



18th Conference of the IHO Hydrographic Commission on Antarctica

Report of the HPWG

Agenda item 07.3B



IHO

Contents

International
Hydrographic
Organization

Hydrographic Priorities Working Group Update

- HPWG Web Page
- Status of Hydrographic Surveys
- Survey Activity
- Maritime Shipping Routes
 - Peninsula Review
 - South Orkney Islands
- Beacons Checklist
- HCA GIS Updates
- HCA Action 17/21
- Actions to be considered by the HCA



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HPWG Web Page

International
Hydrographic
Organization

HCA

- Basic Commission Documents
- HCA Letters
- **Hydrography Priorities Working Group**
- HCA18 (2022)
- HCA17 (2021)
- HCA16 (2019)
- HCA15 (2018)
- Miscellaneous

Looking for something specific?

Start typing



HPWG Chair reminded
participants of the
associated webpage and
worked through relevant
links

HOME > HCA > HYDROGRAPHY PRIORITIES WORKING GROUP

Hydrography Priorities Working Group

At its 4th Meeting (Kythnos, Greece, Sept. 2004), the HCA established a new Working Group: *HCA Survey Programme Working Group* with the specific aim is to establish co-operation and collaboration between hydrographic organisations and scientific institutions in hydrographic surveying in Antarctica. The WG was renamed *HCA Survey Prioritisation Working Group* at HCA-8 (Niteroi, RJ, Brazil, Oct. 2008), then *HCA Hydrography Priorities Working Group (HPWG)* at HCA-12 (Montevideo, Uruguay, Oct. 2012) with revised *Terms of Reference*. As a result, in addition to addressing hydrographic surveying in Antarctica, HPWG is also in charge of coordinating INT chart and ENC schemes. (Please see the [Scheming and Production of INT Charts and ENCs in Region M.](#))

Chair	Mr. Lee Truscott (Lee.Truscott@UKHO.gov.uk), United Kingdom
Membership	
in 2004	Argentina, Australia, Chile, Germany, Greece, South Africa, Spain, United Kingdom, USA, COMINAP (observer) and IAATO (observer).
since HCA-14, June 2016	The HCA Chair proposed that, because of its key coordinating role in the HCA, all HCA Members and Observers should be considered as participants in the HPWG in future (Decision&Action HCA14/16).
	Terms of Reference

Guidelines and Forms

The following documents have been developed and/or are being maintained by the HCA HPWG:

- [Guidelines for the collection and rendering of hydrographic data by Ships of Opportunity operating in the Antarctic Region](#)
- Form for [Collection and Rendering of Hydrographic Data](#), for use by ships' captains on Antarctic vessels.
- Form [Request for Bathymetric Data](#), for use by Hydrographic Office when preparing a new Edition or a new INT chart.
- Revised Survey Plan for Antarctica (version HCA-17, September 2021): [Peninsula Survey Plan for Antarctica](#)

HPWG Letters

No	Subject
2022	
01/2022	Letter from SHN, Argentina dated 4 April 2022 - Decepción Island
2021	

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



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Status of Hydrographic Surveys (C55)

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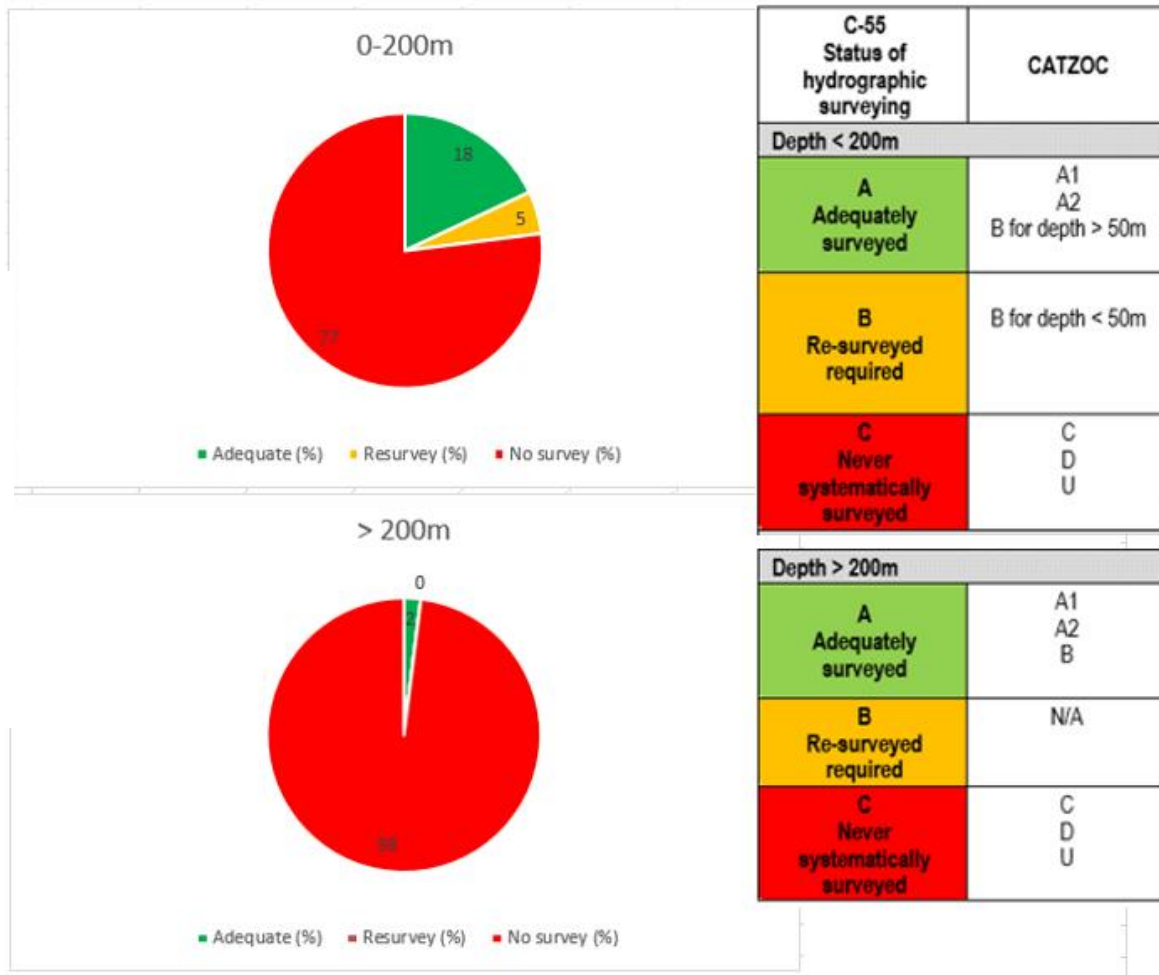
Peninsula 0-50m



