlin, Germany (hybrid), 24-26 May 2022





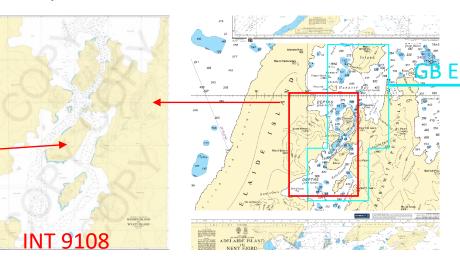
International Hydrographic Organization

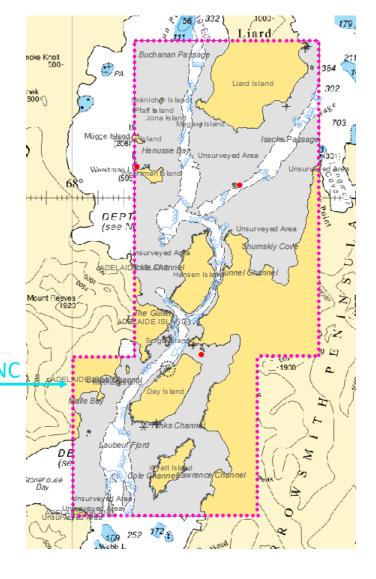
## The Gullet – HCA 18 Workshop (CL)

- INT 9108 remains outstanding (schemed)
- As conveyed at HCA18 data exists to support initial product creation and support safe navigation
- UK have produced a national ENC to provide critical navigational situational awareness to UK Ice Patrol and scientific vessels
- The product could be commercially available within a few weeks
- UK made responsibility proposal to CL in July 2023

- UK to produce and maintain interim ENC until CL produce ENC
- UK to supply ENC and data to CL for product generation when required
- See action HCA19 ICCWG 19/10







HCA-19, Venice, Italy (hybrid), 15-18 April 2024



International Hydrographic Organization

## **Melchior Islands – HCA 18 Workshop (UK)**

- A coverage gap existed between GB and CL ENCs
- Following a technical proposal (ICCWG e-CL 1/23), UK extended ENC coverage as approved at HCA 18 to provide continuity for users between cells.
- CL made aware of additional survey data July 2023

### **Proposed HCA 19 Action:**

CL to request UK data to enable data harmonisation/edgematching between CL4MA956 & GB48WWGB

#### **HCA 19 Decision:**

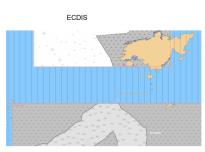
Agreed - see action HCA19 ICCWG 19/11

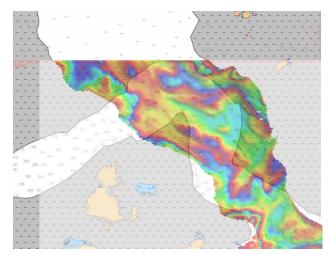


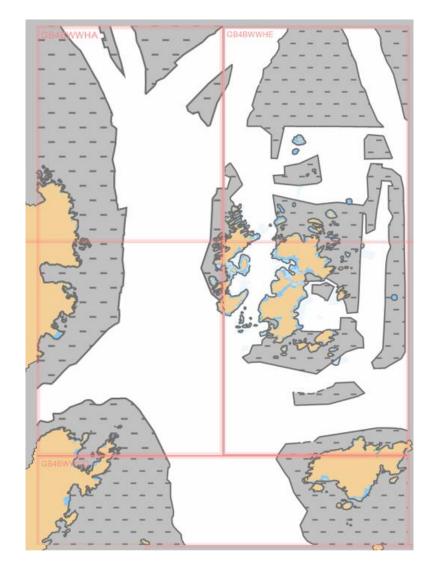
### HCA Region M Scheme Analysis

Approach ENC Gap Analysis - Melchior islands









HCA-18, Berlin, Germany (hybrid), 24-26 May 2022



International Hydrographic Organization

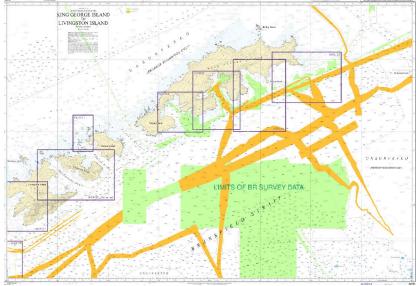
## **King George & Livingstone Islands – (BR & CL)**

