

INTERNATIONAL



HYDROGRAPHIC ORGANISATION

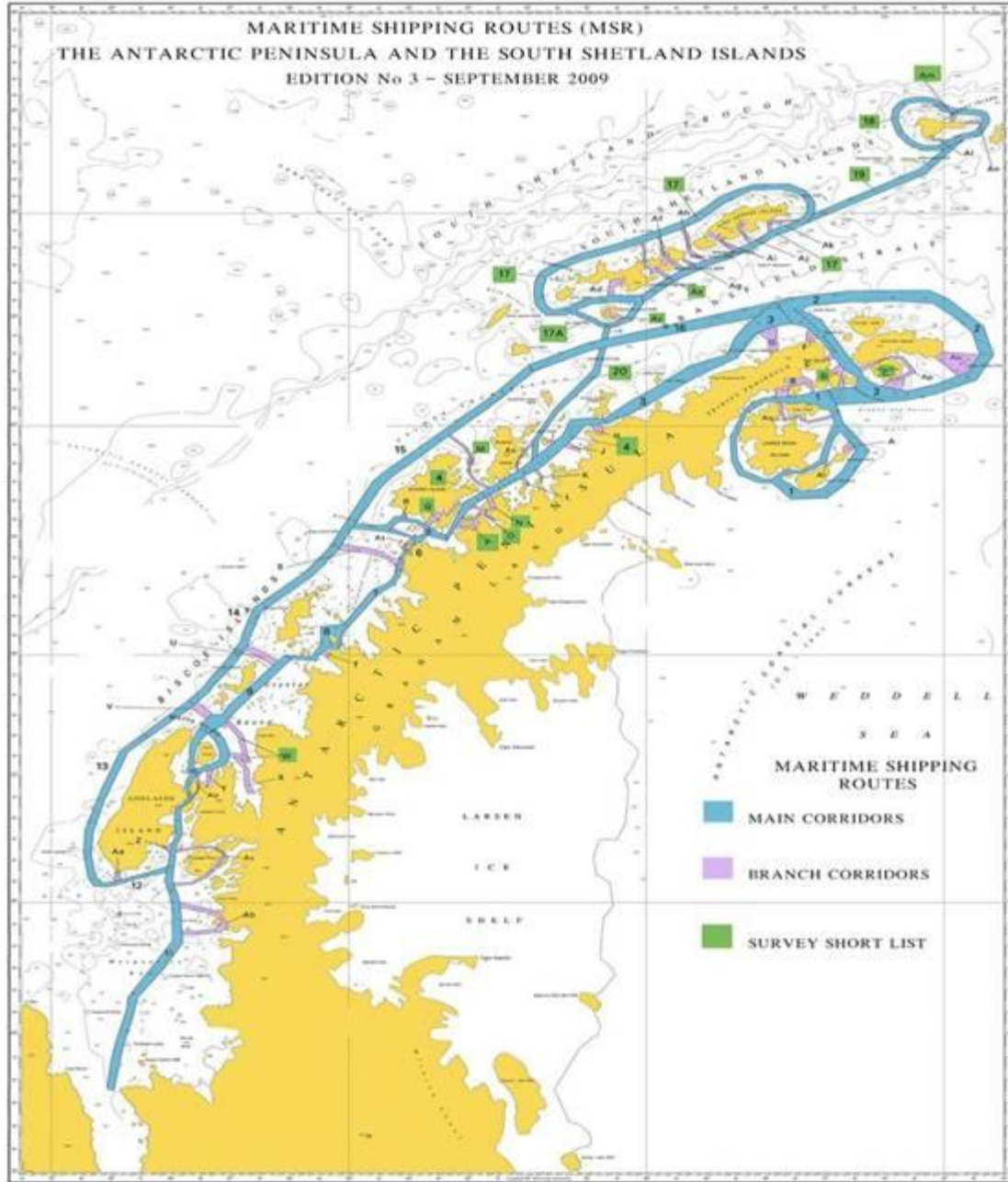
HYDROGRAPHIC COMMISSION
ON
ANTARCTICA

ANDY WILLETT (UKHO)

**SURVEY PRIORITISATION WORKING
GROUP**



ESTABLISHED 2004



MARITIME SHIPPING ROUTES (MSRs)

