



17th Conference of the IHO Hydrographic Commission on Antarctica

HPWG Chair - Review of Peninsula Shipping Routes (Supplementary Document)

Agenda item 17-07.2A&B

- 1. Background & Methodology**
- 2. Main Shipping Route Review**
- 3. Branch Corridor Review**

1 – Background & Methodology

1.1 Background

- This review is a comparison of the survey quality of published data using ENC Zones of Confidence against AIS data to inform decisions on the priority and coverage of Antarctic Survey requirement maintained in the Long and Short Term Survey Plans by the HPWG Chair.

1.2 Methodology

- AIS data in this review is from 2019 & 2020. This can be supplemented if required by other online sources.
- AIS resolution is 100m for ECDIS regulated, non ECDIS regulated and unregulated vessels.
- ZoC are taken from published products and may not reflect uncharted data.

2 – Main Shipping Routes

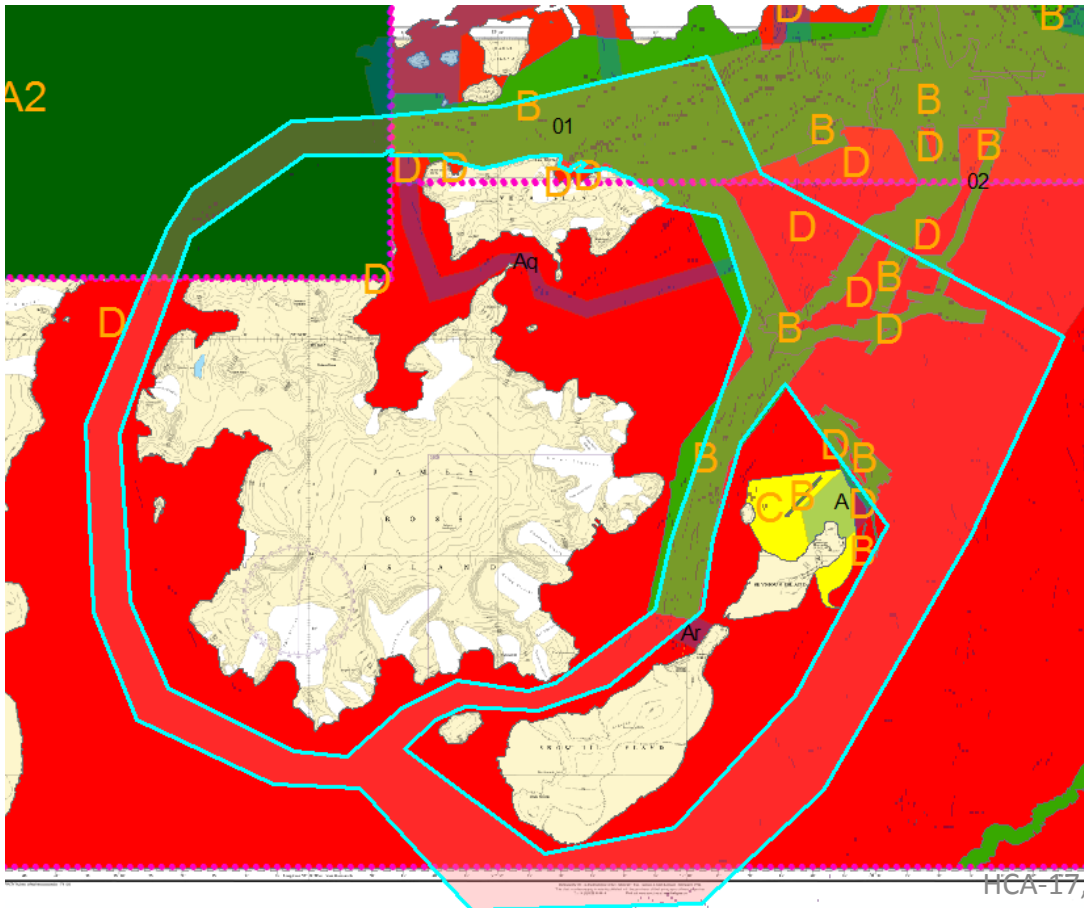


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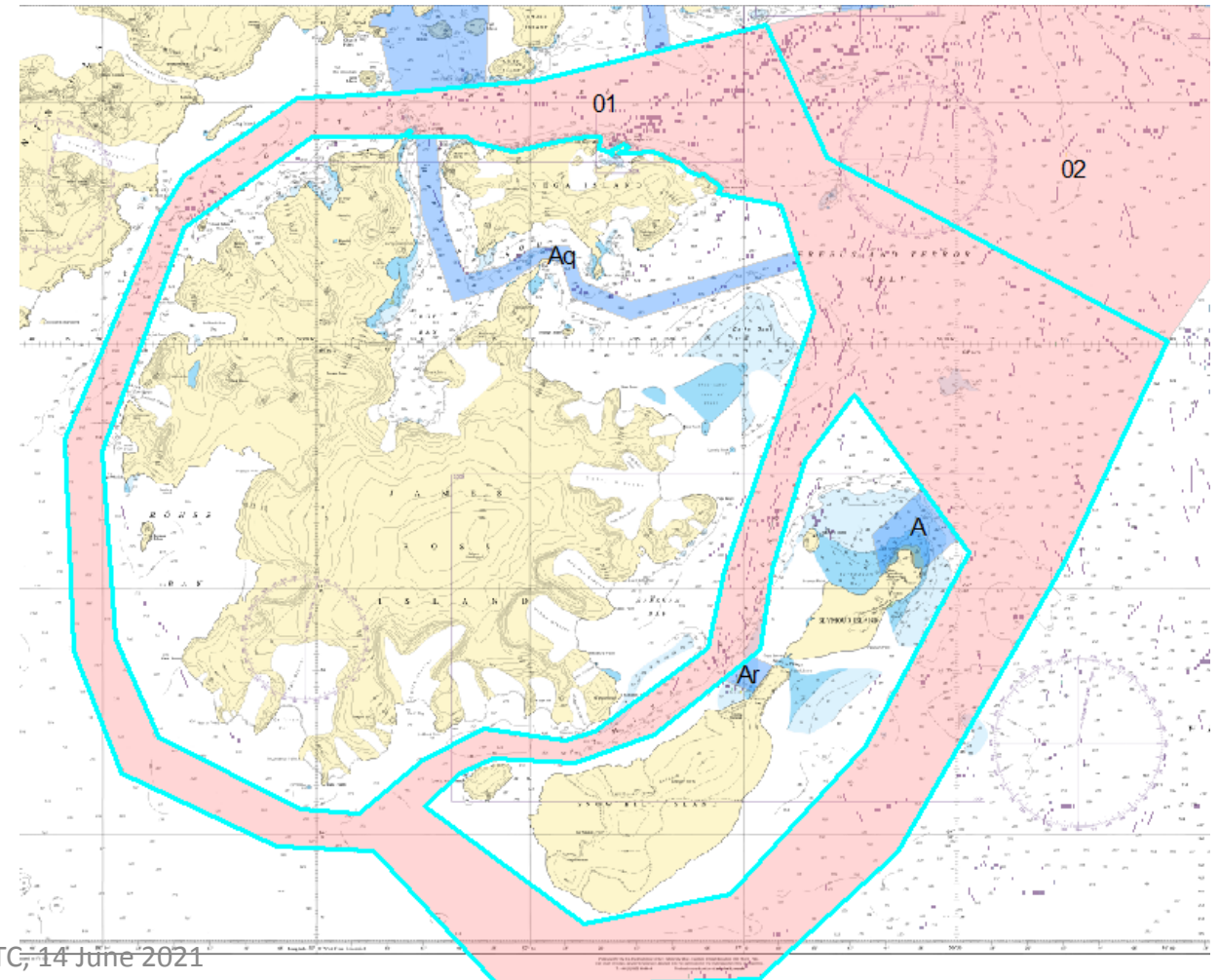
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1. James Ross Island Circular Route (INT9153 UK)

- ZoC A-D
- No change to limits
- Ice influence on survey and traffic



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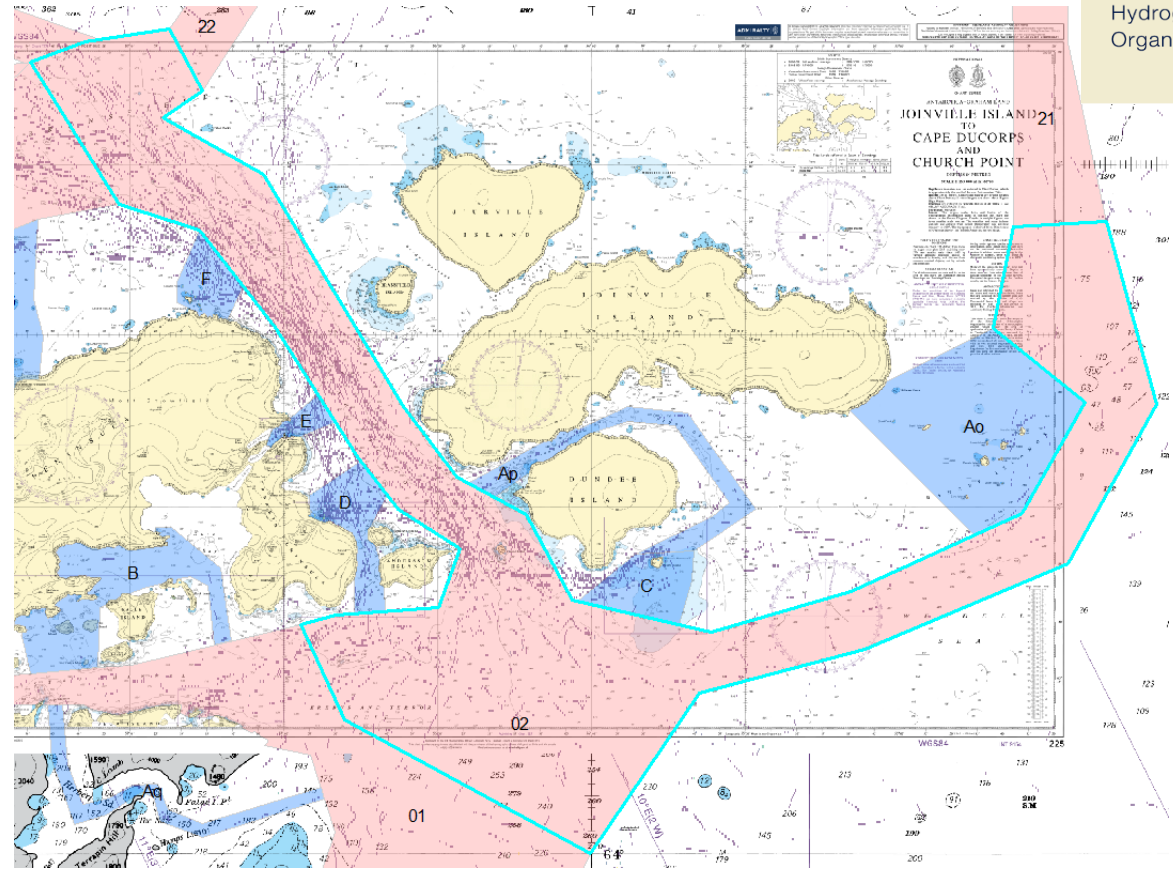
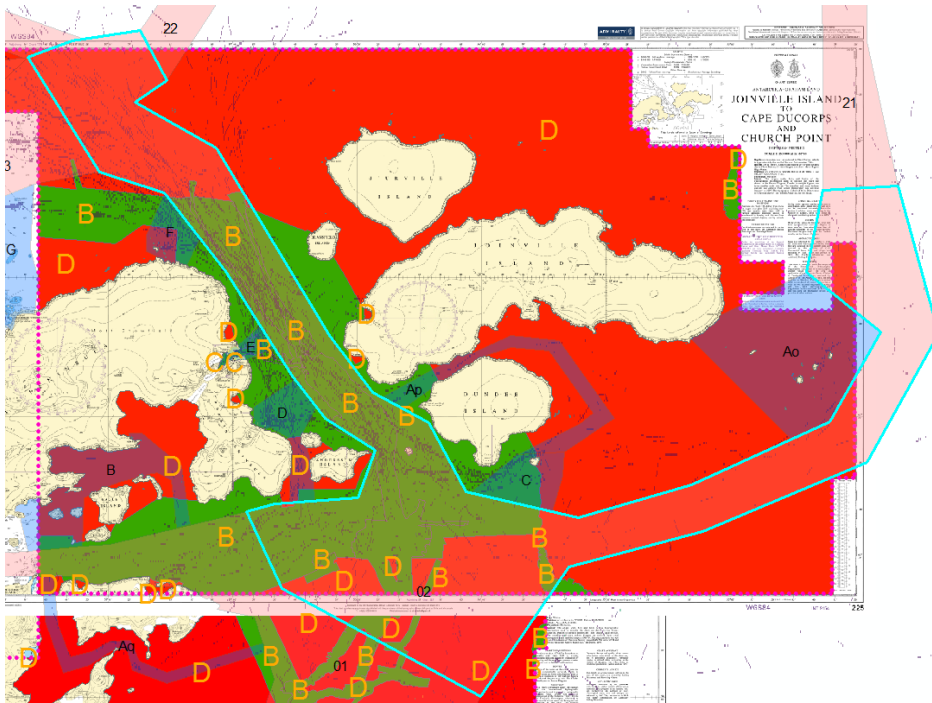
2. Joinville Island Circular Route (INT 9154 UK)

- ZoC B & D
- No change to limits
- Recommend slit into 2 routes due to size



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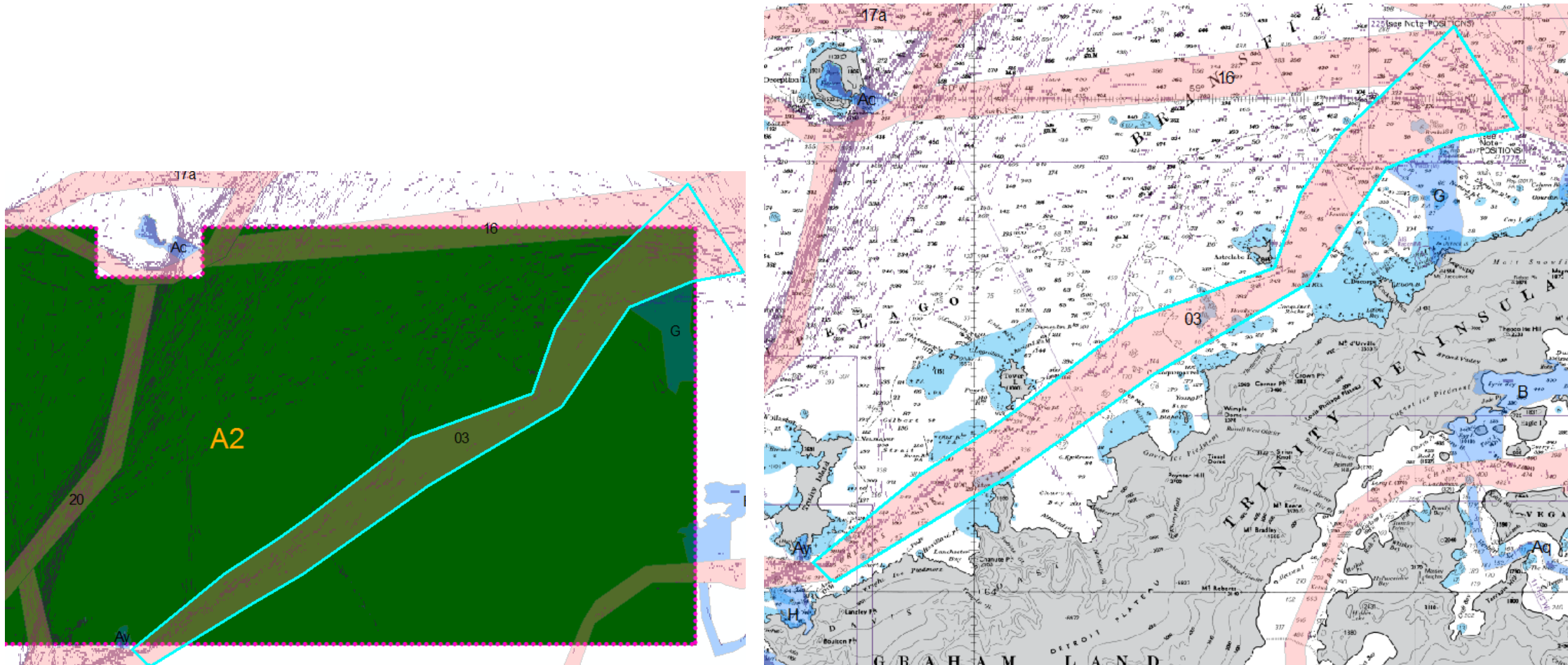


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3.Orleans Strait to Antarctic Sound (INT9155 CL)

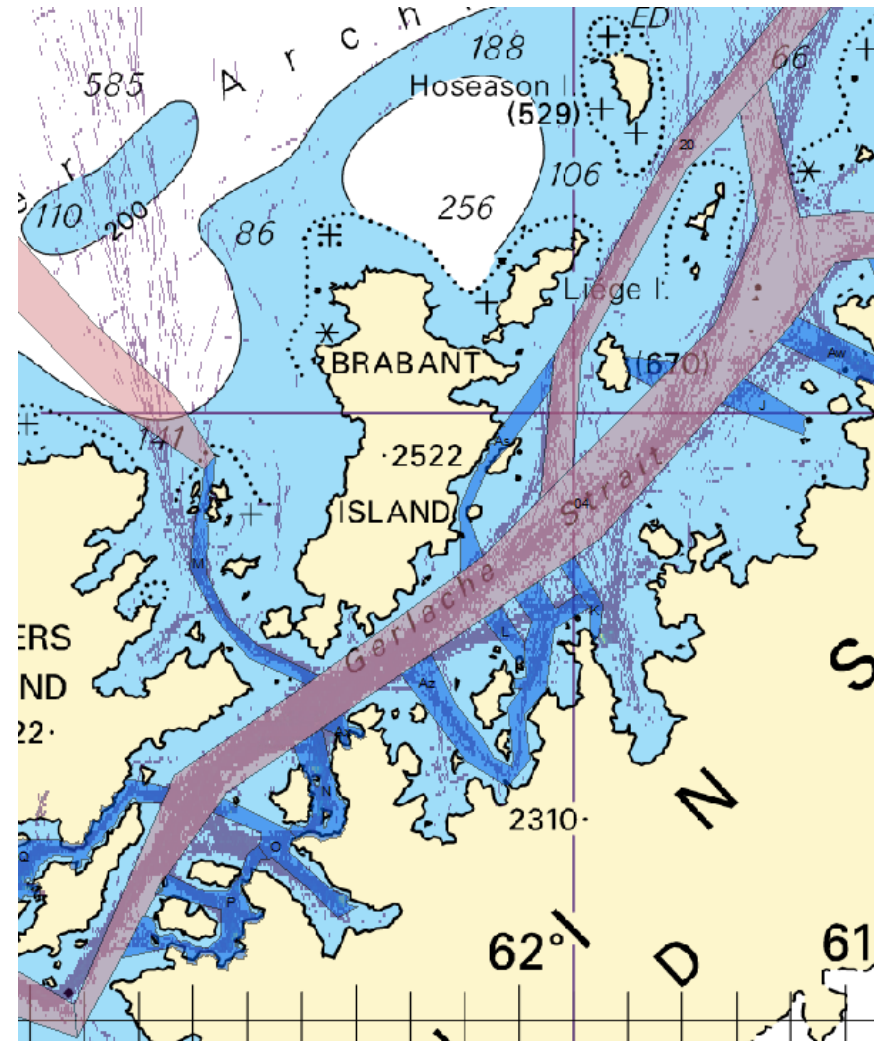
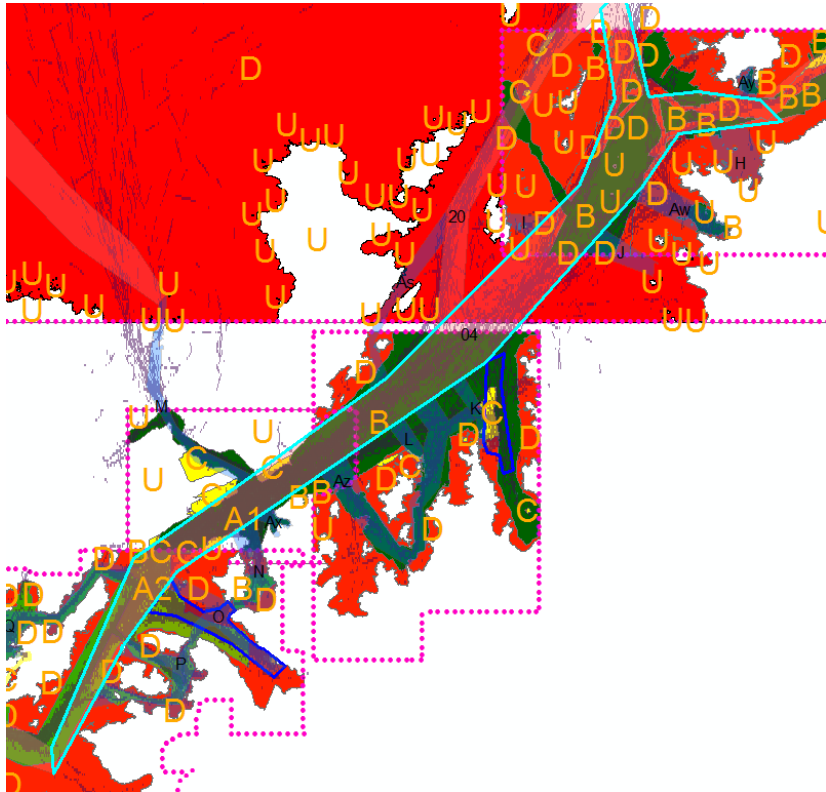
- ZoC A
- Amend limit north of Astrolabe Island



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4. Gerlache Strait (INT 9103/4 CL, 9165 UK, 9156 AR, 9157 CL)

- ZoC A-D
- Amend SW and NE limits



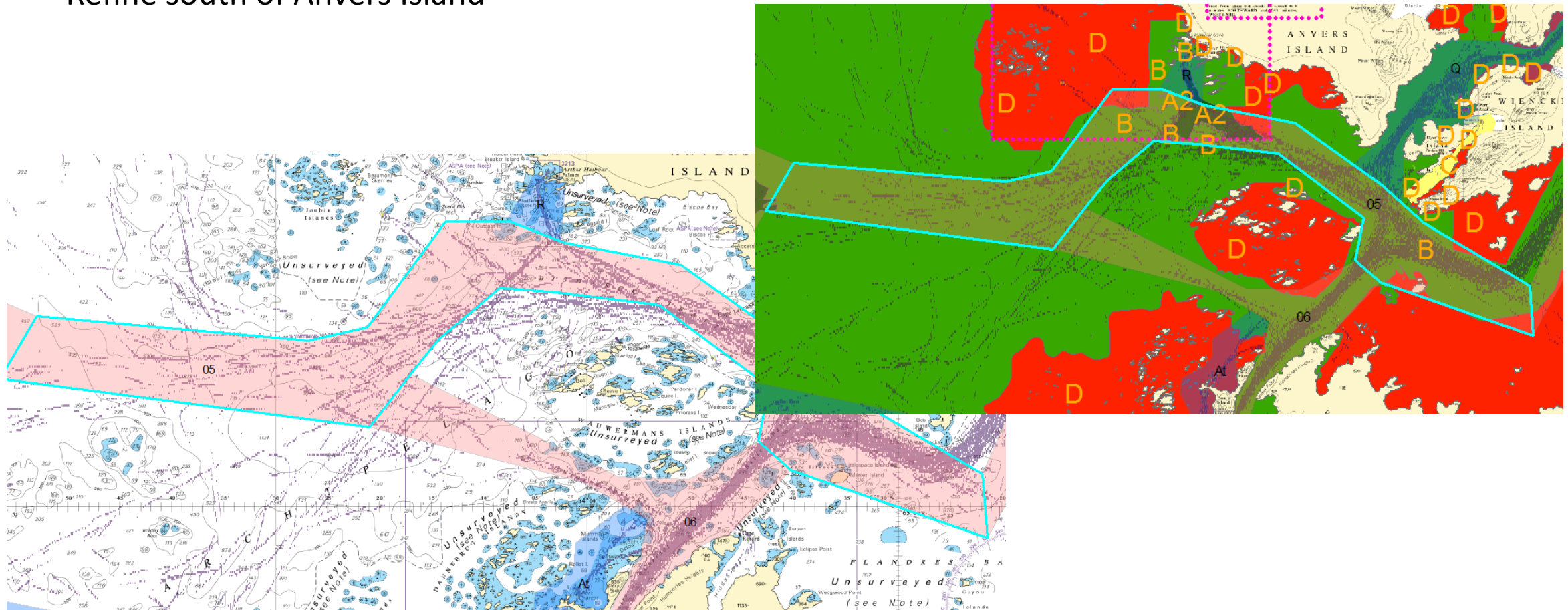


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5. Bismarck Strait (INT 9158 UK)

- ZoC A&B Surveyed to modern standards
- Refine south of Anvers Island



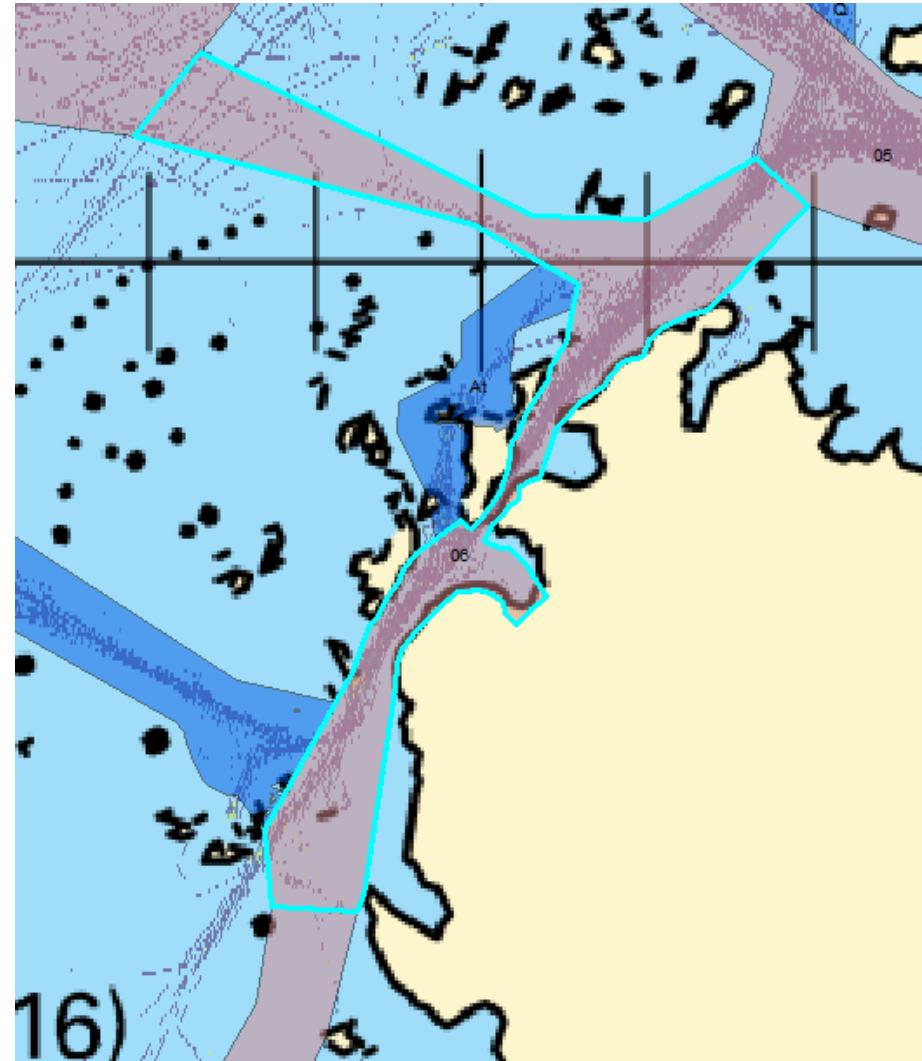
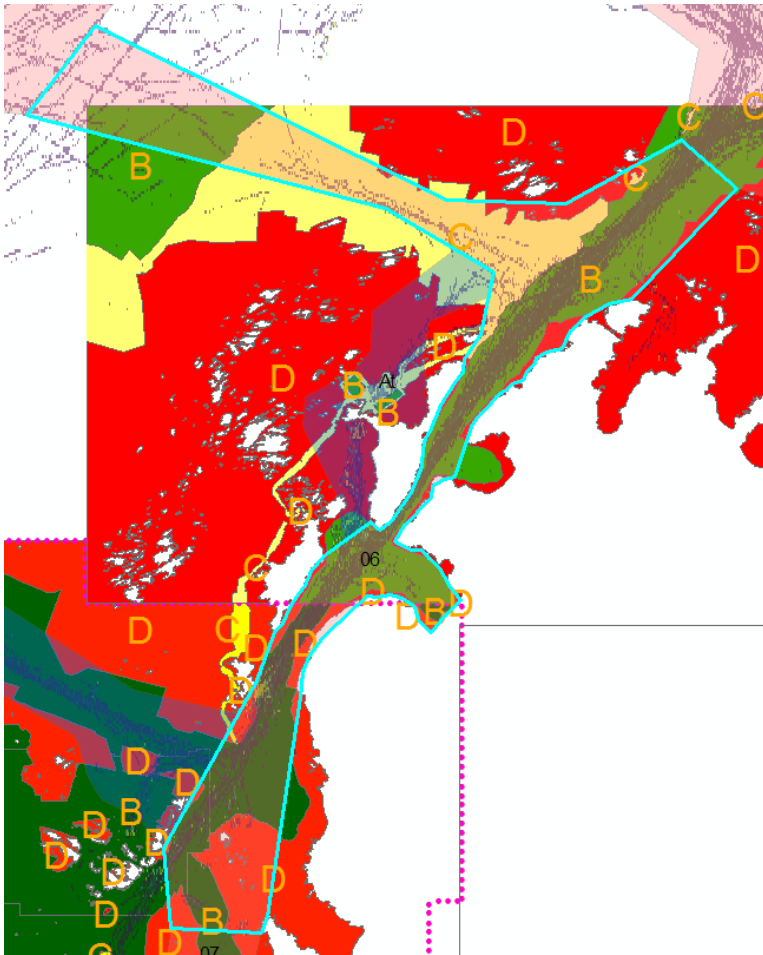


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6. Lemaire Channel (INT 9106, 9118, 9158 UK)

- ZoC B,C &D
- Amend southern end around Yalour Islands



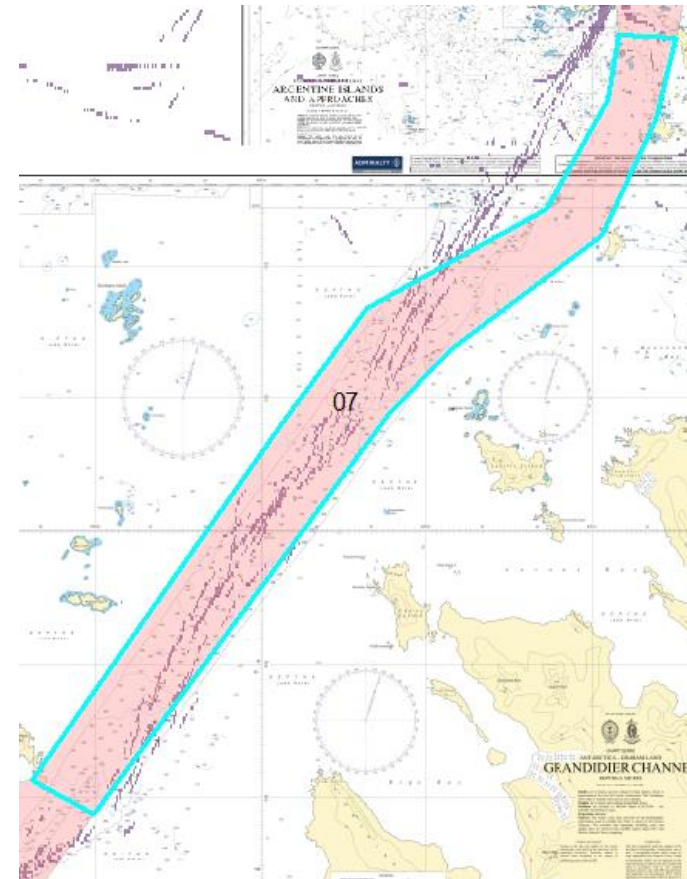
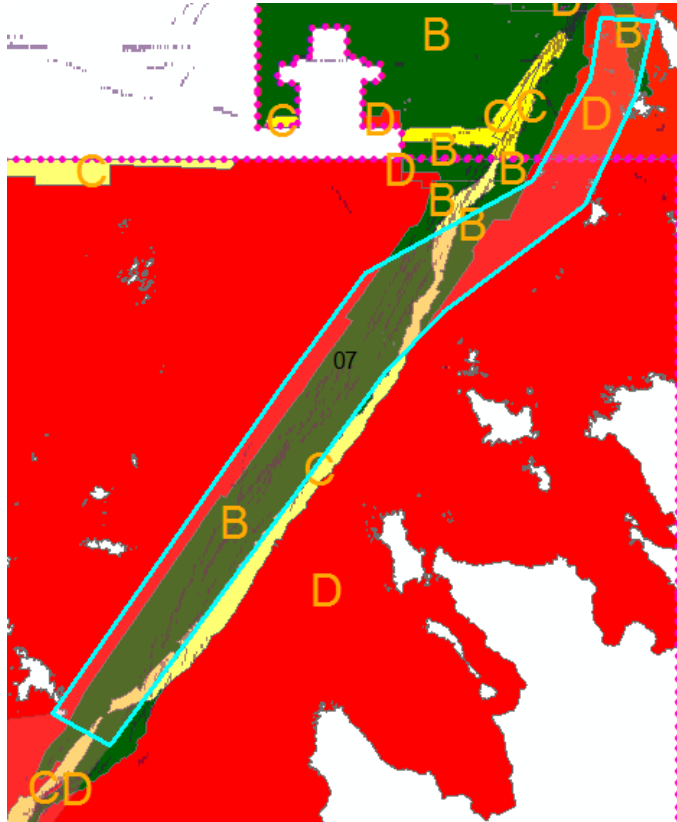