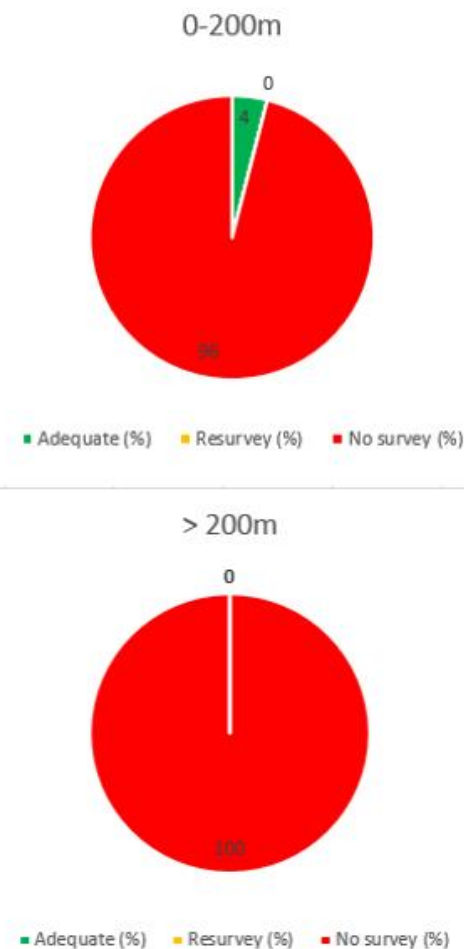
■ A1 ■ A2 ■ B ■ C or worse

HCA 18 C55s
include data from
MS ENC

Antarctic Peninsula



Antarctic



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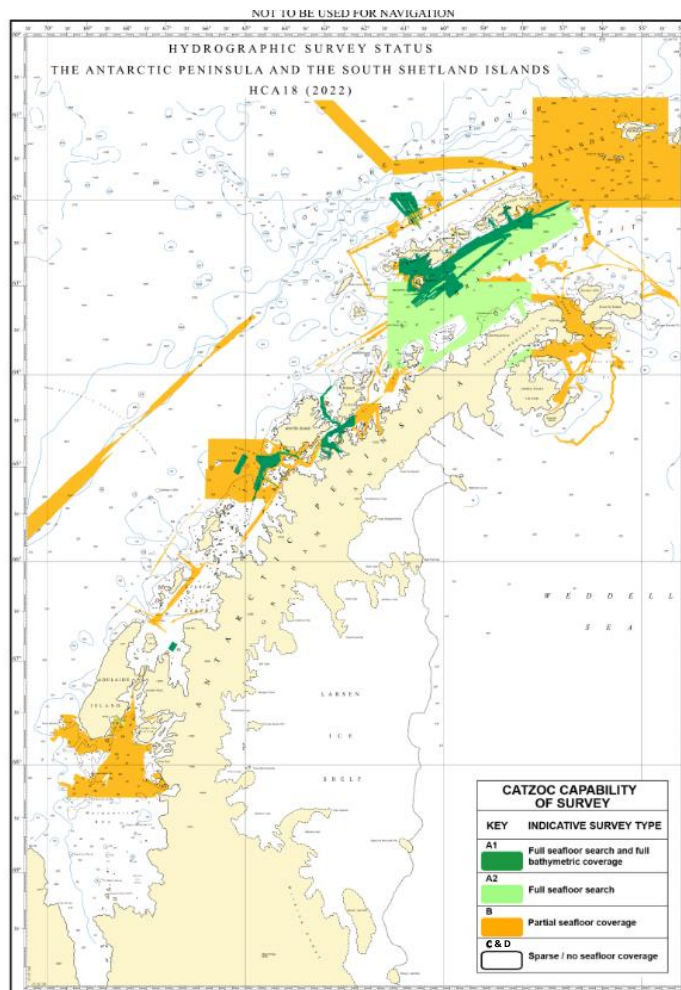


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Status of Hydrographic Surveys

Antarctic Peninsula Hydrographic Survey Status by ZoC

New for HCA18, this chart shows the ZoC used for C55s in the Peninsula



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HCA Survey Activity

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Survey Activity Since HCA 17

SHN – Argentina

Since HCA17:

1. Nothing to Report

Planned 2022-23

1. Seymour Island, Marambio Antarctic Base – [INT 9100 \(AR\)](#) & [9130 \(GB\)](#) [MSR A](#)

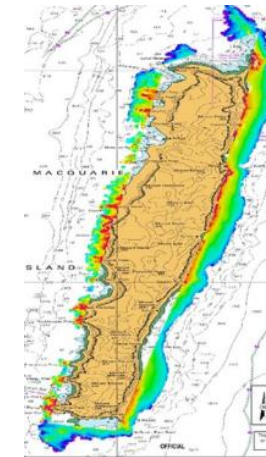
AHS - Australia

Since HCA17:

1. Davis Antarctic Base. – [INT 9032 \(AU\)](#)
2. Casey Antarctic Base – [INT 9021 \(AU\)](#)

Planned 2022-23

1. Approaches to Mawson [INT 9036 \(AU\)](#)



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Survey Activity Since HCA 17

DHN – Brazil

Since HCA17:

1. Bransfield Strait (South of Nelson Strait) – [INT 9151 \(BR & CL\)](#)

Planned 2022-23:

1. Further surveys in Bransfield Strait to support the production of INT 9151 & 9152

SHOA – Chile

Since HCA17:

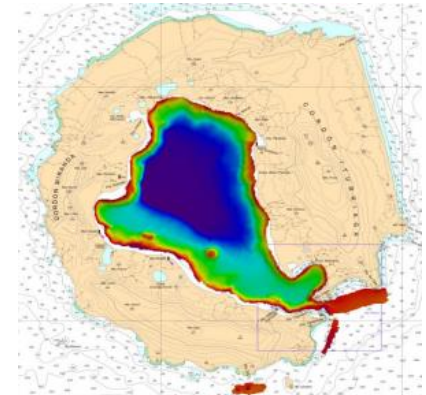
1. Deception Island including (rock investigation) - INT 9120 (AR) [vicinity of MSR17a and Ac](#)

Planned 2022-23:

1. Greenwich Island, Discovery Bay – INT 9122 (CL) [MSR Af](#)

DIMAR – Colombia

Nothing to Report



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Survey Activity Since HCA 17

MSA – China

Nothing to report

INOCAR – Ecuador

Nothing to Report

SHOM – France

Since HCA17:

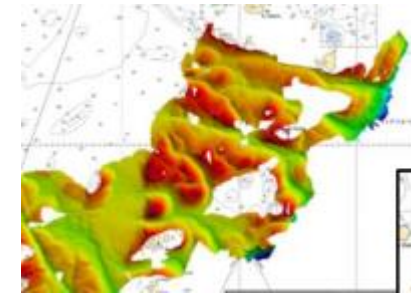
1. Dumont D'Urville Base - INT 9017 (FR)

Planned 2022-23:

1. Nothing to report

INHO – India

Nothing to Report



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Survey Activity Since HCA 17

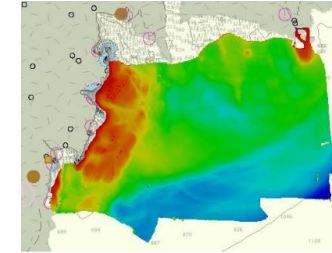
IHM – Italy

Since HCA17:

