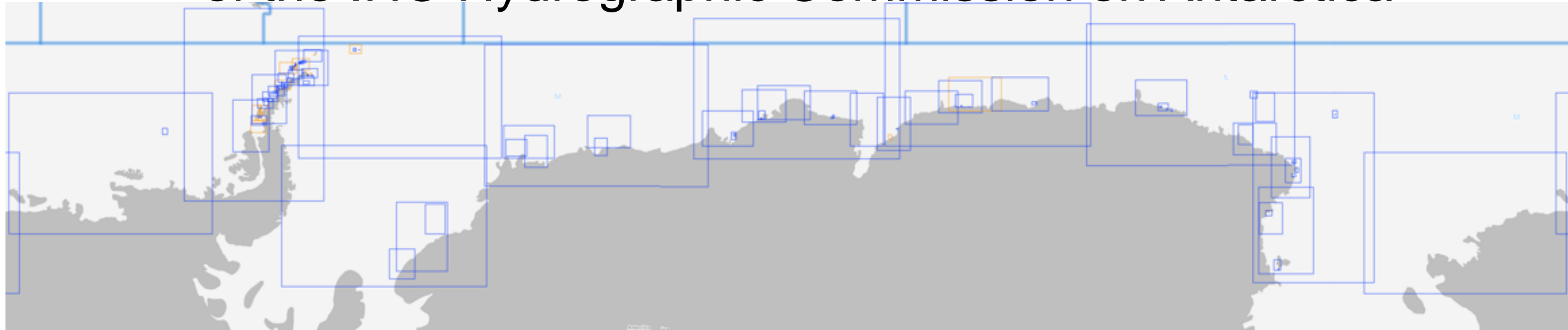


# 18<sup>th</sup> Conference of the IHO Hydrographic Commission on Antarctica



## Report of the INT Chart Coordinator – Region M

### Agenda item 07.2C

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



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# Agenda

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Organization

## **Chart Coordination Update**

- Region M Production Summary
- Production Update
  - INT Chart & ENC
- Scheme Progress Review
  - Published & Schemed Charts
  - Overlap Report
  - IAATO Feedback
  - Deception Island Action
- Recommendations for HCA

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



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# Region M Production Summary

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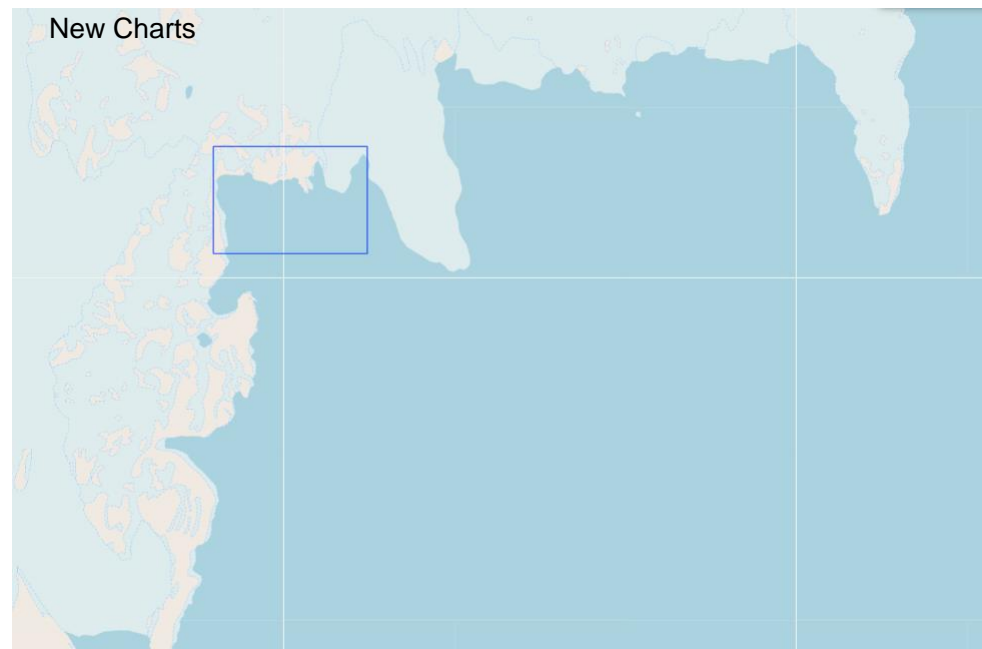
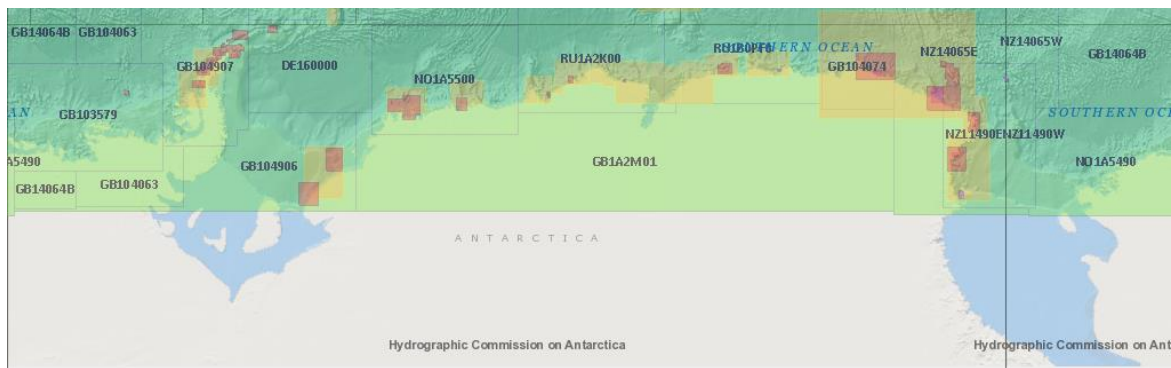