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7. Grandidier Channel (INT9158, 9132,9519 UK)

- ZOC B,C & D
- Refine limits to reflect data and traffic and increase ZoC



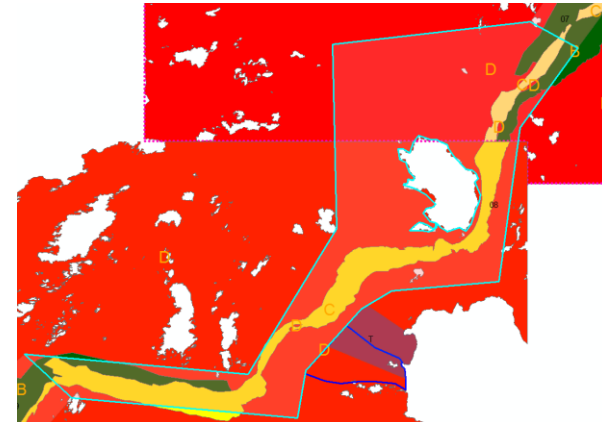
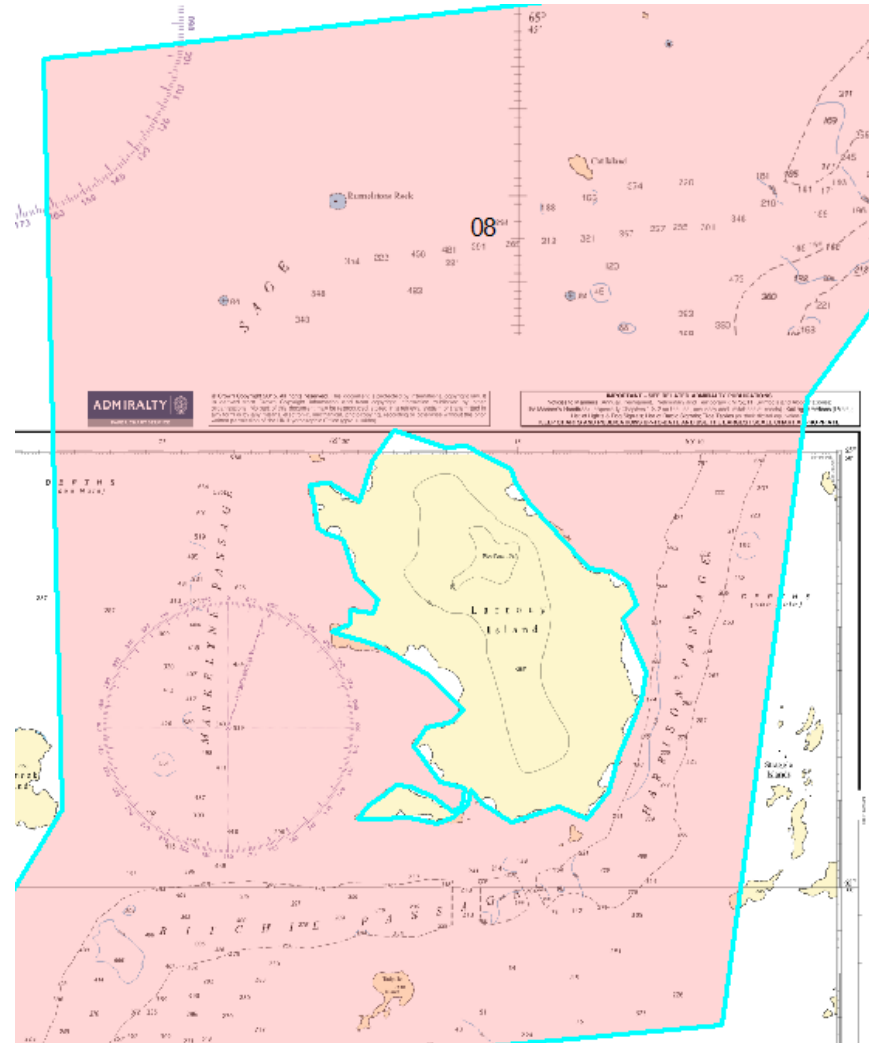
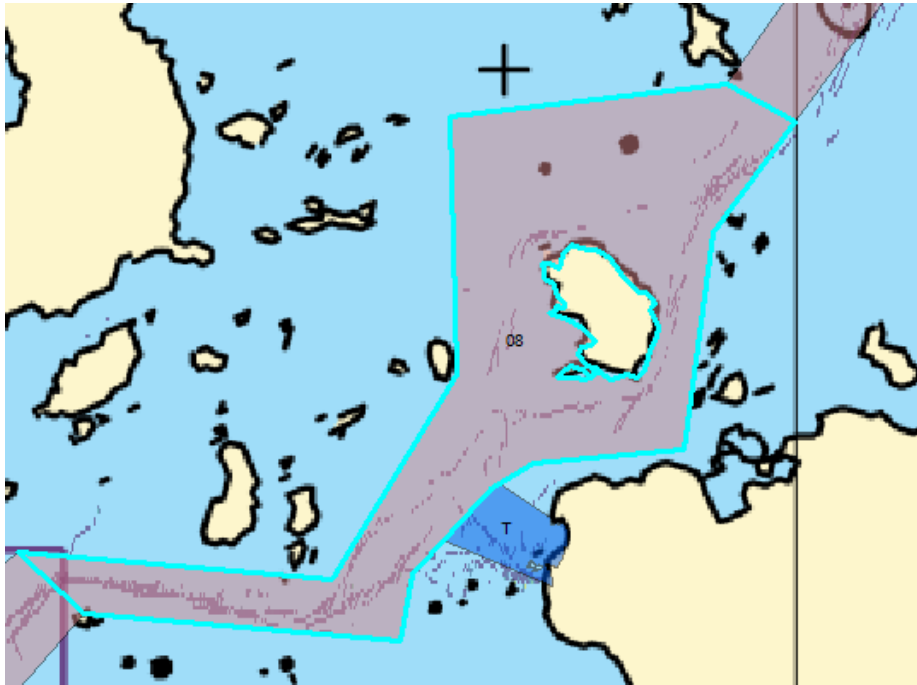


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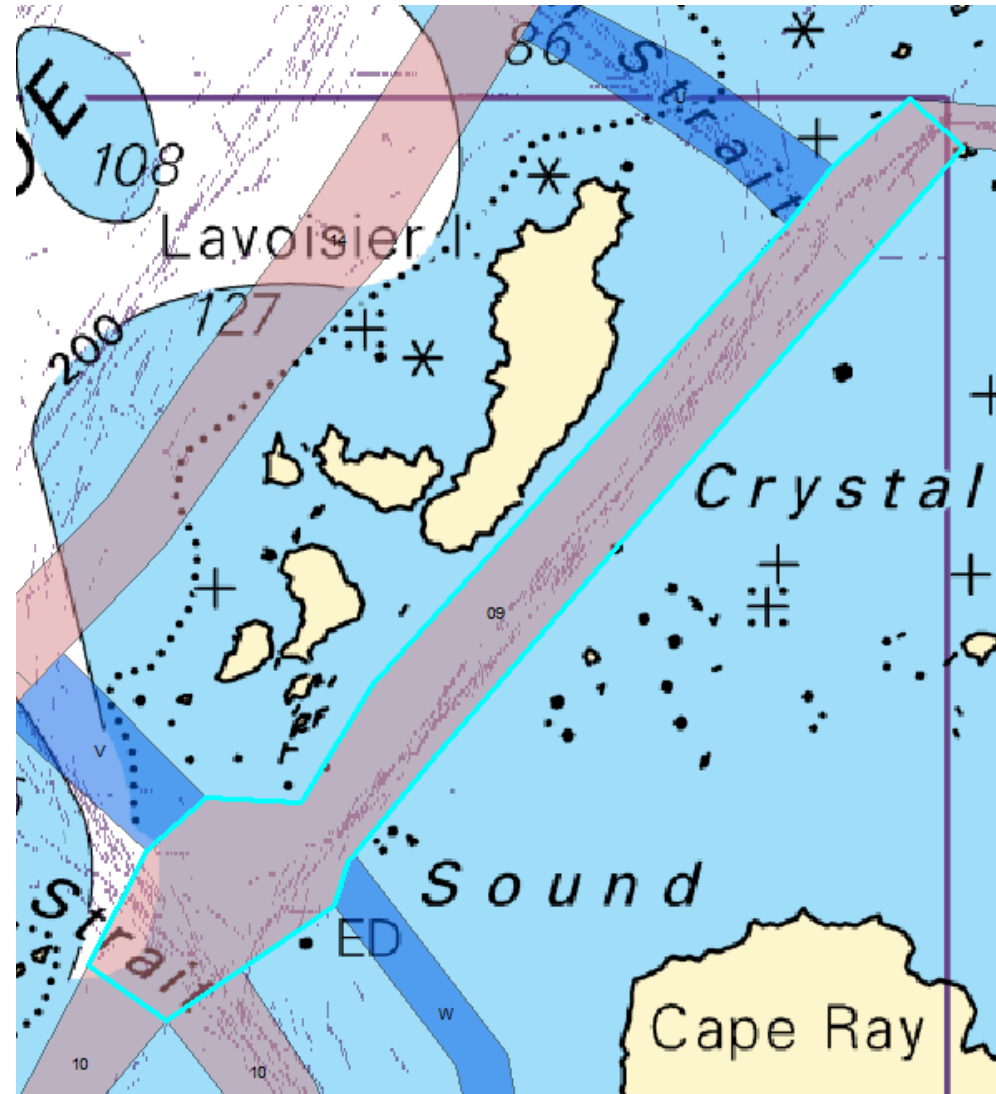
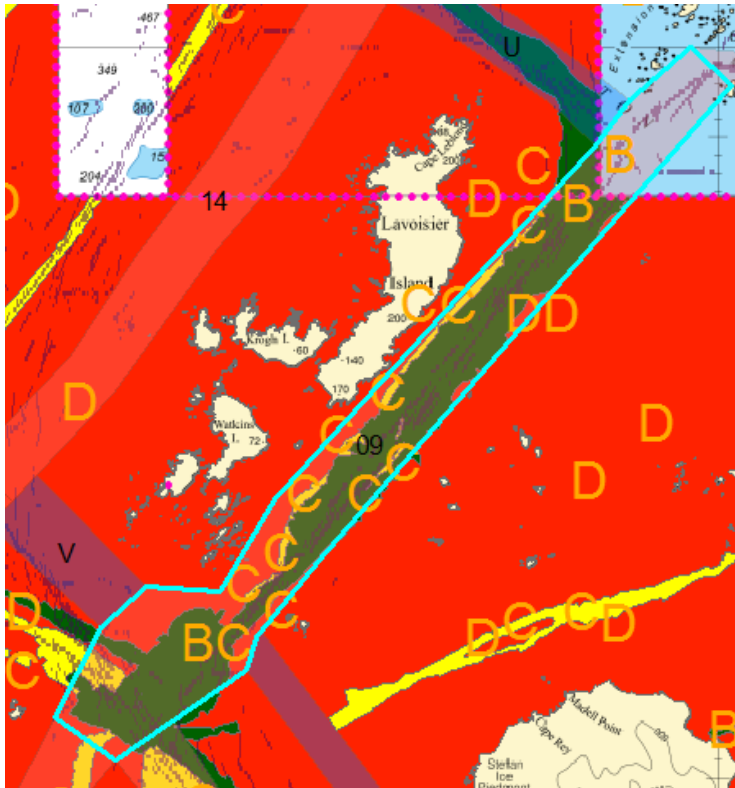
8. Cape Garcia to Jagged Island (INT 9107 & 9159 UK)

- Consider reducing northern route and focus on supplementing existing data
- ZOC B-D



9. Crystal Sound (INT9160 UK)

- ZoC B & C
- See branch 'V' proposal



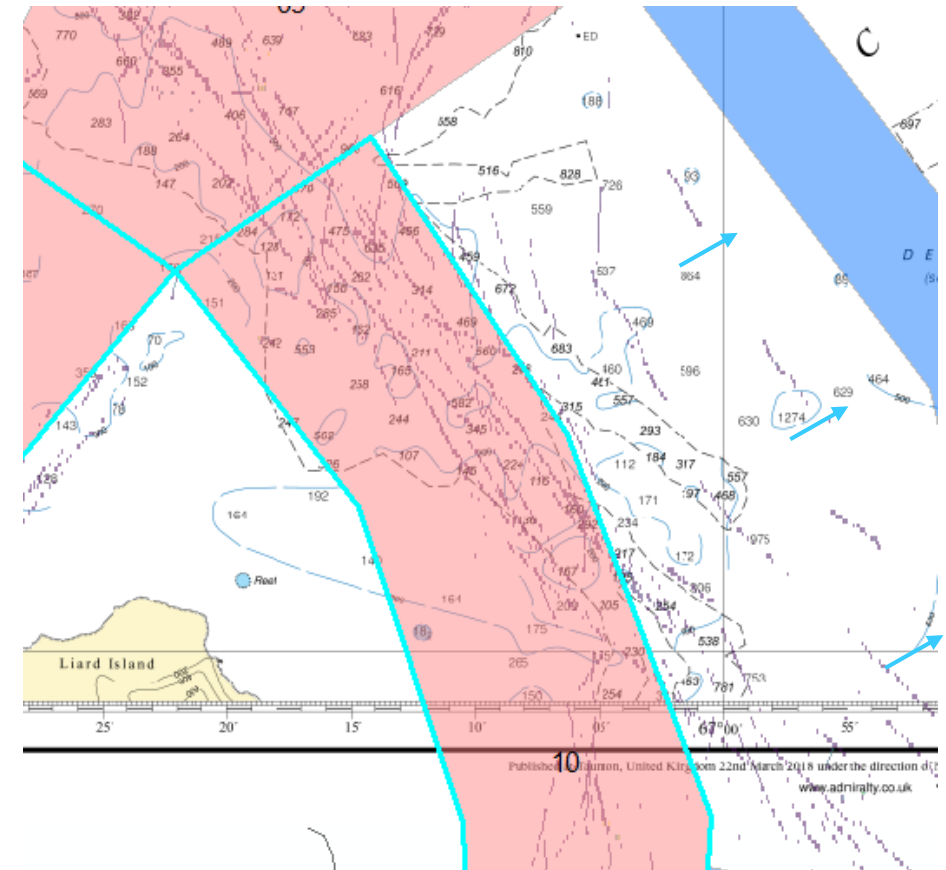
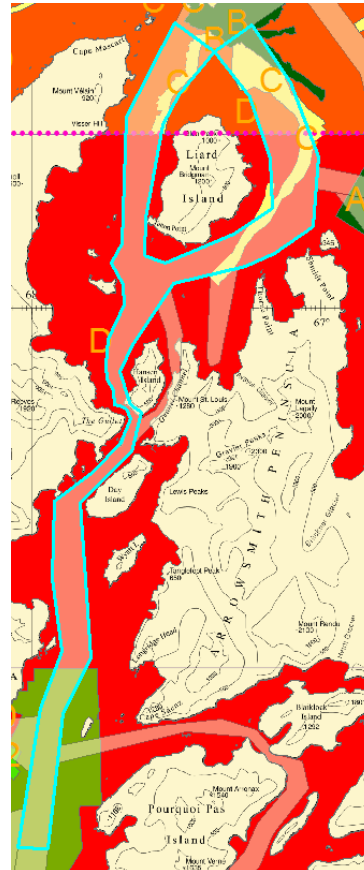
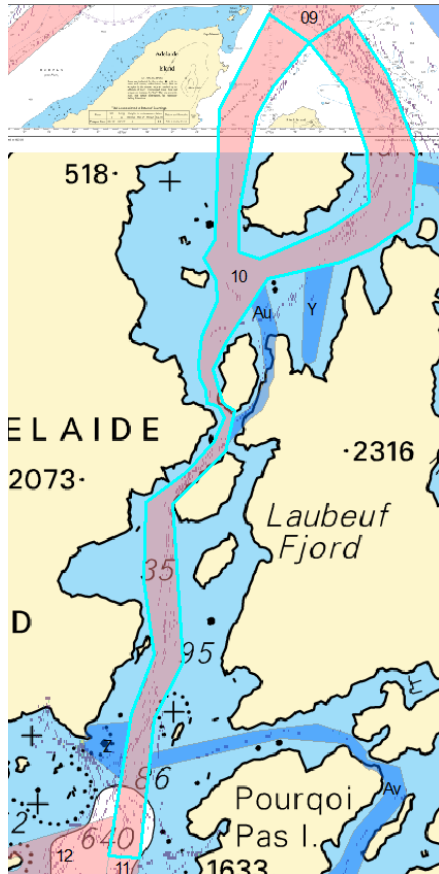
10. Liard Island to Rothera (INT 9161 & 9108 CL, 9163 UK)

- ZoC B-D
- Amend NE loop to align with modern data



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*modern uncharted data exists see HCA Survey List

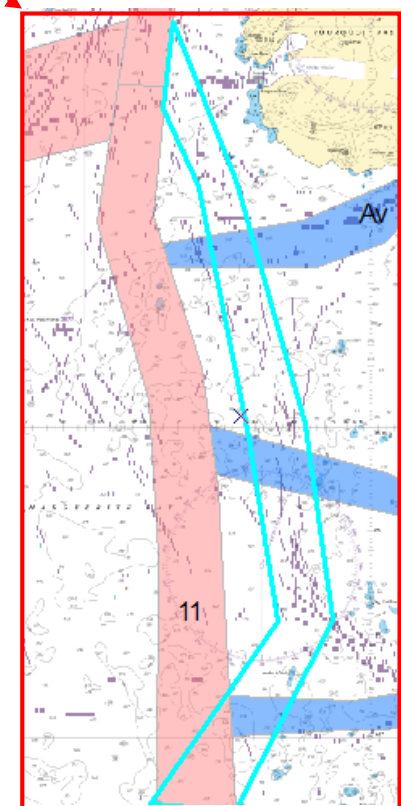
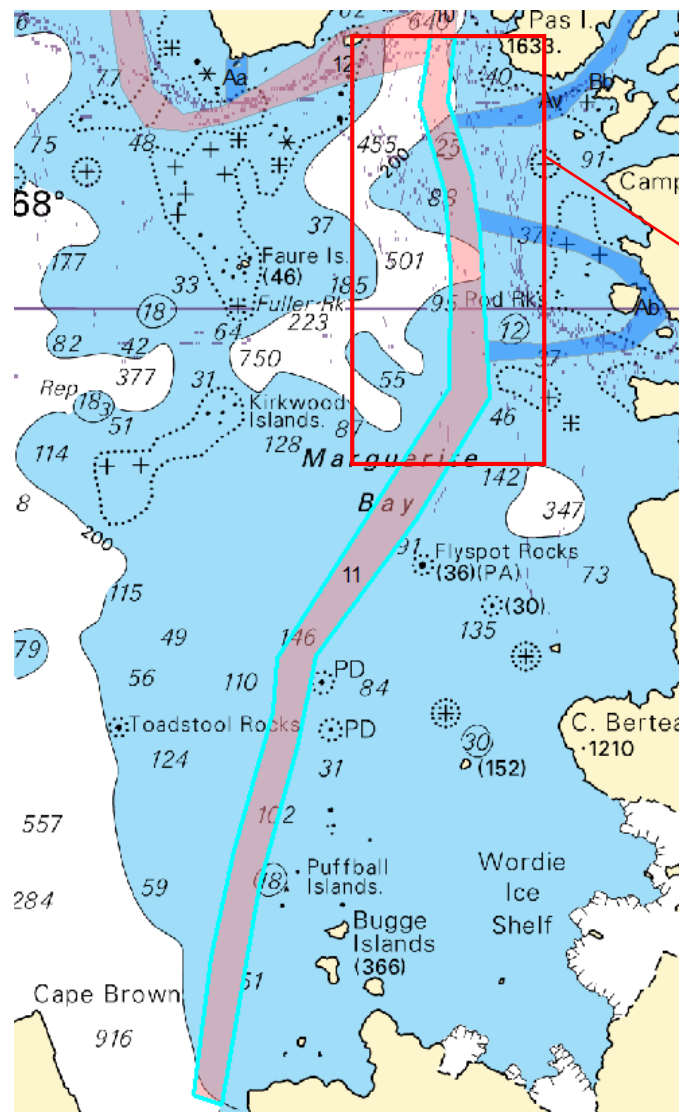


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11. Marguerite Bay (INT 9163 UK & 9164 CL)

- ZoC B, C & D
- Limited traffic data,
- Adjust eastwards as shown
- revise priority



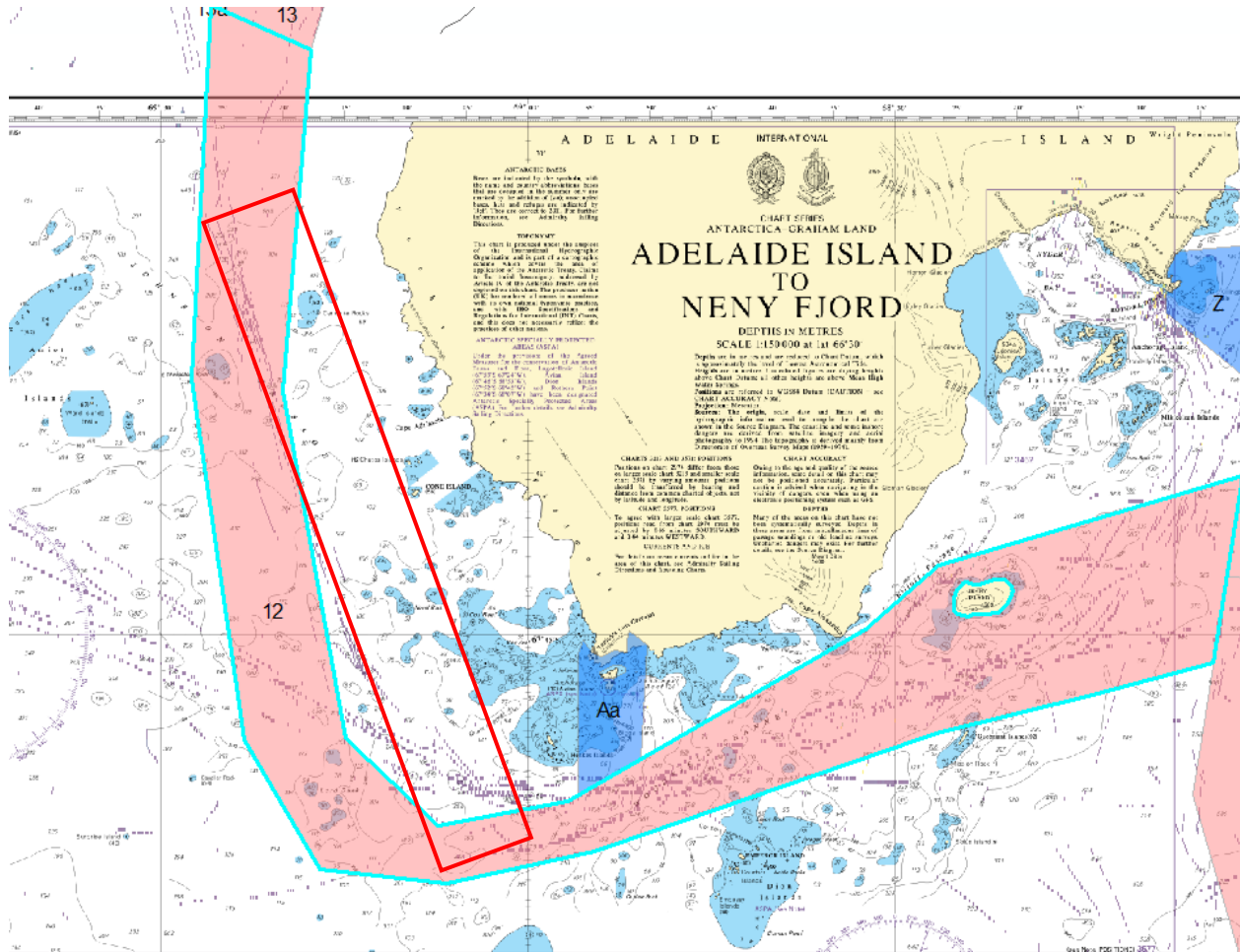
12.Woodfield Channel INT 9163 (UK)

- ZoC B
- Realign western segment as shown.
- Noting requirement to survey adjacent banks such as 'Lord Bank'

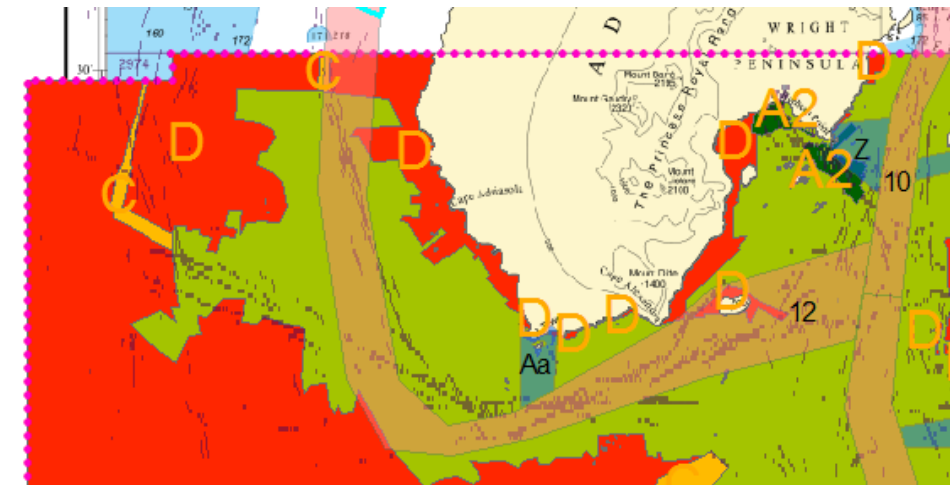


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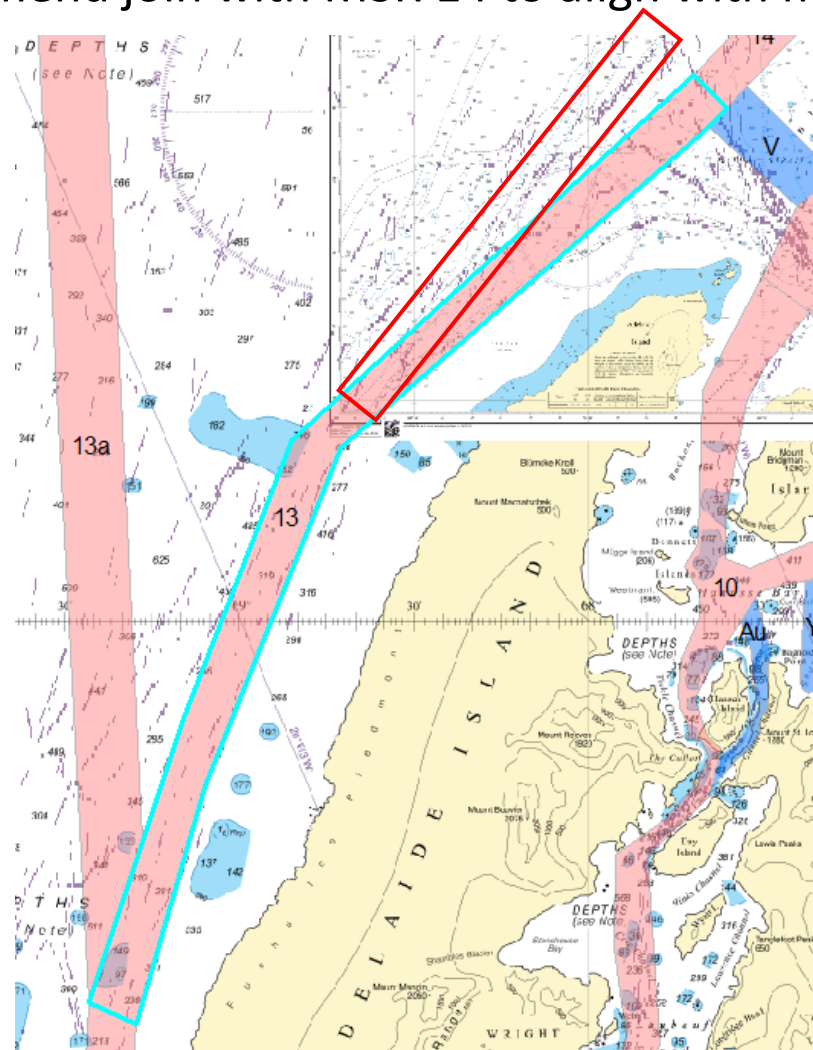


MSR 12 ZOC Assessment

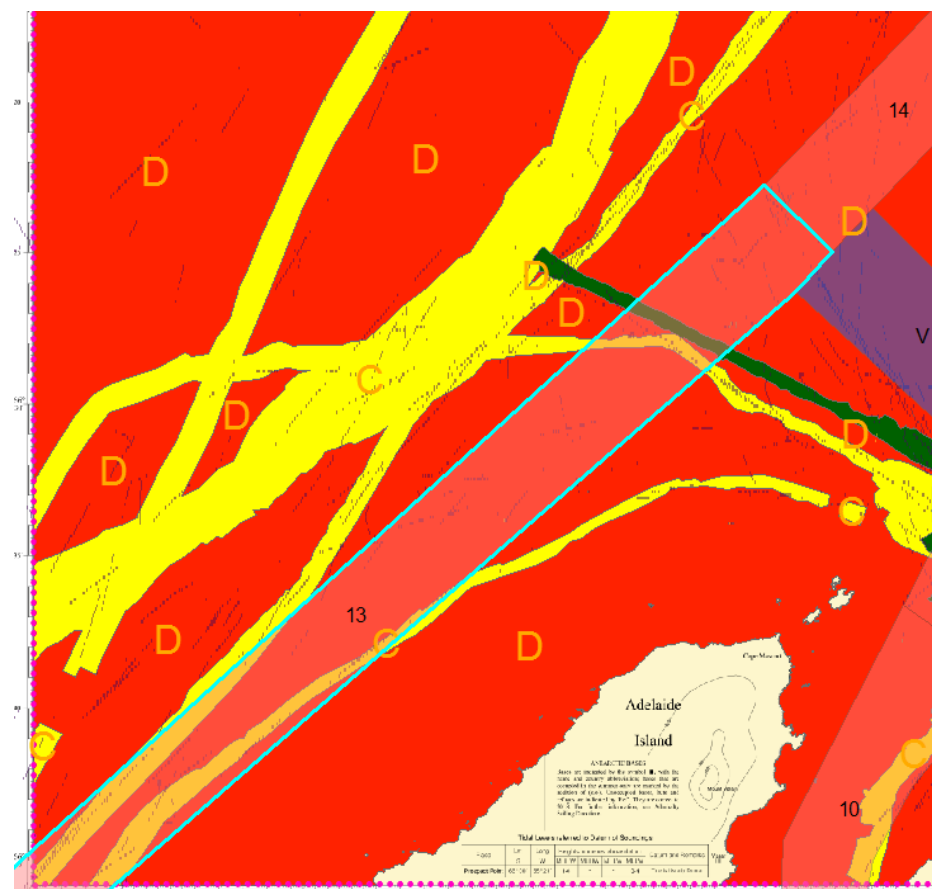


13. Woodfield Channel to Martha Strait (INT9162 CL & 9160 UK)

- ZoC C & D
- Amend join with MSR 14 to align with modern charted survey data and AIS



MSR 13 ZOC Assessment



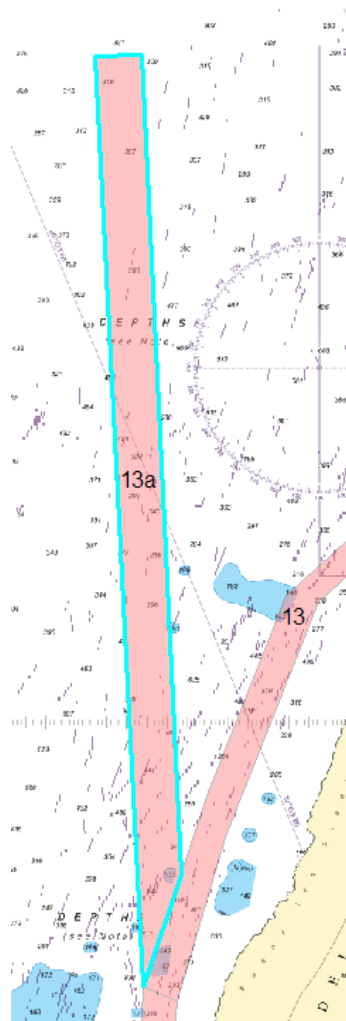


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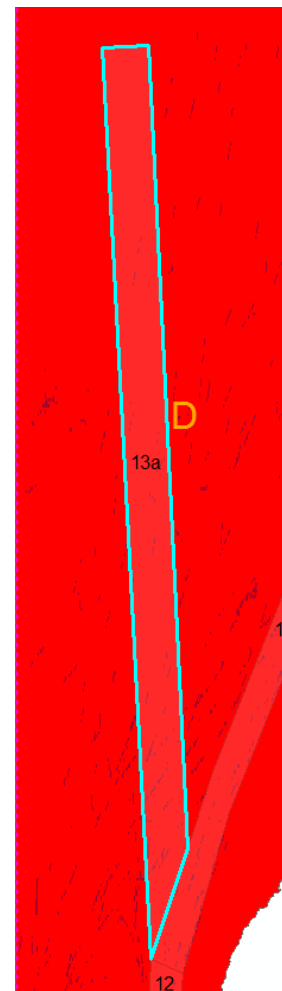
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13a.Northern Transit from Adelaide Island (INT9162 CL)

- ZoC D
- There is little demand for this route. Remove or deprioritise within the Priority List