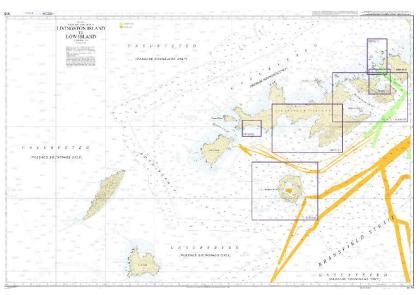
- INT9151 & 9152 are co-produced schemed charts
- At HCA 18, the regional coordinator demonstrated data availability to produce INT 9151
- UK and member states hold sufficient and discoverable data to start production of INT 9151. Consideration should also be given to the production of INT 9152.
- It is not clear how the co-production of these charts will work.

### **Proposed HCA 19 Action:**

- To reduce possible delays production should be assigned to individual producers. For example:
  - INT 9151 Producer: Brazil, printer: Chile
  - INT 9152 producer: Chile, printer: Brazil
- Brazil to coordinate production of INT 9151 based on the currently available data as demonstrated in the HCA 19 workshop.

- Agreed see action HCA19 ICCWG 19/07
- ES to share surveys with BR & CL
- Chair to facilitate VTC
- See action HCA19 ICCWG 19/12







International Hydrographic Organization

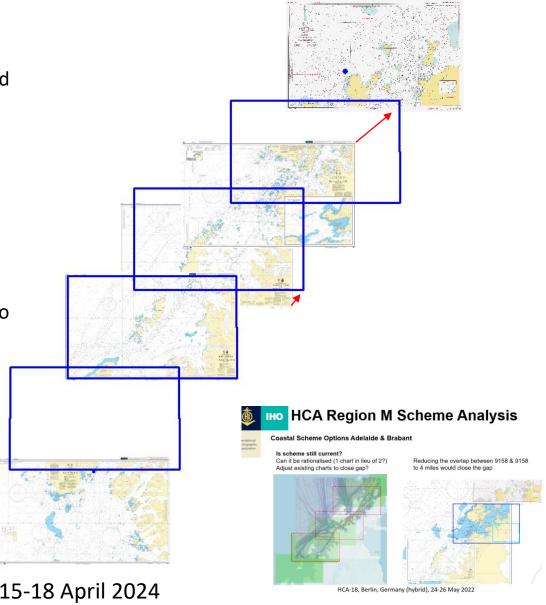
## **Gerlache Strait – (UK)**

- Due to lack of production progress INT 9157 was removed from the scheme as agreed at HCA 18
- The proposed solution included shifting existing GB INT charts NE reducing overlap and duplicated production resource
- The consequential benefit to the user is coverage is maintained via fewer products to purchase and update
- UK production delayed due to review of paper charting demand and requirements

### **Proposed HCA 19 Action:**

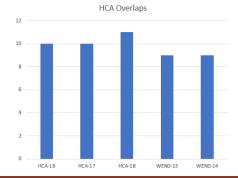
Request UK to consider production of GB ENC coverage to provide coverage for season 2024-25 followed by paper chart production at the earliest opportunity

- 1. UK to expedite ENC production for season 2024-25
- See action HCA19 ICCWG 19/13





International Hydrographic Organization **Overlap Report (as reported at WENDWG 14)** 