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# HCA Region M Production Summary

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	HCA 16	HCA 17	HCA18
Published	92	98	99
Schemed	23	18	17
ENCs		148	152



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# Region M Production Update

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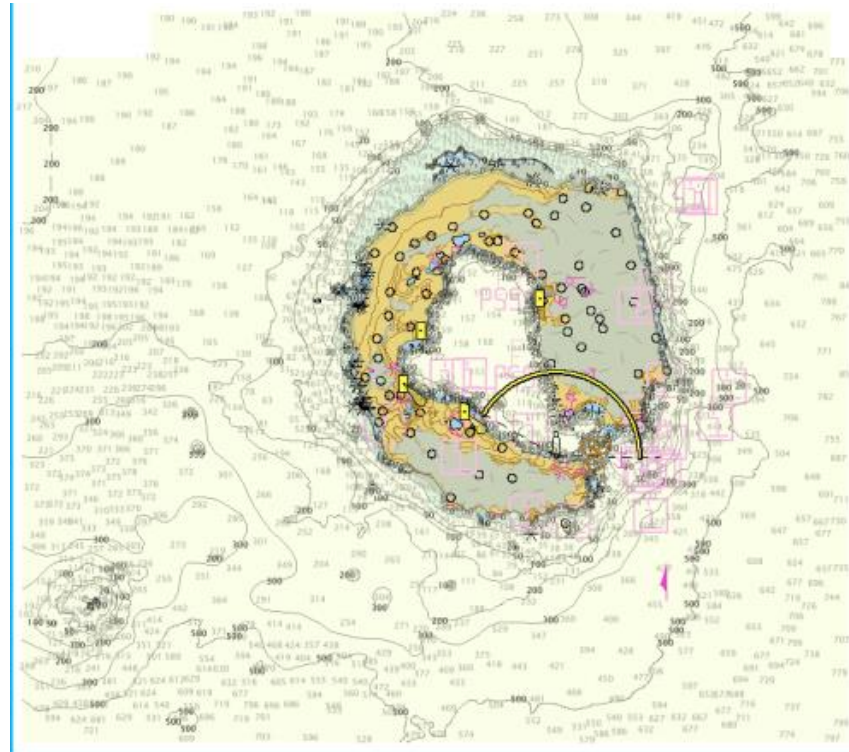
# HCA Region M Production Update

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## Regional M Production Update – New ENC's Produced Since HCA17 Report

### SHN - Argentina

AR407620 (INT 9120) – Isla Deception (New ENC 2022)



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Point of Contact: Fabian Vetere



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# HCA Region M Production Update

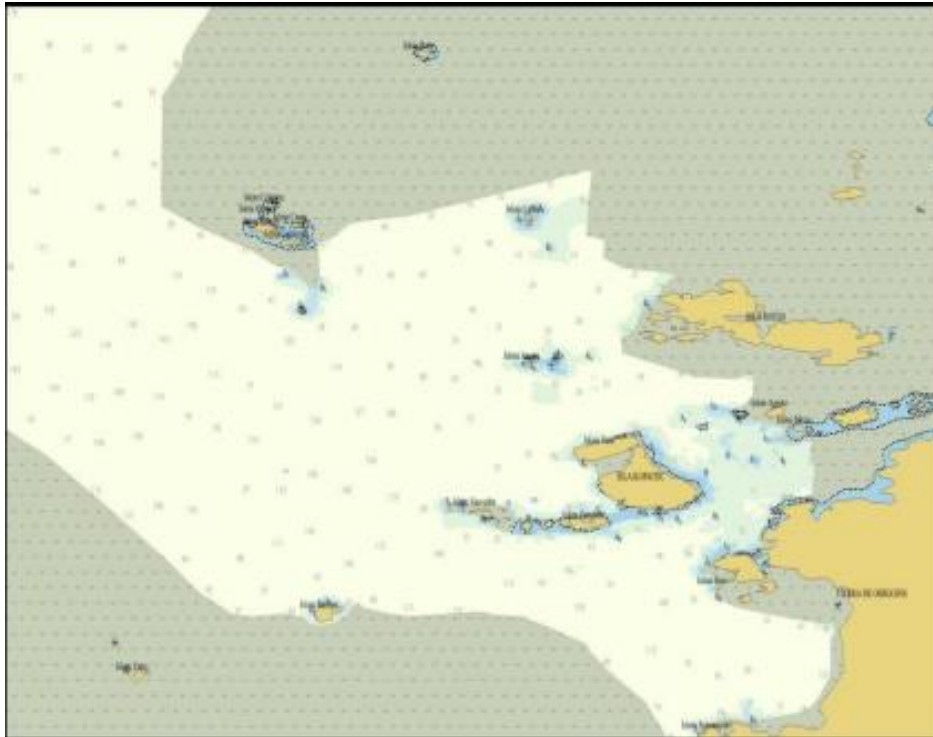
International  
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Organization

## Regional M Production Update – New ENCs Produced Since HCA17 Report

### SHOA - Chile

CL5MA890 (INT 9102) – Rada Covadonga y Accesos (New ENC 2021)