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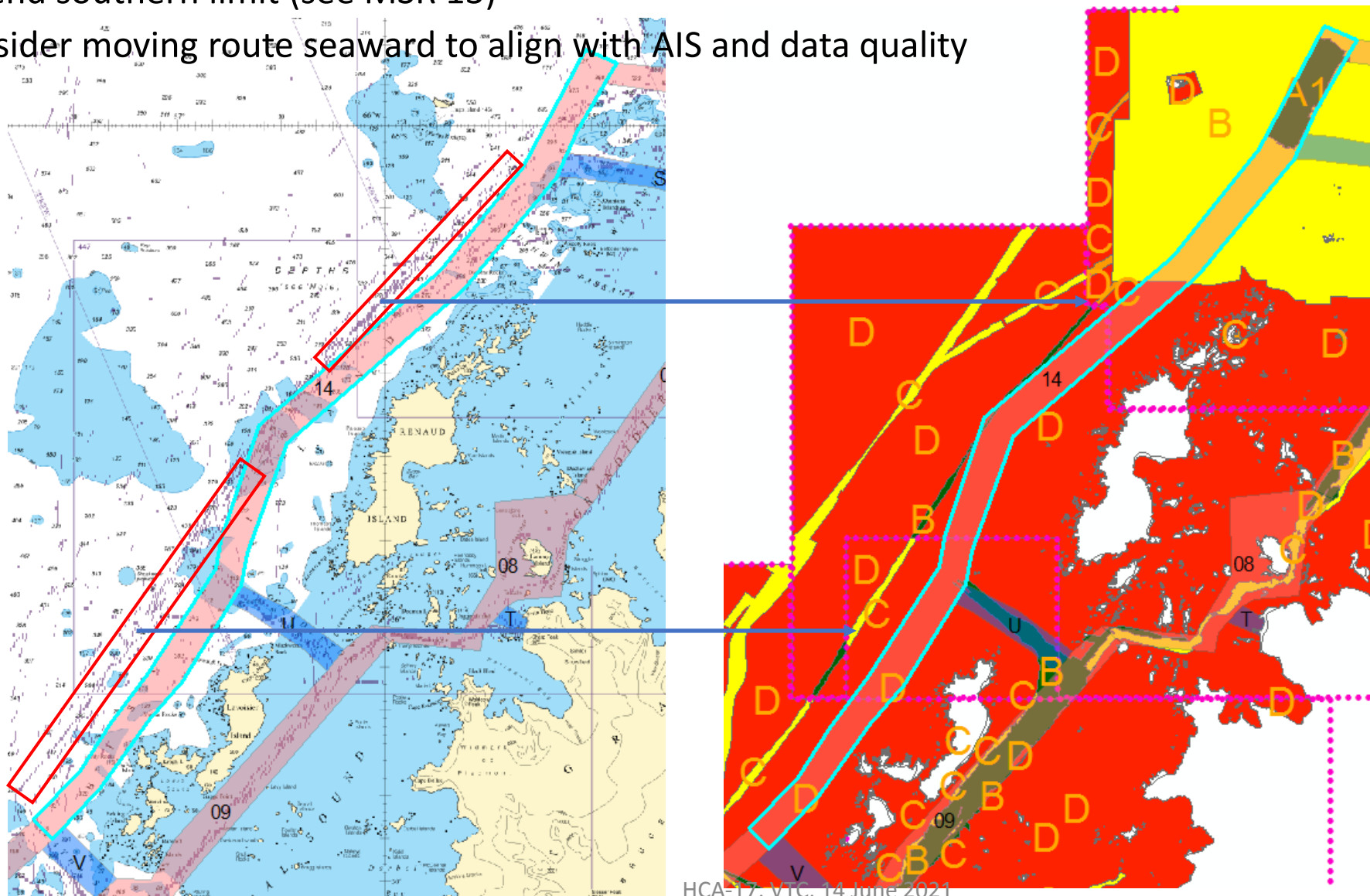
14.Matha Strait to Hugo Island (INT9160, 9519 & 9158 UK)

- ZoC A-D
- Amend southern limit (see MSR 13)
- Consider moving route seaward to align with AIS and data quality



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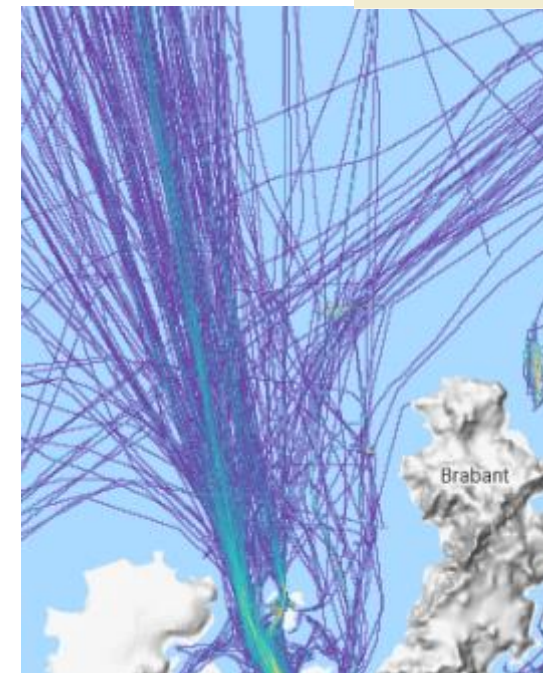
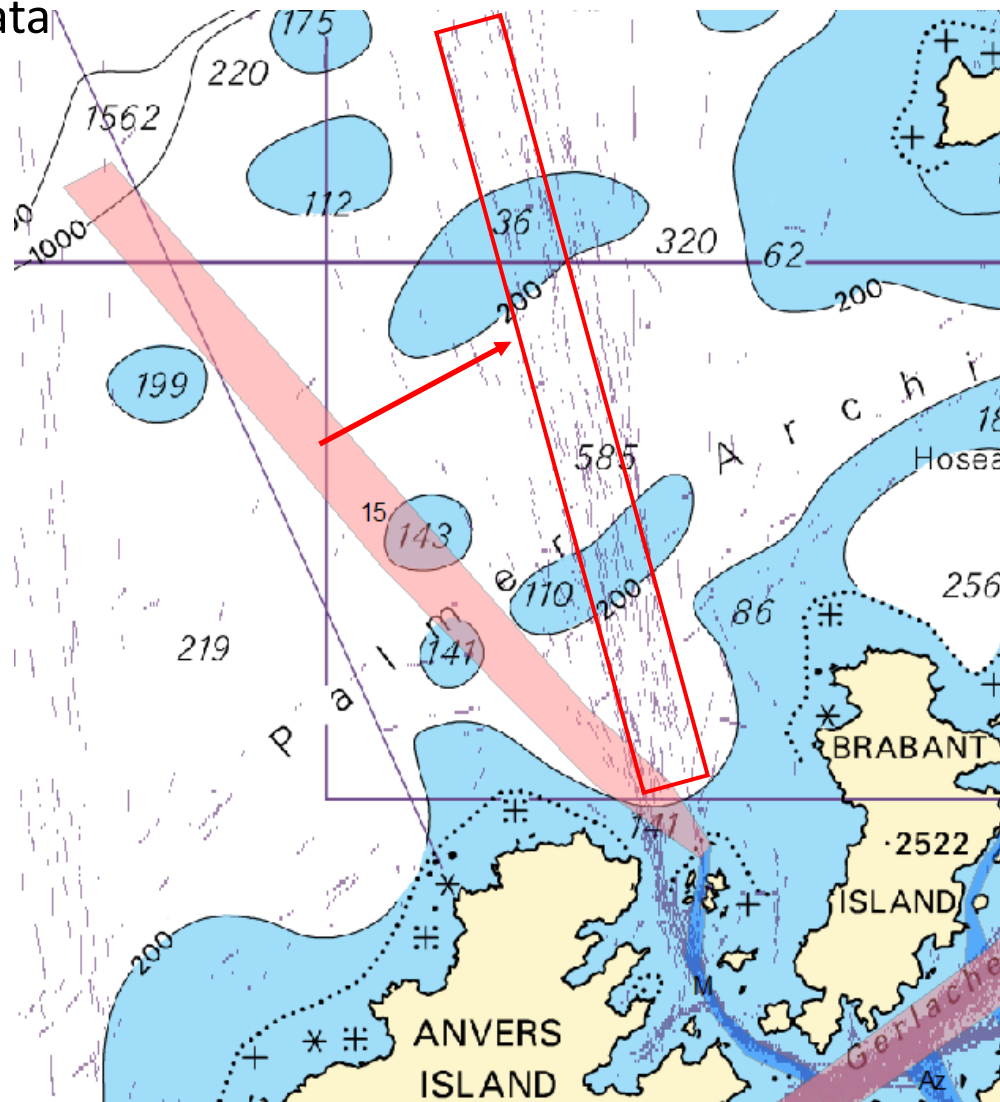
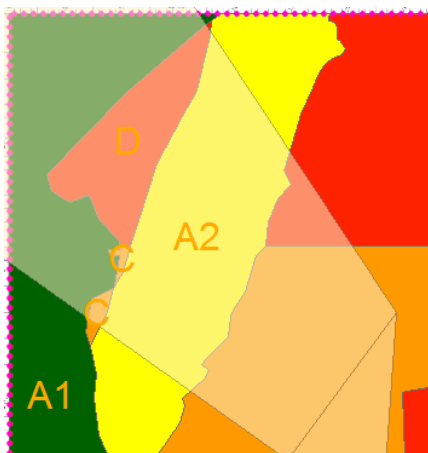
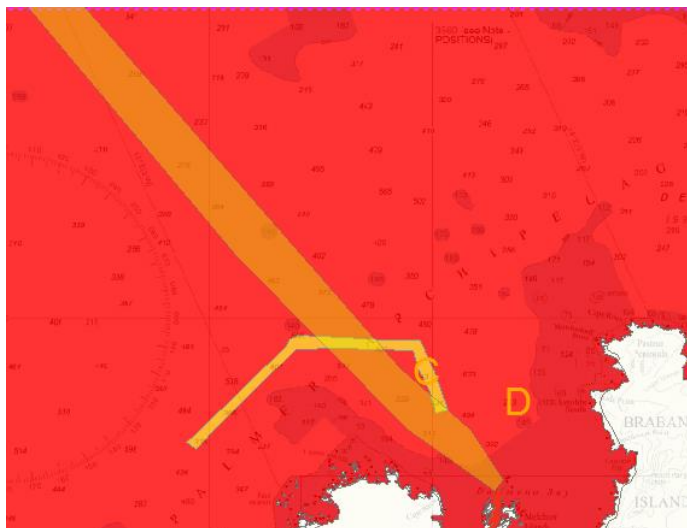
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15.Exit from Melchior Islands (INT9156 AR, 9158 9159 UK)

- ZoC A to D
- Amend to align with AIS Data

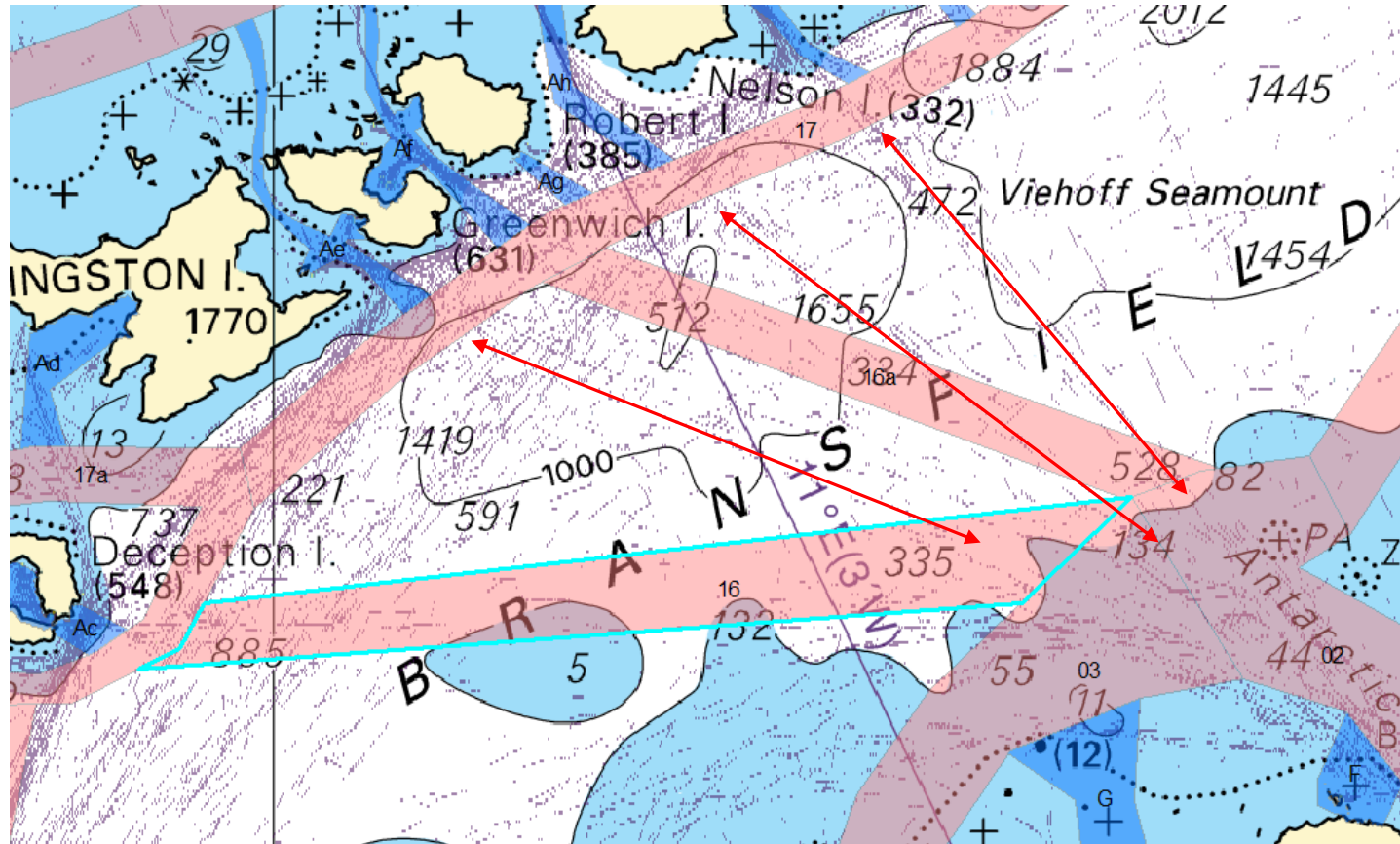


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16. Deception Island to Antarctic Sound & 16a English Strait to Antarctic Sound
(INT9151 9152 9154 9155 BR CL & UK)

- Minimal traffic for both deep water routes
- Review priority and requirement in conjunction with other cross strait routes as indicated



Options:

1. Remove requirement
2. Amend to branch corridor

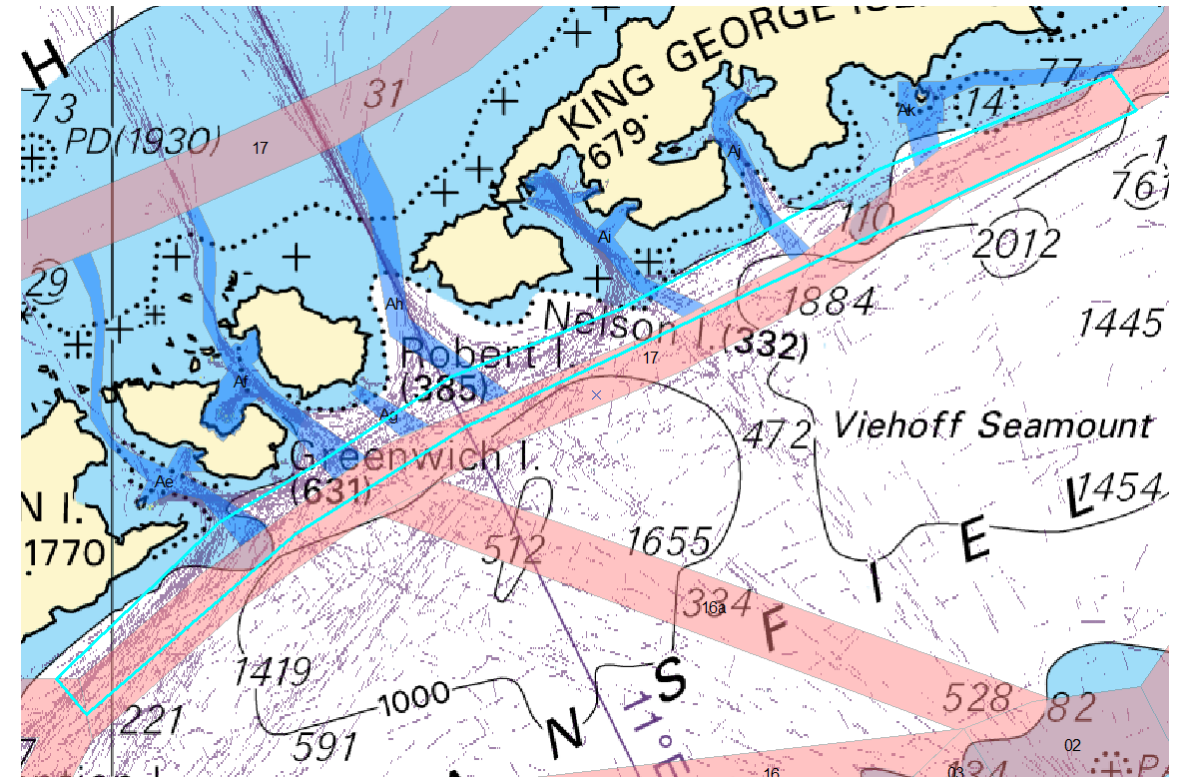
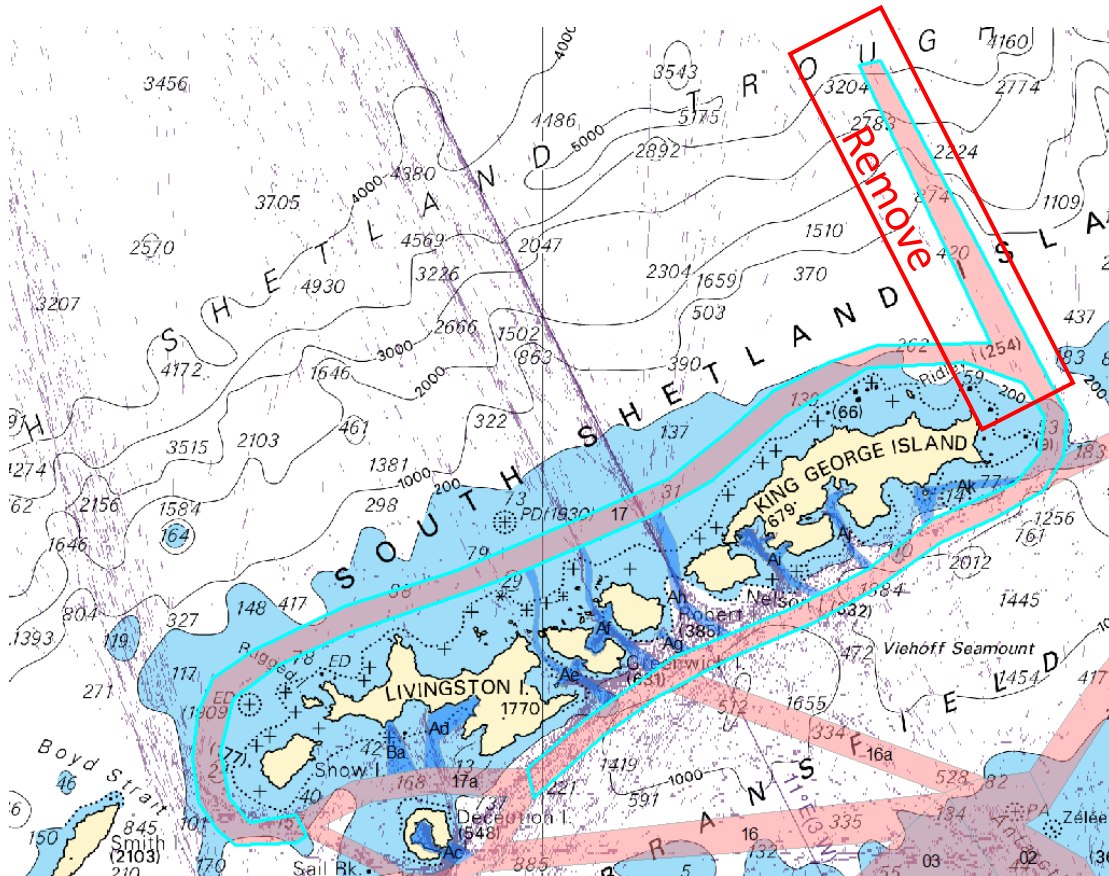


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17.South Shetland Major Shipping Route (INT 9151 BR/CL)

- Minimal traffic for the northern coastal route
- No evidence to justify north eastern deep water approach.
- Consider amending southern route to align with AIS
- Split MSR into southern and northern segments to improve management



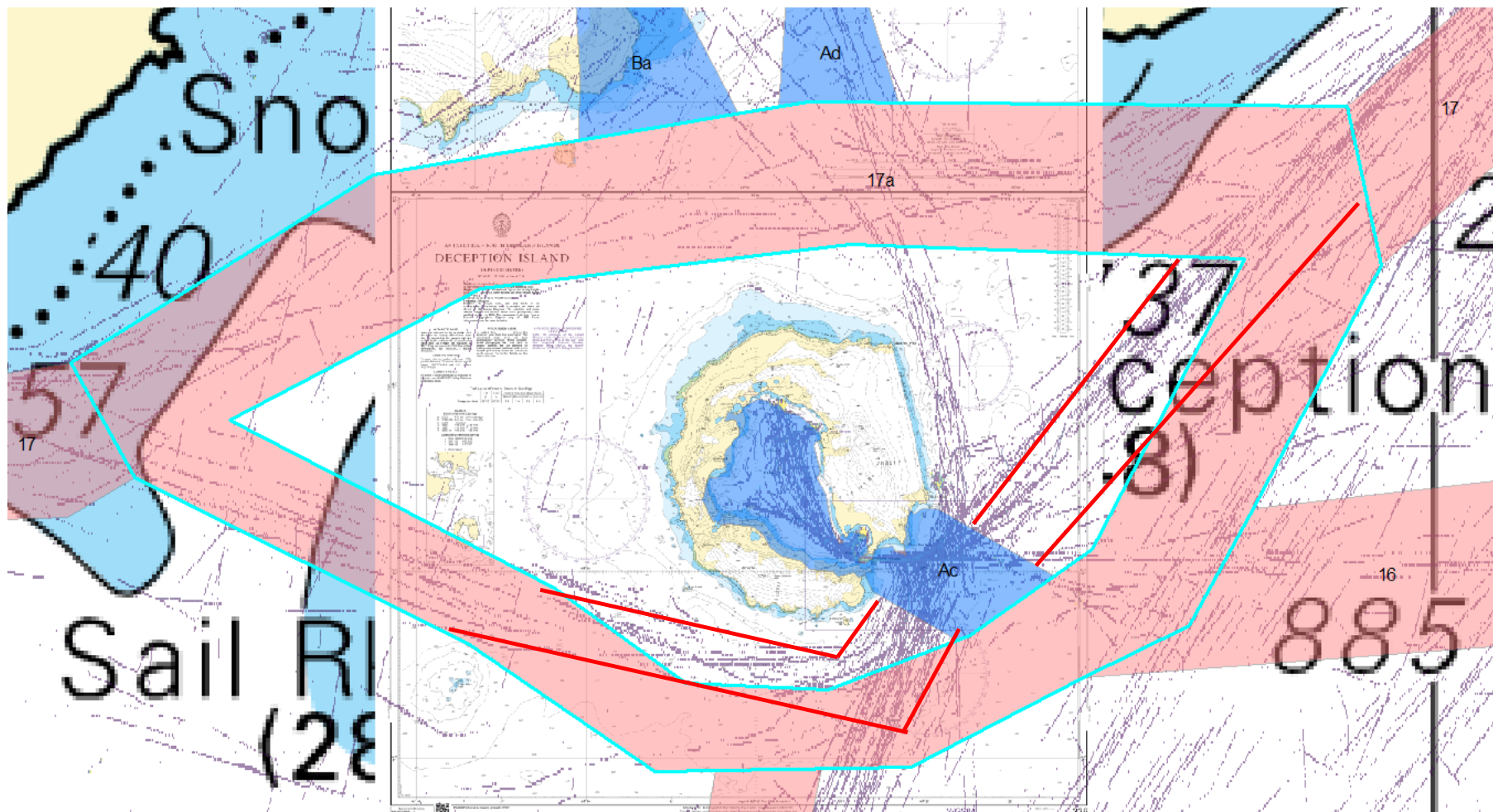


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17a. Deception Island Circular Route (INT9120 AR)

- Amend southern and eastern approach to align with AIS and reduce size of branch corridor



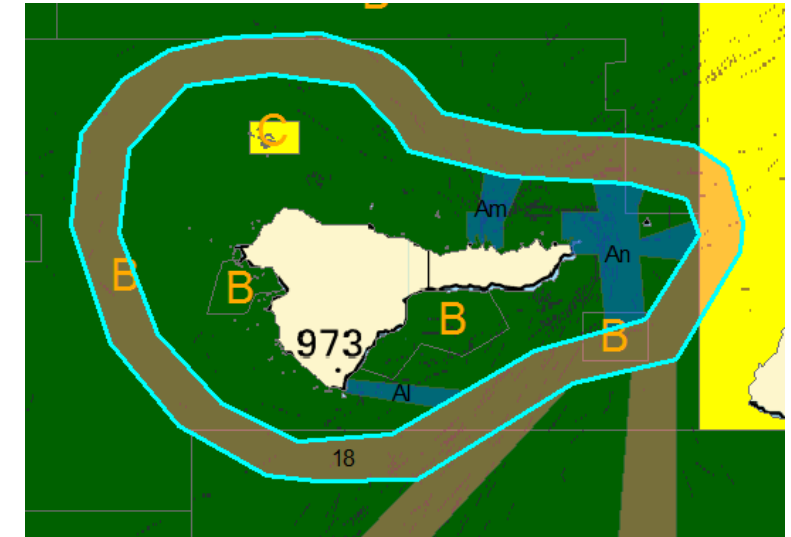
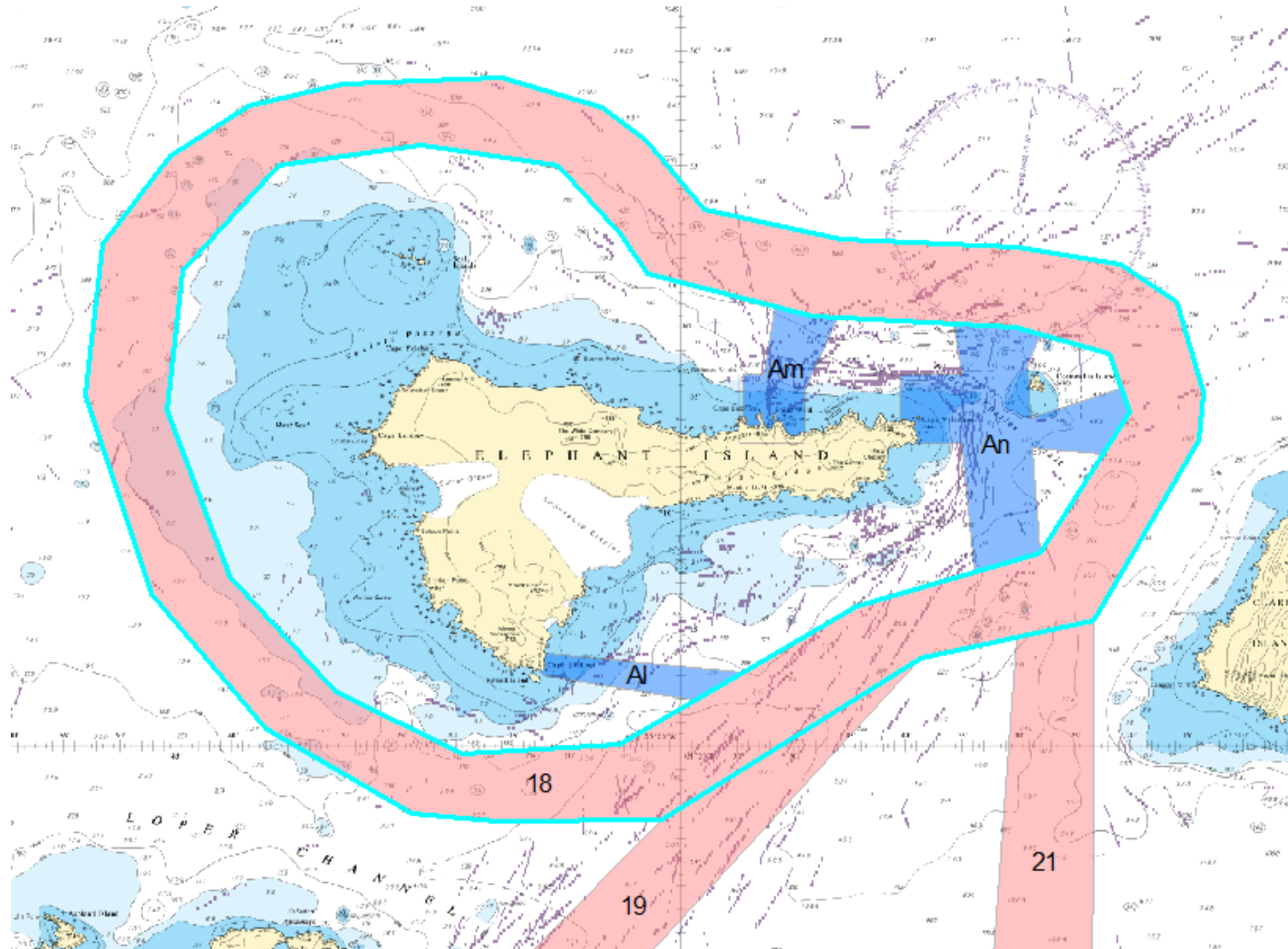
18. Elephant Island Major Shipping Route (INT9150 BR)

- Minimal traffic – no change, ZOC B

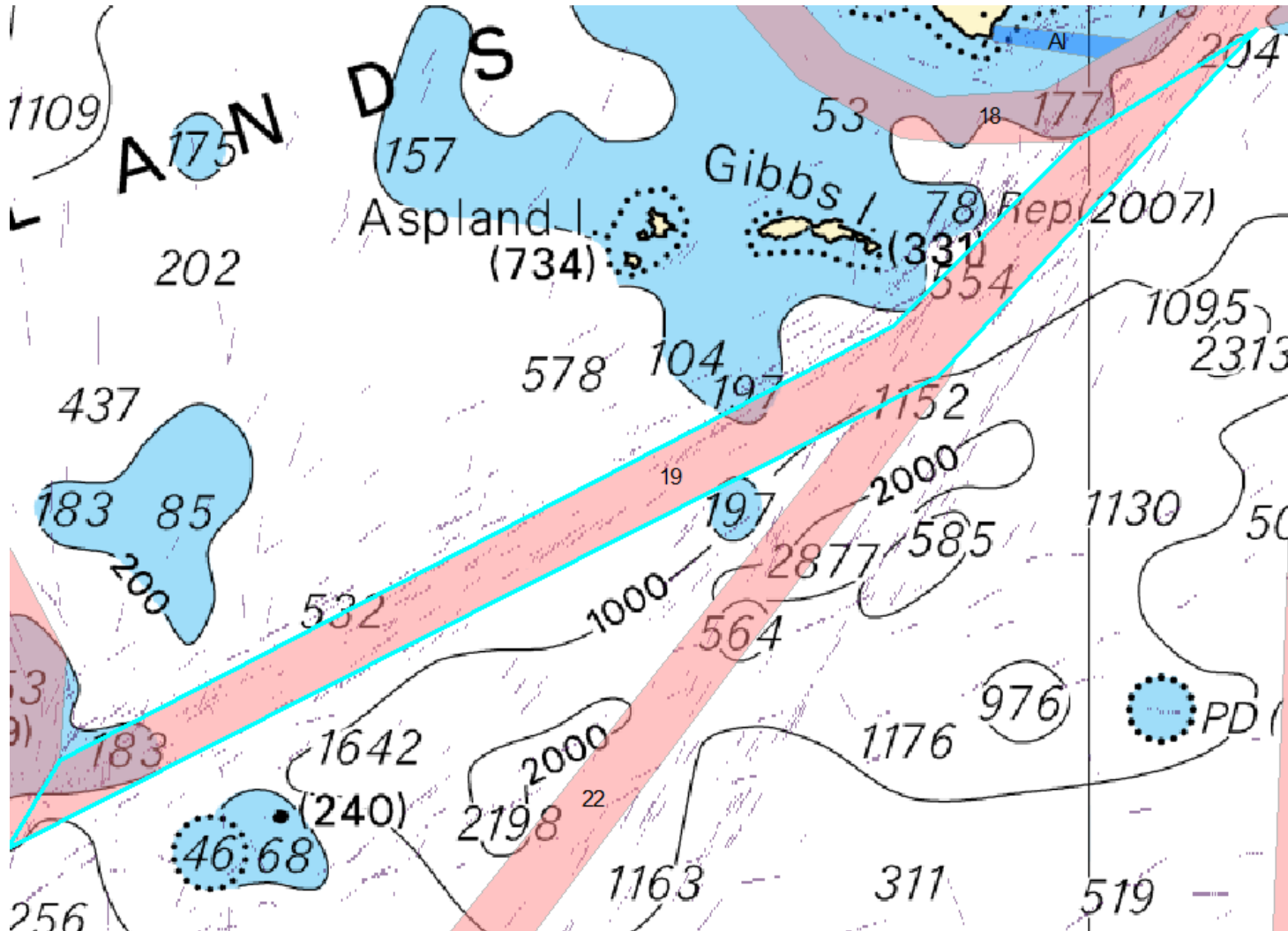


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- Minimal traffic – no change required
- ZoC B & C