ID	STATUS	RENC Membershi p	RHC	ENC 1	ENC 2	Usage Band	ENC 1 Scale	ENC 2 Scale	ENC 1 Edn	ENC 2 Edn	Overlap extent (Kmxkm) (m/square NM)	Impact Assessment	Justification	Region M Coordinator Comment
749	LIVE	IC-ENC	HCA	GB203572	RU2A1AD0	2	350000	700000	2	1	169Km X 243Km	LOW		Resolved since HCA 17  GB cell with later dates takes priority due to comp scale RU cell withdrawn from AVCS due to content and positional issues
625	LIVE	IC-ENC	HCA	CL4MA956	GB403207	4	45000	22000	1	7	15Km x 7.5Km, 4Km x 4Km	LOW	Area of little SOLAS traffic, covered by UNSARE on both cells. Minor differences between content.	Ressolved since HCA 16  GB clipped for overlapping data in channel. Adjusted comp scale in area of charted data to give preference over unsurveyed area
626	LIVE	IC-ENC	HCA	CL4MA957	GB403207	4	45000	22000	1	7	17Km x 7.5Km	LOW	Ovelap only covers LNDARE and UNSARE, with very little SOLAS traffic expected within the area.	Resolved since HCA 16 by amendment to comp scale to resolve overlap item 626
930	LIVE	IC-ENC - PRIMAR	HCA	NZ11490E	FR275910	1	1500000	1500000	1	1	457Km x 688Km	LOW		New at HCA 18  Based on same scale overlapping INT charts FR NZ to resolve based on underlying data - Reminder email Feb 24
127	LIVE	IC-ENC	SWPHC/HCA	RU1B0PF0	AU160090	1	3000000	3500000	1	4	560Km x 1700Km 273008 sq. NM	LOW	Overlap is located in the Antartica, it charts very deep waters. Little traffic as expected.	Reported at HCA 16 - unlikley to be resolved
128	LIVE	IC-ENC	SWPHC/HCA	RU1B0PF0	AU160120	1	3000000	3500000	1	7	560Km x 195Km 31605 sq. NM	LOW	Overlap is located in the Antartica, it charts very deep waters. Little traffic as expected.	Reported at HCA 16 - unlikley to be resolved
30	LIVE	IC-ENC - NON RENC	HCA	RU2BNM40	JP20ODD0	2	700000	700000	1	3	111Km x113 Km		IC-ENC does not have access NON RENC ENC to conduct assessment	Reported at HCA 16 - unlikley to be resolved
415	POTENTIAL	IC-ENC	HCA	CL4MA960	GB400445	4	45000	22000	1	6	5.1KM x 12.6KM	MEDIUM	General depiction of bathymetry similar between	New at HCA 18 CL4MA960 represents INT9104 GB400445 represents INT9118 Discussed at 2022 technical meeting - clipping to be agreed prior to release based on HCA principles based on data age and quality
414	POTENTIAL	IC-ENC	НСА	CL5MA980	GB57211A	5	22000	12000	1	5	3.7KM X 5.4KM	MEDIUM		New at HCA 18 CL ENC is not equivalent to INT chart. This is a national product Discussed at 2022 technical meeting, CL cell will not be released. Region M coordinator considers this closed



International Hydrographic Organization

### Overlap Report (Medium Risk Overlaps)

### CL4MA960 & GB400445

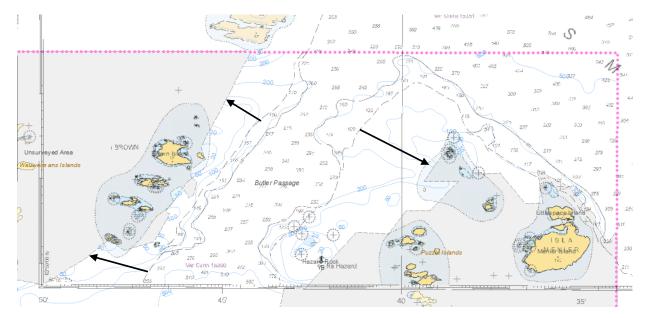
This overlap represents INT9104 & INT9118, INT 9118 currently depicting later information and wider coverage.

UK will follow principles as discussed in HCA18 workshop to provide the best outcome for the user with minimal overhead.

The CL cell is at IC-ENC validation.

#### **HCA 19 Decision:**

- 1. CL to request data from UK to align INT chart overlap
- 2. CL to clip in accordance with HCA principles prior to publication
- 3. See action HCA19 ICCWG 19/14



# HCA Region M – HCA CL 01-07

#### **Clipping Priorities – Newly Published Cells**

#### In order:

- 1. Clip to ENC which corresponds to INT Chart (one producer concept)
- 2. Clip to ENC already published (unless data is newer)