1. Terra Nova Bay - [INT 9005 \(IT\)](#)

Planned 2022-23:

1. Shallow water survey, Gerlache Inlet, Terra Nova Bay - [INT 9005 \(IT\)](#)



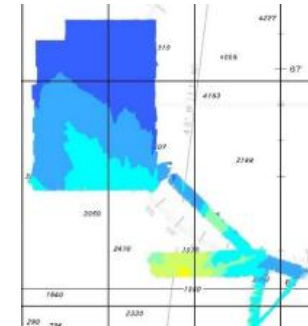
JHOD – Japan

Since HCA17:

1. Continued activity in Lutzow-Holm Bay – [INT 75 \(GB\)](#)

Planned 2022-23:

1. Lutzow-Holm Bay – [INT 9046 & 9047 \(JP\)](#)



Republic of Korea

Nothing to report

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HCA Survey Activity Update

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Survey Activity Since HCA 17

New Zealand

Since HCA17:

1. Survey of Pram Point – [INT9002 \(NZ\)](#)

Planned 2022-23:

1. Nothing to report

Kartverket - Norway

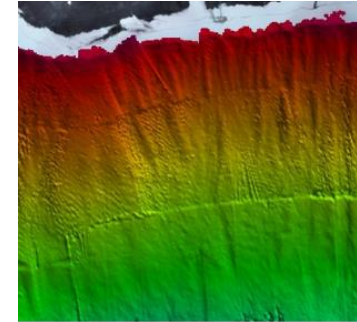
Nothing to Report

DHN - Peru

Nothing to Report

Russia

Nothing to Report



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Survey Activity Since HCA 17

SANHO - South Africa

Nothing to report

IHM - Spain

Nothing to Report

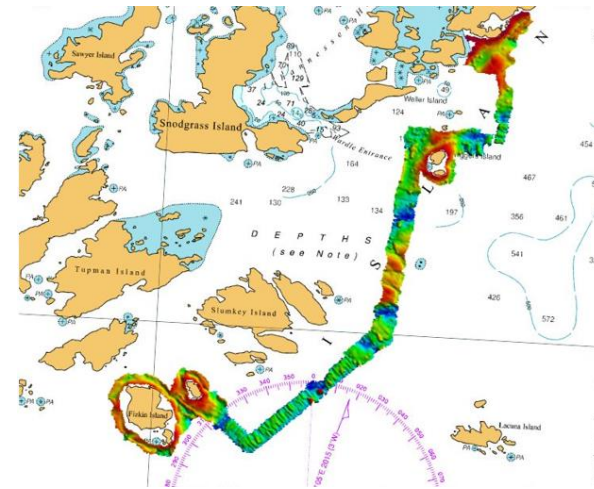
UKHO – United Kingdom

Since HCA17:

1. Matha Strait – [INT 9130 \(UK\)](#), [BC V](#)
2. Rothera – [INT 9109 \(UK\)](#), [BC Z](#)
3. Wilhelmina Bay – [INT 9166 \(UK\)](#), [BC Az & K](#)
4. Porquoi Pas – [INT 9136 \(UK\)](#), [BC Av](#)
5. Marguerite Bay – [INT 9136 \(UK\)](#), [MSR 11](#)
6. Approaches to Millard Island – [INT 9136 \(UK\)](#), [BC Ab](#)
7. Pitt Islands – [INT 9132 \(UK\)](#)
8. Signy – [INT 9141 \(UK\)](#) – [MSR 4 & 5](#), [BC C](#)

Planned 2022-23:

1. Detail of survey activities is yet to be agreed but will align with HPWG priorities
2. Surveys of glacier fronts in Wilhelmina Bay to support BAS – [INT 9166](#)



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HCA Survey Activity

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Survey Activity Since HCA 7

NGA – US

Nothing to report

SHN - Venezuela

Nothing to report

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Maritime Shipping Routes

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Peninsula MSR Review - Update

Background

- At HCA17 the HPWG Chair reported on a review of the 78 Antarctic Peninsula MSRs.
- This review :
 - assessed the currency of peninsula MSRs against AIS data
 - updated and reformatted the Peninsula Survey Plan

HCA 18 - PENINSULA SURVEY PLAN

Table of MSRs, base/site calls, usage category, and current survey category

Note: In the tables below, high priority surveys have been emphasized in **yellow**. Indications of planned surveys appear in **green**. Indications of surveys completed appear in **blue** areas to be surveyed in **red**.

Table includes data from HCA18 National Reports of AR, BR, CL, EC, FR, IT, JP, NZ, US & UK

Categories

Category	Usage
A	Frequent
B	Regular
C	Infrequent

I. ANTARCTIC PENINSULA

Charted ZoC	
A	Adequately surveyed – full seafloor search
B	Modern survey – full seafloor search not achieved
C	Miscellaneous data – low accuracy
D	Unsurvey
U	Unassessed data due to no ENC ZoC

1.1 Main Corridors (see diagram on last page for MSR references)

MSR	Name	Usage Category	Charted ZoC	INT Chart Coverage & Survey Information
1	James Ross Island circular route (Trinity Peninsula)	B+C	D (A&B)	INT 9153 (UK) Prince Gustav Channel & Eastern corridor 55% surveyed. 45% unsurveyed. Blocks surveyed by: UK 1995 (H11583) 1999 (H11790) UK 2006-08 (H1198/99 & 1131) UK 2013 & 2017 (H14398) Surveys required W to S from Long Island to Seymour Island
2	Joinville Island circular route (Trinity Peninsula)	A+B	B & D	INT 9154 (UK) 45% surveyed (Antarctic Sound), 55% unsurveyed. Blocks surveyed by: UK 2005 – 10 (Hope Bay Approach, H1198/99) UK 2013 17 (H14398) Uruguay & Venezuela 2008. Surveys required between Dundee Island and north of Danger Islands and also west of Zelee Rocks (62 56S, 57 45W)
3	Orleans Strait to Antarctic Sound	B	A (&D)	INT 9155 (CL) 90% complete Blocks surveyed by: Chile 2018 UK 2001-10 (H1099 including Trinity Island to Ohlin Island) UK 2013-16 (NW of Peralta Rocks) Survey required NE of Monttravel

* Indicates MSR downgraded from high priority since HCA-17
* Unbracketed categories indicate main ZoC for MSR