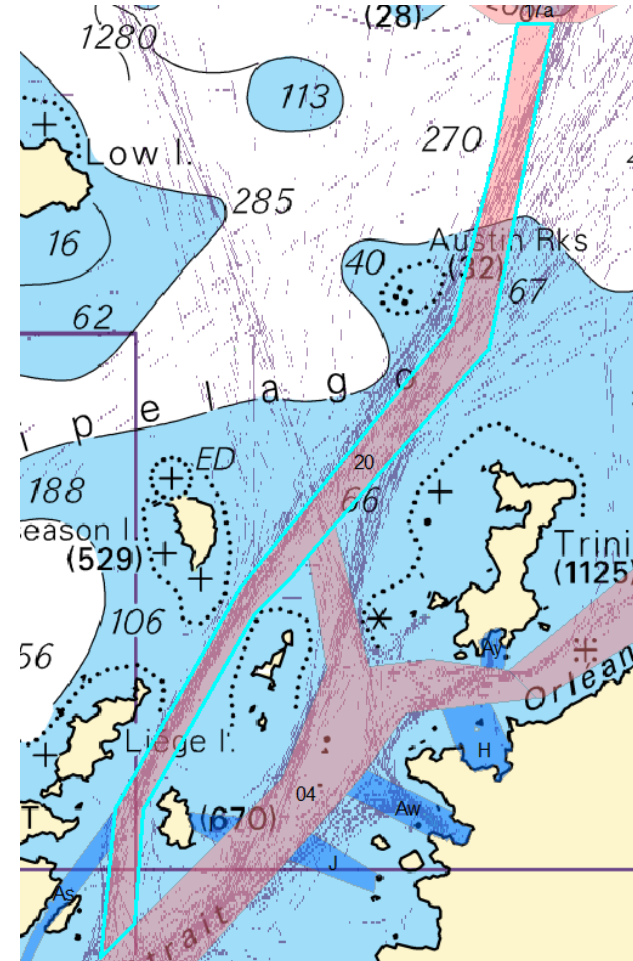
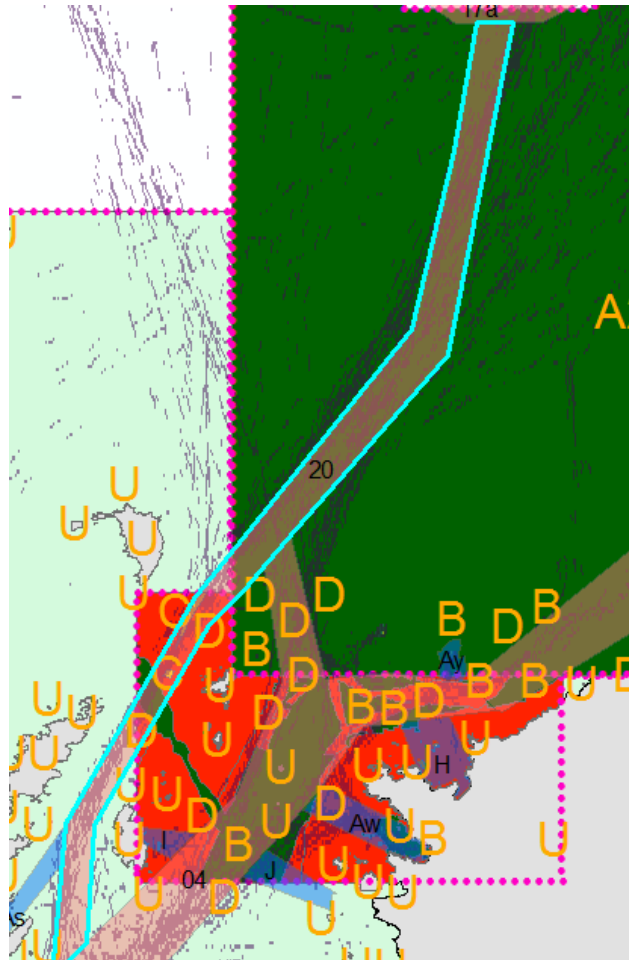
20. Deception Island to Brabant Island (INT9120,9155,9156 & 9157 AR & CL)

- Mostly covered by 1994-2003 surveys ZOC A2
- Minor adjustments could be made in the vicinity of Austin Rocks



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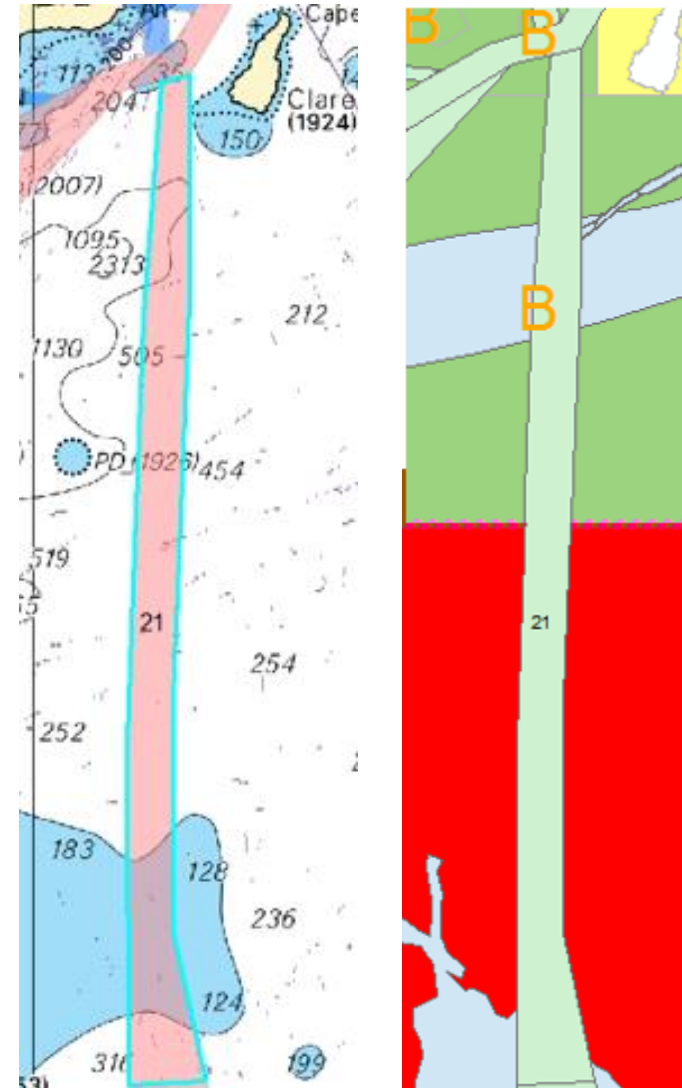
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21. Elephant Island to Danger Islands (INT9150, 9154 & 9170 BR,UK,AR)

- Minimal traffic, retain as a low priority requirement
- ZOC B (INT9150) & D



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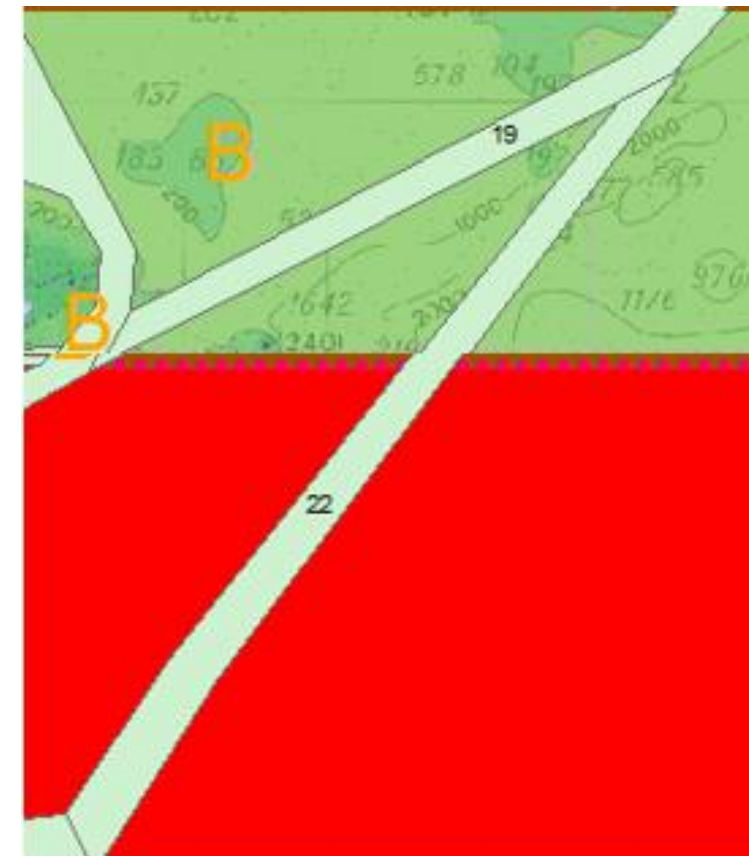
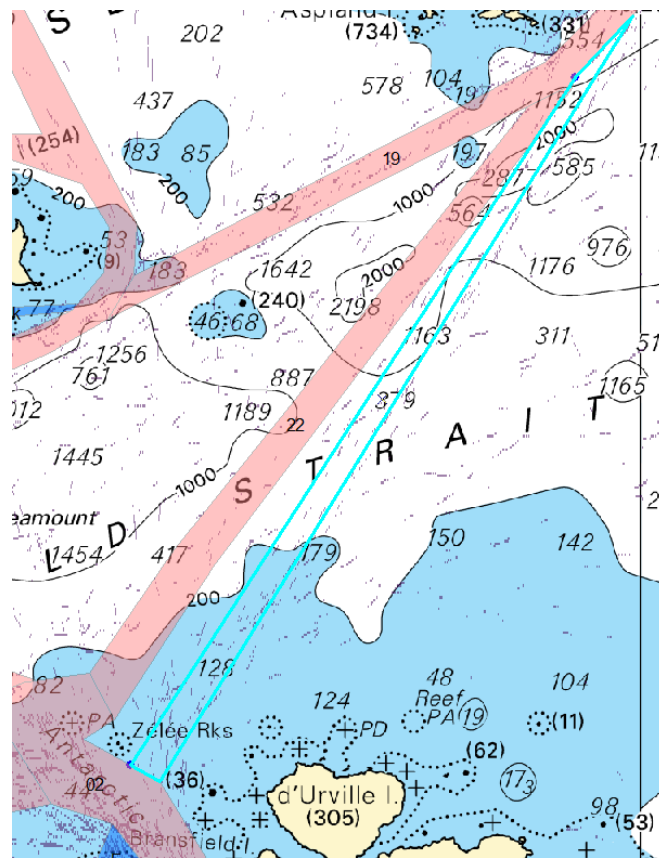
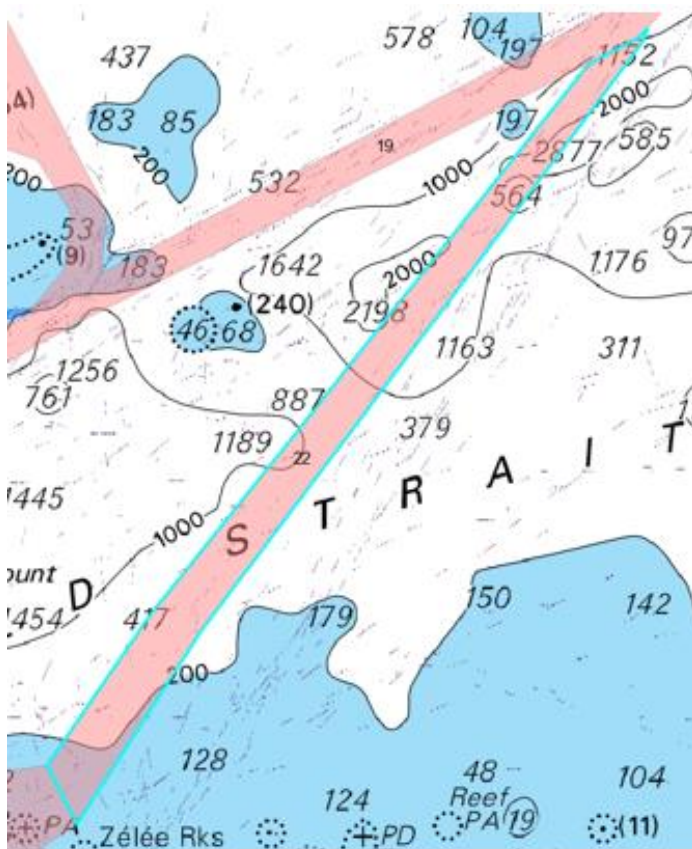


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22.Elephant Island to Antarctic Sound (INT9150,9151,9154 BR,CL,UK)

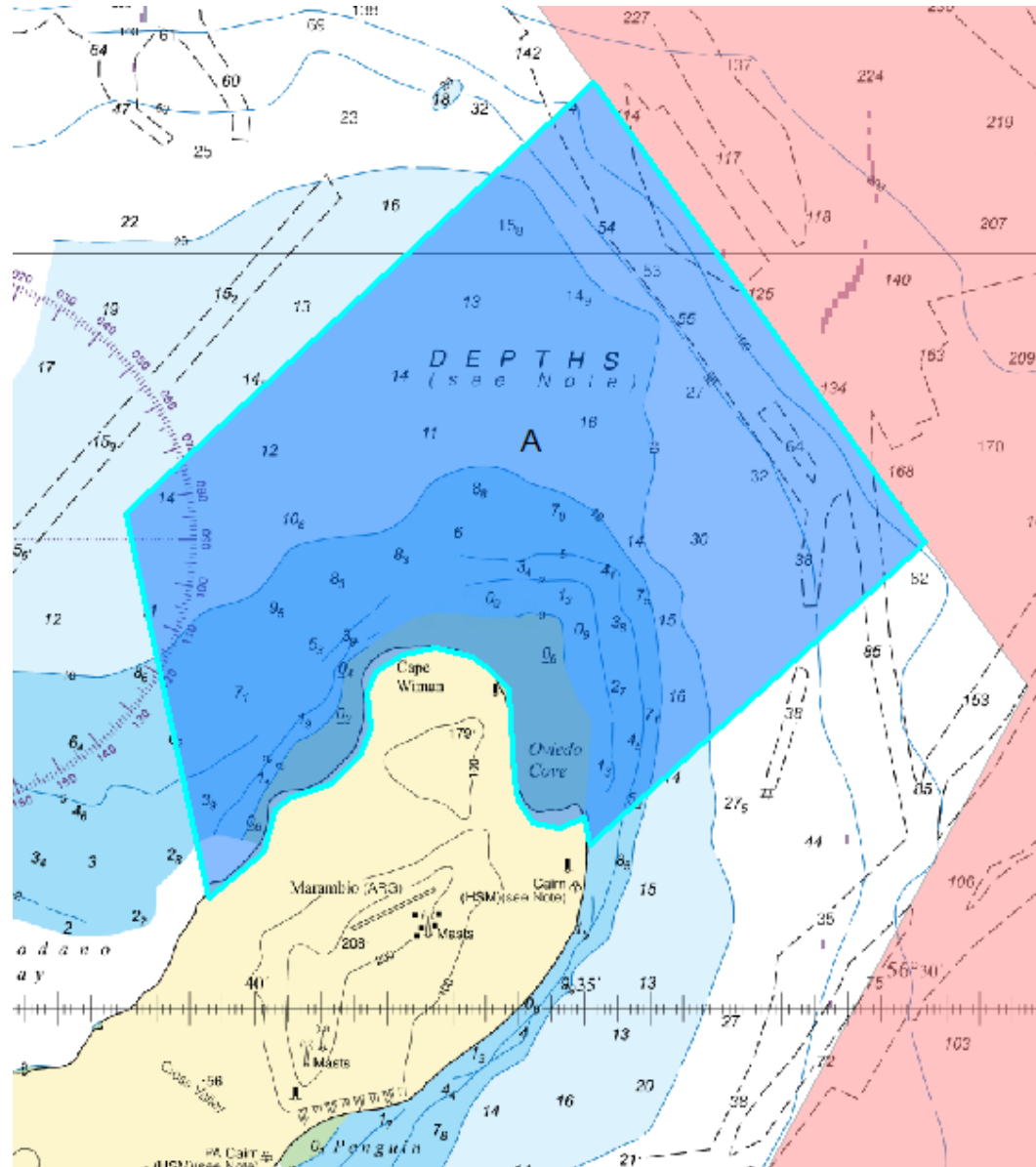
- Minimal traffic – low priority
- ZoC B & D
- Traffic transits east of Zelee Rocks (62 56.44S 57 14.08W)
- Amend as shown



3 - Branch Corridors

A.Marambio (INT9130 UK)

- Minimal traffic
- CATZOC B & D
- Low priority



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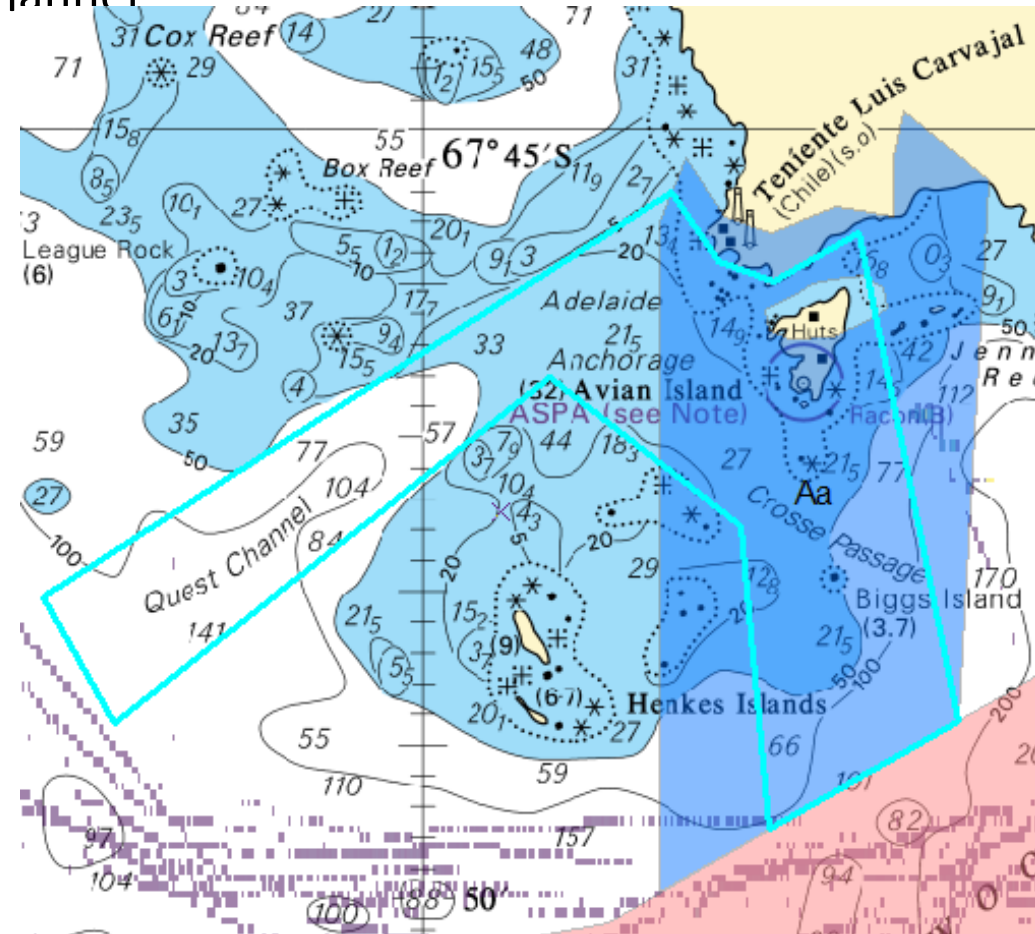
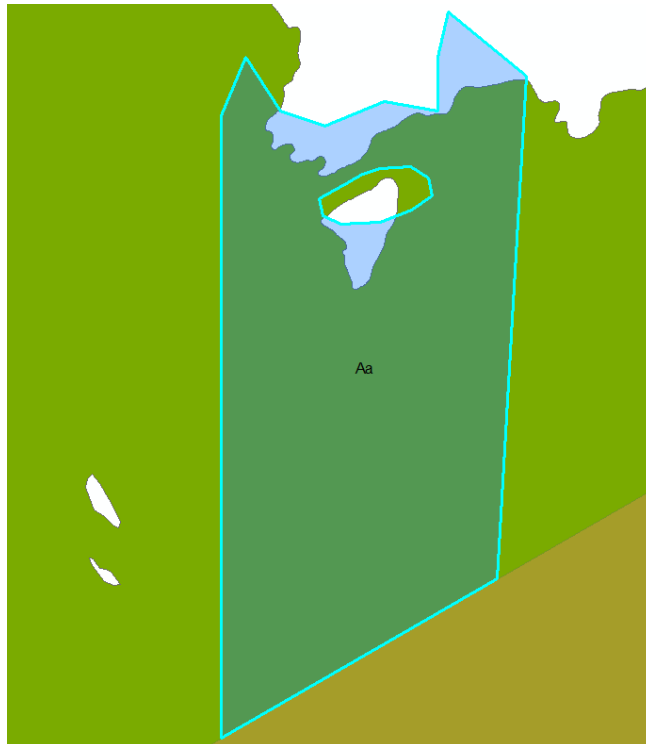


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Aa.Avian Island (INT9110 CL)

- Minimal traffic using Quest Channel & Cross Channel
- APSA landing on NW and E coasts
- Amend to cover anchorage and Quest Channel
- Zoc B
- Low priority



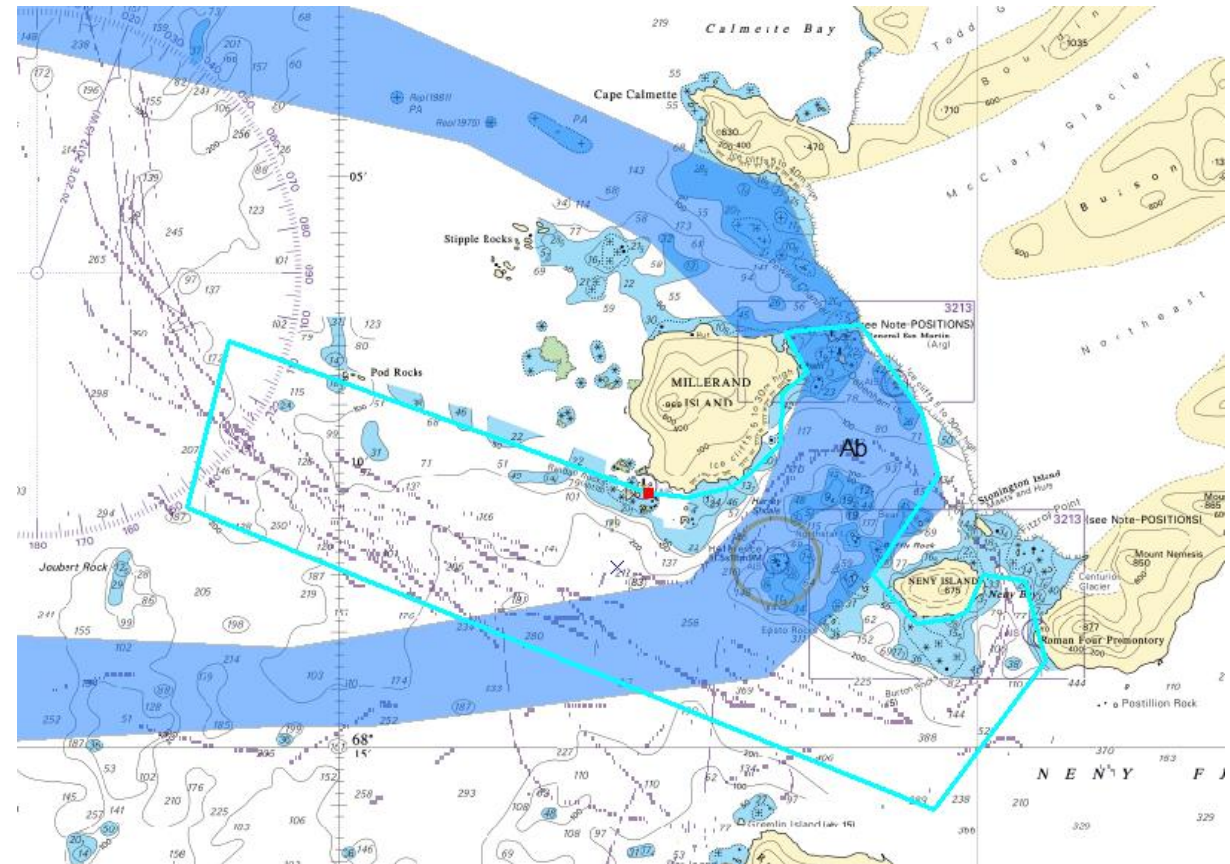
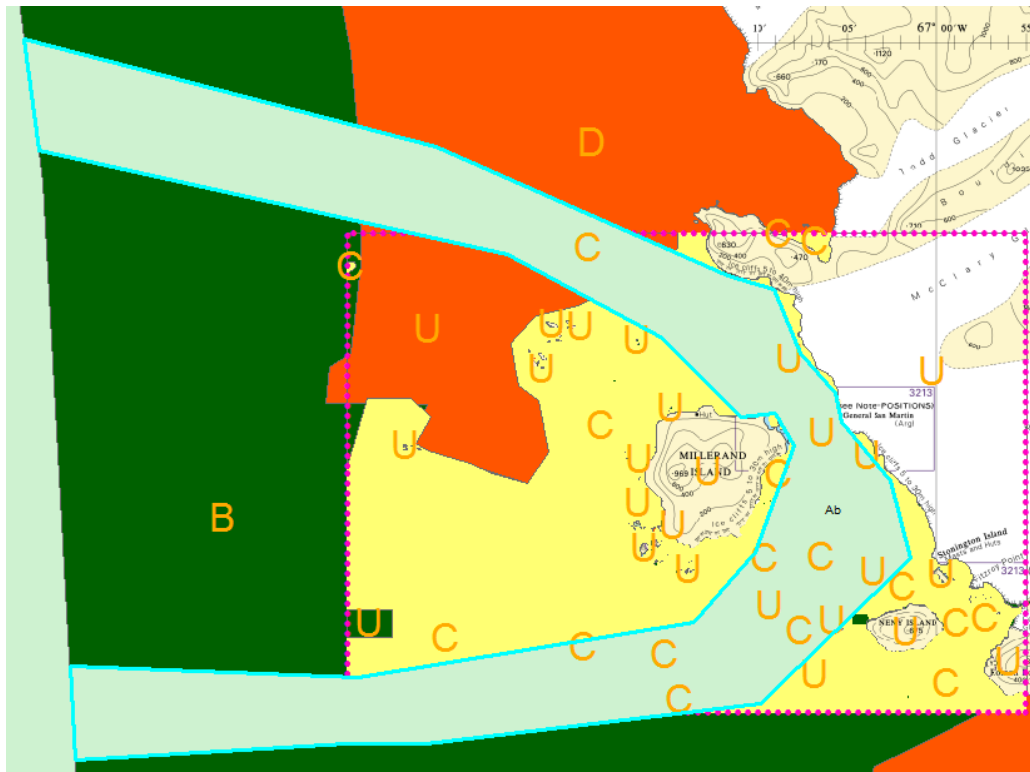
Ab.Approaches to Millerand Island (INT9111 AR)

- Traffic approaches from south
- Zoc B C & D
- Amend as shown



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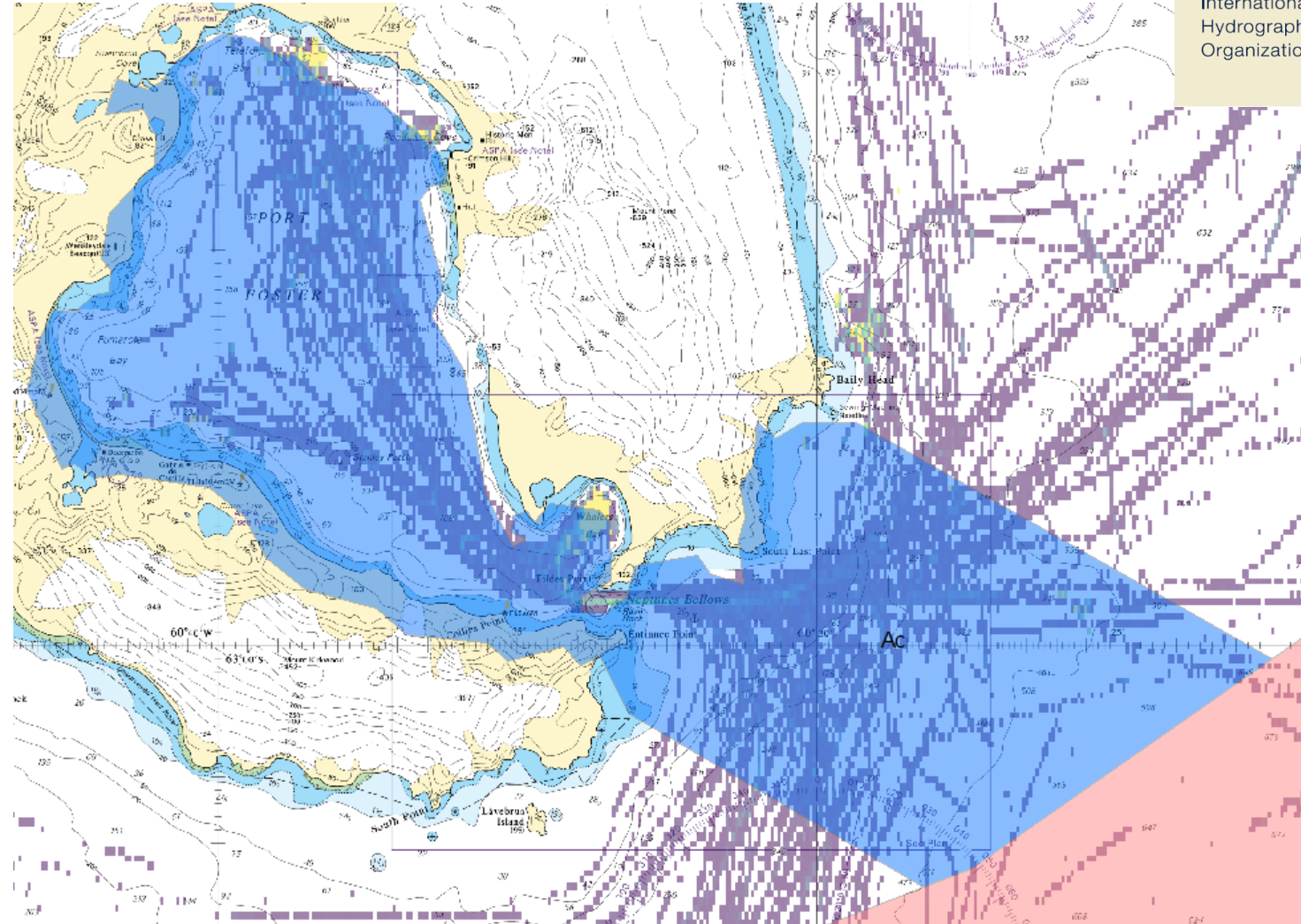
Ac.Port foster & Neptune Bellows (INT9120 AR)

- 2006-17 surveys
- No change required



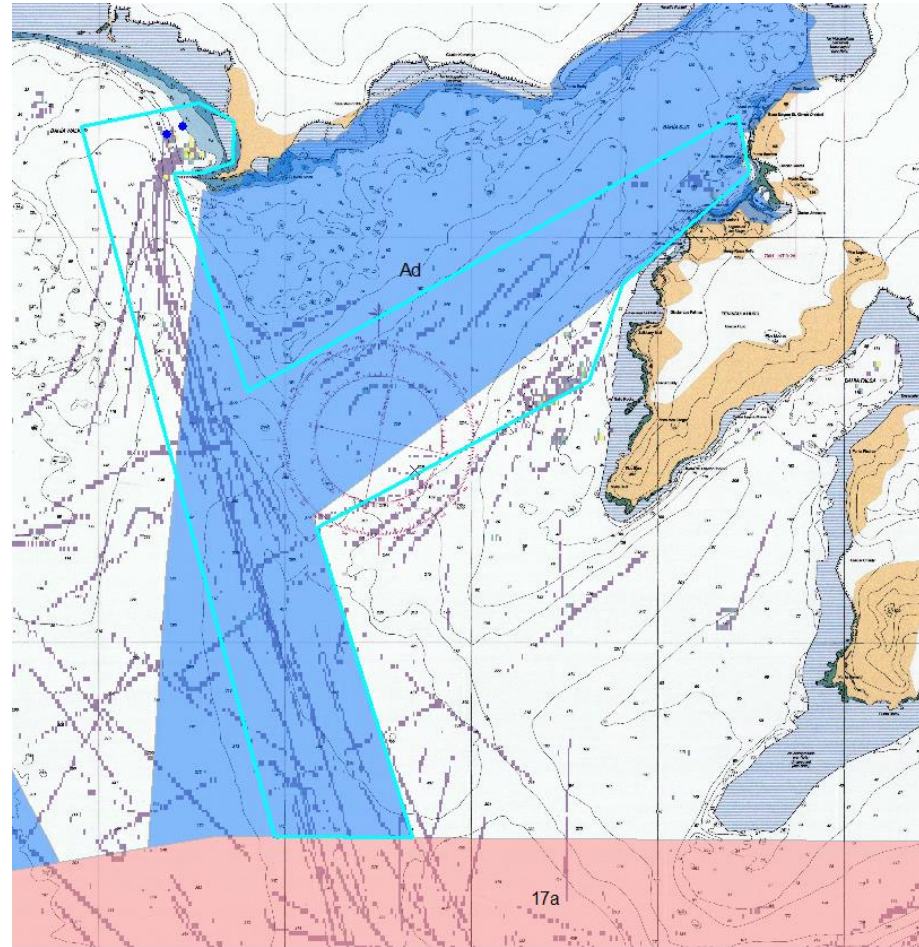
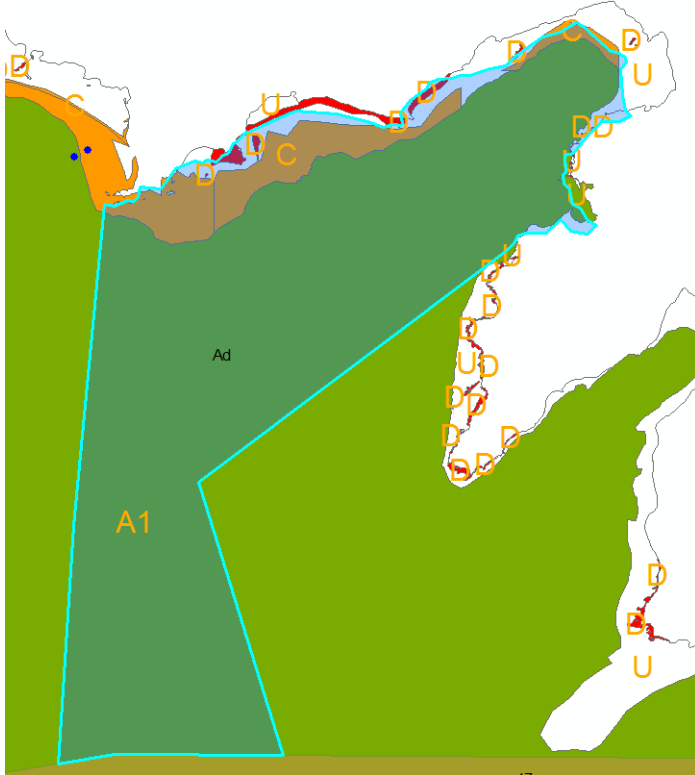
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Ad.South Bay & Hannah Point (INT9121 ES)