CL6MA891 (INT 9102) – Paso Coloma (New ENC 2021)



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Point of Contact: Christian Marchant





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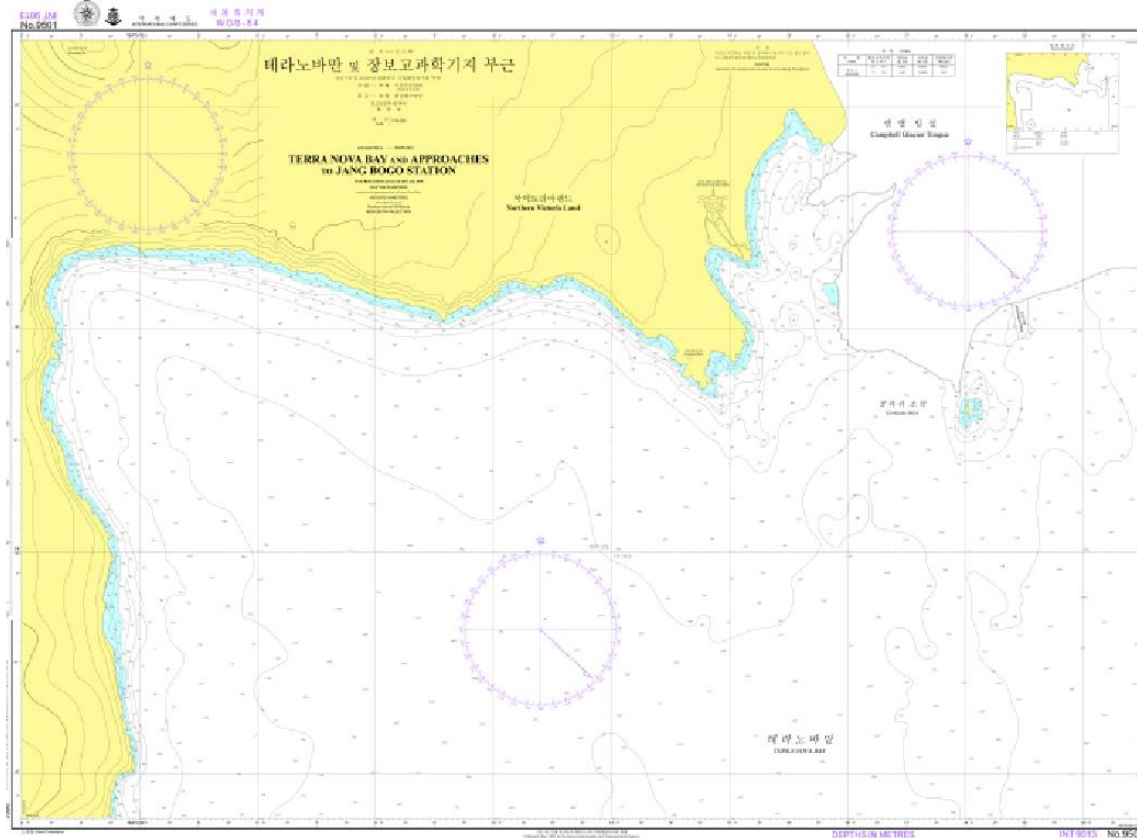
# HCA Region M Production Update

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## Regional M Production Update – New INT Charts Produced Since HCA16 Report

**KHOA - Republic of Korea**

**INT 9501 – Terra Nova Bay and Approaches to Jang Bogo Station**



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Point of Contact: Yeong-hwa Jeong





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# **HCA Region M Production Update**

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## **Regional M Production Update – Significant ENC & INT Chart Updates Since HCA17 Report**

### **SHN - Argentina**

AR507570 & INT 9101 – Trinidad Peninsula & Esperanza Base, updated to include surveys of 2003-2005

AR306110 & INT 9140 – South Orkney Islands, updated to include surveys of 2002-2004 & 2011-2017

INT 9120 – Deception Island, updated to include SHN, IHM and UK surveys of 2000-2017

### **AHS – Australia**

AU4602P0 – Davis Station HI 634 & 621B

AU5AQCAS & AU4601P0 – Casey Station HI 621A

AU5AQMAW, AU468062 – Mawson Station HI 607

AU455158 - Macquarie Island HI 625

### **DHN – Brazil**

BR425120 & INT 9126 – King George Bay, updated to include surveys of 2018-19

BR425121 & INT 9125 – Admiralty Bay, updated to include surveys of 2018-19

### **SHOA – Chile**

CL5MA870 – Approach to Whalers Bay, updated to improve WGS84 positioning

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# **HCA Region M Production Update**

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

No proposals for new INT charts or new ENCs have been received from Member States

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# HCA Region M Production Update

## Regional M Production Update – Update of INTtoGIS

The charts below have been updated for an error associated with pre HCA17 INTtoGIS technical problem