International Hydrographic Organization

### **Overlap Report (Medium Risk Overlaps)**

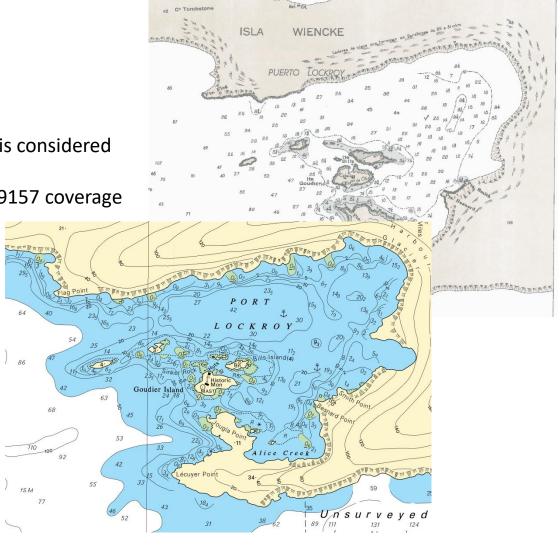
#### CL5MA980 & GB57211A

This overlap represents GB INT 9158 & CL National chart 15215.

This overlap was discussed during a 2022 technical meeting and is considered closed by the regional co-ordinator.

The scheme will be revisited as part of UKs HCA18 regarding INT9157 coverage gap.

- 1. IC-ENC to close this potential overlap report item
- 2. See action HCA19 ICCWG 19/15





International Hydrographic Organization

### **Produced INT Charts Without ENCs**

Following the production of EC57001 and GB401779 HCA-19 can report that there are 7 INT chart panels without equivalent ENCs.

INT Number	PRODUCE	NATIONAL	TITLE	Chart Scal	Published Year ▼	Usage Banc ▼	FNC Number(s)
9104	CL	15350	Estrecho De Gerlache. Islote Useful a Isla Wednesday	50000	2016	4	No ENC - CL45MA960 to be published June 2024
9134	CL	15351	Fondeaderos en Canales Peltier y Neumayer	30000	2015	4	No ENC - CL4MA980 To be published June 2024
9013	KR	9501	Jang Bogo Station	10000	2021	5	No ENC - Largest scale ENC IT400881
9122	CL	14231	Plan A - Bahia Chile (Discovery Bay)	20000	1947	5	No ENC - New cell planned 2024-25
9122	CL	14231	Plan B - Puerto Soberan y Ensenadas Rojas e Iquique (Iquique Cove and Approaches)	5000	1947	5	No ENC - New cell planned 2024-25
9125	BR,PE	25121	Plan B - Estacion Arctowski	15000	2016	5	No ENC (UB4 @ 22:000) BR requested to produced UB5 ENC
9125	BR,PE	25121	Plan C - Ensenada Mackellar	15000	2016	5	No ENC (CL5 & PE5 ENCs) Resolve at HCA-19



International Hydrographic Organization

### **Produced ENCs Without INT Charts**

There are 6 produced ENCS without INT charts

ENC_Number(s)	Scale	Pub date	Location	MSR	IAATO Site	Comments
CL4MA950	22000	Sep-15	Harmony Cove (Nelson Island)		N	CL14220
CL3MA820	45000	Oct-20	Nelson Strait (between Nelson Island and Robert Island)	Ah	N	CL14220 1:50,000
CL5MA860	20000	Oct-06	Snow Island		Y	CL14311 - IATTO Site (600 passengers). New branch corridor required. Modern data held by BR, ES & UK
ES507003	8000	Oct-20	Deception Island - Fumarolas Bay	Ac	N	INT equivalent to be considered with HCA 18/29. Otherwise ENC only (National requirement). Teflon Bay greater traffic than Fumerole Bay
RU5BNMH1	8000	Nov-12	Alasheyev Bight (Enderby Land)		N	FG National chart number RU 48919
RU5BNMH2	8000	Nov-12	Alasheyev Bight (Enderby Land)		N	FG National chart number RU 48922



International Hydrographic Organization

### **Produced ENCs Without INT Charts**

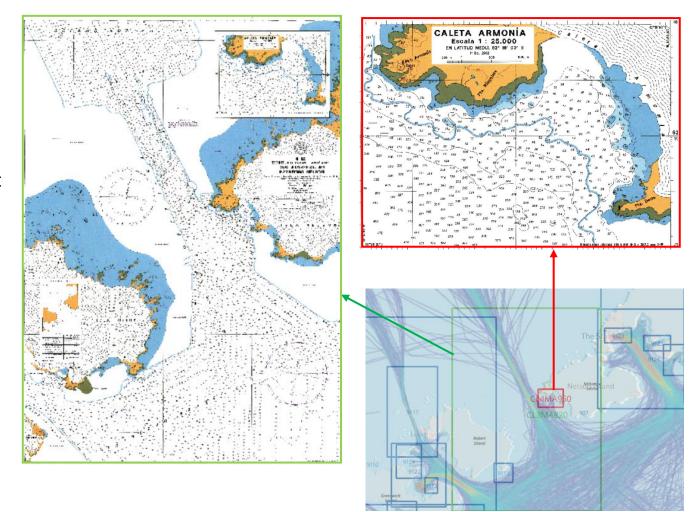
### Nelson Strait & Harmony Cove – MSR Ah