- Mostly ZOC A1
- Amend to cover key areas as shown



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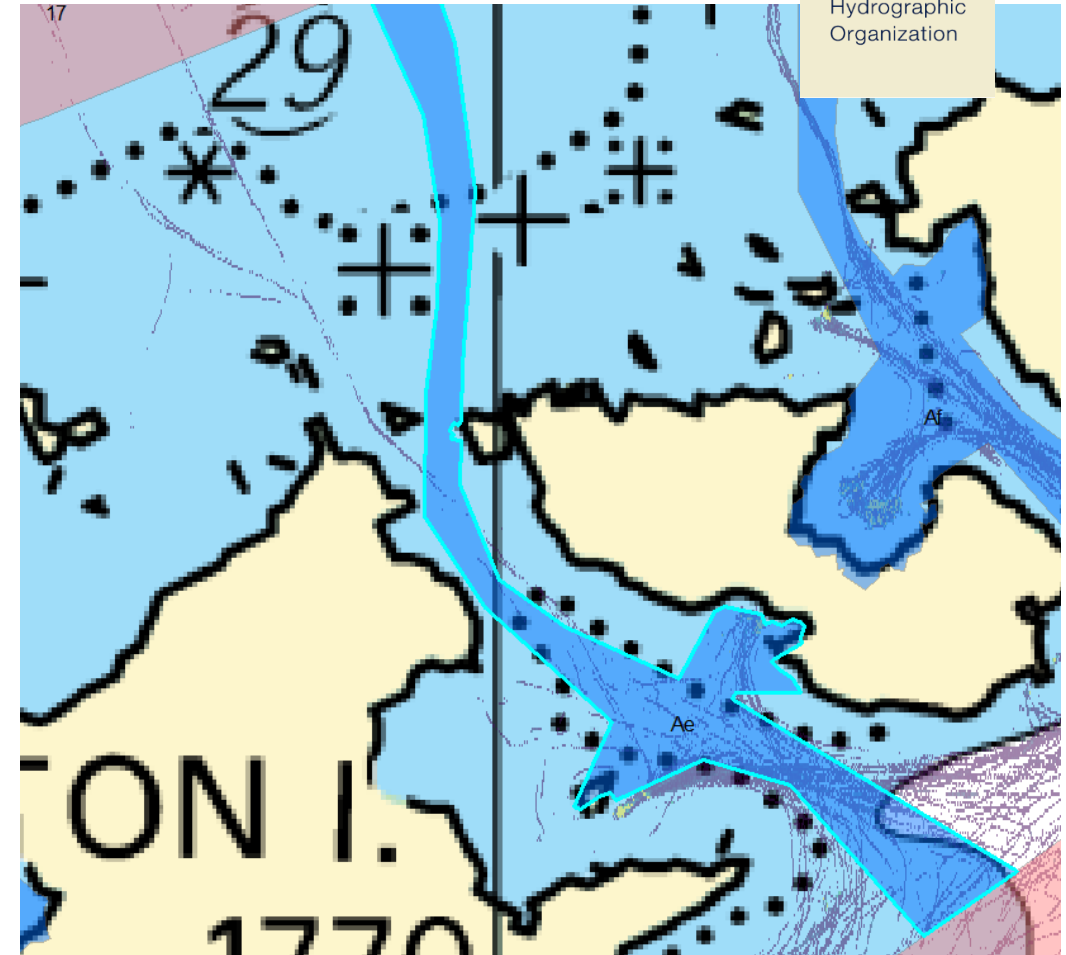
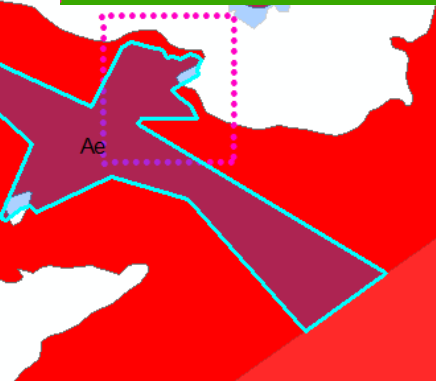
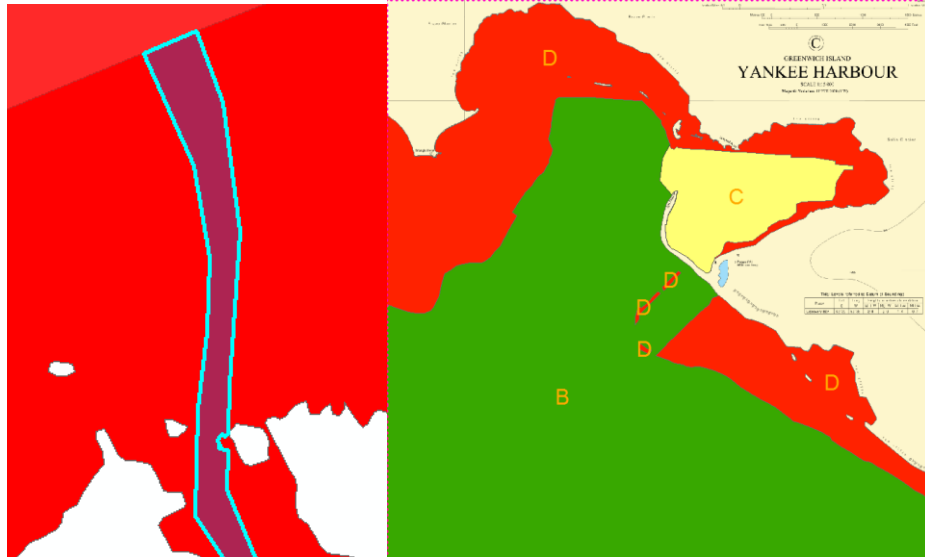
Ae.McFarlane Strait (INT9137 ES Schemed)

- Amend northern exit
- ZoC D (Half Moon Island A, Yankee Hbr B&C)



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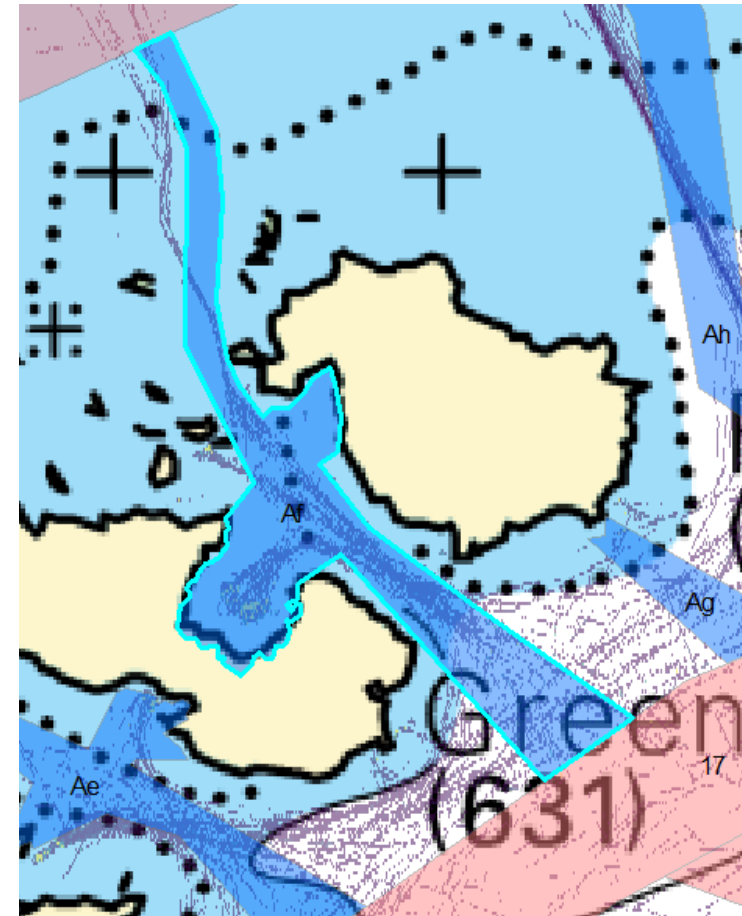
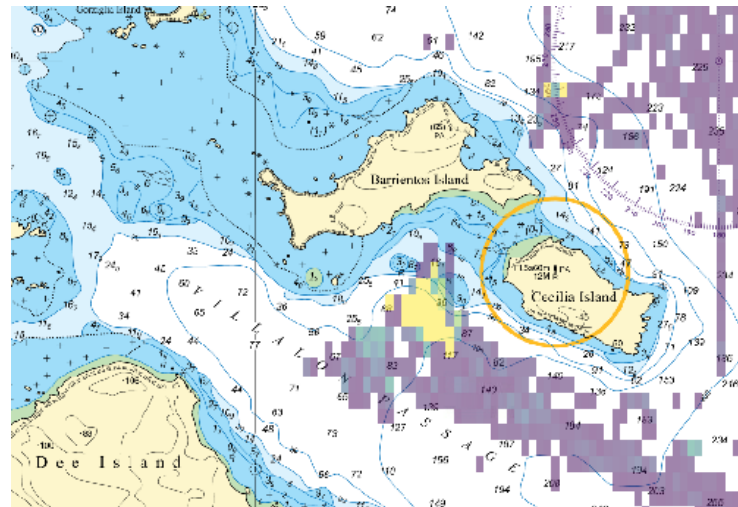
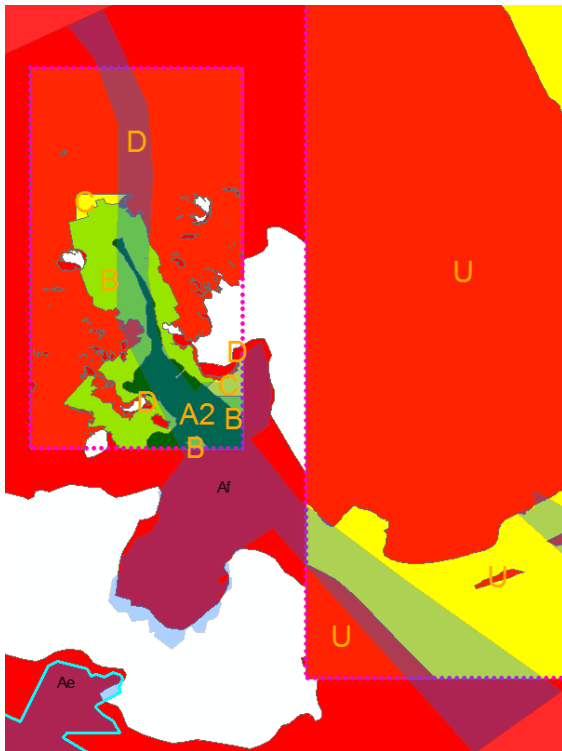
Af. English Strait (INT 9122 (CL) 9117 (UK) 9152 (BR/CL))

- ZoC A-D
- Amend northern exit
- Refine and include Villalon Passage



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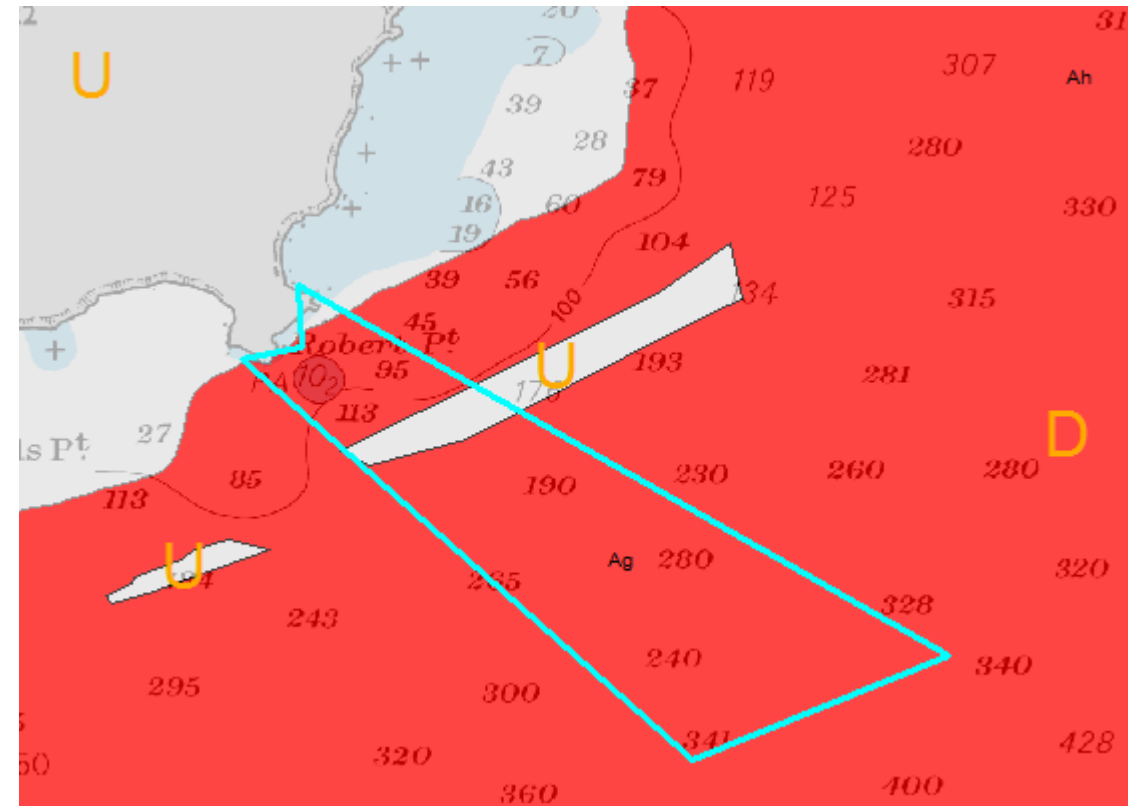
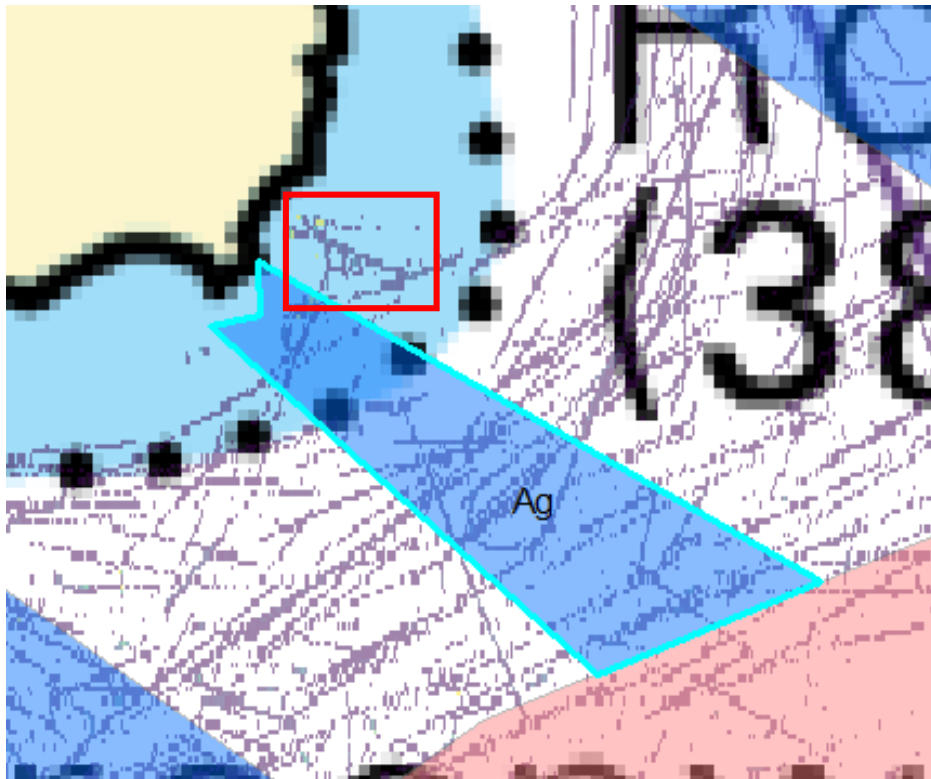


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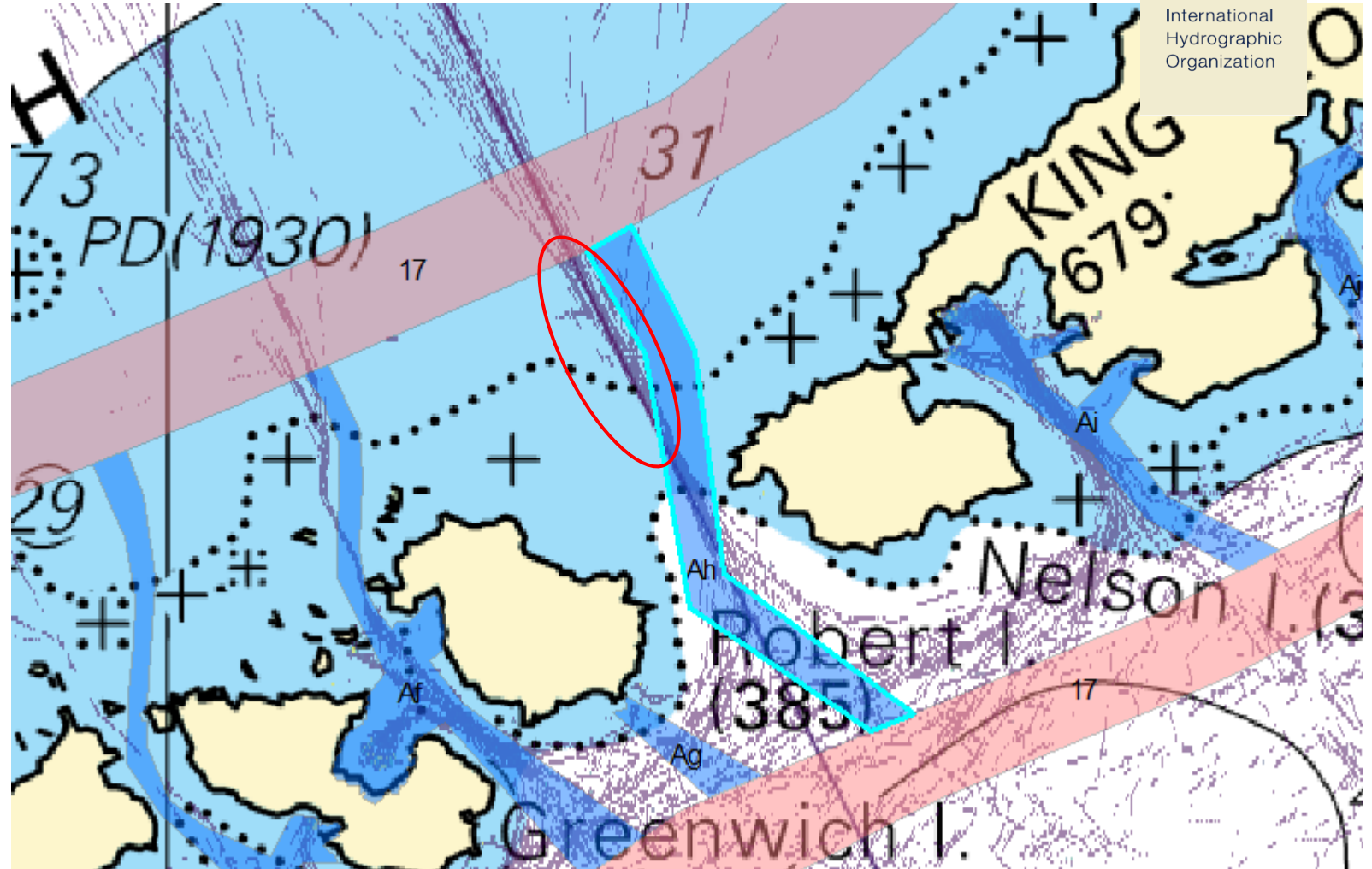
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Ag. Robert Point (INT9151 BR/CL)

- Amend north limit and assess in conjunction with proposed changes to MSR 17
- ZOC D&U



- ZoC C&D
- Amend north limit



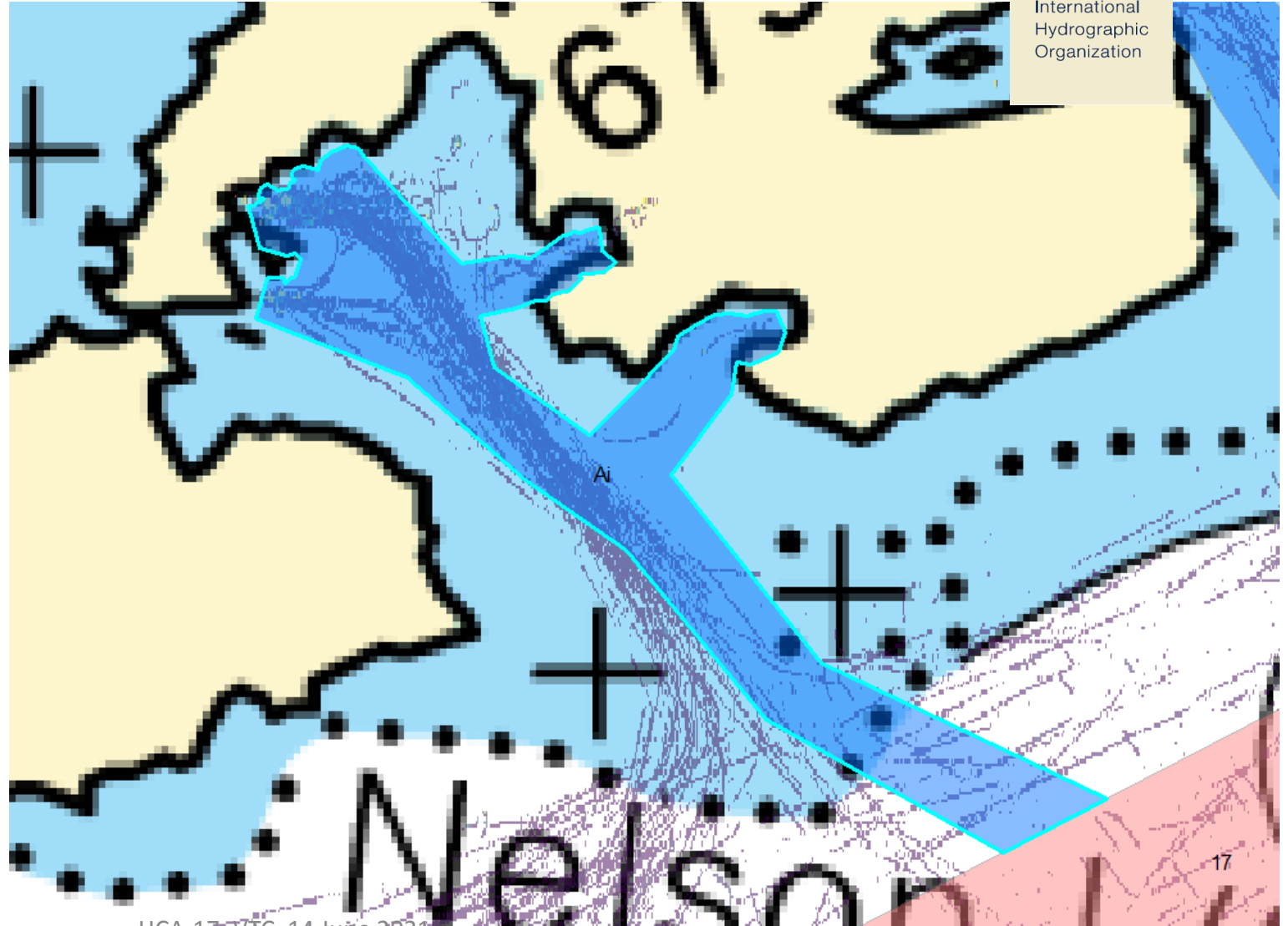
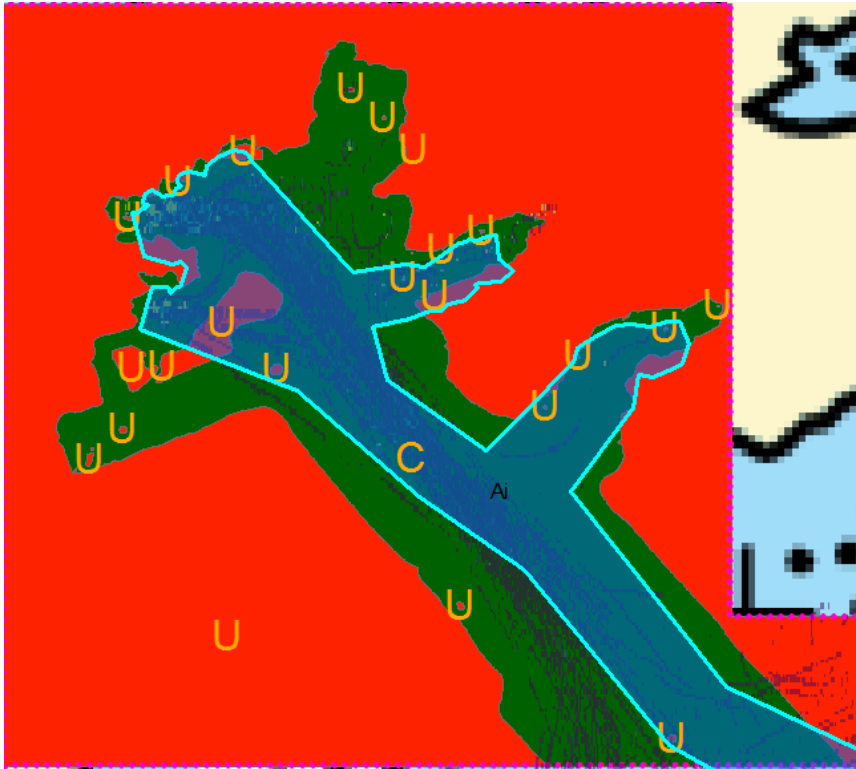
Ai.Maxwell Bay & Approaches (INT9123 CL)

- Centralise southern end
- ZOC C



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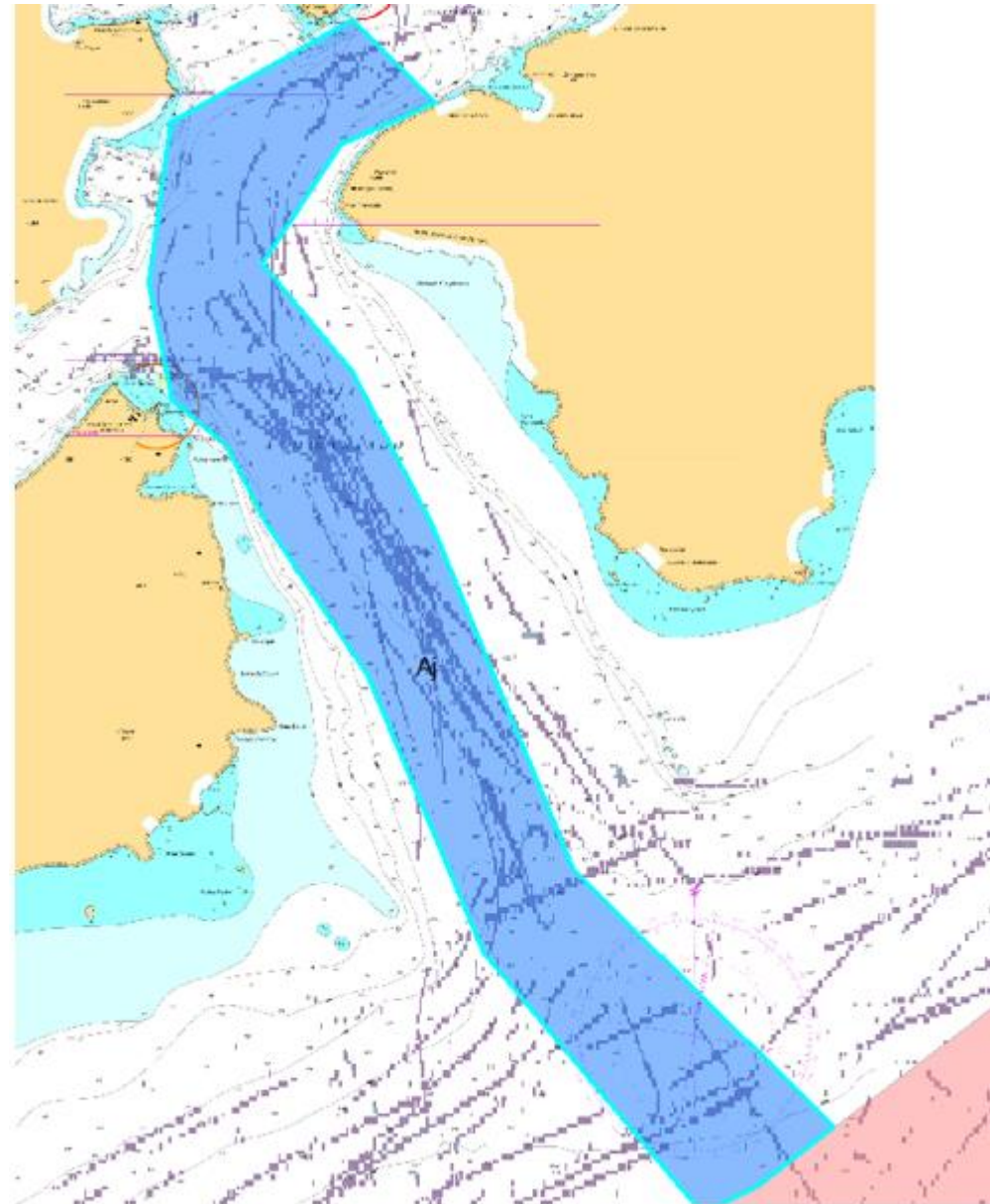
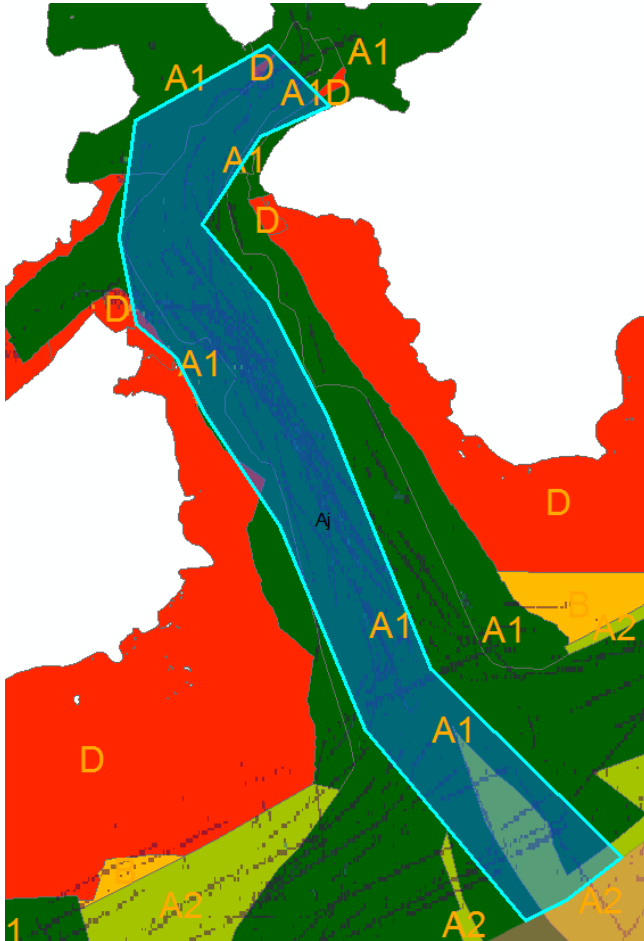
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Aj. Admiralty Bay (INT9125 BR/PE)