HCA SURVEY SHORT LIST

Updated to September 2009

Main corridors

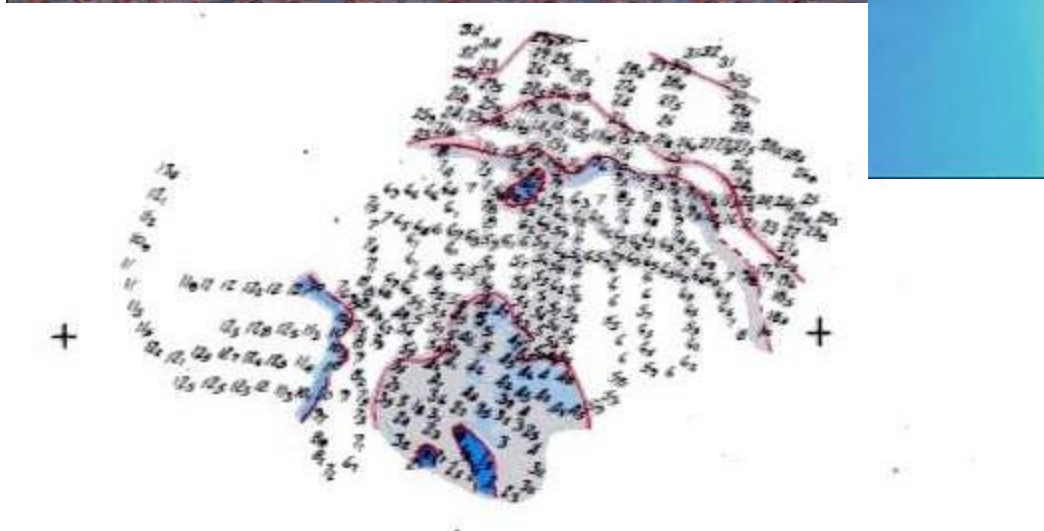
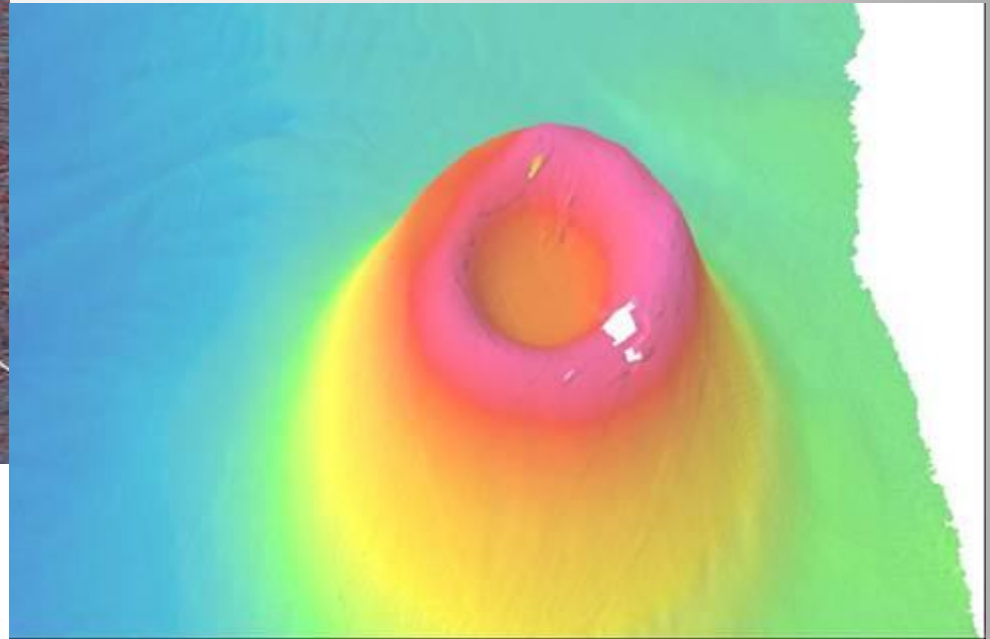
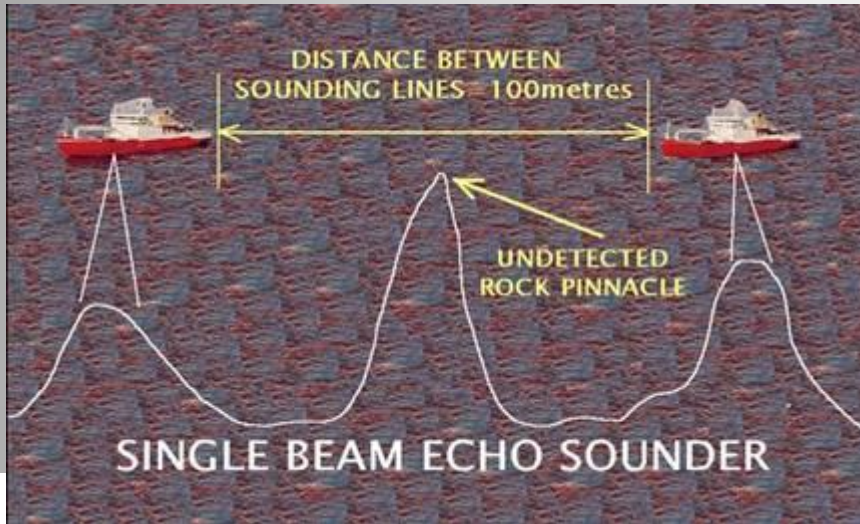
MSR*	Name	Usage category	Survey category	Notes and INT chart coverage. Published and proposed.
4	Gerlache strait	A	A + C	95% surveyed. INT 9156 & 9157 <i>Blocks surveyed by UK in 2005-07(Flandres Bay also 35% surveyed)</i>
17	South Shetlands MSR	A	A+C	INT 9151. SW corridor surveyed by UK, Livingstone Island to Penguin Island complete. <i>Blocks surveyed by UK in 2005-08 and Brazil 2007-08</i>
17A	Deception Island circular route	A	A	INT 9120 Deception Island circular route 100% complete. <i>Blocks surveyed by UK in 2005-08</i>
18	Elephant Island MSR	A+C	A+C	INT 9150 <i>Block surveyed by Brazil in 2006</i>
19	Elephant Island to KGI	A	C	INT 9150, INT 9151 <i>Block surveyed by Brazil in 2005</i>
20	Deception Is to Brabant Island	A	C	INT 9120, INT 9155, 9156, 9157 <i>Block surveyed by UK in 2005-06</i>

Branch corridors and approaches

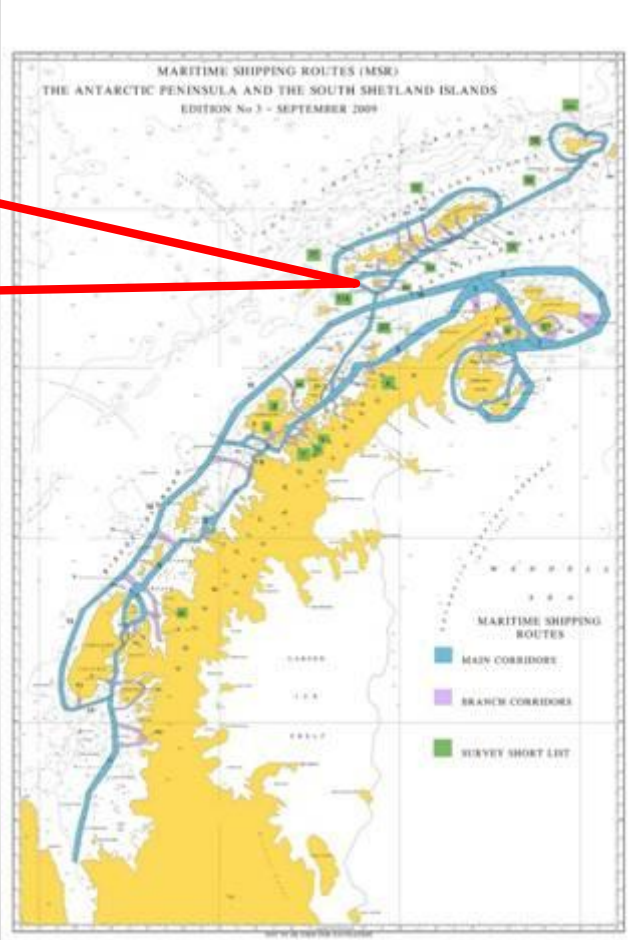
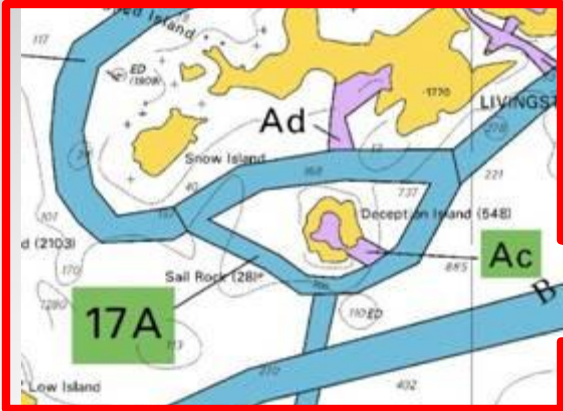
MSR	Name	Usage category	Survey category	Notes and INT chart coverage. Published and proposed.
C	Paulet Island	A	A + C	50% surveyed, remaining area top of UKHO priority. INT 9112 <i>Block surveyed by UK in 2005-06</i>
D	Brown Bluff and Fridtjof Sound	A	A+C	INT 9154 Approaches to Brown Bluff complete up to 50m contour. <i>Block surveyed by UK in 2006-07</i>
M	Melchior Islands and approaches	A+C	A+C	INT 9157 <i>Block surveyed by UK in 2005-06</i>
N	Errera Channel	A	C	Includes Cuverville Is, Danco Is and Ronge Is. INT 9103. 70% complete. <i>Block surveyed by UK in 2005-06</i>
O	Andvord Bay	A	C	Includes Neko Harbour. INT 9103. 70% complete. <i>Block surveyed by UK in 2005-06</i>
P	Paradise Harbour	A	C	Almirante Station and Waterboat Point. INT 9104 Paradise Harbour 90%, Bryde Channel 90%, Furguson Channel 80%. <i>Block surveyed by UK in 2007-08</i>
Q	Neumayer Channel and Port Lockroy	A	A + C	100% complete. INT 9158 & 9104. <i>Block surveyed by UK in 2005-06</i>
W	Detaille Island and approaches	C	C	INT 9161 Detaille Island now has Historic Monument status, and following restoration will receive increased vessel traffic.
Ac	Port Foster and Neptunes Bellows	A	A+B	INT 9120 Port Foster and Whalers Bay 95% complete. Neptunes Bellows needs multibeam survey to position Ravn Rock, controlling danger in very narrow passage. <i>Blocks surveyed by UK 2005-08</i>
Ae	McFarlane Strait	A	A + C	Half Moon Is cat A, Yankee Harbour 100%, McFarlane Strait 100% up to NW point of Greenwich Island. INT 9121 & 9112. <i>Block surveyed by UK in 2005-07</i>
Am	Point Wild	A	C	INT 9150
	Mawson	C	A+C	AUS600
	Commonwealth Bay	C	C	AUS603

* MSR = Maritime Shipping Route. The figures / letters in this column are shown on the MSR diagram which is on the following page.