- **ASPA 133**
- No MSR

### **HCA 19 recommendation**

Recognise CL as INT producer for ENC and chart

- 1. Agreed
- 2. CL & UK as Chair to agree technical detail
- 3. See action HCA19 ICCWG 19/16





International Hydrographic Organization

### **Produced ENCs Without INT Charts**

#### **Snow Island**

- No MSR
- IAATO Site Emperor Penguins

### **HCA 19 recommendation**

Recognise requirement for INT chat and ENC

- Agreed
- CL & UK as Chair to agree technical detail with consideration of exisiting scheme
- See action HCA19 ICCWG 19/17





International Hydrographic Organization

### **New Requirements**

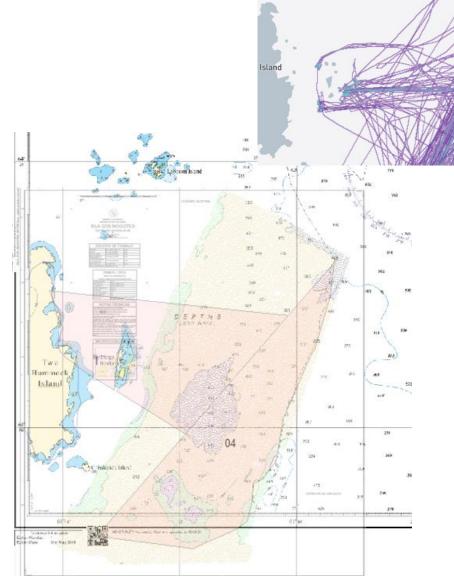
### Two Hummock Island – Hydrurga Rocks

- MSR I
- **IAATO Site**
- Listed as schemed (Region M/3.0.2 Feb 17)

#### **HCA 19 recommendation**

Explore opportunity for larger scale product in this location

- Agreed
- See action HCA19 ICCWG 19/18





International Hydrographic Organization

### **New Requirements**

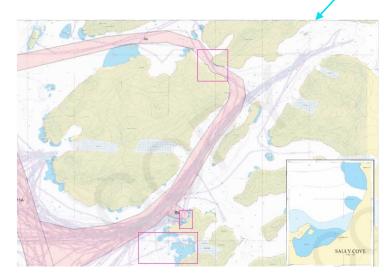
### **Pourquoi Pas Island Approach Scale**

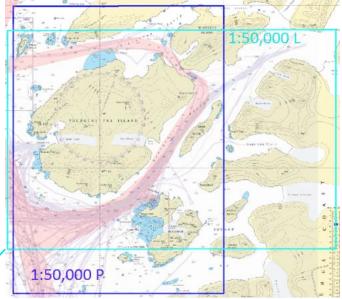
- MSR Av
- HSM Sally Cove/IATTO

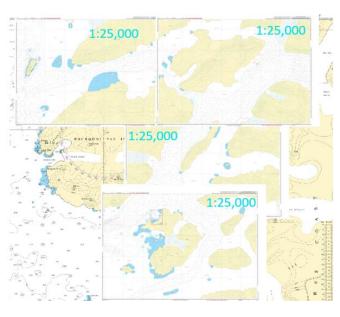
#### **HCA 19 recommendation**

- Explore opportunity for approach scale product to provide improved coverage of MSR Av and The Narrows
- Consider exisiting approach scale scheme requirements

- 1:50,000 scale (UB4) coverage agreed
- UK to consider:
  - 1. Co-location of Sally Cove
  - 2. Coverage of Horseshoe Island
- TR to supply Lystad Bay chart
- See action HCA19 ICCWG 19/19









# **HCA Region M – Recommendations for HCA**

International Hydrographic Organization

### **Proposed Recommendation**

- Note the Report
- Consult Region M coordinator for further details if required