- Centralise route
- ZOC A1 & A2



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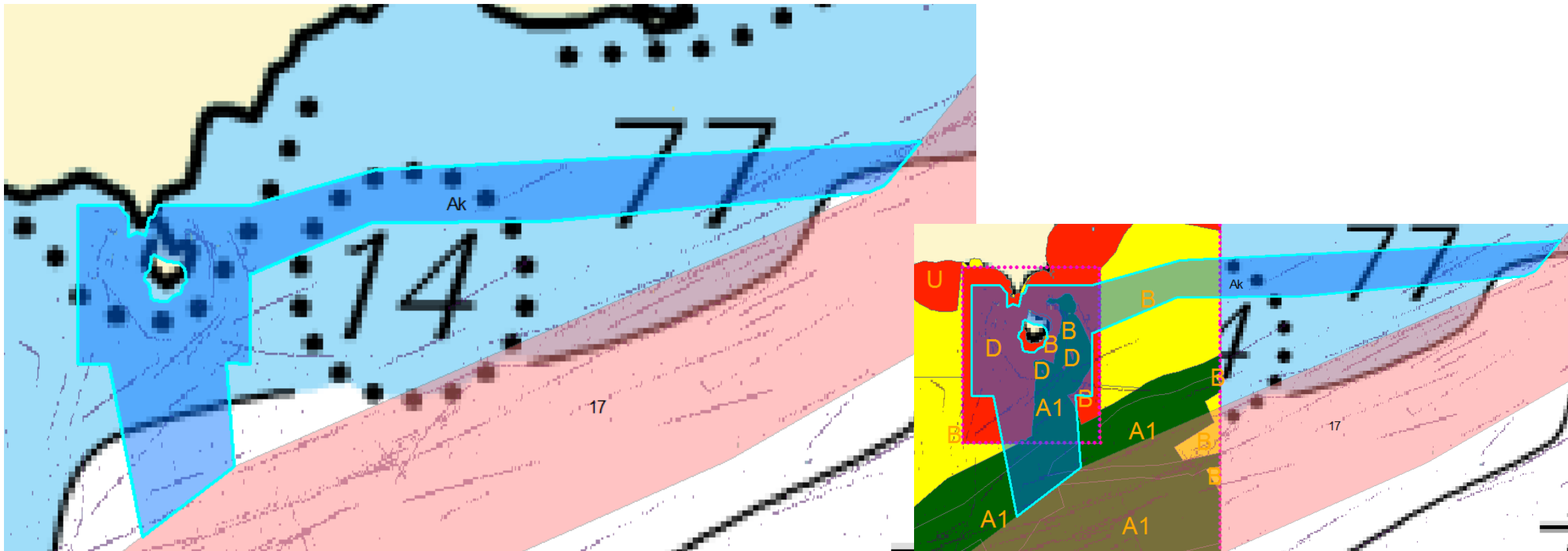
Ak.Penguin Island & Approaches (INT9112 UK)

- Zoc A-D
- No change



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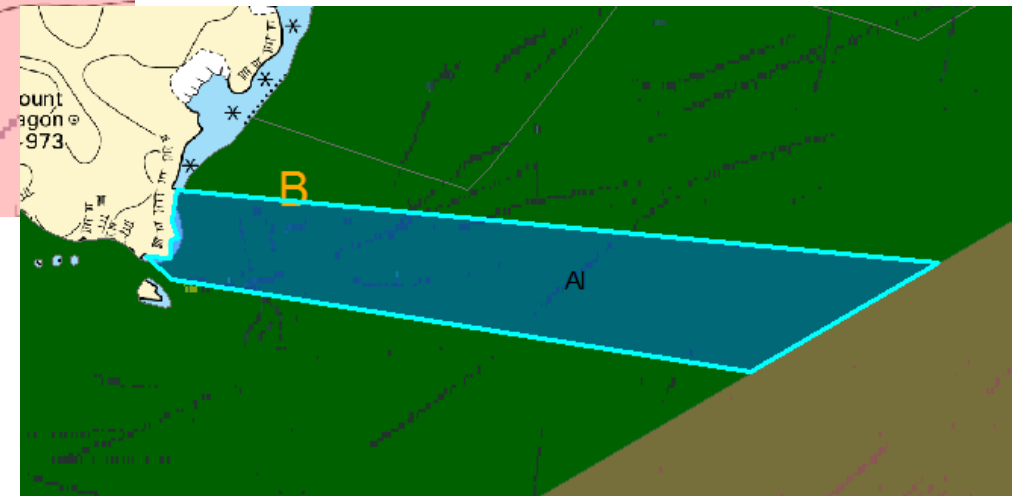
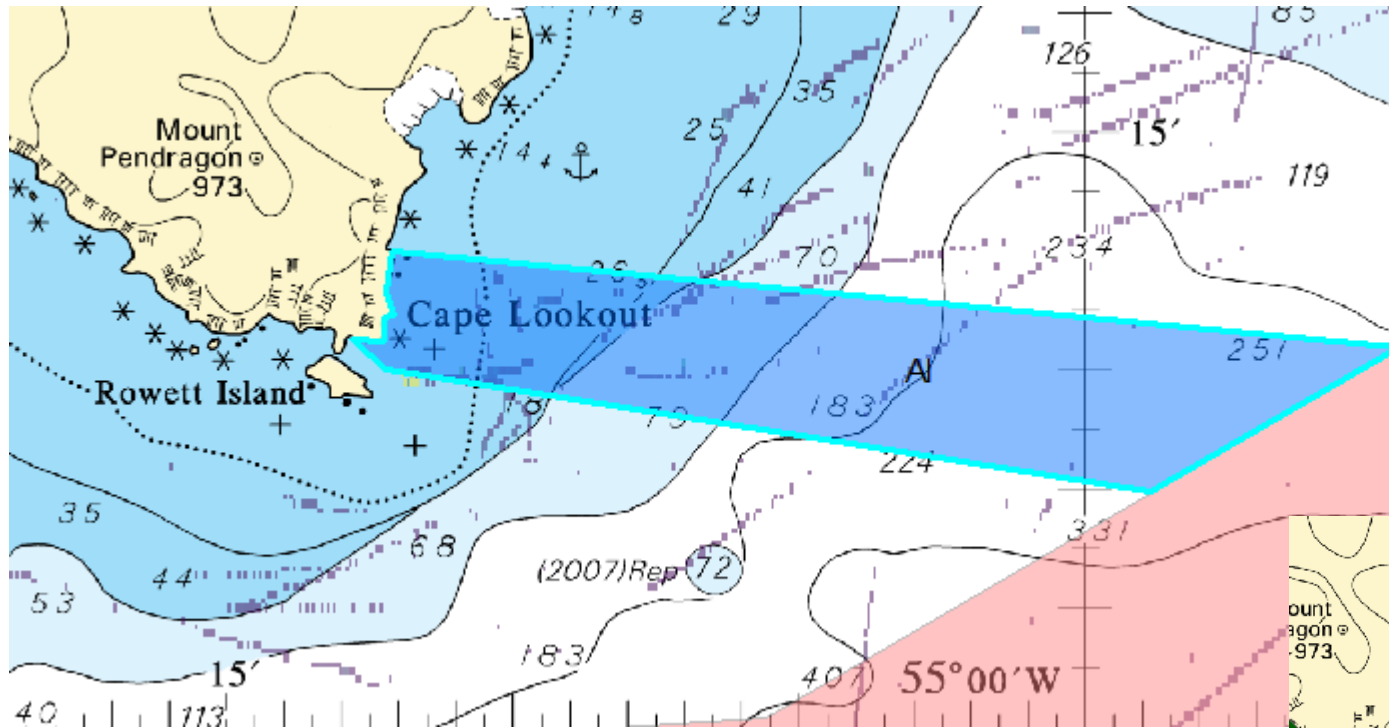
Al. Cape Lookout (INT9112 UK)

- ZOC B
- No change



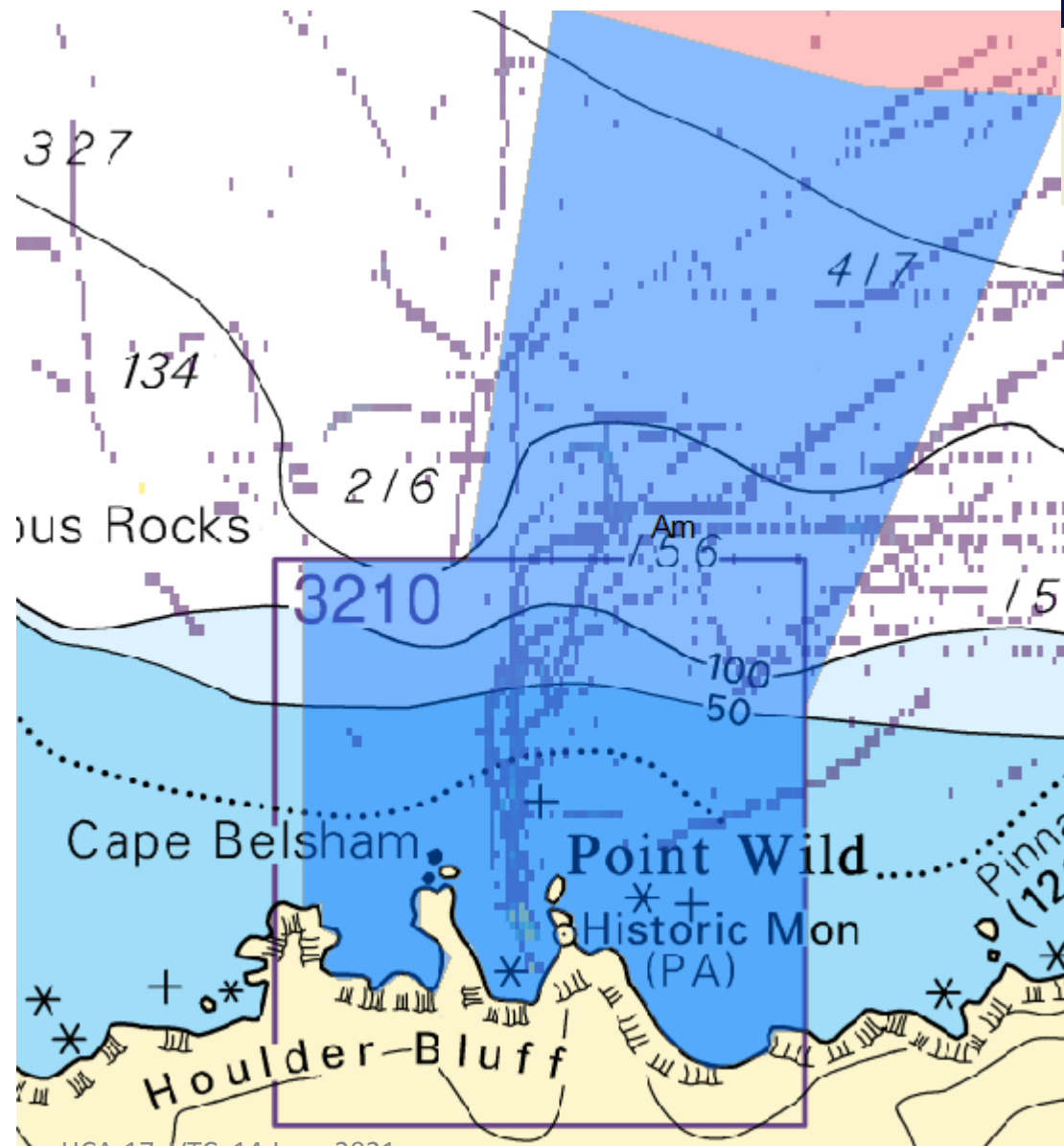
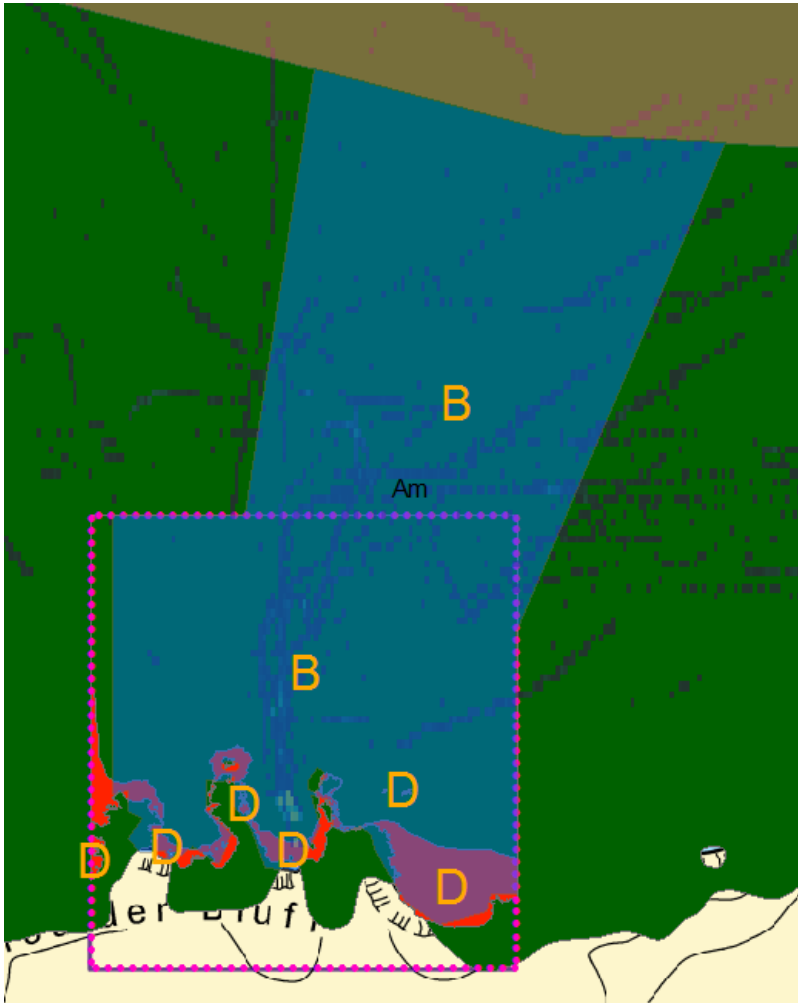
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Am. Point Wild (INT9112 UK)

- ZOC B
- No change



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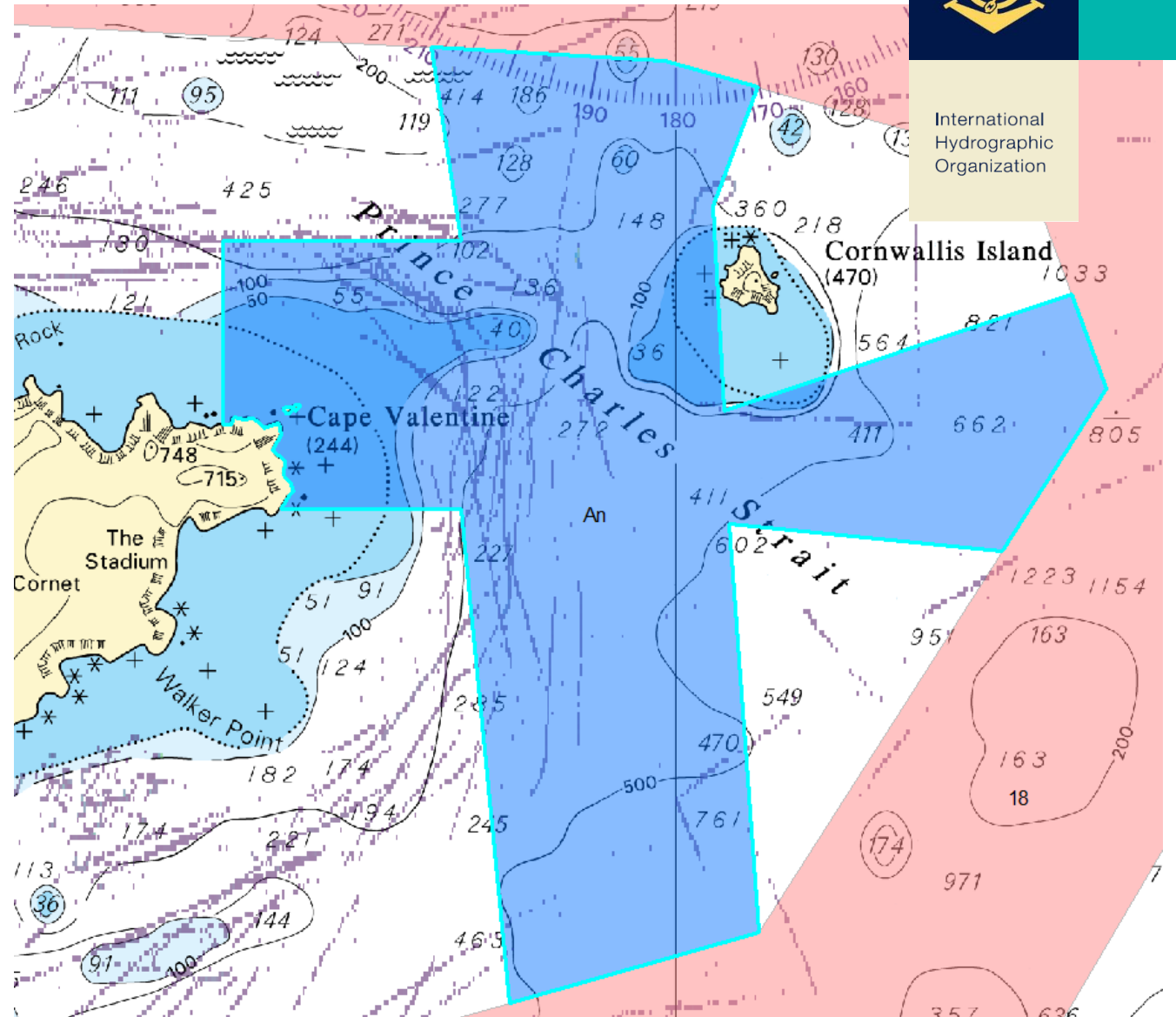
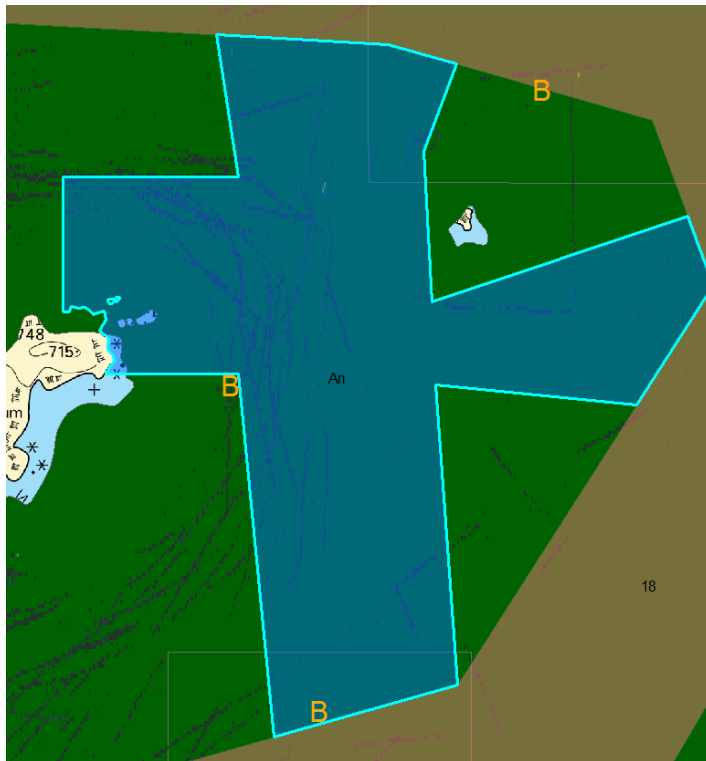


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An. Cape Valentine (INT9150 BR)

- ZOC B
- No change



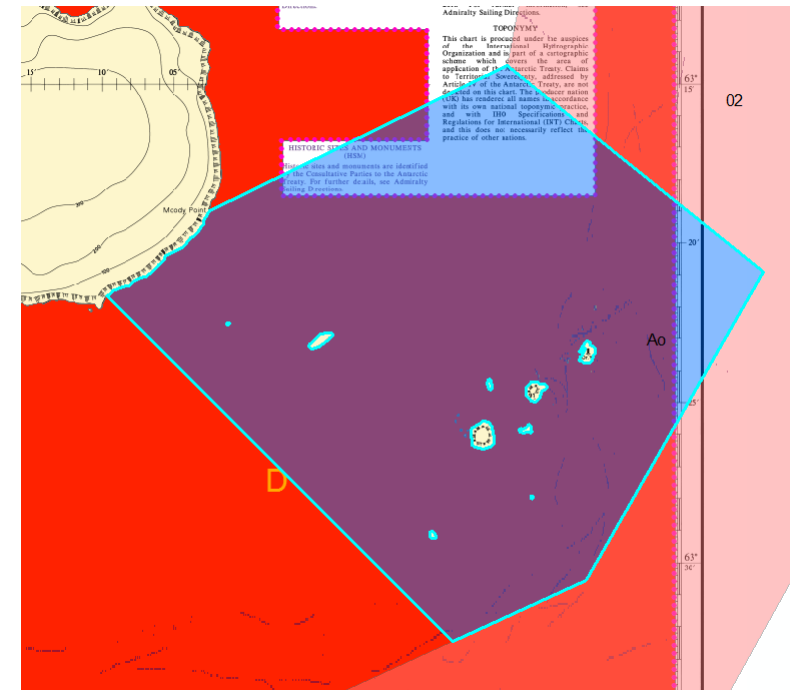
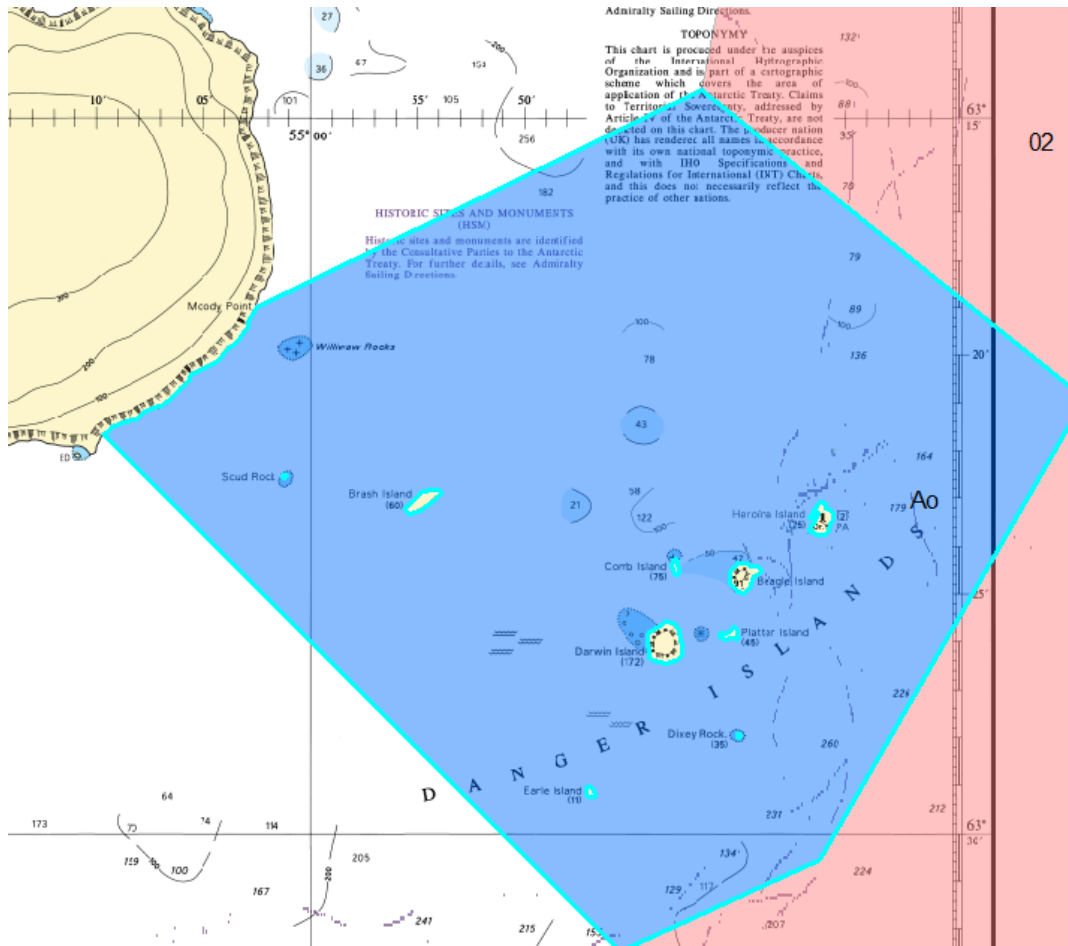
Ao.Danger Islands (INT9154 UK)

- Minimal traffic
- Zoc D
- No change



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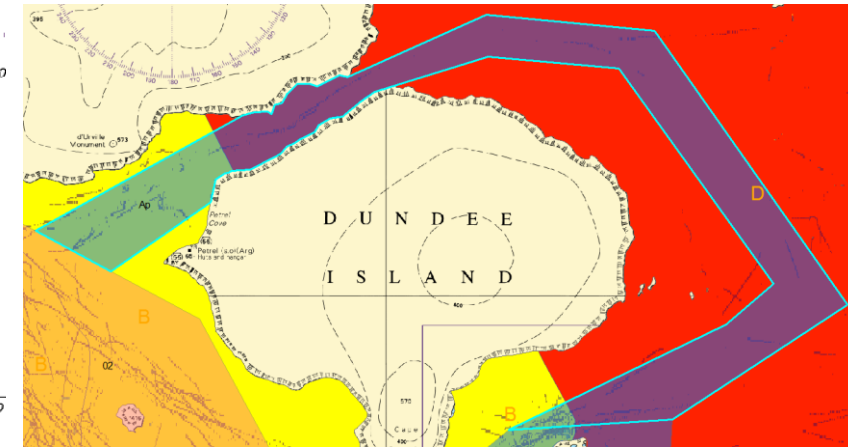
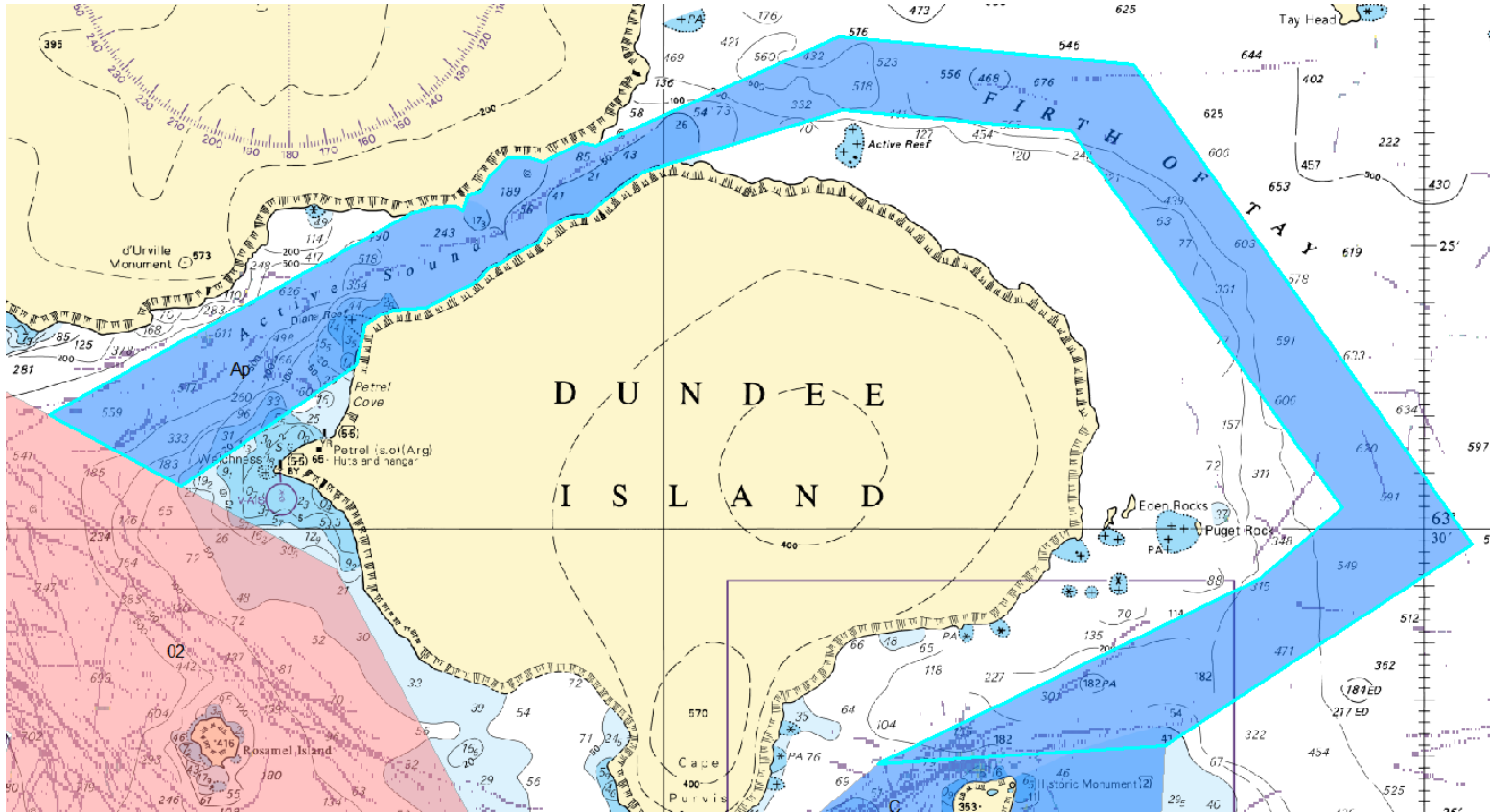
Ap. Dundee Island (INT9154 UK)

- Largely Zoc D
- No change



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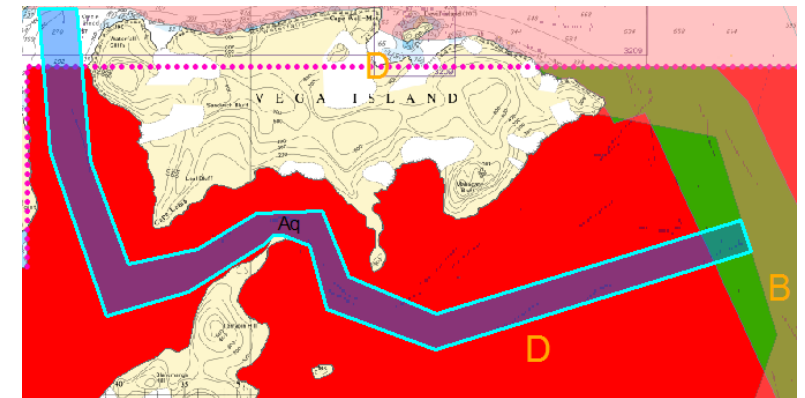
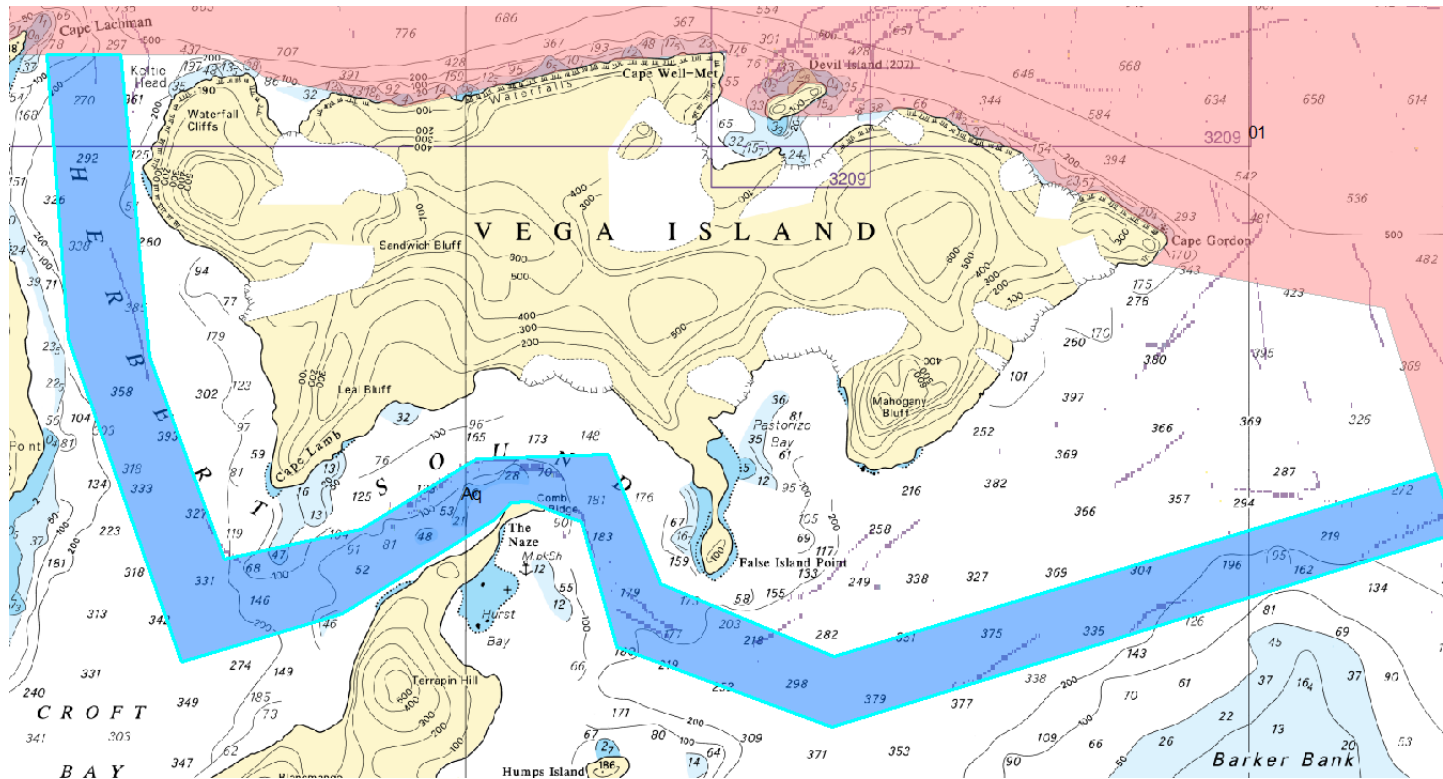
Aq. Herbert Sound (Vega & James Ross Islands INT9153 UK)