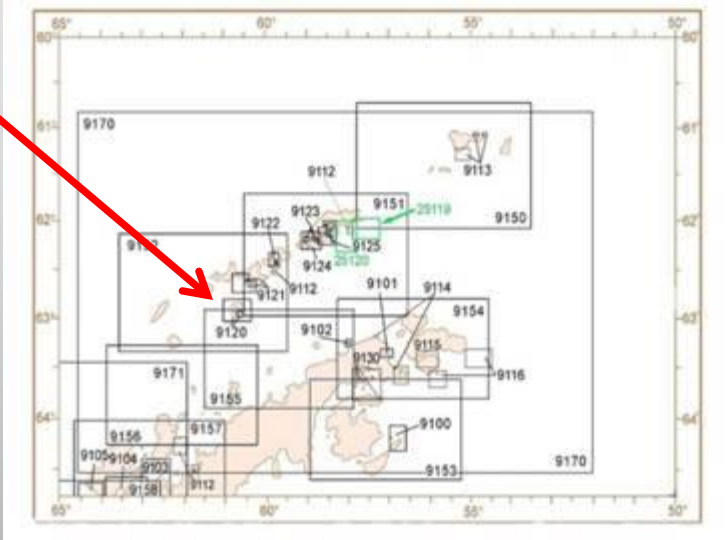
THE NEED FOR MULTIBEAM SURVEYS



Maritime Shipping Route Numbers: 17A & Ac



INT Chart Number: 9120

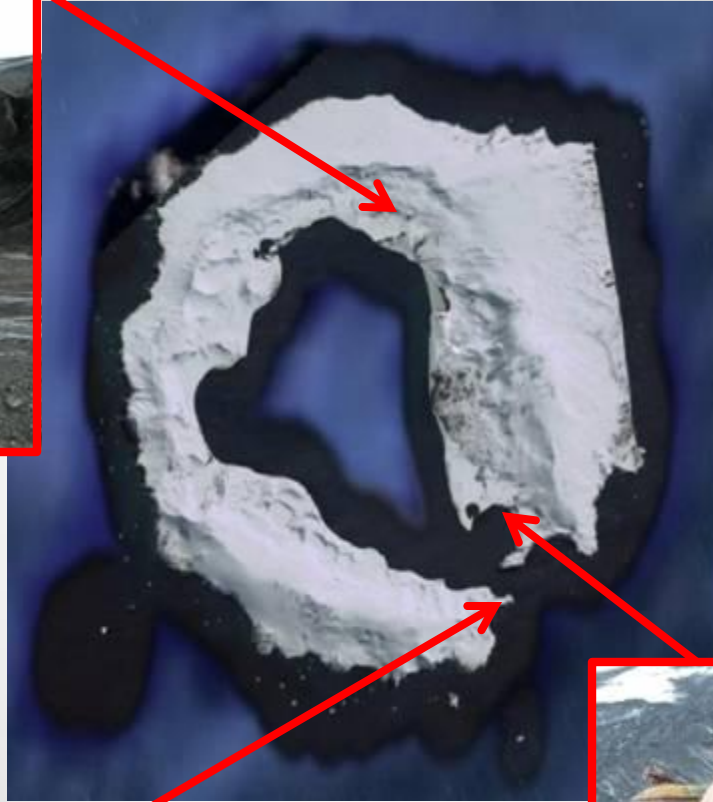


History.

Volcanic Island. Most recent serious activity 1967-69



1921 water in Port Foster boiled - taking paint off ships hulls !