HCA-17, VTC, 14 June 2021



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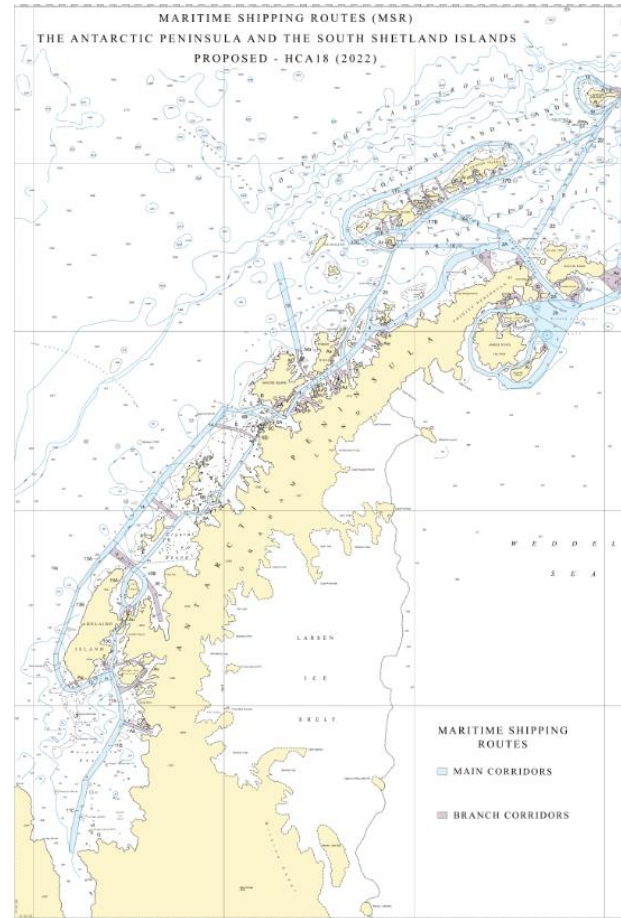
Peninsula MSR Review - Update

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Peninsula MSR Review - Update

Output

- The HPWG agreed to provide an additional dataset reflecting the modified MSRs for further review. This work has been completed for HCA19
- 40 routes have been realigned to reflect AIS
- Large routes have been split into sections to improve reporting
- 1 route has been deleted
- Record of amendments recorded in supplementary ppt



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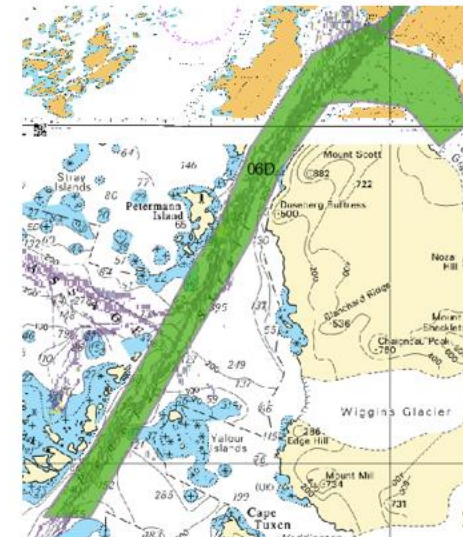
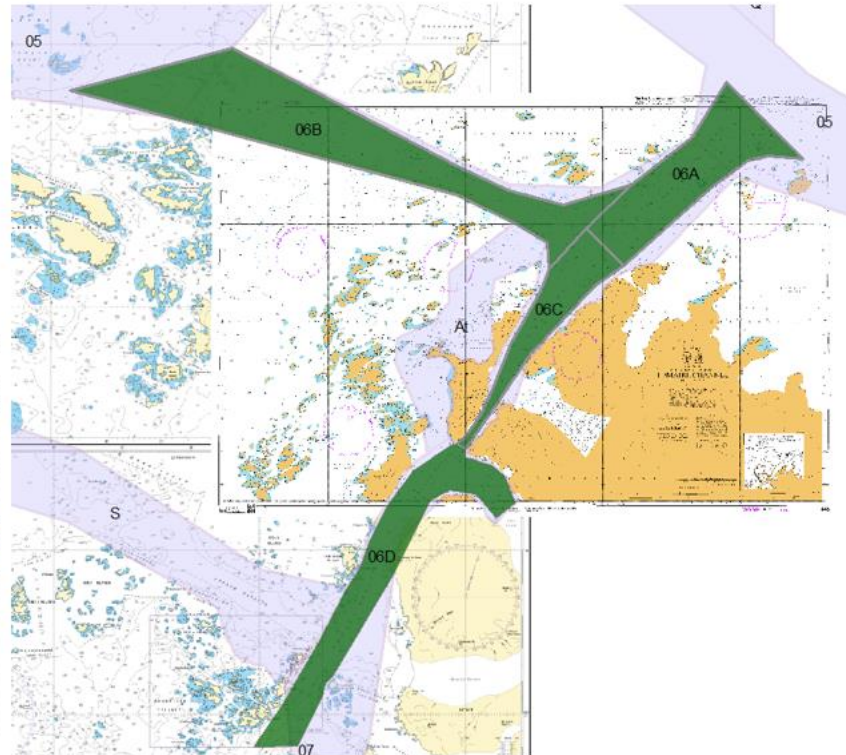
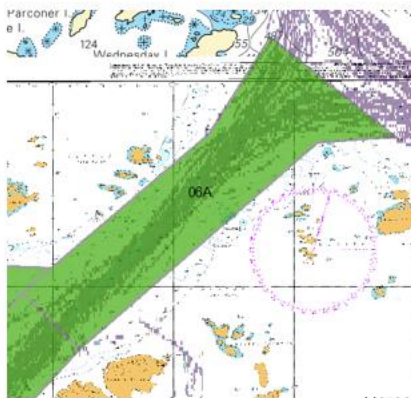
Peninsula MSR Review

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Peninsula MSR Review - Update Example MSR 6 Amendment

MSR 6 - Lemaire Channel (INT 9106, 9118, 9158 UK)

- Amended into 4 sections to improve reporting in Peninsula Survey plan:
 - 6A Butler Passage
 - 6B Nimrod Passage
 - 6C Lemaire Channel
 - 6D Penola Strait



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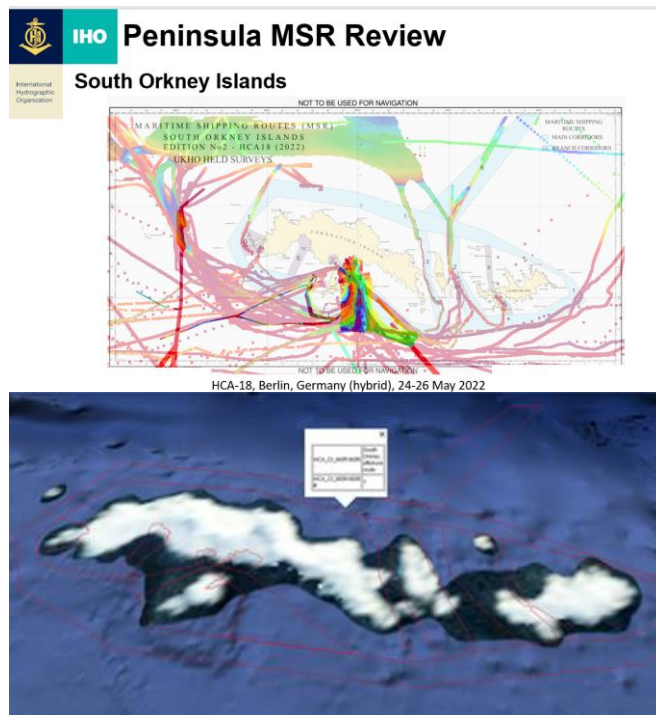
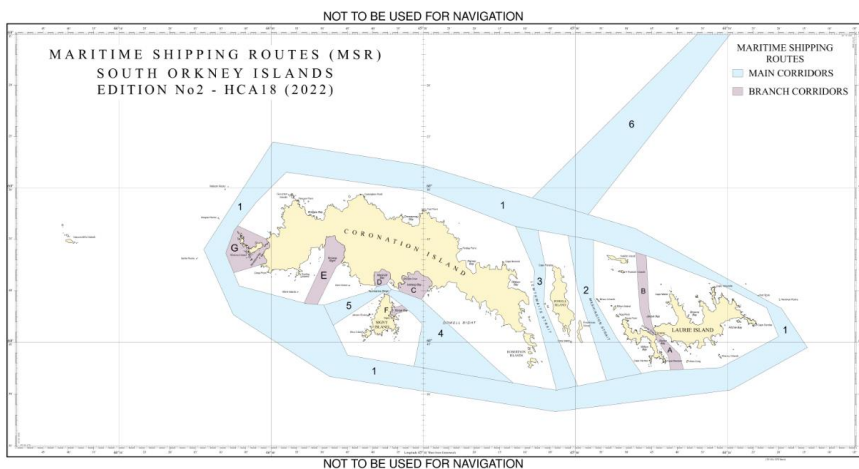
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Peninsula MSR Review