- Minimal traffic
- Largely Zoc D
- No change



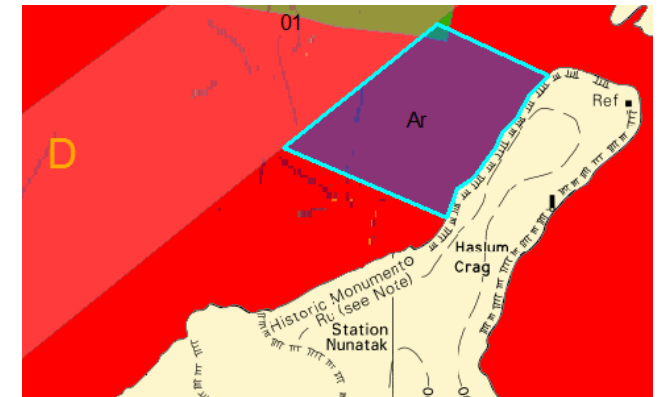
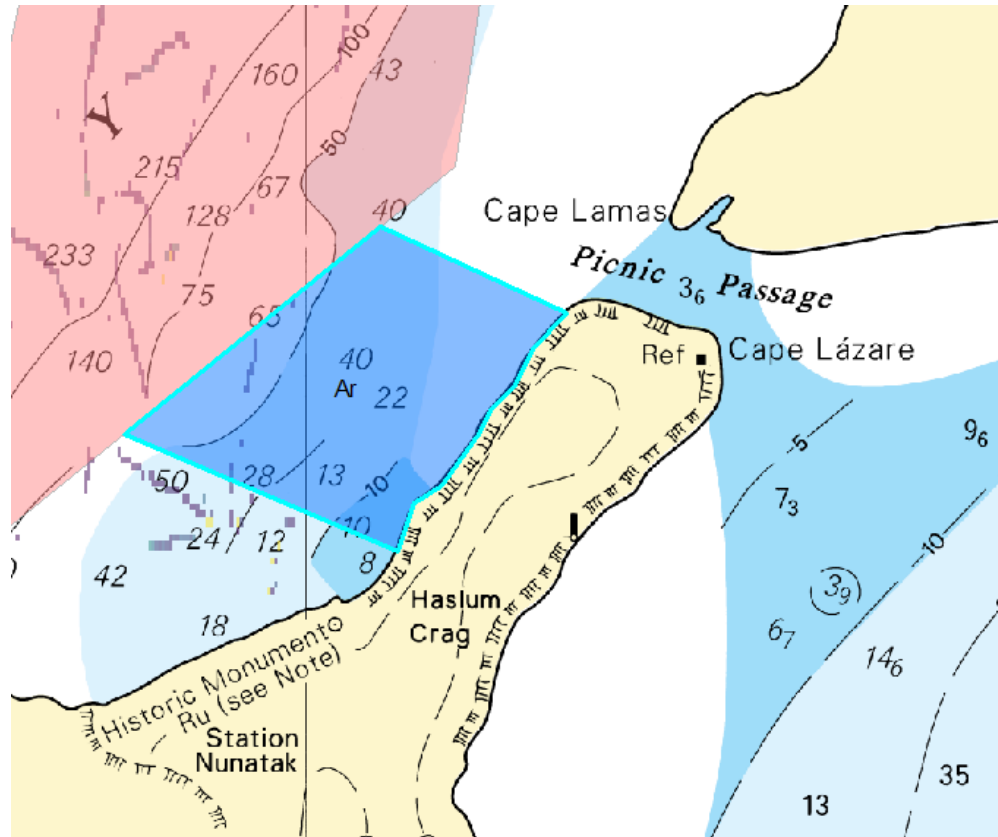
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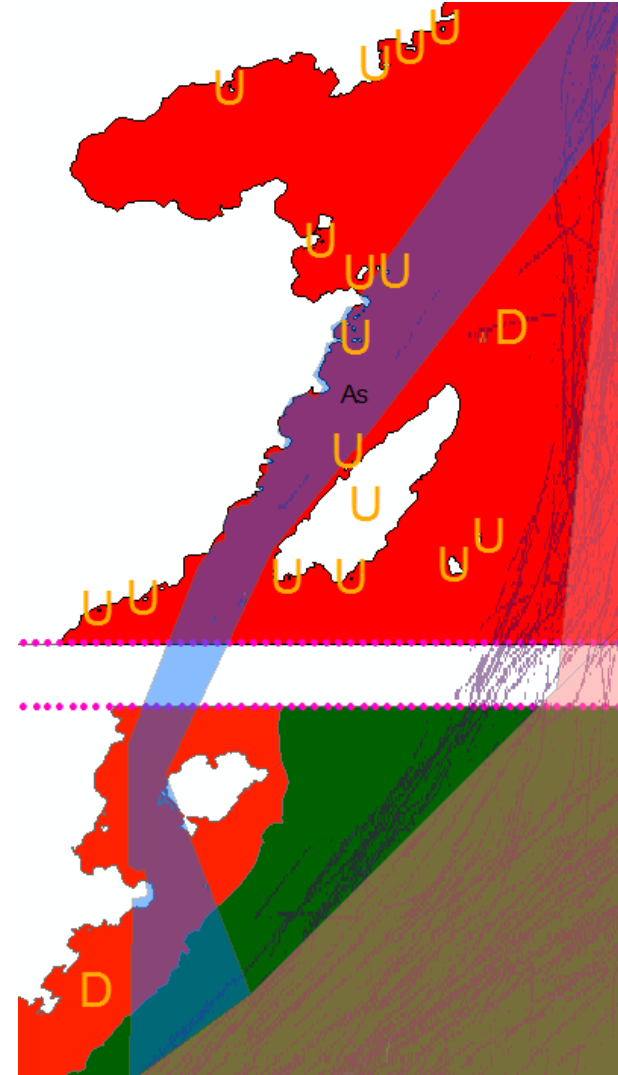
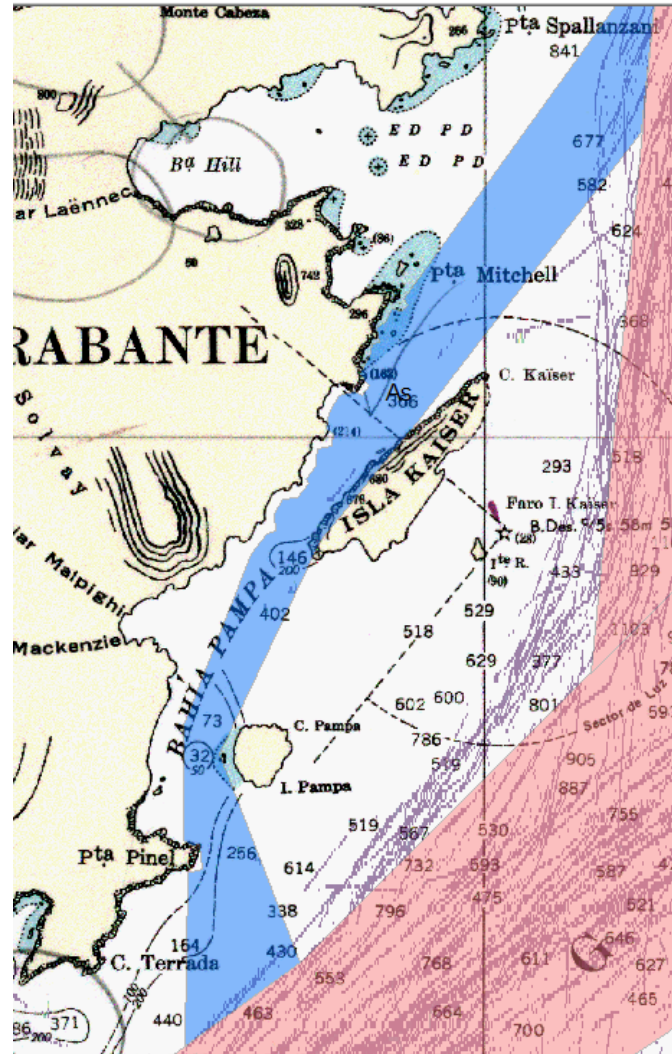
Ar.Historic Monument (Snow Hill Island INT9153 UK)

- Minimal traffic
- Zoc D
- Adjust to reflect charted data and AIS



As.Freud Passage (Brabant Island INT 9156 (AR))

- Minimal traffic
- Low Priority
- Zoc D



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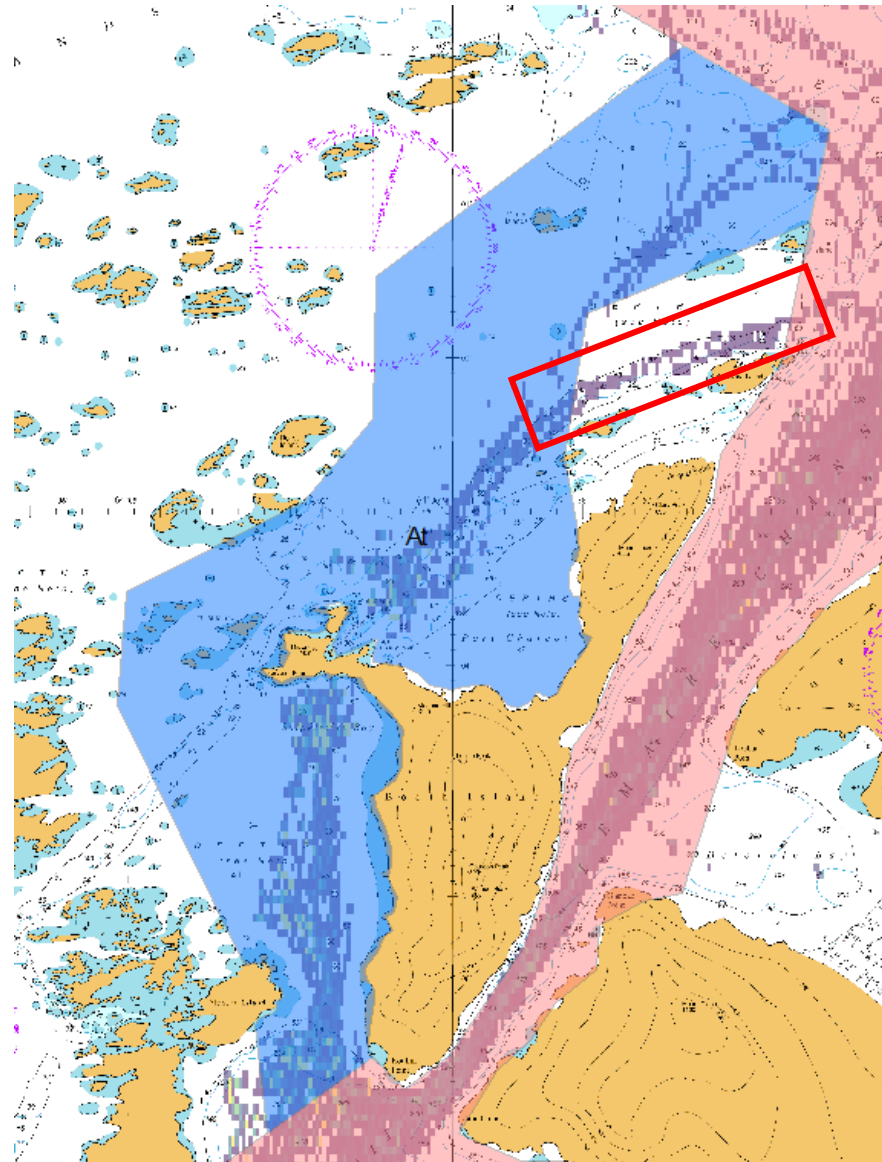
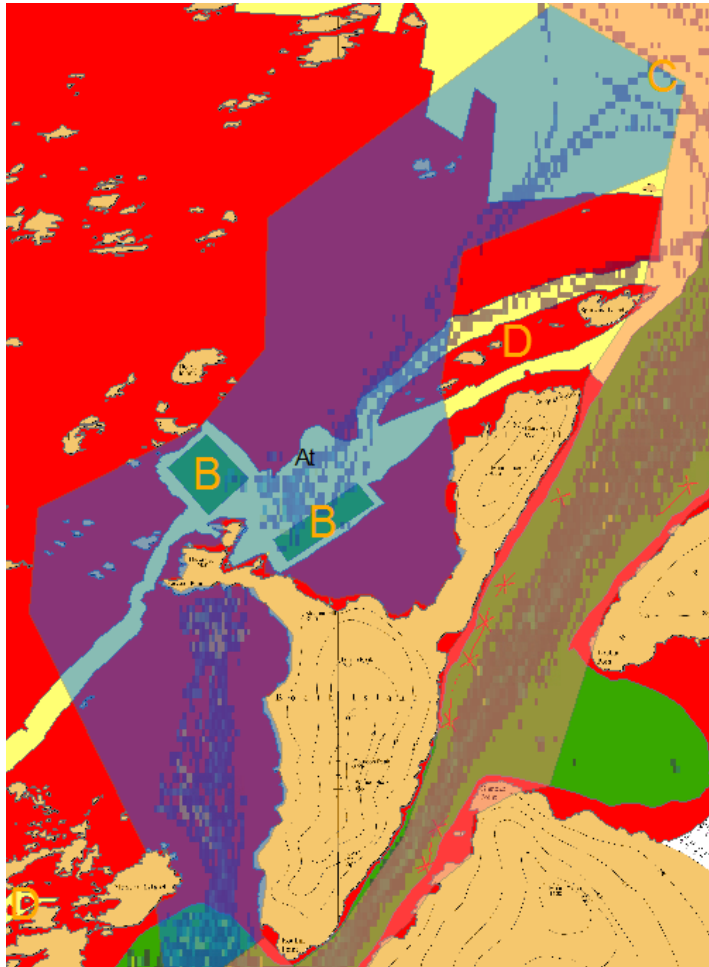
At. Booth Island, Port Charcot & Pleneau Island (INT9118 UK)

- AIS reflects underlying data
- Amend to reflect AIS



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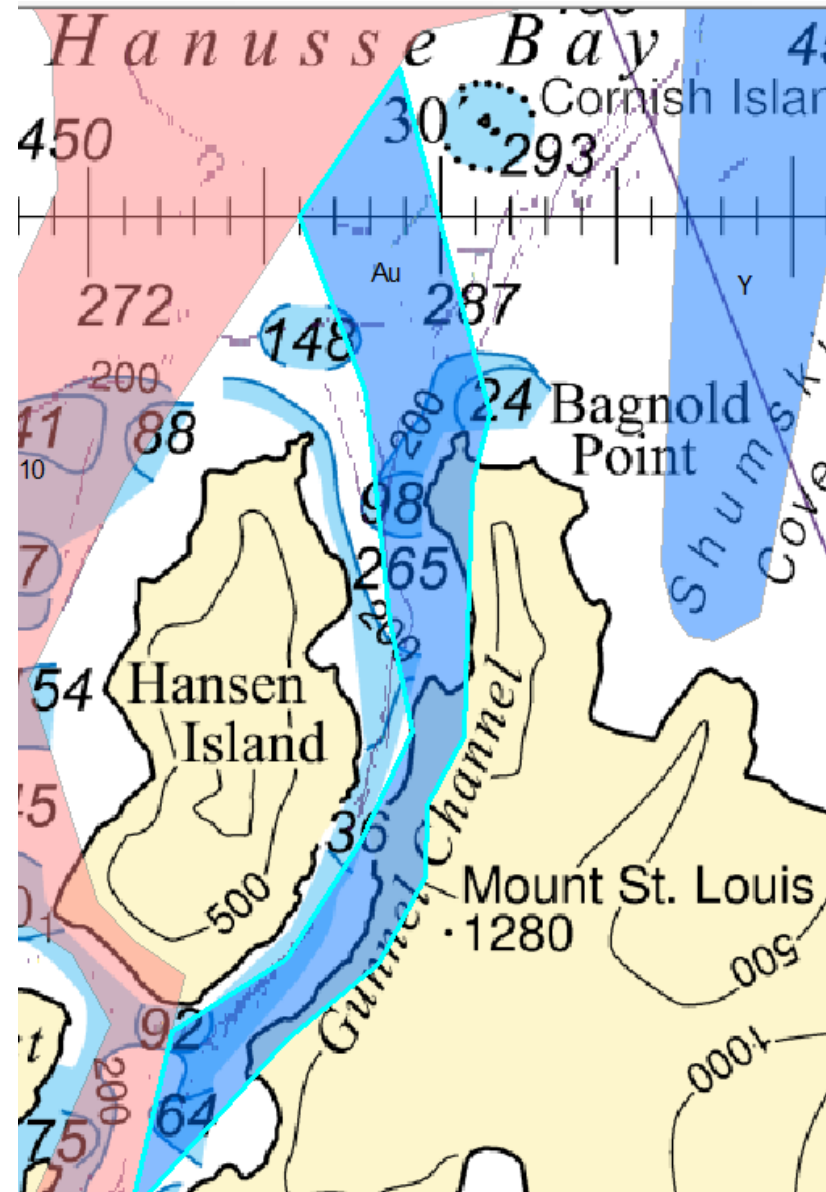
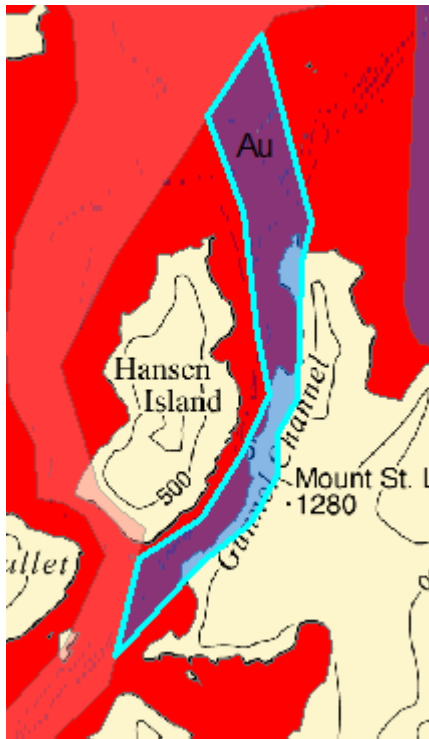
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Au. Gunnel Channel (INT 9108 CL Schemed)

- Adjust east of Cornish Island
- Adjust to match coastline
- ZOC D



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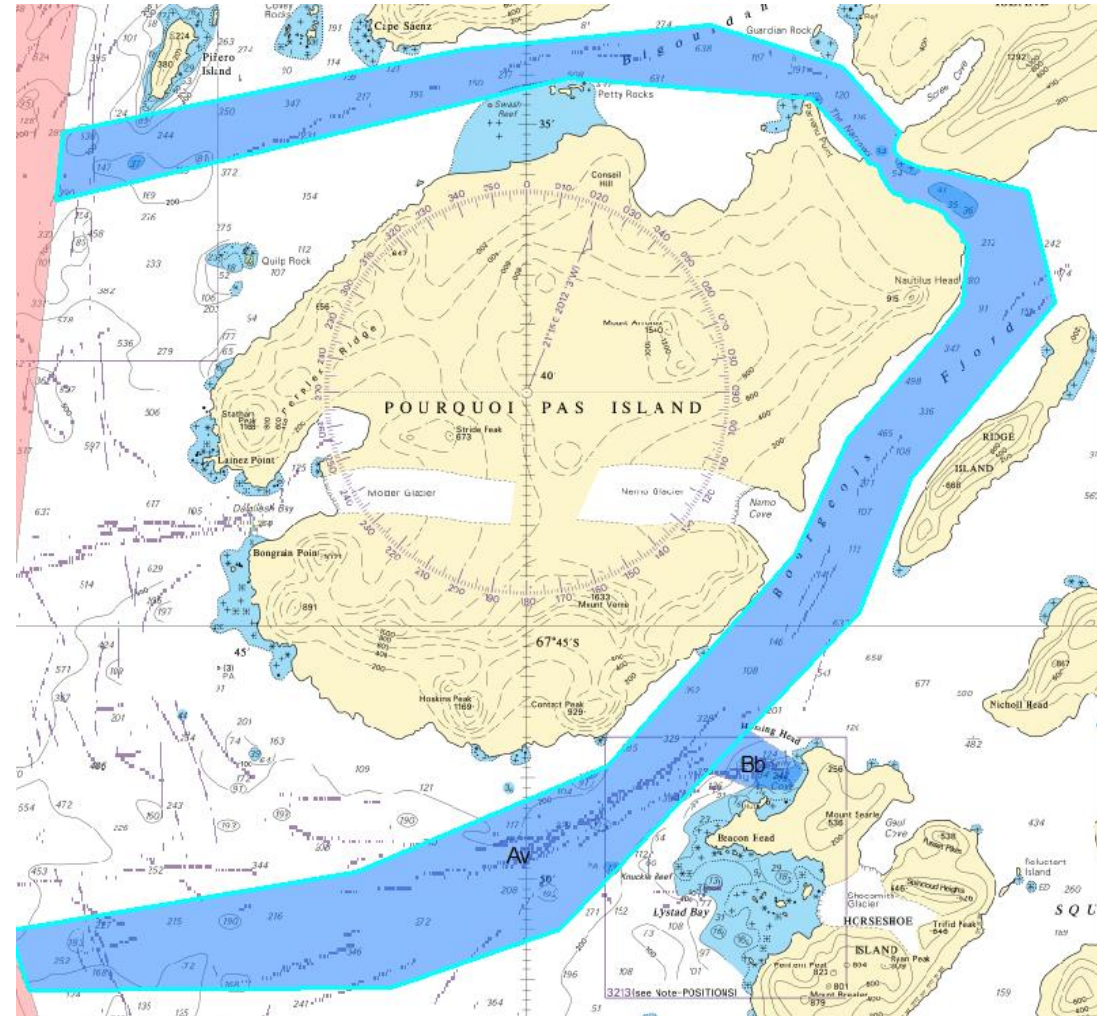
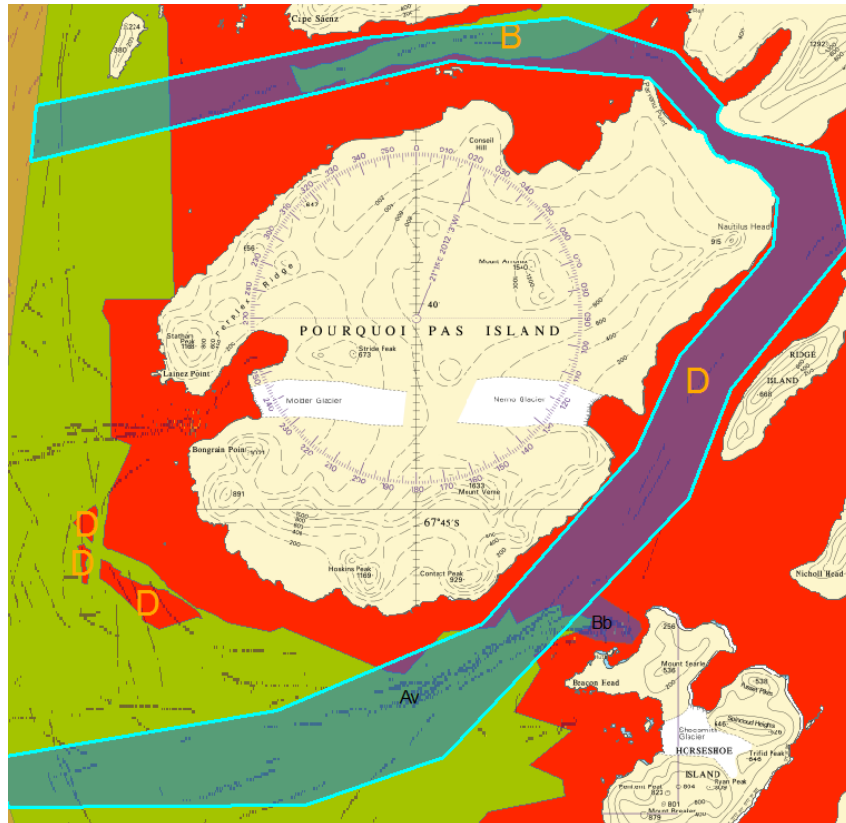
Av. Pourquoi Pass Island (INT 9163 UK)

- No change
- ZOC B&D



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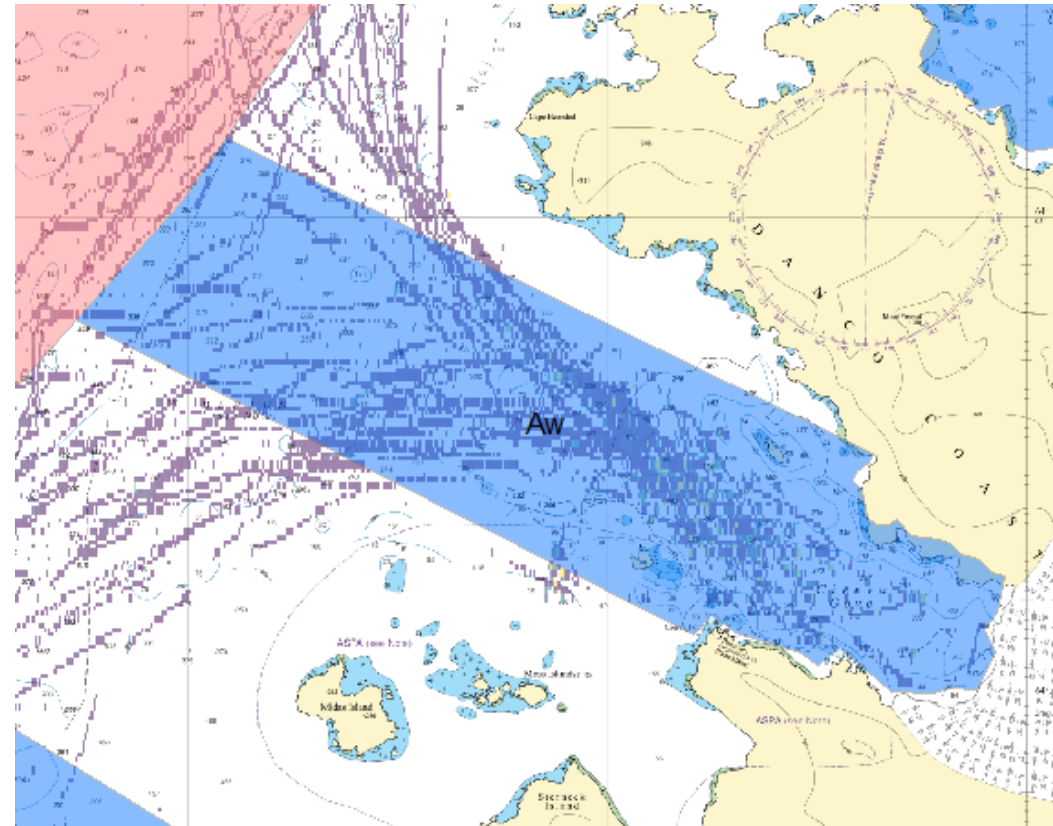
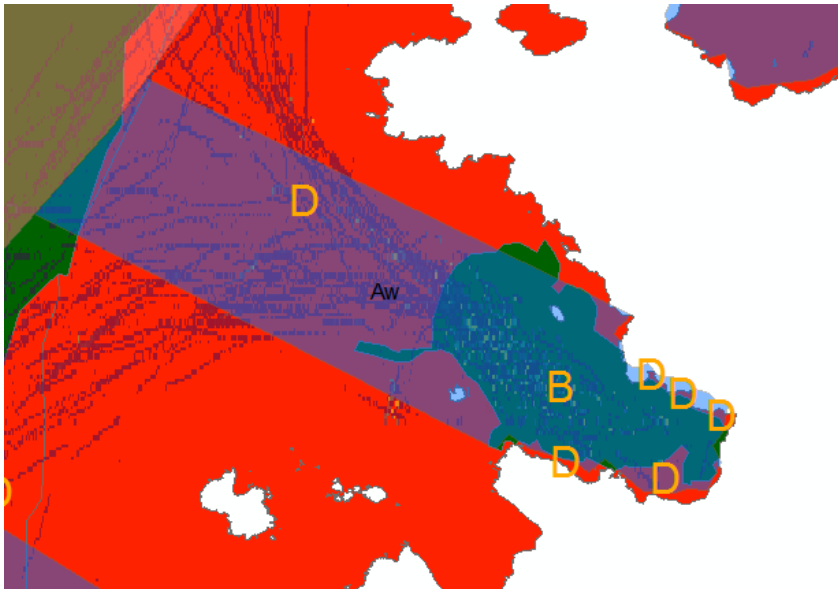
Aw. Cierva Cove (INT9165 UK)

- No change
- ZOC B&D



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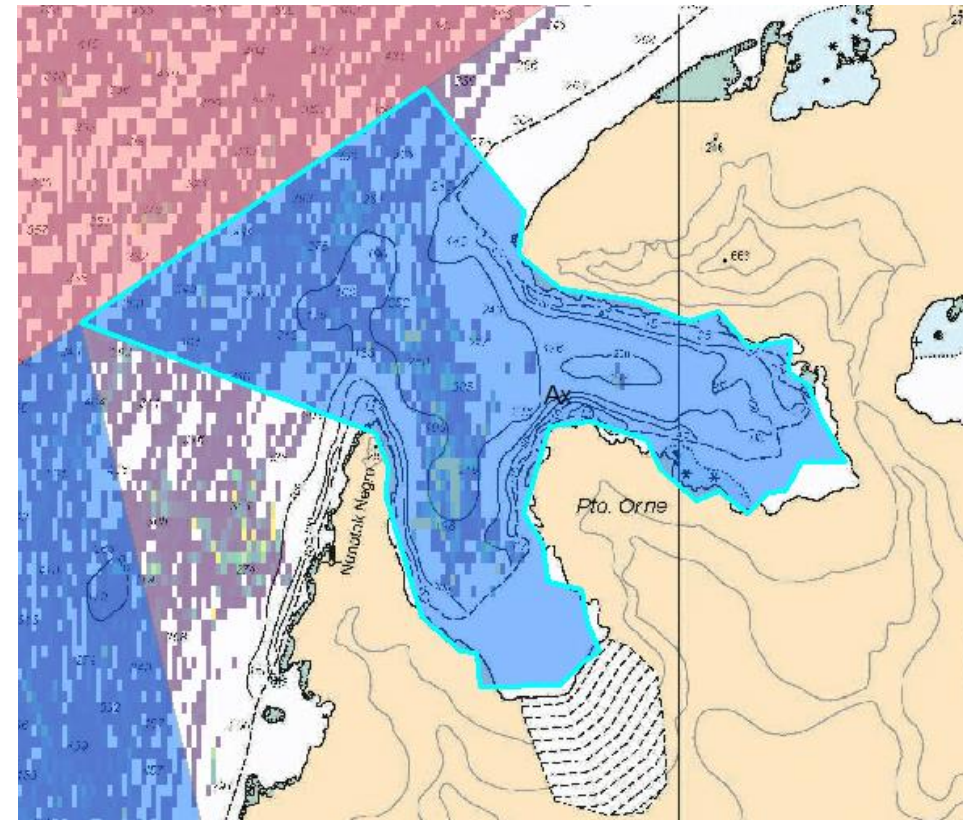
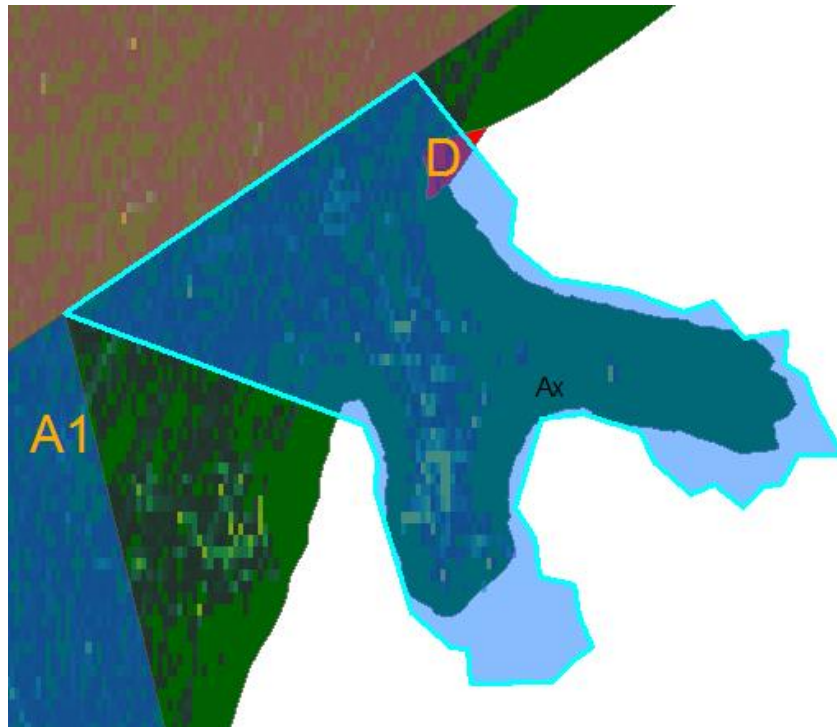
Ax. Orne Harbour (INT 9103 CL)