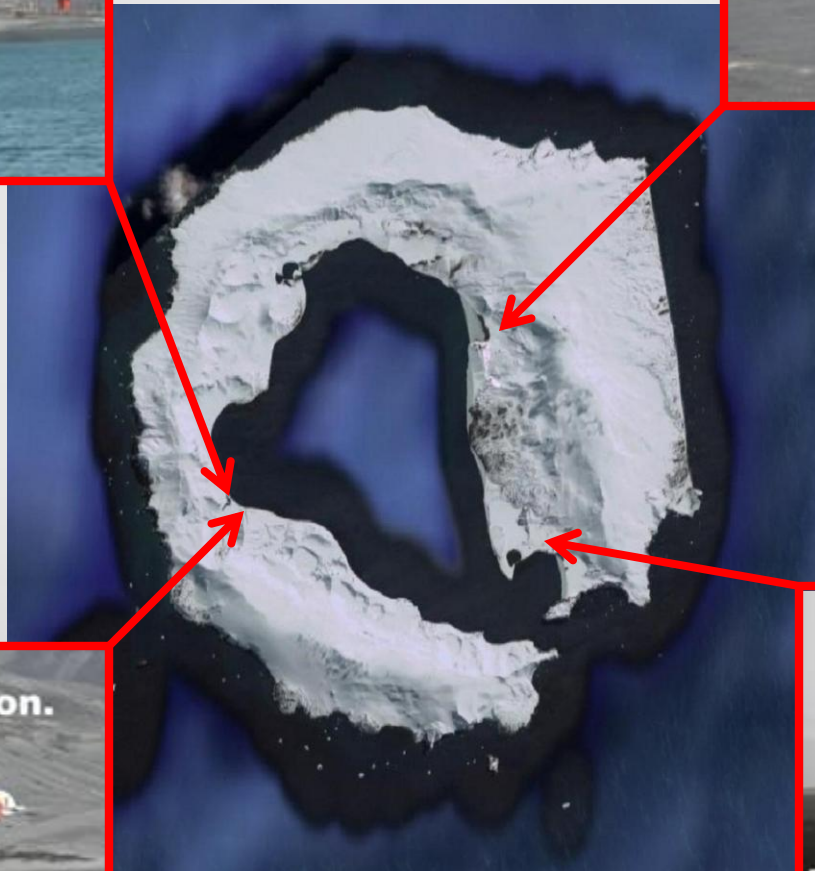


Whaler "Southern Hunter" wrecked in 1956



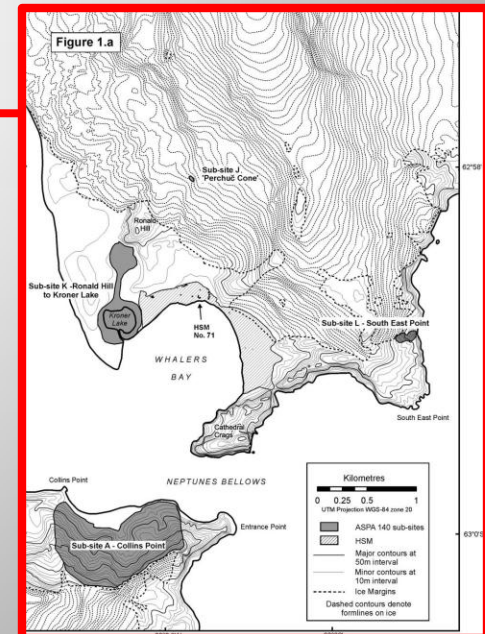
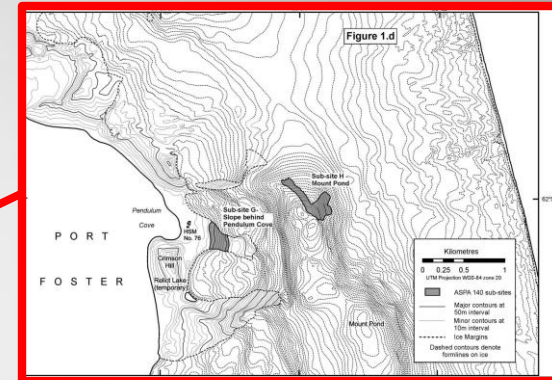
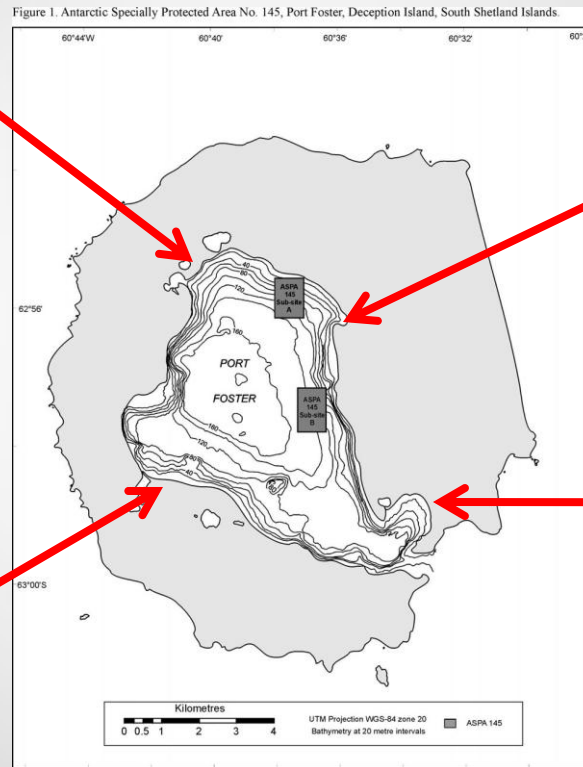
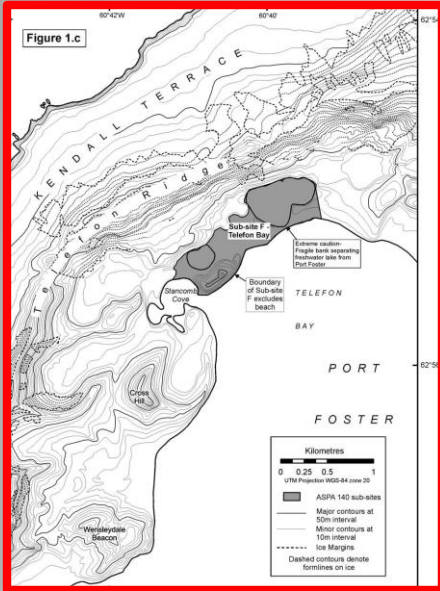
Whaling station 1911-31

Scientific Bases.