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South Orkney Islands

- For HCA18 the South Orkney Islands Survey Plan and associated graphics have been updated, reformatted and digitised.
- The HPWG Chair recommends that these routes are reviewed in readiness for HCA20
- The Chair demonstrated UK held surveys for the area



HCA 18 - SOUTH ORKNEY ISLANDS SURVEY PLAN

Table of MSRs, base, usage category, and current survey category

Note: In the tables below, high priority surveys have been emphasized in **yellow**. Indications of planned surveys appear in **green**. Indications of surveys completed appear in **blue** areas to be surveyed in **red**.
Table includes data from HCA18 National Reports of AR, BR, CL, EC, FR, IT, JP, NZ, US & UK

1. SOUTH ORKNEY ISLANDS

Categories

Category	Usage
A	Frequent
B	Regular
C	Infrequent

Charted ZoC	
A	Adequately surveyed – full seafloor search
B	Modern survey – full seafloor search not achieved
C	Miscellaneous data – low accuracy
D	Unsurveyed
U	Unassessed data due to no ENC ZoC

1.1 Main Corridors (see diagram on last page for MSR references)

MSR	Name	Usage Category	Charted ZoC	INT Chart Coverage & Survey Information
1	South Orkney Offshore Route	C	B	INT 9140 (AR), 9141 (UK) Block surveyed by: AR 2001-2017 UK 2016-2017 (H14398) UK 2007 (H1190) UK 1997 (H1719) UK 1964-66
2	Washington Strait	C	C	INT 9140 (AR) Block surveyed by: AR 1966-1981 BAS Cube Swathe 2001-2018
3	Lewthwaite Strait	C (NONE)	C&B	INT 9140 (AR) Block surveyed by: AR 1966-1981 AR 2001-2017 BAS Cube Swathe 2001-2018
4	SE Approaches to Signy Island	B	U&B	INT 9141 (UK), 9140 (AR) Block surveyed by: UK 2016-2017 (H14398) – not included on INT 9141 UK 2007 (H1190) – not included on INT 9141 UK 2001 (H1908) UK 1997 (H1719) UK 1964 AR 2001-2017 BAS Cube Swathe 2001-2018 Surveys planned by UK 2022/23

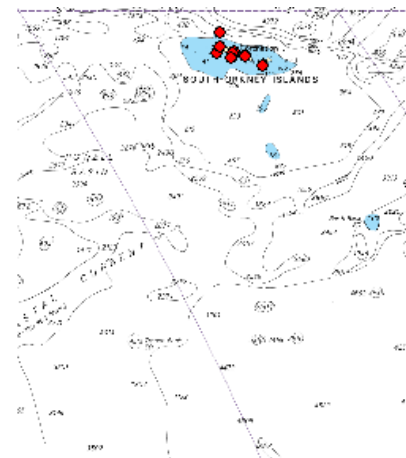
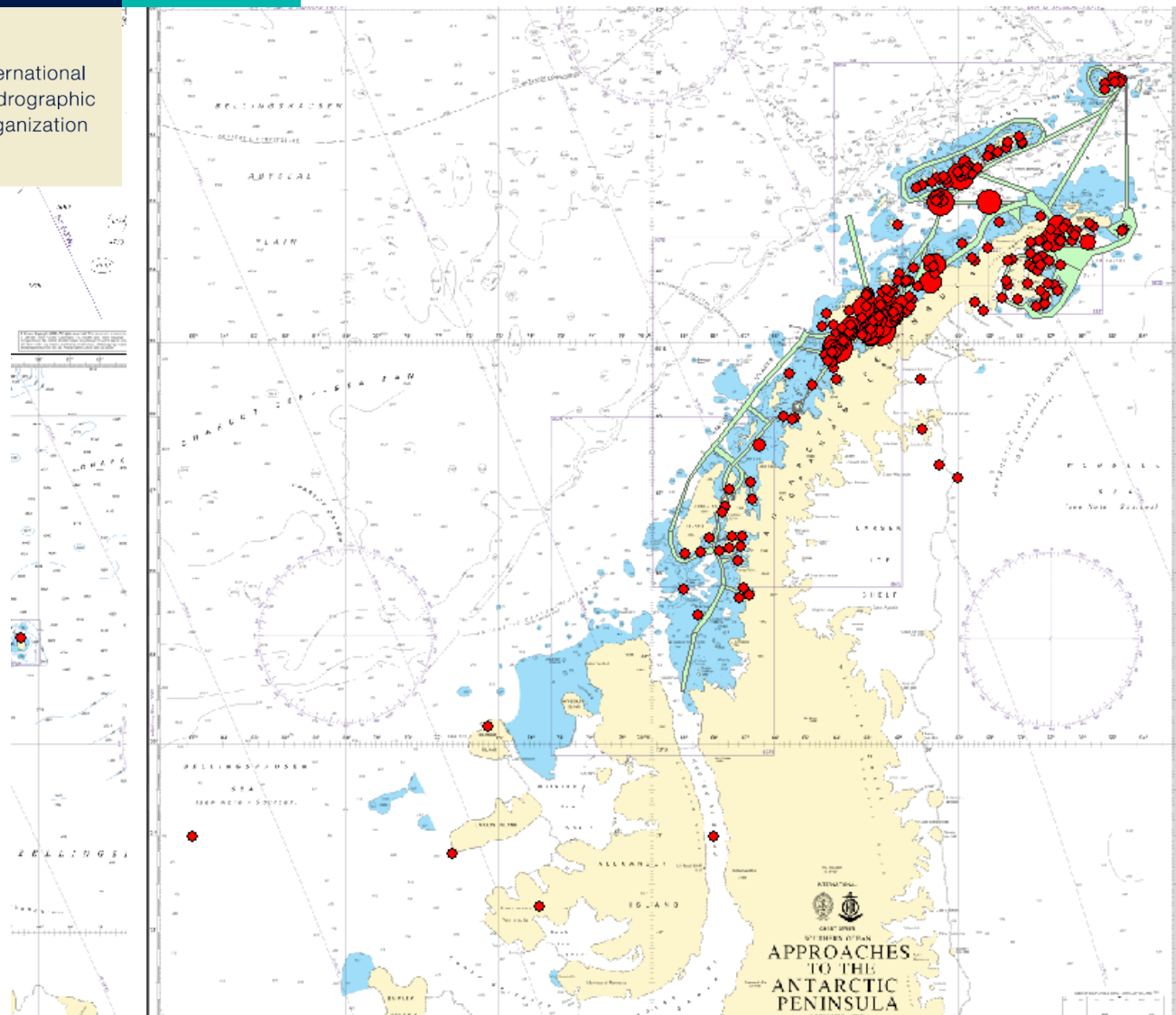
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MSR Tourists Visits 2021-22