INT Charts		ENCs	Search	Edit	Ready	Submission																		
INT_No	PanelId	INT Region	INT Title	Producer	Nat. No.	S_limit	N_limit	W_limit	E_limit	1stEdYear	1stEdWeek	NewEdYear	NewEdWeek	Status	Scale	ScaleLat	PrinterNation	PrintFormat	FormerIntNo	InclusionYear	FrameDimensions	Action	Reviewer	Process
9129	main	M	Punta Fort Will...	EC	70001	62°27.85'S	62°24.15'S	59°48.88'W	59°42.84'W	2012				Produced	10,000	62°26.00'S						Modify	OGA	OGA Pending
9140	main	M	Islas Orcadas d...	AR	H-611	61°10.00'S	60°10.00'S	46°55.00'W	44°9.00'W	2019				Produced	150,000	60°40.00'S						Modify	OGA	OGA Pending
9101	PLAN-A	M	Plan A - Base E...	AR	H-757	68°24.20'S	68°23.50'S	57°0.15'W	56°58.45'W	2020				Produced	5,000		ES					Modify	OGA	OGA Pending
9101	main	M	Peninsula Trini...	AR	H-757	68°25.30'S	68°21.60'S	57°5.00'W	56°53.00'W	2020				Produced	10,000		ES					Modify	OGA	OGA Pending
9121	PLAN-A	M	Isla de la Medi...	ES	700A	62°36.95'S	62°34.40'S	59°57.60'W	59°51.80'W	1998		2019		Produced	25,000	62°36.00'S	GB(1740-04)					Modify	OGA	OGA Pending
9121	main	M	De Punta Barnar...	ES	700A	62°47.30'S	62°33.80'S	60°48.80'W	60°6.00'W	1998		2019		Produced	35,000	62°41.00'S	GB(1740-04)				A0	Modify	OGA	OGA Pending
9119	PLAN-A	M	Plan A - Campam...	ES	7002	62°40.60'S	62°39.80'S	61°6.00'W	61°4.80'W	2016				Produced	6,000	62°40.00'S						Modify	OGA	OGA Pending

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# **Region M Scheme Progress Review**

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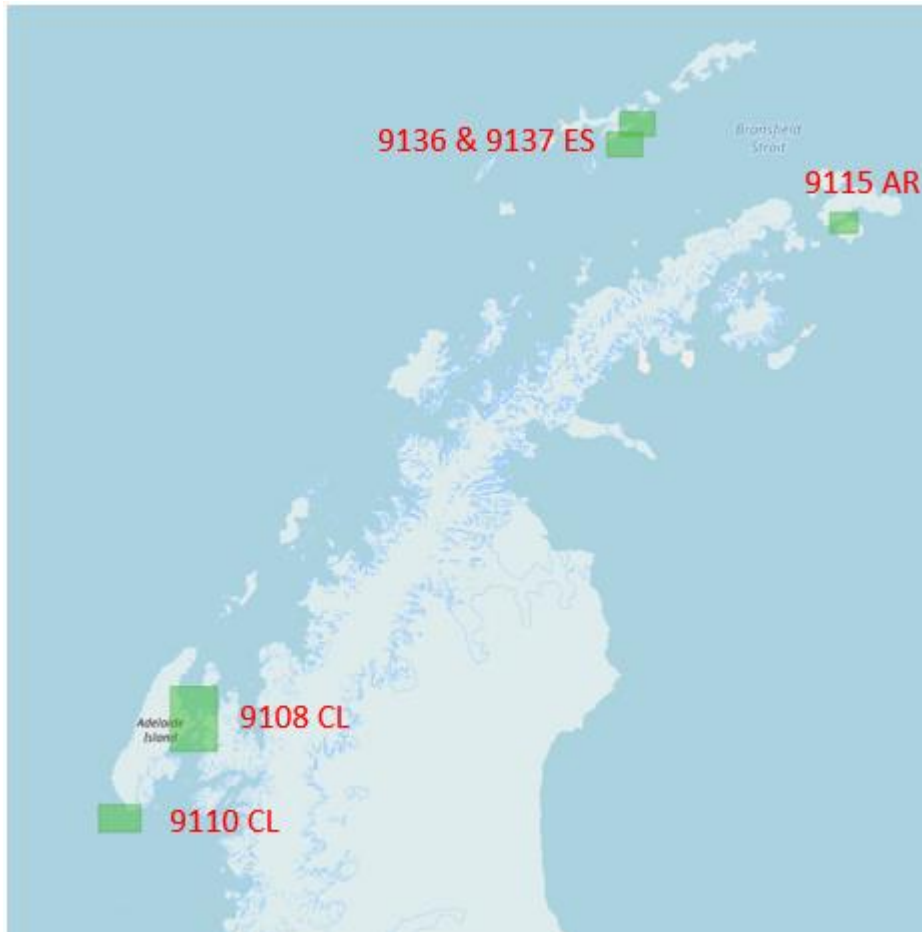


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# HCA Region M Scheme Progress

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## Outstanding Schemed Coverage



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# HCA Region M Scheme Progress

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## Summary of Potential Amendments

The Chair made proposals for changes to the existing INT scheme for consideration which included those shown below. The coordinator will reach out to affected MS after the conference.

**IHO HCA Region M – Potential Amendments**

**Artigas Coverage Requirement – HCA17**

- Challenging to increase existing INT coverage without adjusting scale of chart panel due to paper size
- Modern data available as indicated in HCA GIS – MS to note
- Option for ENC only in addition to updated INT chart?