Antarctic Specially Protected Areas

ASPAs 145 & 140



Vessel traffic

**Tourist statistics 2008-09
season landed &
nonlanded**

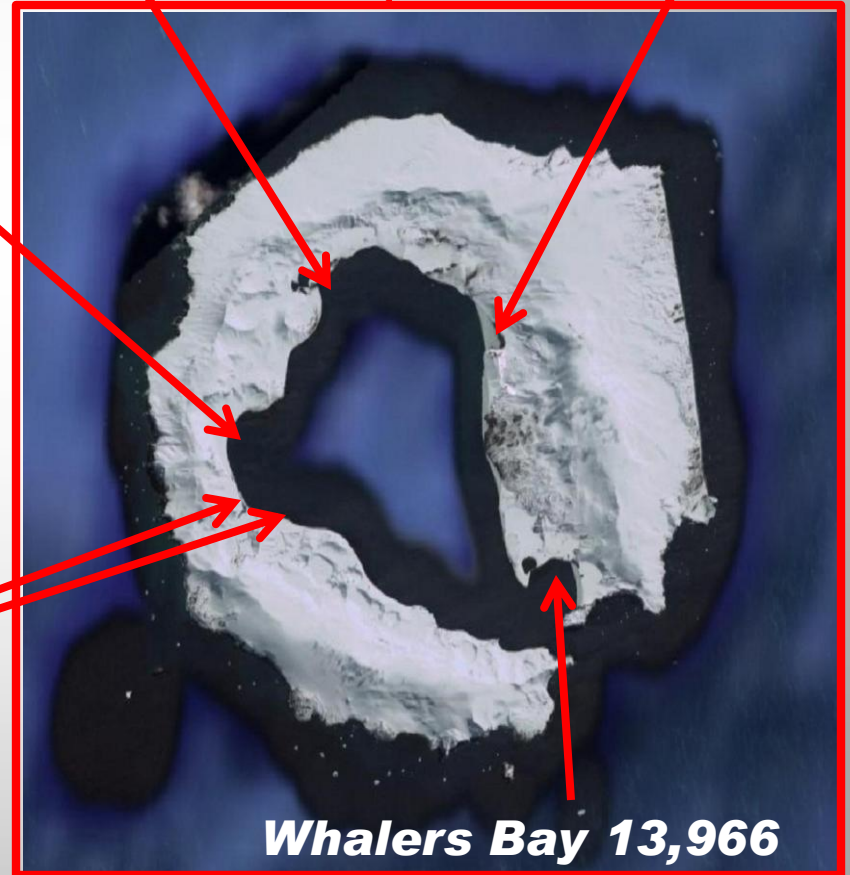


**Fumarole Bay
133**

**Telefon Bay
3,496**

**Deception Island
12,013**

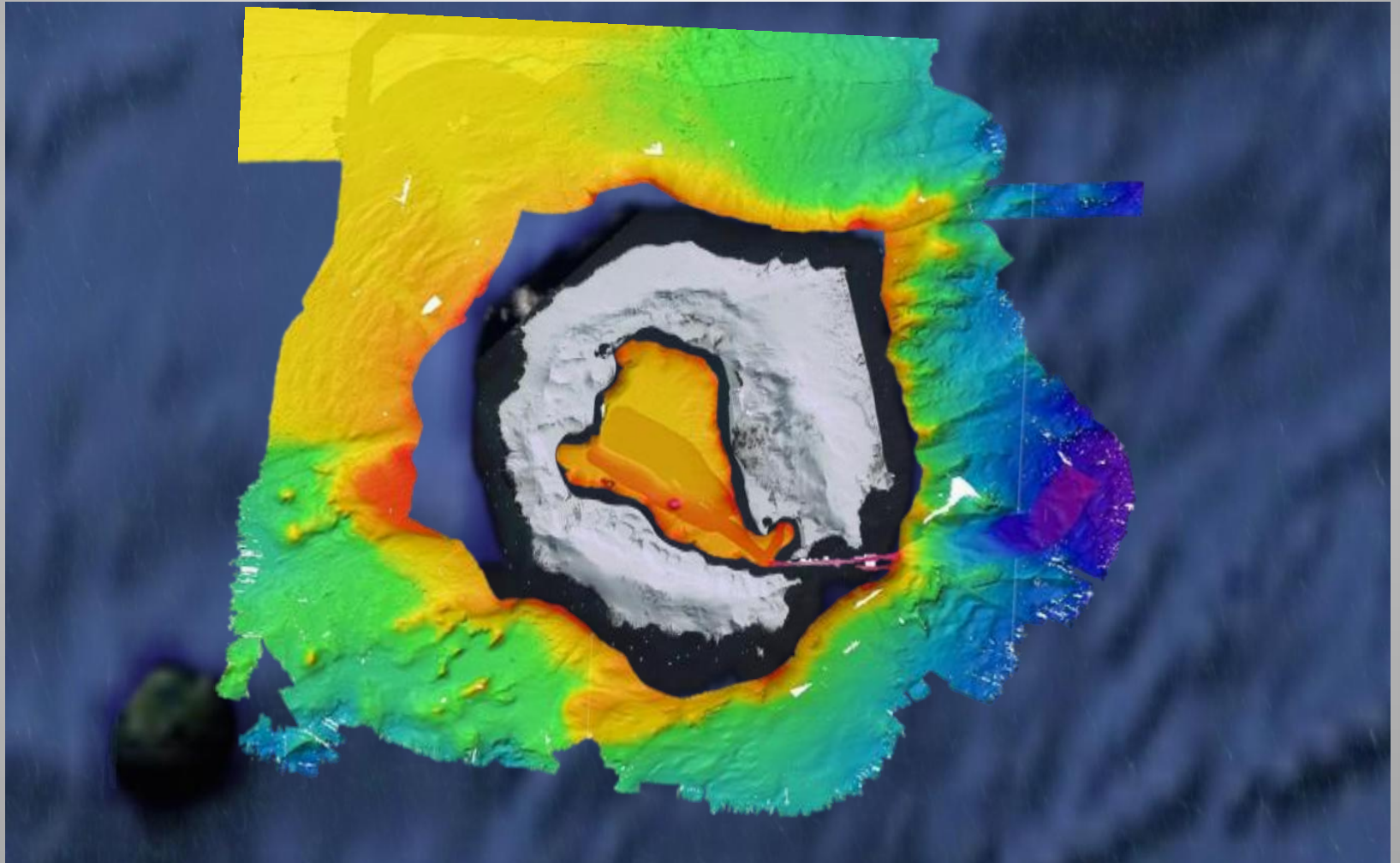
**Pendulum Cove
2,802**



Whalers Bay 13,966

Scientific

Existing Multibeam survey coverage, providing a corridor around Deception Island. MSR 17A



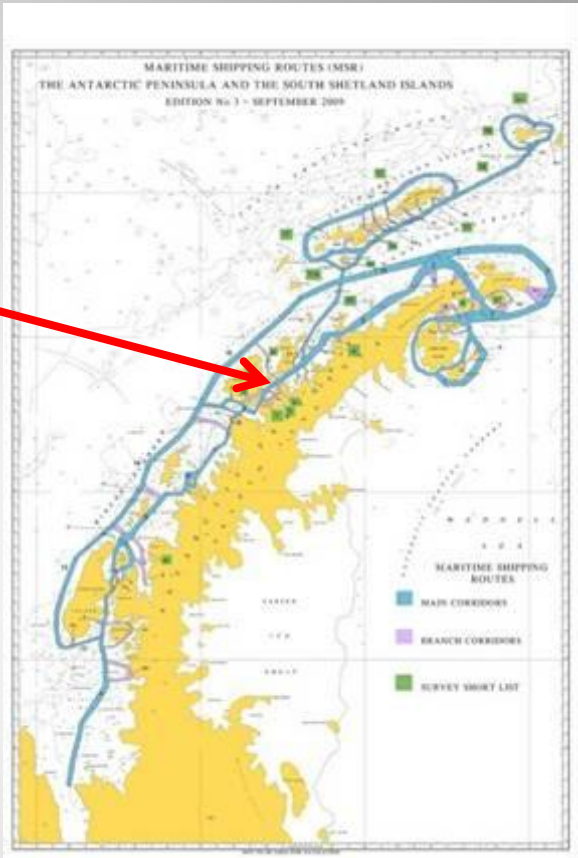
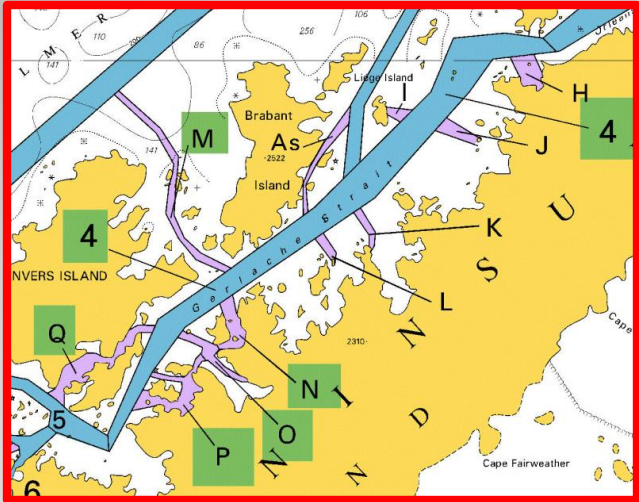