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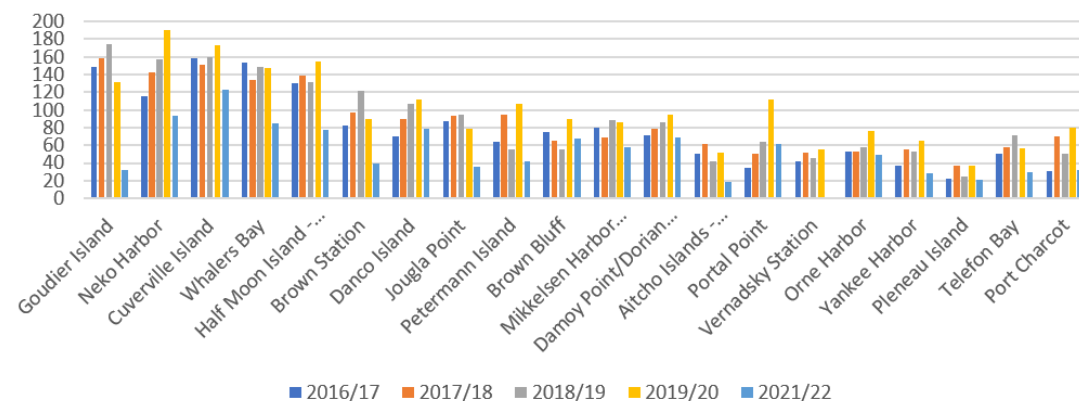


The workshop explored the recently received IAATO data against MSRs

Data will be available on the web pages as .shp file

Top 20 Most Visited Sites 2016-22 Seasons*

*2020-21 Season Excluded



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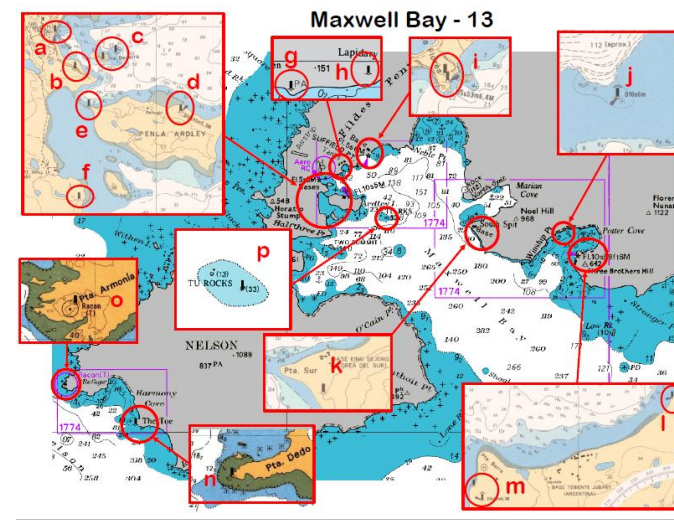
HCA Peninsula Beacon Checklist

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Updates to the Peninsula Beacon Checklist

- List has been maintained from information received and reissued for HCA18 (GIS files remain unchanged)

Identifier	Area	Location	Description	Latitude	Longitude	INT Chart	Existence?	Position Checked?	Light Checked?	Photo?	Other Observations	Source (Year)
13K	Maxwell Bay	King Sejong	Beacon	62 13.60S	058 47.29W	9123 (CL 14211) 9124 (CL 14212)	Y				Red	James Clark Ross (2019)
13L	Maxwell Bay	Potter Cove	Light Fl.7s10m3M (G1387.7)	62 14.04S	058 39.28W	9123 (CL 14211) 9124 (CL 14212)				Y		L Truscott (2020)
13Ma	Maxwell Bay	Potter Cove - Jubani	Beacon	62 14.35S	058 40.79W	9123 (CL 14211) 9124 (CL 14212)				Y		L Truscott (2020)
13Mb	Maxwell Bay	Potter Cove - Jubani	Light Fl.4s18m6M (G1387.6)	62 14.40S	058 40.73W	9123 (CL 14211) 9124 (CL 14212)	Y			Y		L Truscott (2020)
13N	Maxwell Bay	Harmony Cove	Beacon	62 19.66S	059 09.99W	-						
13O	Maxwell Bay	Armonia Point	Beacon	62 18.35S	059 14.18W	-	Y		NA	Y	RW bands. Racon inoperative	A Willet (2020)



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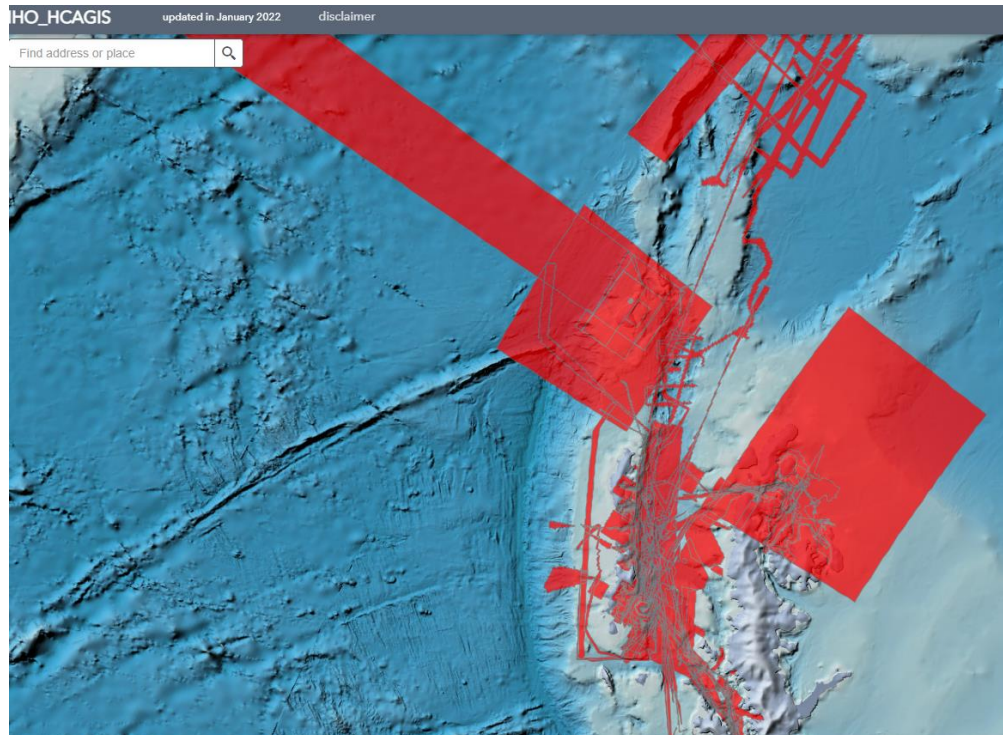
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HCA GIS Update

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Updates the HCA GIS

- Survey limits from the UK and Spain have been added to the HCA GIS since HCA17
- The HCA GIS should be used to identify surveys for compilation and future survey planning to avoid duplication of effort.