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**IHO HCA Region M – Potential Amendments**

**Mackellar Cove Update – HCA17**

- INT 9125 plan C has been reported with no equivalent ENC
- INT chart is a co-production between Brazil and Peru published 2016




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**IHO HCA Region M – Potential Amendments**

**Rothera (Biscoe Wharf) Update**

- UK data collect is now complete to support production
- INT chart production cannot progress without data for other panels
- The proposed plan size is excessive for its purpose, thus UK will consider:
  - ENC first or ENC only subject to ICCWG approval
  - Creating a HD ENC subject to RRS SDA requirements
  - Including an inset plan on existing INT 9109




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**IHO HCA Region M – Potential Amendments**

**Sally Cove Update**

- UK (subject to HPWG approval) intend to adjust the scheme proposal to include separate coverage for Sally Cove & Lydstad Bay
- This reduces conflict with potential national chart
- Allows Sally Cove to progress independently of data collect for Lydstad Bay
- Reduced panel sizes offer potential for additional coverage to be provided on INT9113

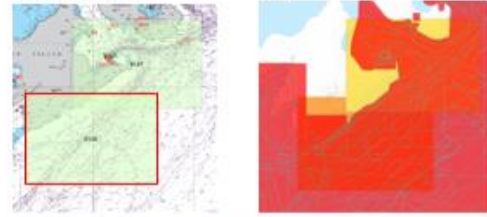


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**IHO HCA Region M Scheme Analysis**

**Approach Scheme – Greenwich & Livingstone Island**

IAATO Demand & Traffic: Data

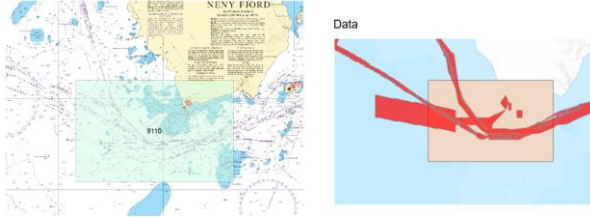


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**IHO HCA Region M Scheme Analysis**

**Approach Scheme – Adelaide Island SW Approaches**

IAATO Demand & Traffic: Data



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# HCA Region M Scheme Progress

## Overlap Report

The Chair gave an update on the overlap report, highlighting the new overlaps:

IC-ENC REGIONAL HYDROGRAPHIC COMMISSION OVERLAP REPORT - HYDROGRAPHIC COMMISSION FOR ANTARCTICA - MAY 2022												
ID	RENC Membership	RHC	ENC 1	ENC 2	Area	Usage Band	ENC 1 Scale	ENC 2 Scale	Overall Severity of Risk	IC ENC Justification	IC ENC Action requested	HPWG Chair Comments
625	IC-ENC	HCA	CL4MA956	GB403207	Gerlache Strait Wilhelmina Bay	4	45,000	22,000	LOW	Area of little SOLAS traffic, covered by UNSARE on both cells. Minor differences between content.	HO requested to clip NC, or liaise with IC-ENC	Resolved 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	IC-ENC	HCA	CL4MA957	GB403207	Gerlache Strait Wilhelmina Bay	4	45000	22,000	LOW	Overlap only covers LNDARE and UNSARE, with very little SOLAS traffic expected within the area.	HO requested to clip NC, or liaise with IC-ENC	Resolved since HCA 16 by amendment to comp scale to resolve overlap item 626
749	IC-ENC	HCA	GB203572	RU2A1AD0	Marguerite Bay Laubeuf Fjord	2	250000	700000	LOW			New at HCA 17  GB cell with later dates takes priority due to comp scale
930	IC-ENC - PRIMAR	HCA	NZ11490E	FR275910	Ross Sea	1	1500000	1500000	LOW			New for HCA 18  Based on same scale overlapping INT charts FR NZ to resolve based on underlying data
125	IC-ENC	SAIHC HCA	RU1A2K00	AU160060		1	3000000	3500000	LOW	Overlap situated just off the coast of Antarctica, very low levels of traffic. Small scale compilation scale.	Clip to common border	No change since HCA 16
126	IC-ENC	SAIHC HCA	RU1B0PF0	AU160060		1	3000000	3500000	LOW	Overlap is located in the Antarctica, it charts very deep waters. There is a 119m shoal depth which is captured on AU160000 which is not captured on RU1B0PF0. Little traffic as expected.	HOs to discuss and resolve overlaps	No change since HCA 16
127	IC-ENC	SAIHC HCA	RU1B0PF0	AU160090		1	3000000	3500000	LOW	Overlap is located in the Antarctica, it charts very deep waters. Little traffic as expected.	HOs to discuss and resolve overlaps	No change since HCA 16
128	IC-ENC	SAIHC HCA	RU1B0PF0	AU160120		1	3000000	3500000	LOW	Overlap is located in the Antarctica, it charts very deep waters. Little traffic as expected.	HOs to discuss and resolve overlaps	No change since HCA 16
30	IC-ENC - NON RENC	HCA	RU2BNM40	JP20ODD0		2	700000	700000	LOW (U)	Overlap situated just off the coast of Antarctica, very low levels of traffic. Small scale compilation scale.	HOs to discuss and resolve overlaps	No change since HCA 16
415	IC-ENC	HCA	CL4MA960	GB400445	Lemaire Channel	4	45000	22000	POTENTIAL (MEDIUM)	General depiction of bathymetry similar between cells, CL cell has a higher area of UNSARE then on the GB cell and UWTROCs not shown.	HO requested to clip NC, or liaise with IC-ENC	New for HCA 18  Further detail requested from IC-ENC and SHOA Different comp scales  Option to discuss at HPWG workshop
414	IC-ENC	HCA	CL5MA980	GB57211A	Port Lockroy	5	22000	12000	POTENTIAL (UNASSESSED)		HO requested to clip NC, or liaise with IC-ENC	New for HCA 18  Further detail requested from IC-ENC and SHOA Different comp scales CL National ENC (ie not INT equivalent) Option to discuss at HPWG workshop