MS NordKapp accident following grounding in Neptunes Bellows

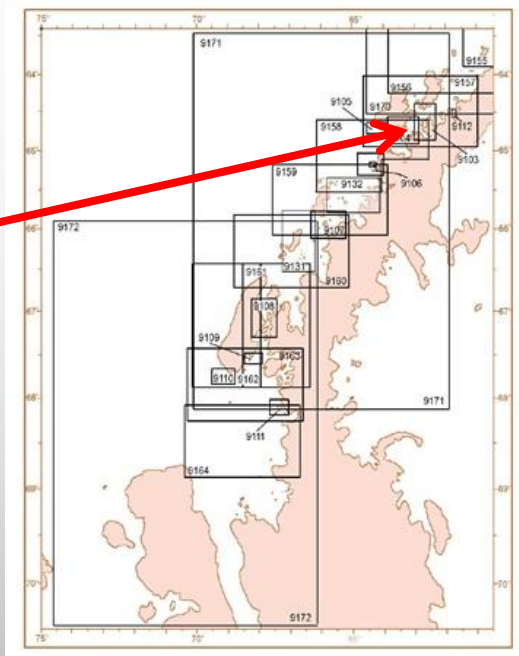


Singlebeam survey of Ravn Rock

Maritime Shipping Route Numbers: 4, M, N, O, P & Q

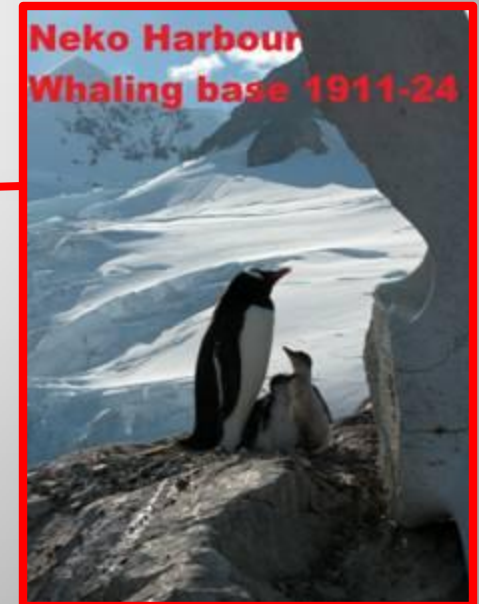
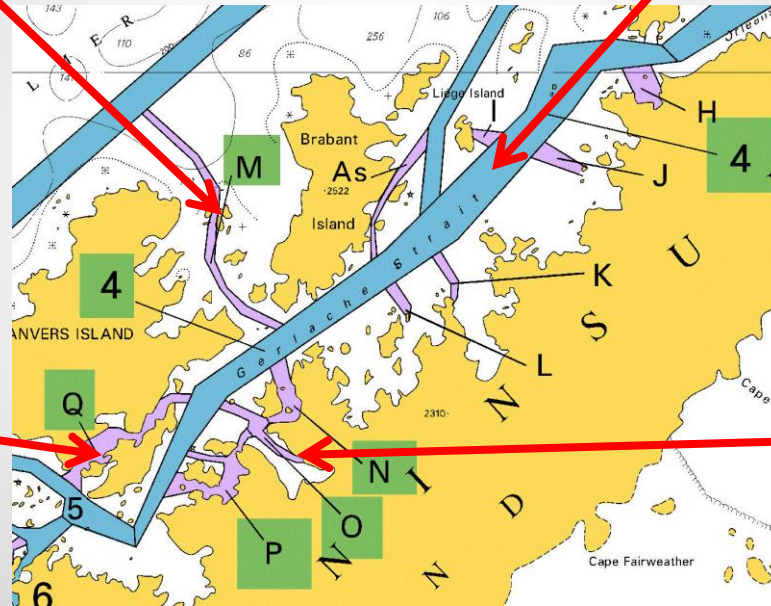
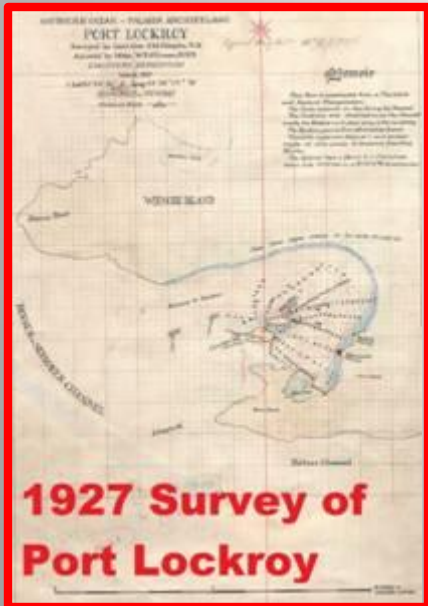
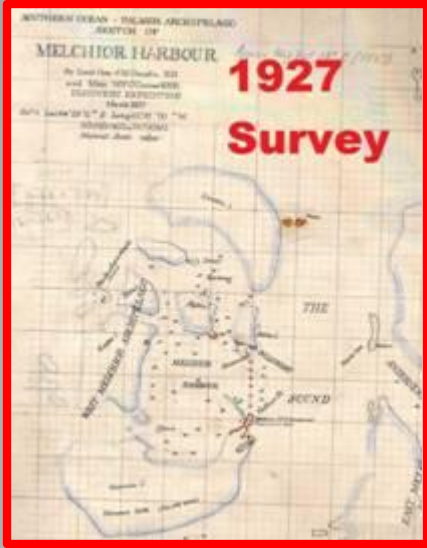


INT Chart Numbers:
9158, 9157, 9156,
9103 & 9104



History.

Charted 1898 by A de Gerlache



Vessel Traffic. Tourist Statistics 2008-09

Gerlache Strait 8,061

Neumayer Channel 29,381

Cuverville Island 18,653

Errera Channel 9,687

Andvord Bay 4,208

Neko Harbour 14,177

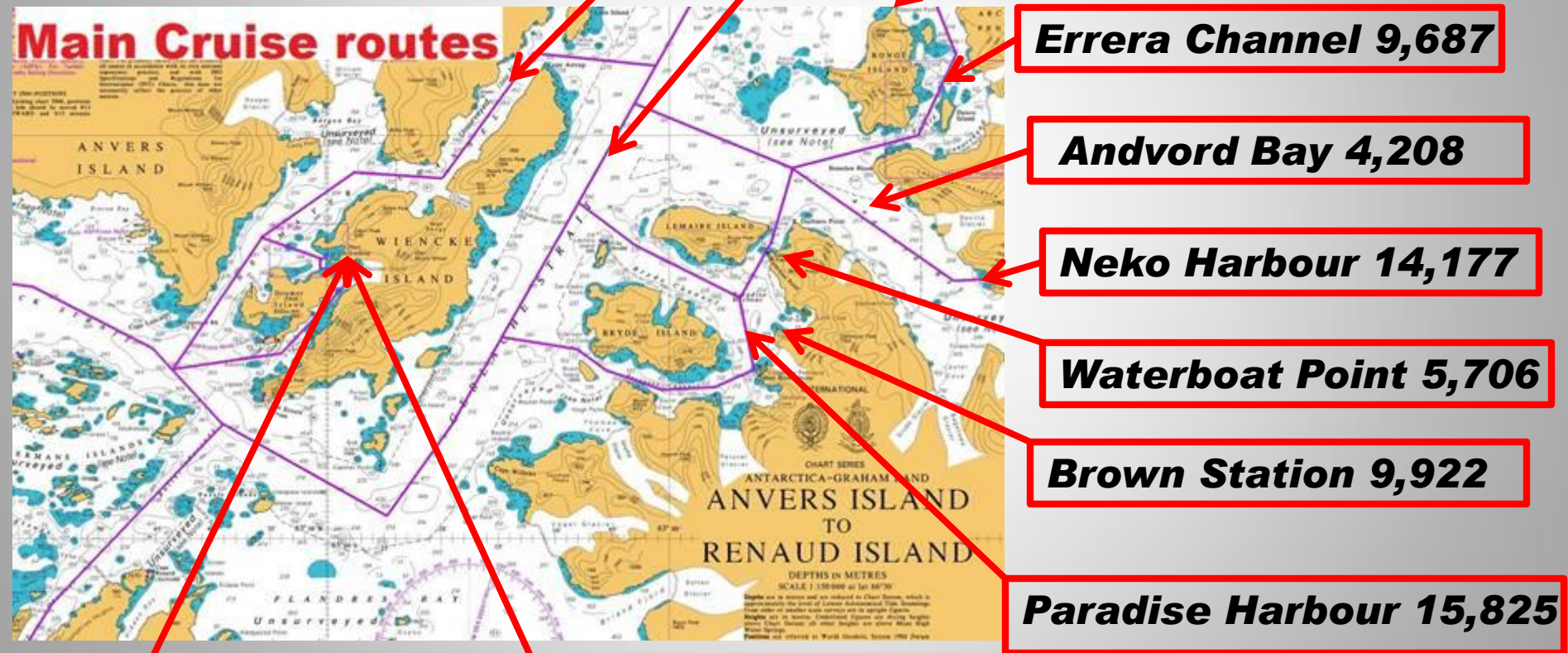
Waterboat Point 5,706

Brown Station 9,922

Paradise Harbour 15,825

Jougla Point 9,433

Goudier Island 15,677



Multibeam Survey Coverage.