<https://iho.maps.arcgis.com/apps/webappviewer/index.html?id=664ba846acc04f36a4326fbcd19b51a0>

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HCA GIS Update

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Extracting Data

- Data can be extracted via the IHO Open Data Website

International Hydrographic Organization



Explore your data



International Hydrographic Organization

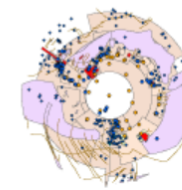
Search bar: Q Search

Filters: Content Type (Feature Layer, Feature Service), Tags, Last Updated

1 - 20 of 26 results

Content Type	Tags	Last Updated
SurveyArea	poj@iho.int	HCA_GIS, HCA GIS data
produced overview	poj@iho.int	HCA_GIS, HCA GIS data

International Hydrographic Organization



IHO HCAGIS

Private Member
Private Organization

Summary

HCA_GIS, HCA GIS data
HCA_GIS, HCA GIS data

Looking for something else? See other maps nearby

Layers

SciBase

TideRec

Beacon

MaritimeShippingRoute

SurveyArea

Read More

You may be interested in

<p>Map</p> <p>poj@iho.int</p> <p>HCA_GIS, HCA GIS data</p> <p>Type: Feature Layer</p> <p>Date Updated: 9 February 2022</p>	<p>Map</p> <p>schemed berthing</p> <p>poj@iho.int</p> <p>HCA_GIS, HCA GIS data</p> <p>Type: Feature Service</p> <p>Date Updated: 9 February 2022</p>
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Details

Map

Feature Service

9 February 2022

Date Updated

3 May 2018

Published Date

Public

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Open in ArcGIS Online

Select to open in a new tab

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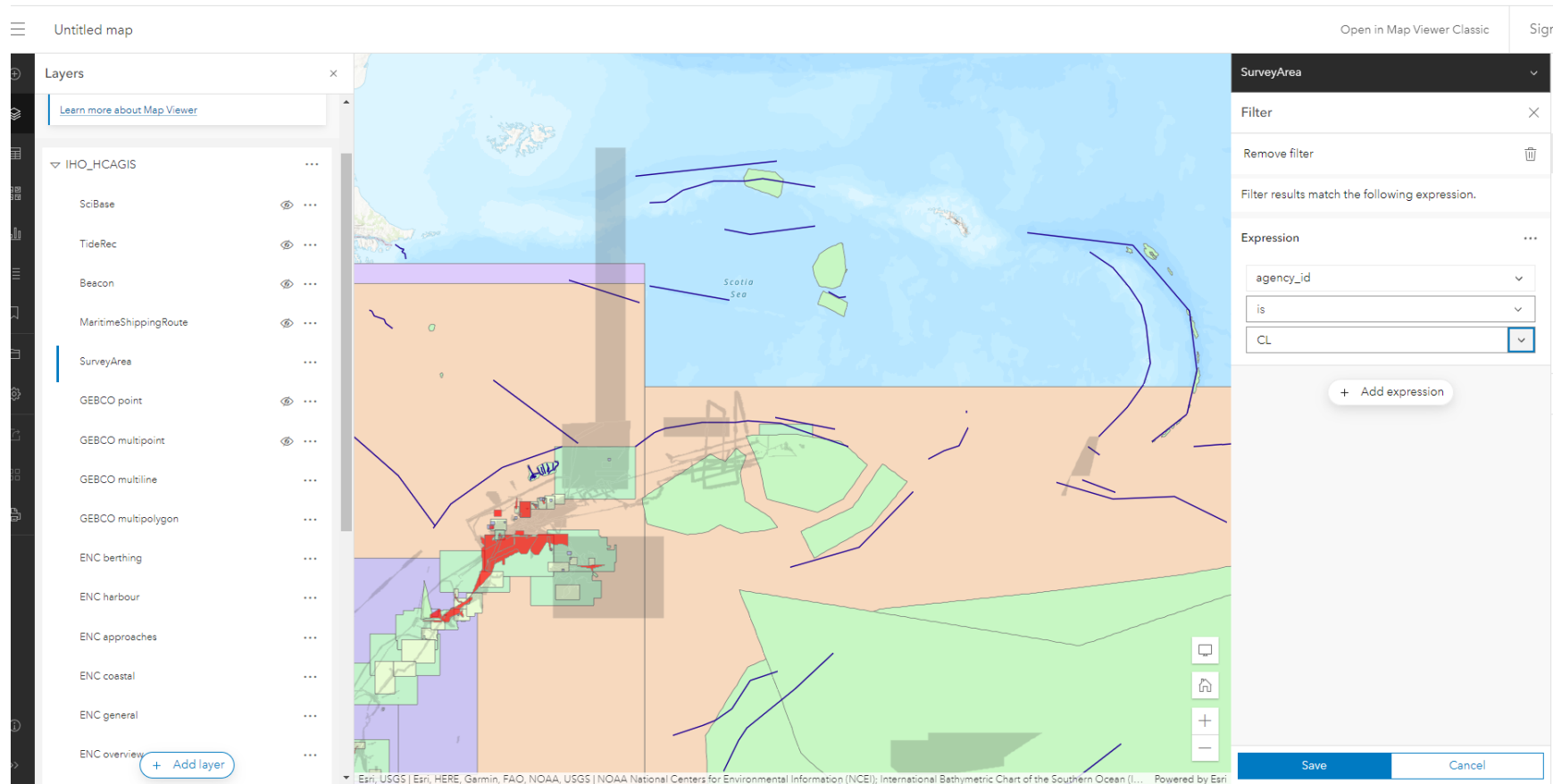
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HCA GIS Update

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Viewing Data

In ArcGIS Online:



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HCA Action 17/21

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UKHO has shared several data sets with IHM and SHN in recent years, this exchange can be seen as a method for proving and effective exchange format.