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# HCA Region M Scheme Progress

## Overlap Report

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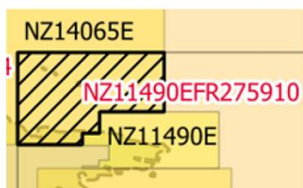
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## HCA Region M Scheme Analysis

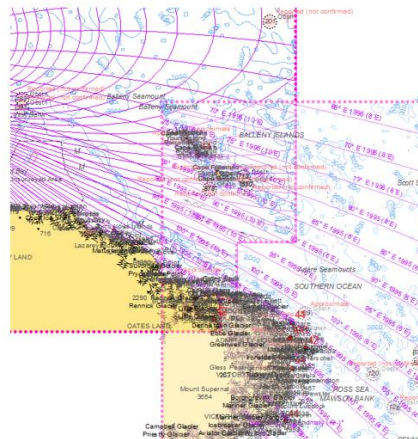
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### New Overlaps for HCA18

NZ11490E & FR275910 Ross Sea



Both cells 1,500,000 but different UBs.



HCA-17, VTC, 14 June 2021



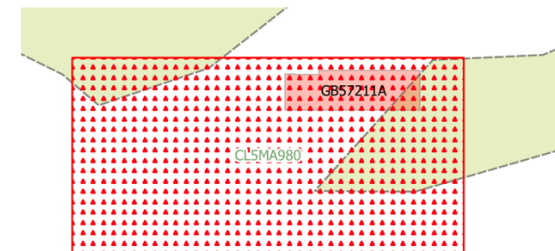
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## HCA Region M Scheme Analysis

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### New Overlaps for HCA18

CL5MA980 & GB57211A - Port Lockroy



ID	RENC Membership	RHC	ENC 1	ENC 2	Area	Usage Band	ENC 1 Scale	ENC 2 Scale	Overall Severity of Risk
414	IC-ENC	HCA	CL5MA980	GB57211A	Port Lockroy	5	22000	12000	POTENTIAL (UNASSESSED)

HCA-17, VTC, 14 June 2021

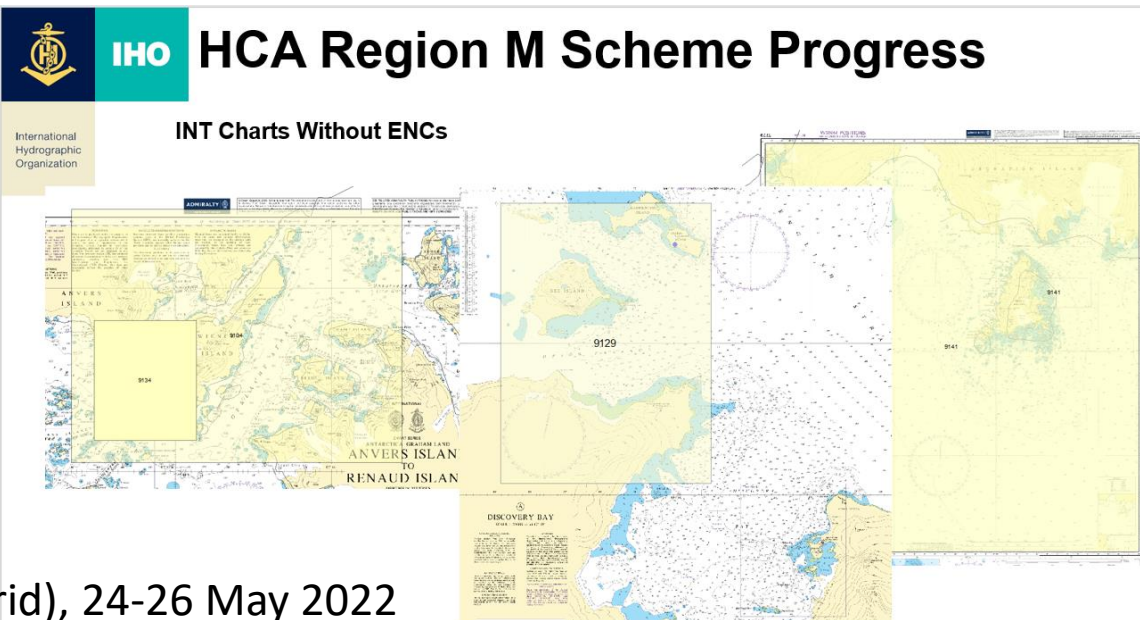
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# HCA Region M Scheme Progress

## INT Charts Without ENC

INT Number	Panel ID	PRODUCED	NATIONAL	TITLE	Chart Scale	Published Year	Production Status	Usage Band	ENC_Number(s)
9104	-	CL	15350	Estrecho De Gerlache. Islote Useful a Isla Wednesday	50000	2016	Produced	4	No ENC
9134	-	CL	15351	Fondeaderos en Canales Peltier y Neumayer	30000	2015	Produced	4	No ENC
9141	-	GB	1779	Approaches to Signy Island	50000	2006	Produced	4	To be produced 22/23
9013	-	KR	9501	Jang Bogo Station	10000	2021	Produced	5	No ENC
9105	PLAN-A	US	29123	Plan A - Arthur Harbour	12500	2001	Produced	5	No ENC at equivalent comp scale
9122	PLAN-A	CL	14231	Plan A - Bahia Chile (Discovery Bay)	20000	1947	Produced	5	No ENC
9122	PLAN-B	CL	14231	Plan B - Puerto Soberan -ja y Ensenadas Rojas e Iquique (Iquique Cove and Approaches)	5000	1947	Produced	5	No ENC
9125	PLAN-B	BR,PE	25121	Plan B - Estacion Arctowski	15000	2016	Produced	5	No ENC (UB4 @ 22:000)
9125	PLAN-C	BR,PE	25121	Plan C - Ensenada Mackellar	15000	2016	Produced	5	No ENC (CL5MA975 pending)
9129	-	EC	70001	Punta Fort Williams, Isla Greenwich	10000	2012	Produced	5	No ENC
9141	PLAN-A	GB	1779	Plan A - Borge Bay and Approaches	10000	2006	Produced	5	No ENC (To be produced 22/23)