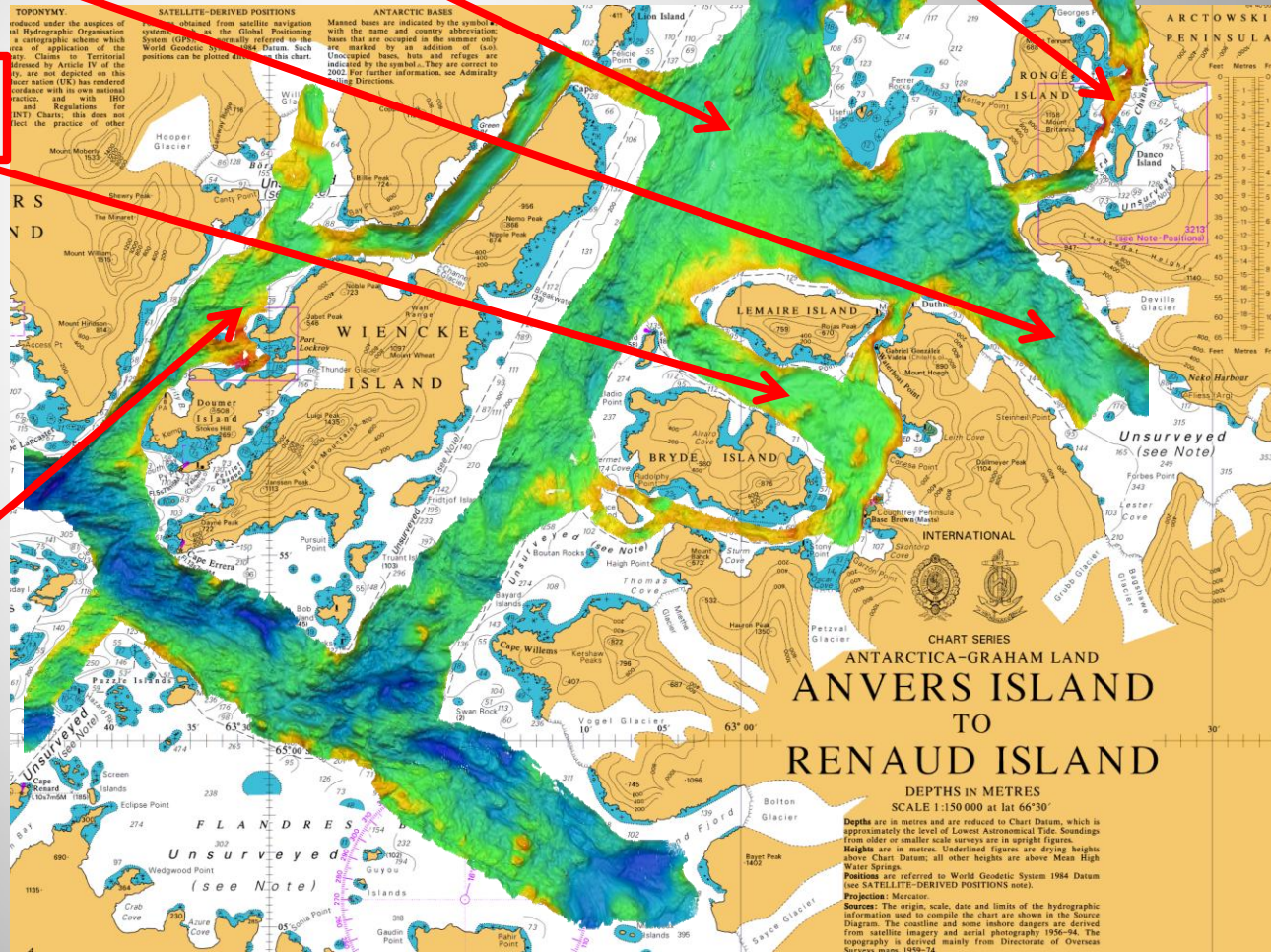
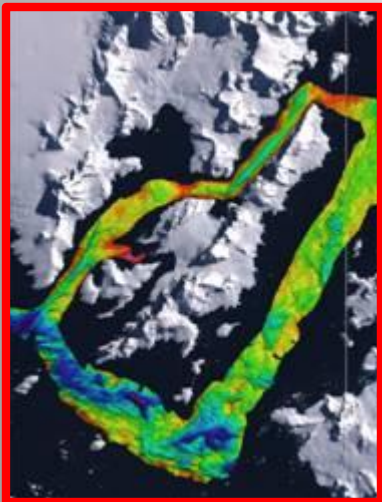
MSR No. 4 - 95%

MSR No. N - 70%

MSR No. O - 70%

MSR No. P - 85%

MSR No. Q - 100%



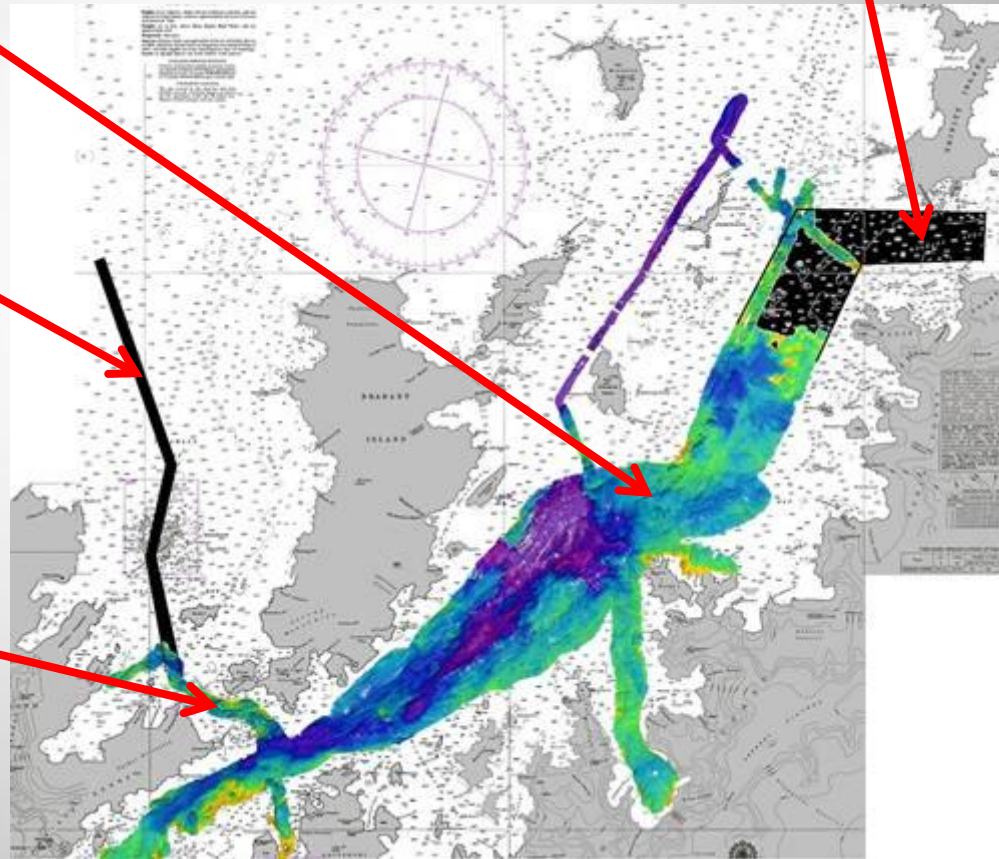
Multibeam Survey Coverage.