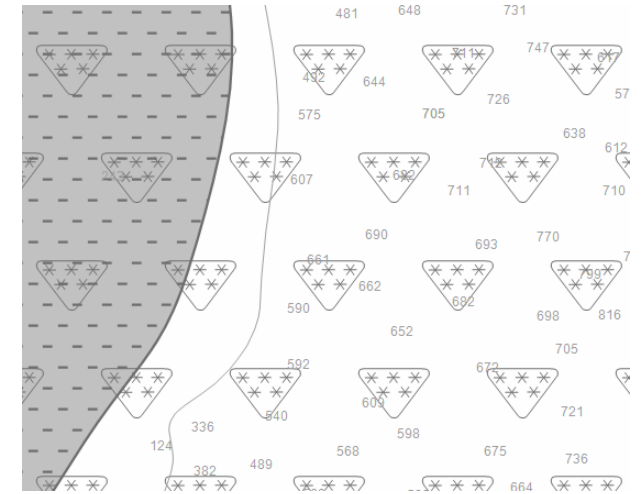
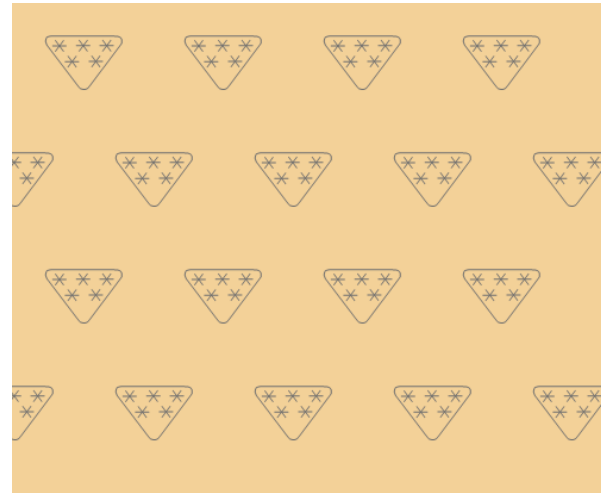
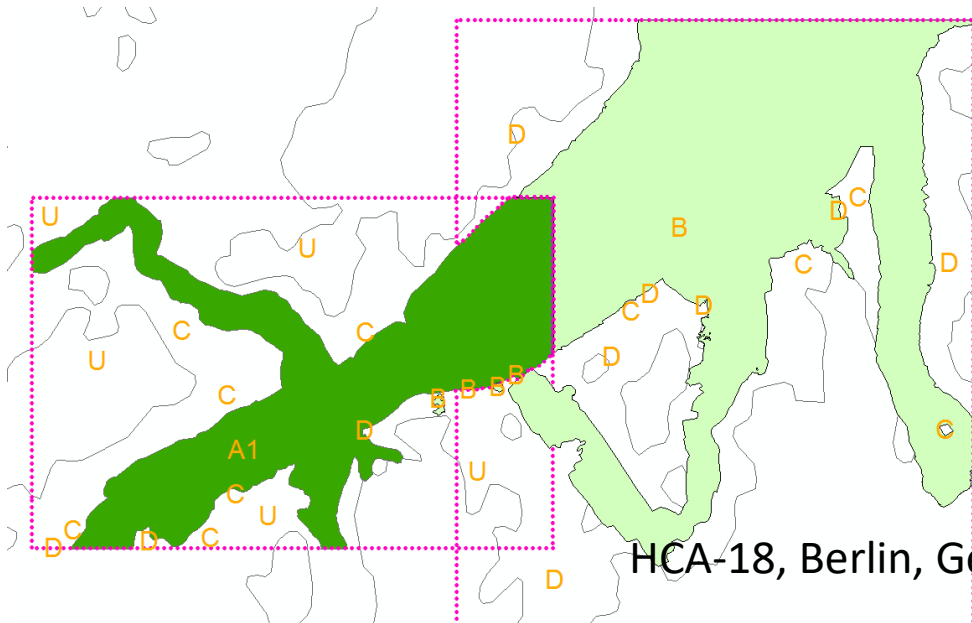
- Caris Spatial Archive (CSAR) and ASCII xyz format
- A combined surface in CSAR and ASCII xyz format
- The CATZOC polygon shapefile
- The release statement (covering permission of use)

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

HPWG Chair highlighted to the WG inconsistencies regarding the application of ZoC:

- Inconsistent categorisation for the same survey (between and amongst producers)
- Not clipped for land
- Excessive use of ZoC U

The UK is slowly reviewing its application of ZoC in Antarctica.



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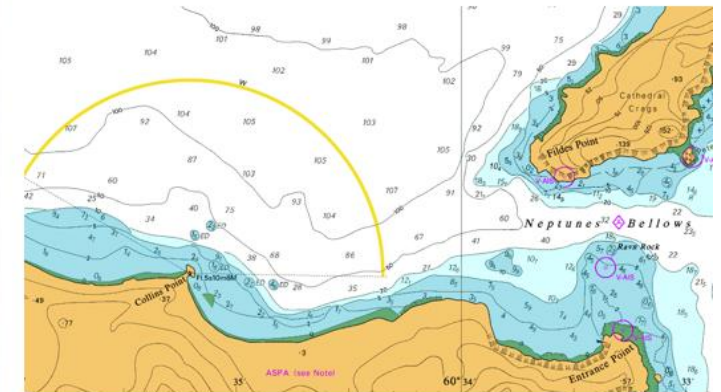
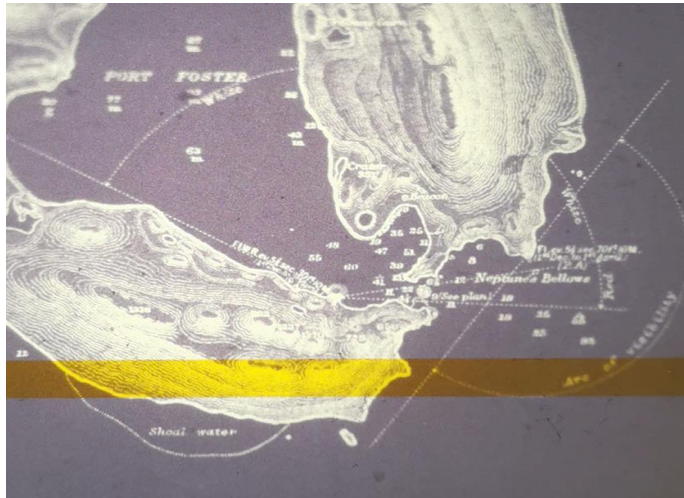


IHO HCA Aids to Navigation

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HPWG Chair highlighted his concern regarding the responsibility of regional AtN

- With the remoteness of the region it is important to pool resource for effective maintenance
- Some MS have established V-AIS in the vicinity of research stations
- CL33/2005 had indicated that there are insufficient ATN, although recent IAATO feedback is mixed
- Significant research is required to trace the original source of light and the chair gave an overview of the purpose of Colins Point light which originally included a sector through Neptune Bellows.
- The Chair suggested that a review of AtN may be pertinent



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



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Actions to be Considered by the HCA

Members are invited to:

- Note the use of form HCA12-07 E for bathymetric data requests
- Refer to the MSR documents for survey planning
- Note the discoverability of data within the HCA GIS and are encouraged to contribute
- Continue to work with Members on the coordinated data acquisition and sharing
- Note the report