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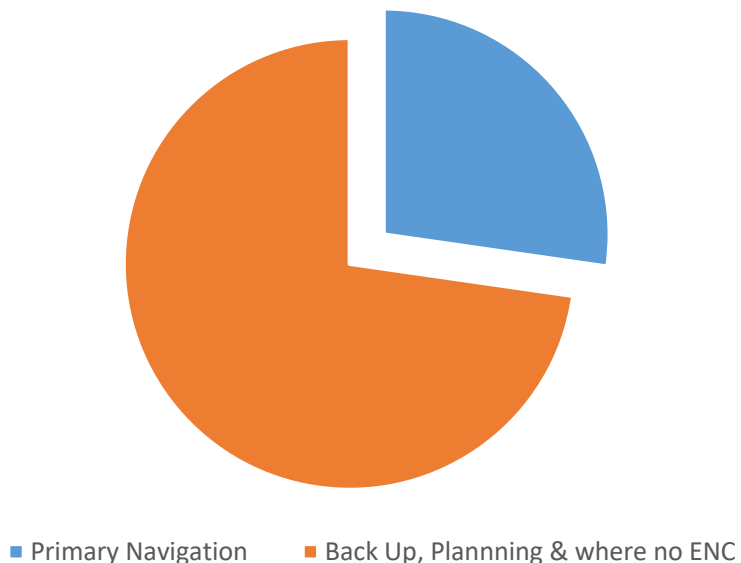
# HCA Region M – User Survey

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## Discussion on IAATO User Survey

IAATO were subsequently approached to ask their 55 operators to provide feedback on regional charting matters. 12 members responded of which all carry paper charts.

Use of Antarctic Paper Charts



Are there areas where additional chart (paper/digital) coverage is required?

A full detailed survey of our whole operational area would be great! From Snow Hill Island to Collins Bay, including South Shetlands, South Orkneys and South Georgia.

Yes, the small coves and channels that were covered by ice in the past (Antarctica) but now are open and used by all smaller vessels/superyachts/yachts.

Antarctica

Yes - Danger islands in Weddell sea Argentine islands / Crystal sound / Hanusse Bay / Flandre Bay / D'urville island

no

YES

Yes, there are plenty of areas like that not so far

Yes

Crystal Sound / Antarctica

charted and additional coverage would be of assistance

yes

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# Deception Island Action

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



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# Deception Island (HCA 17/21)

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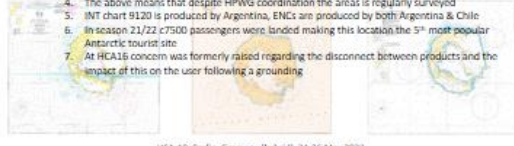
## Action update

The Region M Coordinator gave an update to the workshop participants and made a proposal to align SHN, SHOA and UK charts and ENC's (as detailed on the following slide)

**IHO Deception Island (HCA 17/21)**

**Background**

1. Deception Island is located at the western end of the Bransfield Strait, believed to have been first charted by Bransfield in 1820 and in 1821 by the first Russian Antarctic Expedition
2. Port Foster is the location of Argentine and Spanish scientific research stations and also since the mid 1960s a destination for tourist vessels
3. Deception Island charted by Argentina, Chile, Russia, Spain & UK
4. The above means that despite HPWG coordination the areas is regularly surveyed
5. INT chart 9120 is produced by Argentina, ENC's are produced by both Argentina & Chile
6. In season 21/22 c.7500 passengers were landed making this location the 5<sup>th</sup> most popular Antarctic tourist site
7. At HCA16 concern was formerly raised regarding the disconnect between products and the impact of this on the user following a grounding

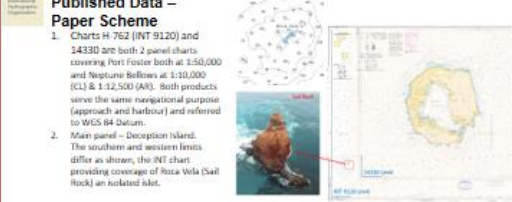


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**IHO Deception Island (HCA 17/21)**

**Published Data – Paper Scheme**

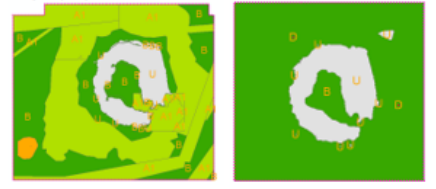
1. Charts H 762 (INT 9120) and 14330 are both 2 panel charts covering Port Foster both at 1:50,000 and Neptune Bellows at 1:10,000 (CL) & 1:12,500 (AR). Both products serve the same navigational purpose (approach and harbour) and referred to WGS 84 Datum.
2. Main panel – Deception Island. The southern and western limits differ as shown, the INT chart providing coverage of Roca Vela (Sail Rock) an isolated islet.