MSR No. 4 – 95%

MSR No. 4 Outstanding modern survey work required

MSR No. M
Outstanding modern survey work required

MSR No. M – 25%

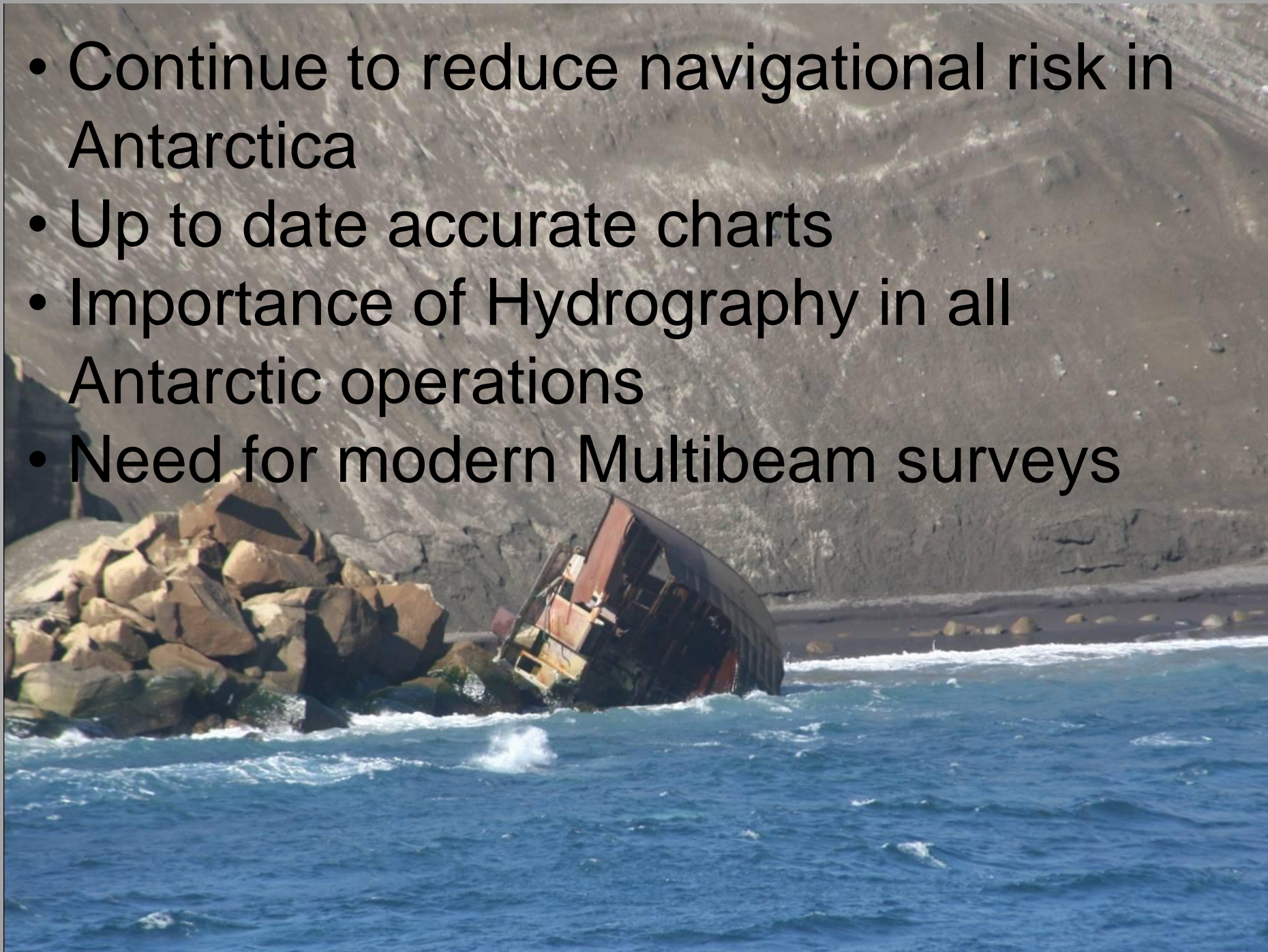


A photograph of a penguin and two seals on a piece of ice. The penguin is in the center, looking towards the left. Two seals are on either side of it. A speech bubble points to the penguin.

Where do we go
from here ??

THE FUTURE

- Continue to reduce navigational risk in Antarctica
- Up to date accurate charts
- Importance of Hydrography in all Antarctic operations
- Need for modern Multibeam surveys



- Encourage Nations with Antarctic programmes to share navigational data and hydrography
- Keep pressure on National Hydrographic Offices to prioritise and increase Antarctic chart production
- Encourage all parties to collect any information or data and to simplify the method of rendering.



1772/2004 *ANTARCTICA - Graham Land - Gerlache Strait - Errera Channel - Depths.

Source: ms *Endeavour*

Chart 3566 UNDETERMINED DATUM

Substitute depth 2 enclosed by 3fm contour, *PA*, for depth 42 enclosed by 6fm contour, *PD* 64° 41′·50S., 62° 36′·55W.

2296/2004 *ANTARCTICA - Graham Land - Errera Channel - Danco Island - Building.

Source: *RRS Ernest Shackleton*

Chart 3566 UNDETERMINED DATUM

Delete symbol, hut and associated legend, Hut 64° 43′·5S., 62° 35′·9W.

0626/2007 *ANTARCTICA - Graham Land - Wienke Island - Port Lockroy - Depths. Legend.

Source: *HMS Endurance*

Chart 3566 UNDETERMINED DATUM

Substitute depth 9 enclosed by 10fm contour for *94* and associated 10fm contour 64° 49′·60S., 63° 32′·30W.

Delete depth 4 and associated 6fm contour 64° 49′·4S., 63° 33′·8W.

1802/2010 *ANTARCTICA - Graham Land - Gerlache Strait - C. Anna - Depth.

Source: Xplore Expeditions

Chart 3566 UNDETERMINED DATUM

Insert depth 53 enclosed by 6fm contour 64° 35′·12S., 62° 25′·25W.

2657/2005 *ANTARCTICA - Graham Land - Trinity Island - Mikkelsen Harbour - Depth.

Source: Captain L. Skog

Chart 3560 UNDETERMINED DATUM

Insert depth 32 and extend 6fm contour SW to enclose. *a*) 63° 54′·30S., 60° 47′·50W.

Delete depth 53 , close NE of: (*a*) above

5540/2006 ANTARCTICA - Rongé Island North-eastwards - Rock.

Source: Lindblad Expeditions

Chart 446 (INT 9158) WGS84 DATUM

Insert . 64° 40′·59S., 62° 38′·32W.



THANK YOU