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**IHO Deception Island (HCA 17/21)**

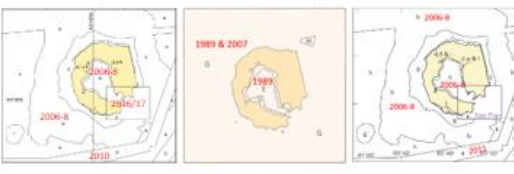
**Published Data – ENC Technical Detail**  
M QUAL (ZoC)



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**IHO Deception Island (HCA 17/21)**

**Published Data – Current Situation**  
Official published charts contain different survey data

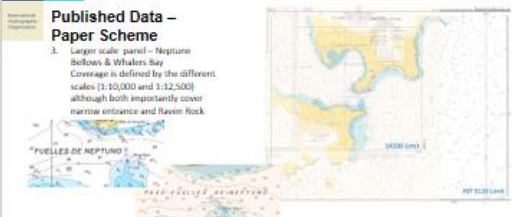


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**IHO Deception Island (HCA 17/21)**

**Published Data – Paper Scheme**

3. Larger scale panel – Neptune Bellows & Whalers Bay. Coverage is defined by the different scales (1:10,000 and 1:12,500) although both importantly cover marine entrance and Haven Rock.



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**IHO Deception Island (HCA 17/21)**

**Remedial Action to date**

1. UK removed INT chart status from national chart 226
2. UK provided Chile with photo plot regarding uncharted rock
3. UK and Spain provided bathymetric data to Argentina for INT9120
4. Argentina published NE INT9120
5. UK is in the process of replotting INT9120 to ensure consistency and reduce duplication of effort




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**IHO Deception Island (HCA 17/21)**

**Published Data – Current Situation**  
Overlapping ENC's published:

1. contain different survey data
2. cause confusion for the user (safety and environmental protection)
3. could cause ECDIS display issues (ghosting & prioritisation)



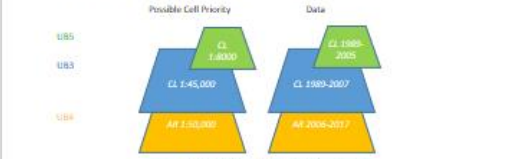
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**IHO Deception Island (HCA 17/21)**

**Published Data – ENC Technical Detail**  
Display Prioritisation

1. Usage band should not influence display priority
2. AR ENC scale 1:50,000 vs CL ENC scale 1:45,000

Possible Cell Priority



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**IHO Deception Island (HCA 17/21)**

**Proposal to Align Charting**

General Principles & Intent

1. Recognise the importance of Deception Island for the Cruise Industry and the importance of the delivery the best information to navigators
2. That duplication of effort amongst IHO's should be avoided to enable the most efficient use of production and maintenance resources to complete the region 'M' scheme
3. The ENC scheme should reflect the INT chart scheme and follow the HCA 13 (Cadiz) one producer principle
4. We recognise the importance of charting the island within national schemes

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# Deception Island (HCA 17/21)

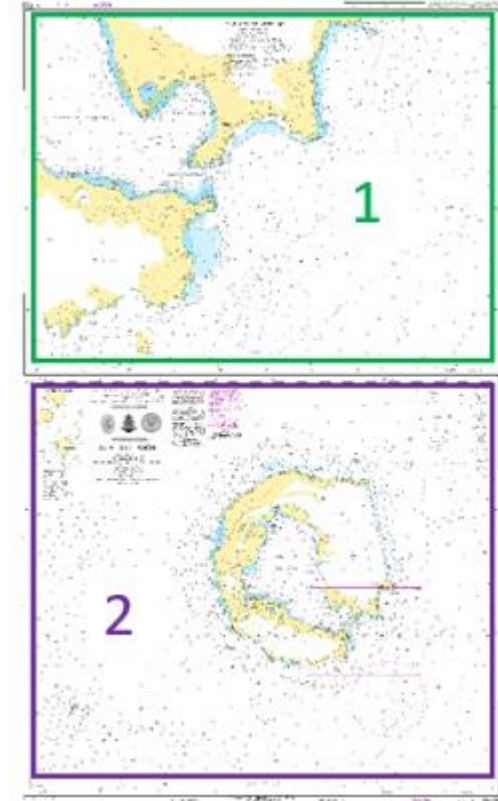
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## Recommended Assignment of Production

The coordinator recommends production responsibility for both products based on existing products, data and scheme

Chile should produce panel 1 including ENC from the latest sources. Chile already produce a band 5 ENC

Argentina should produce panel 2. Argentina already produce a band 4 ENC





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# Deception Island (HCA 17/21)

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## The Benefits

1. Builds on the current limits, coverage and content of chart INT 9120 (2021 edition), reducing the need for 'rework'
2. Aims to consolidate resource for paper and digital charting in this area through the removal of duplication
3. For efficiencies defines areas of production responsibility
4. Removes conflicting overlaps of ENC's
5. Aligns with the one producer concept (ie one INT chart/one ENC)

### Post Conference Note:

IHM informed the co-coordinator that they would adopt INT9120 if it met their requirements for charting of their scientific station. This will be explored between AR, CL and ES post conference.

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# HCA Region M – Recommendations for HCA

## Proposed Recommendation

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