- No change
- ZOC A1
- Low priority



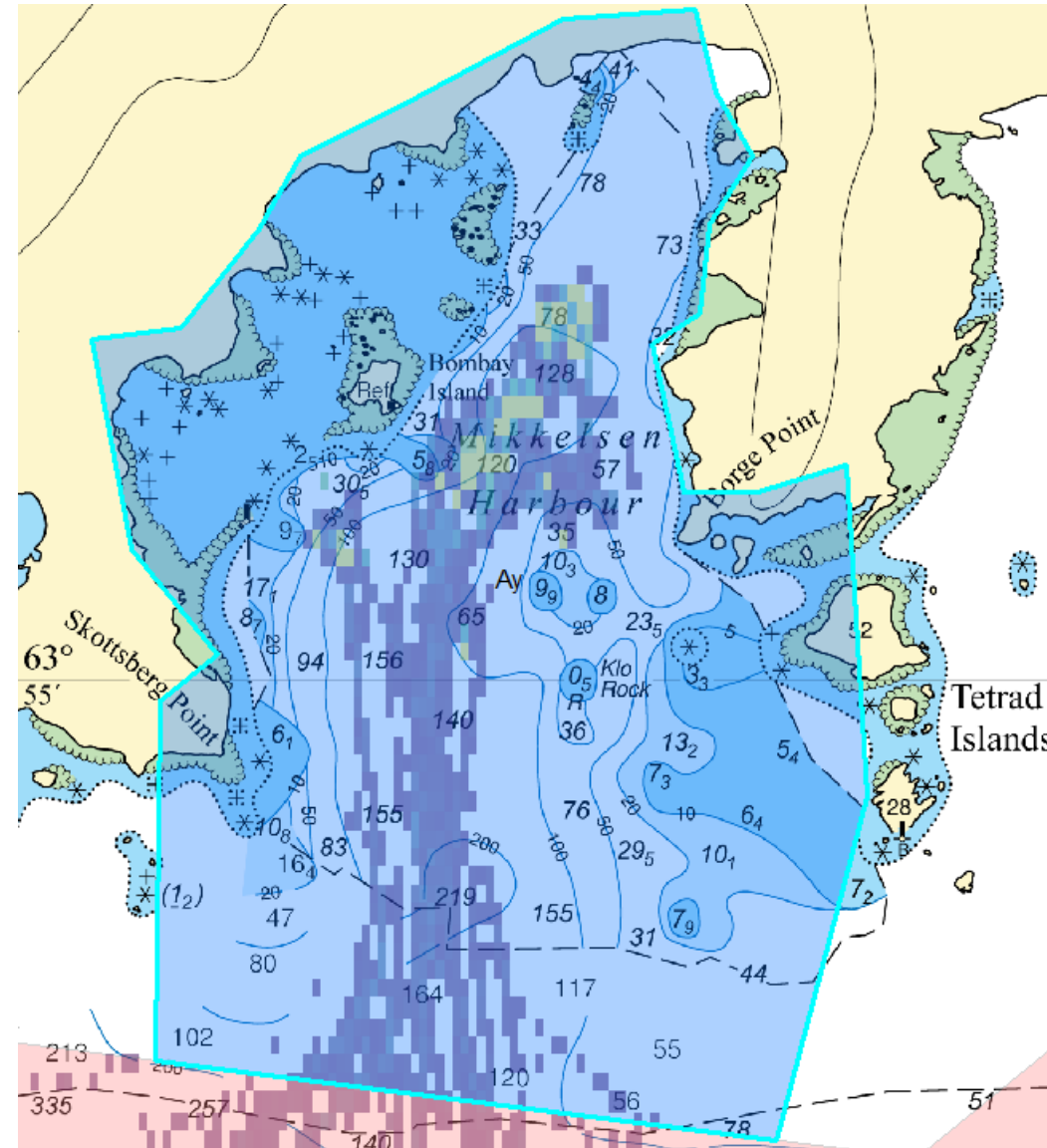
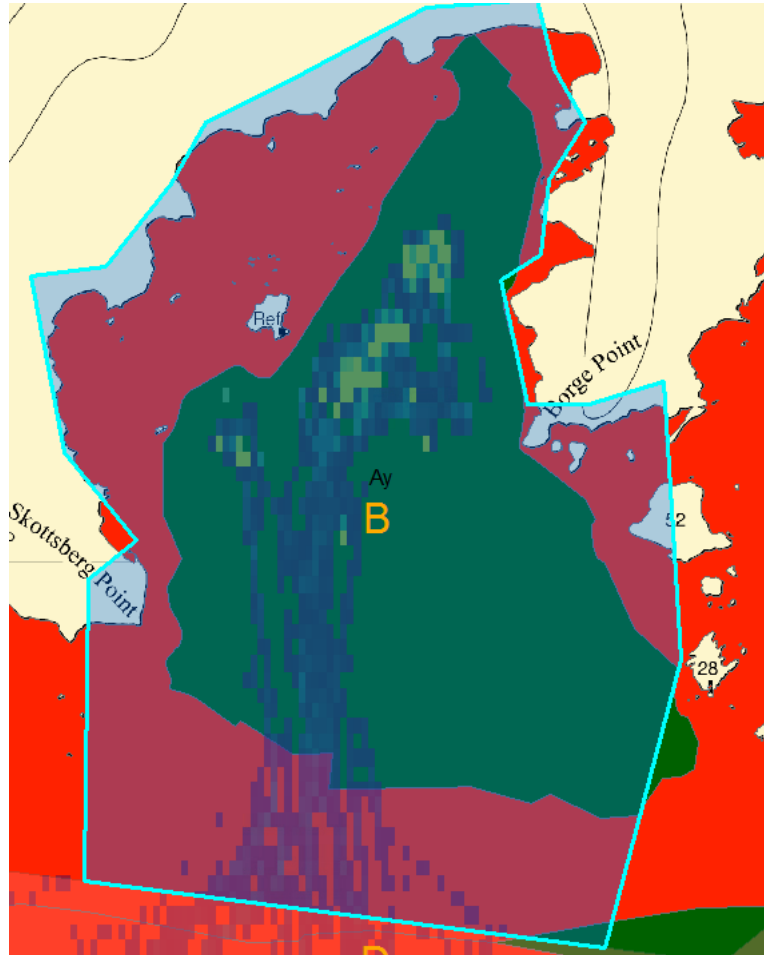
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Ay Mickkelsen Harbour (INT 9165 UK)

- No change required
- ZOC B & D



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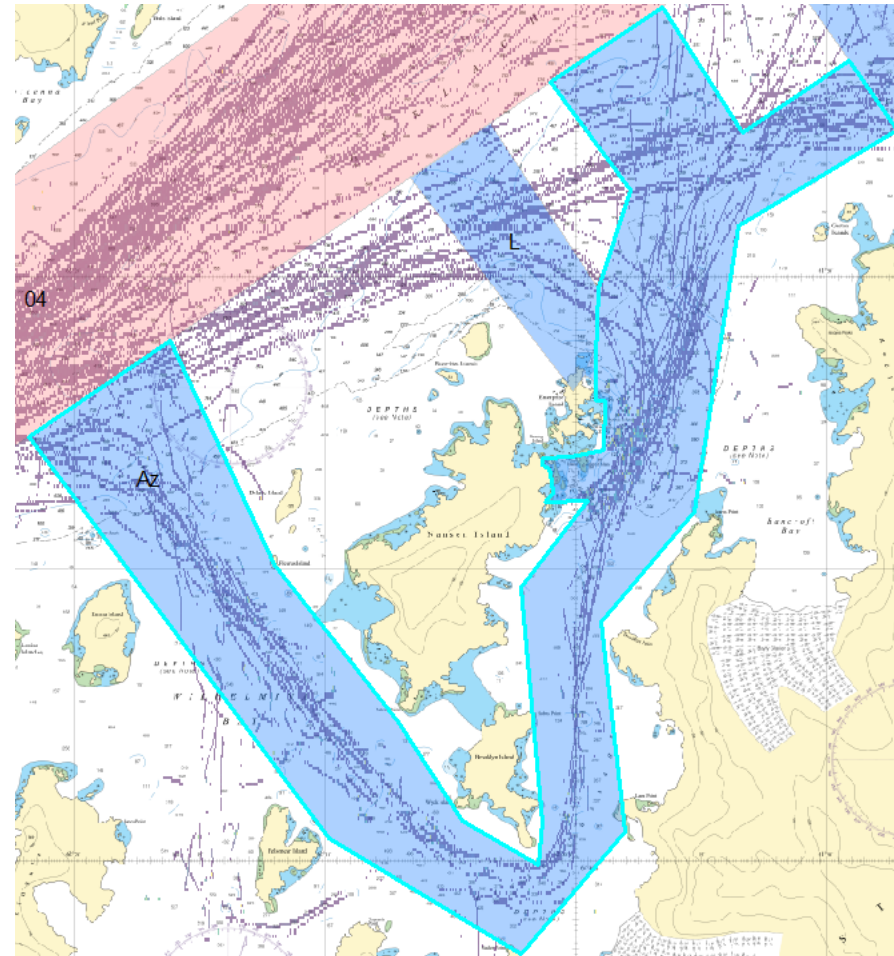
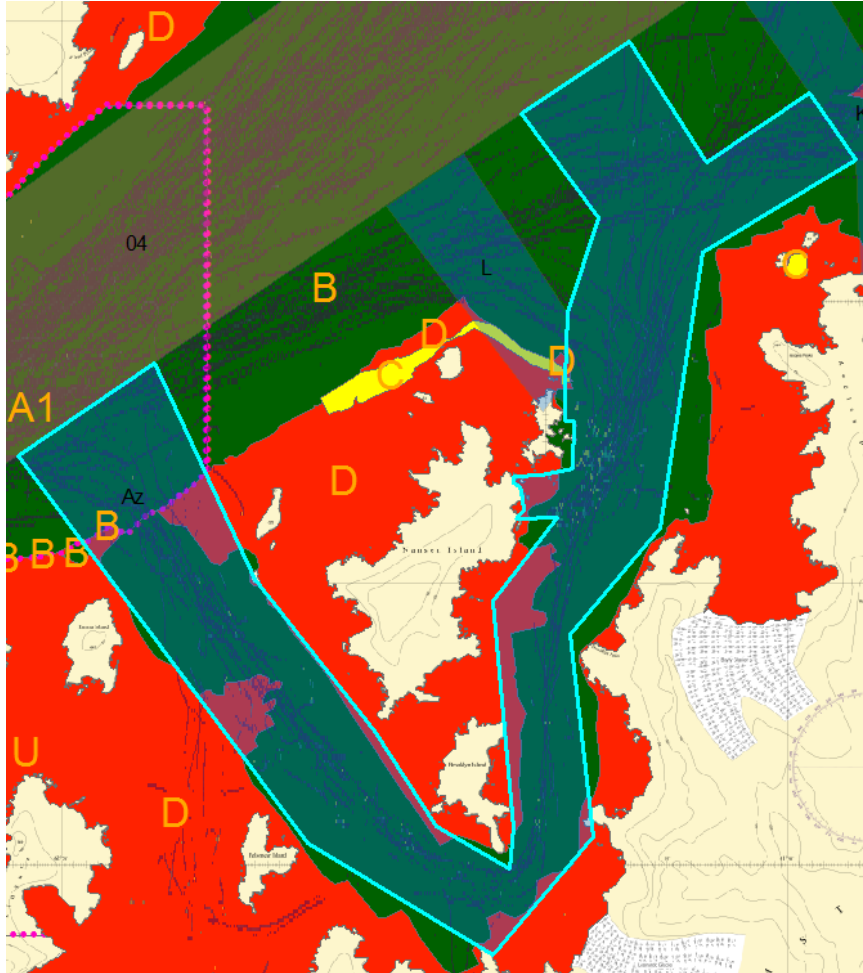
Az Wilhelmina Bay (INT 9166 UK)

- No change required
- ZOC A, B & D



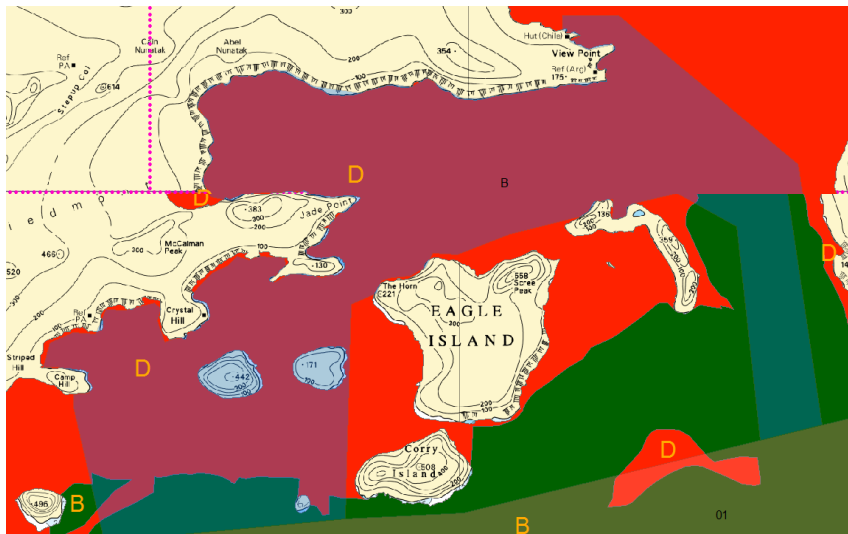
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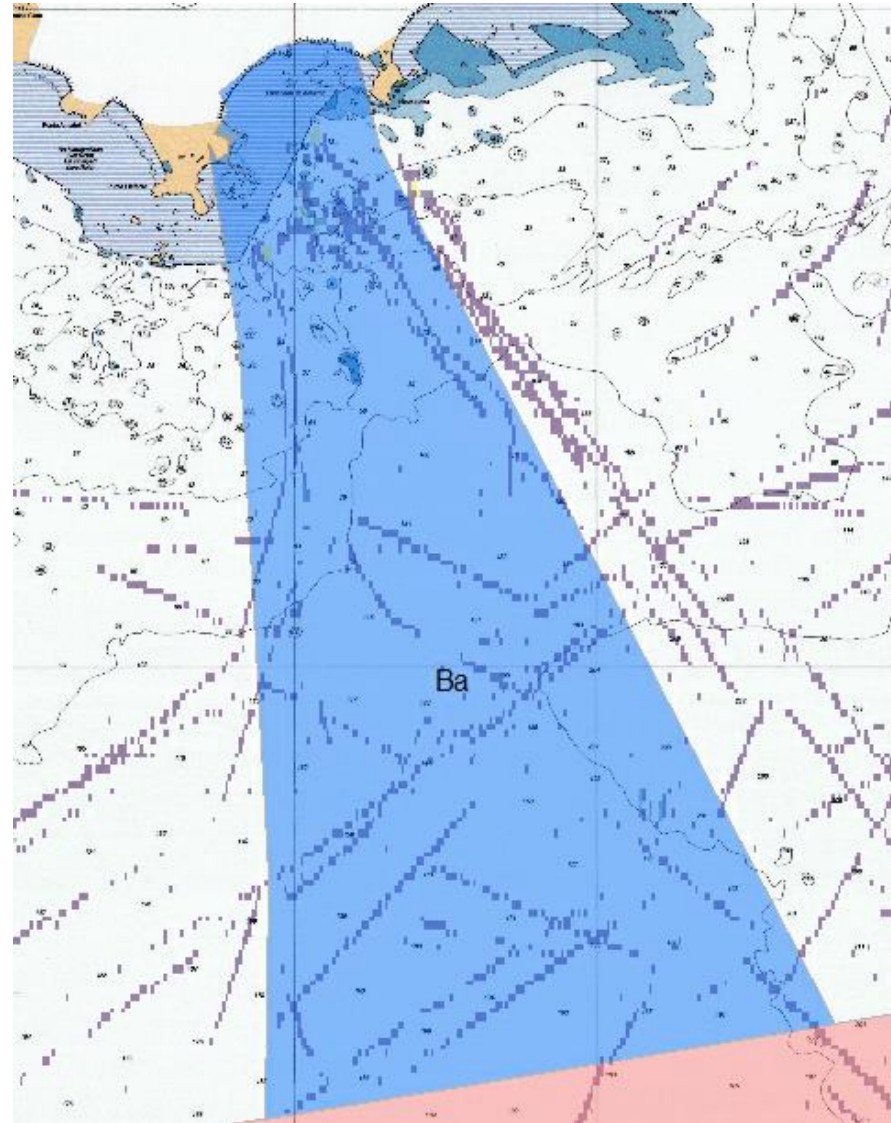
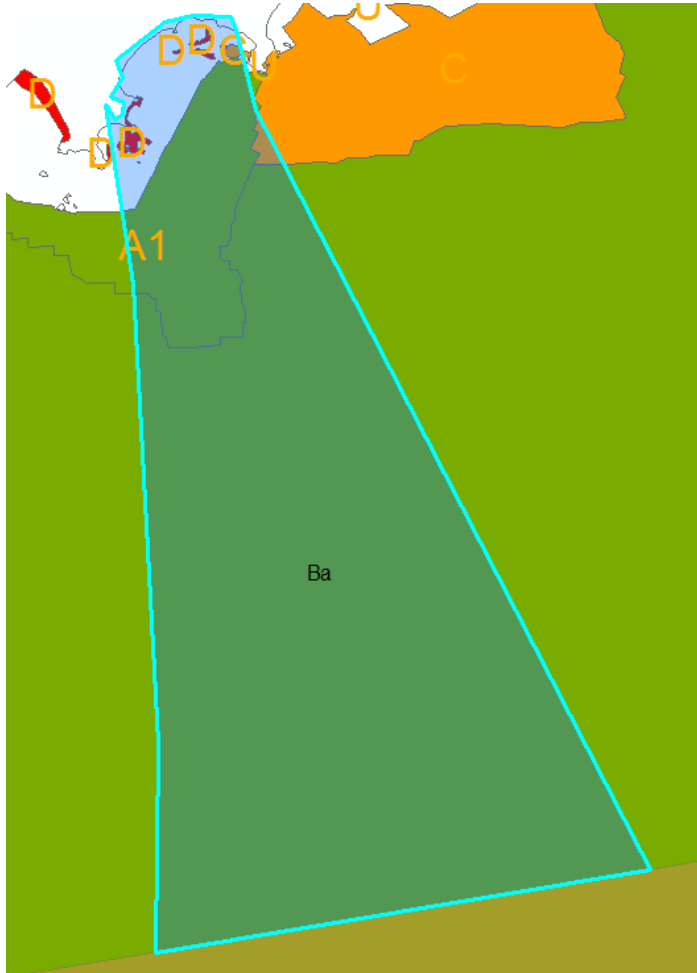
B Duse Bay & Eagle Island (INT9130 & 9154 UK)

- No change required
- Minimal AIS Traffic
- Low priority
- ZOC B & D



Ba. Elephant Pint & Approaches (INT 9121 ES)

- Mostly ZOC A1
- No change



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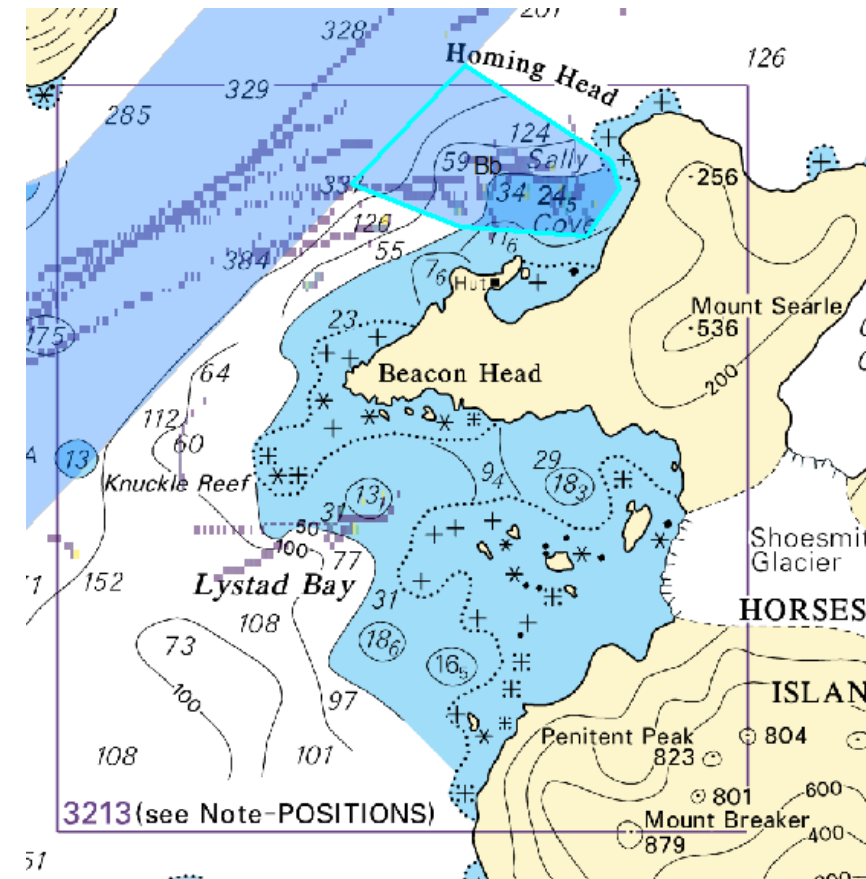
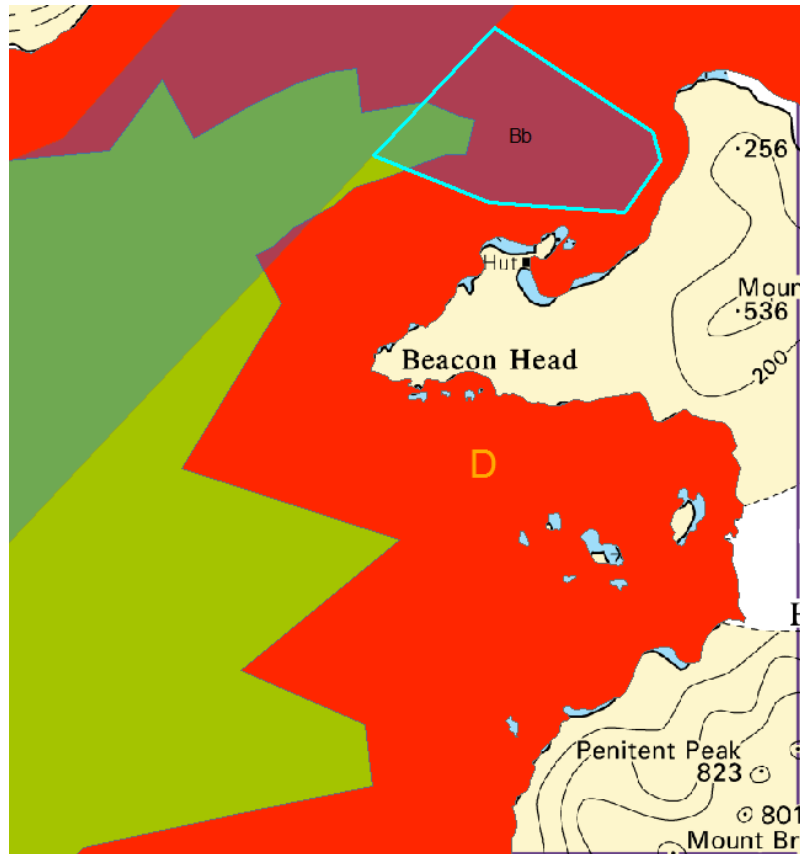


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Bb. Horseshoe Island & Lydstad Bay (INT 9113 & 9163 UK)

- ZOC B & D
- Recent data held by Turkey
- Extend into Lydstad Bay as per previous version



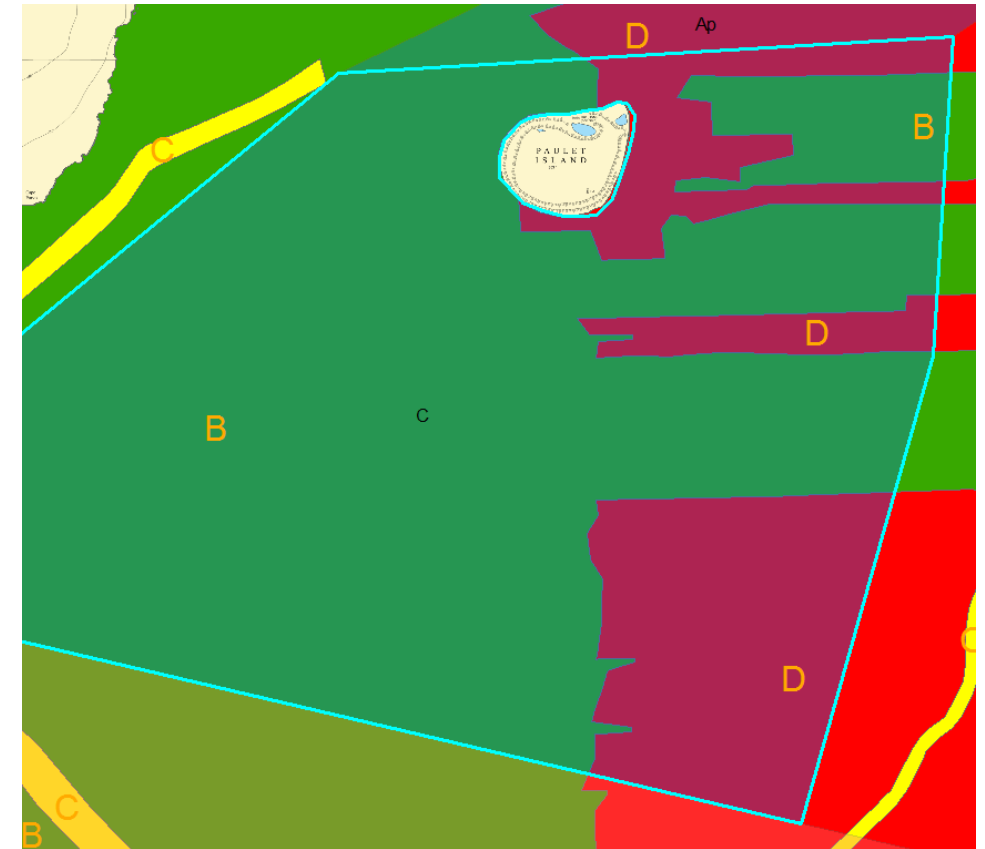
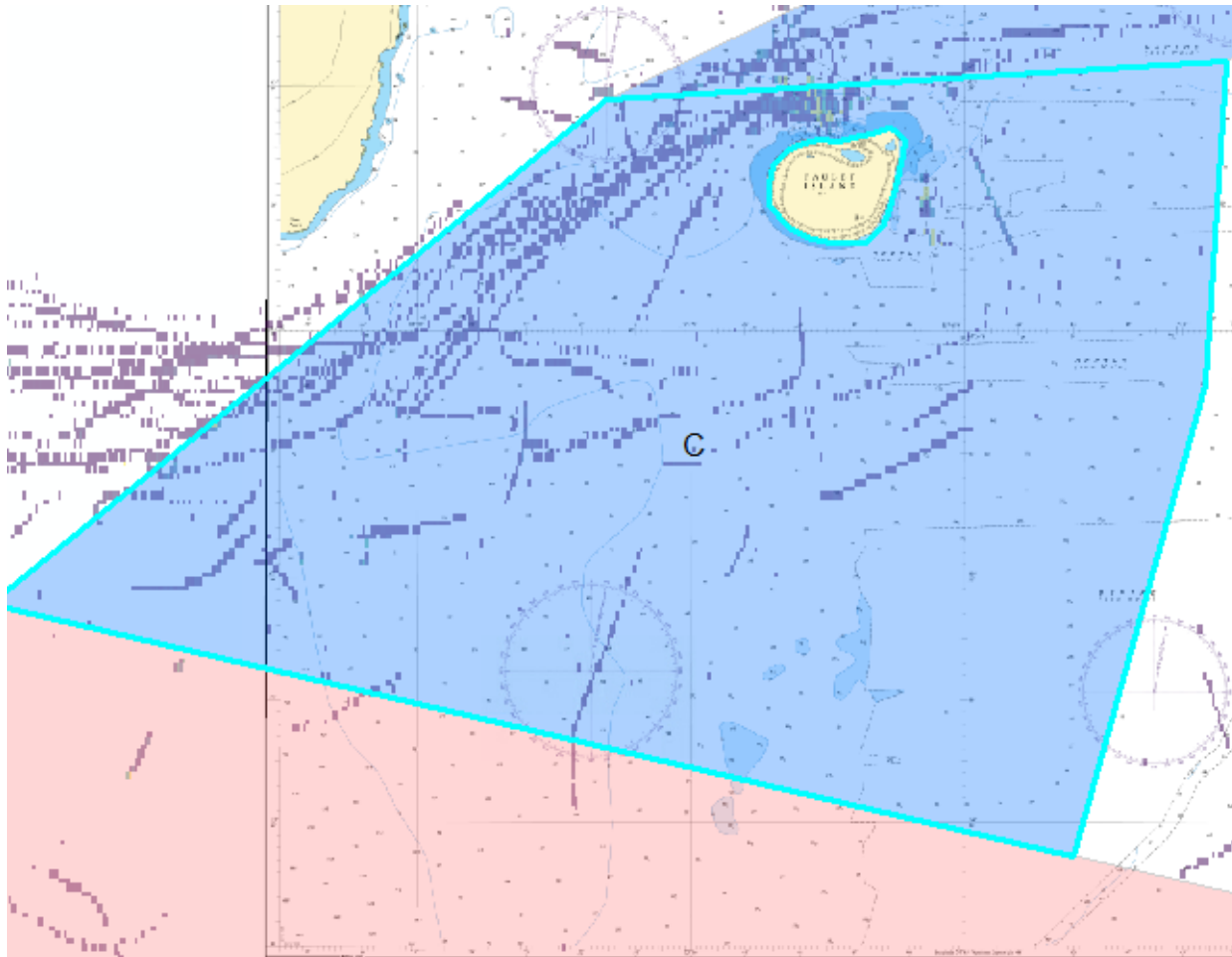
C.Paulet Island (INT9112 UK)

- ZOC B & D
- No change required



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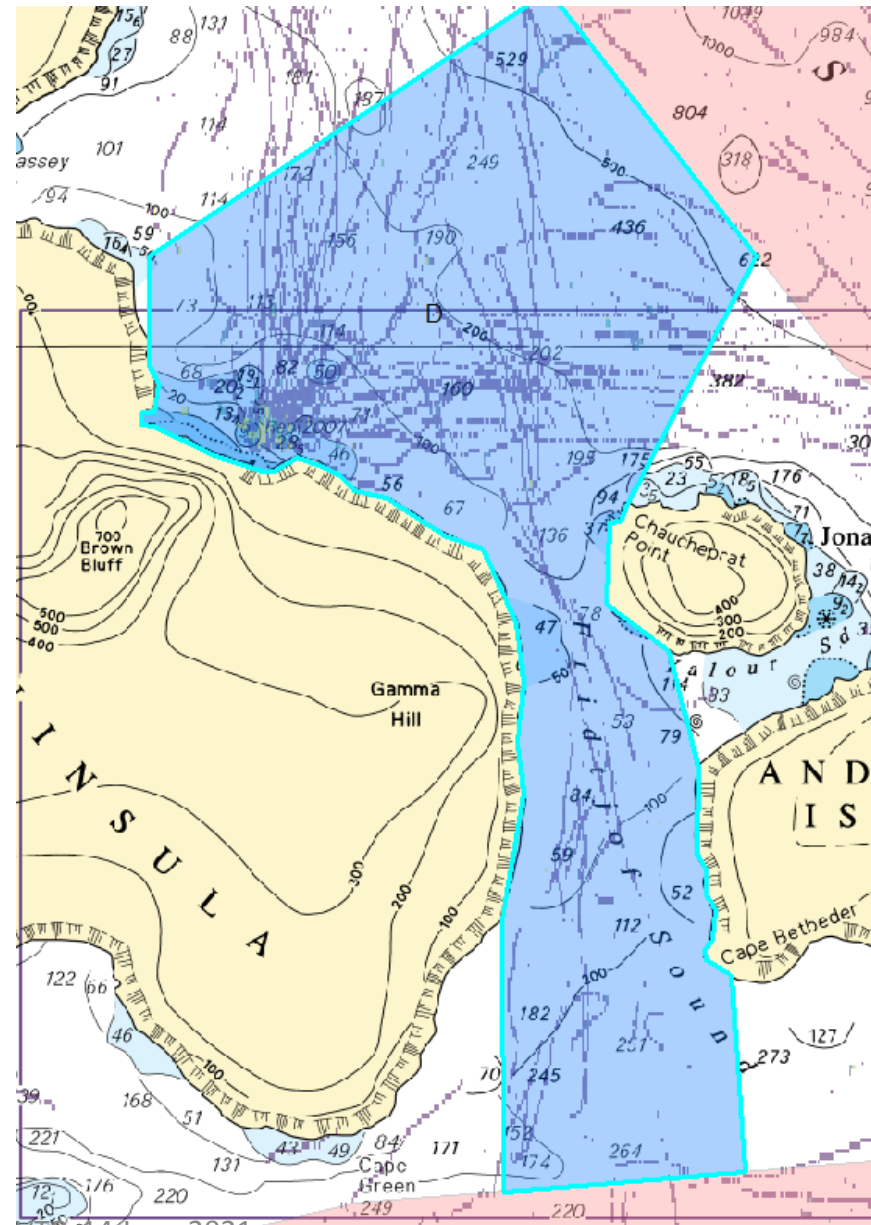
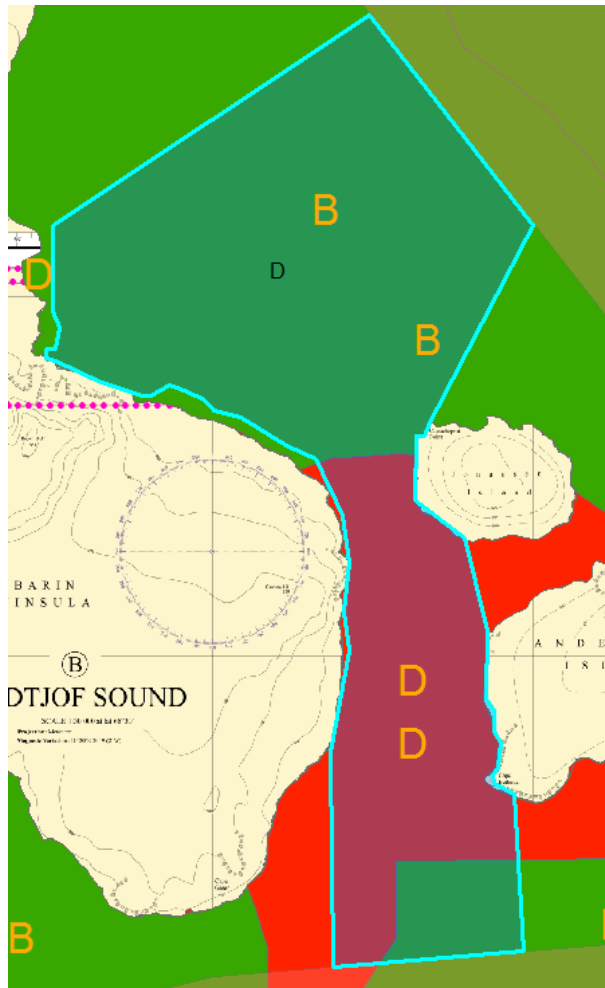
D. Brown Bluff & Fridtjof Sound (INT9154 UK)

- ZOC B & D
- No change required



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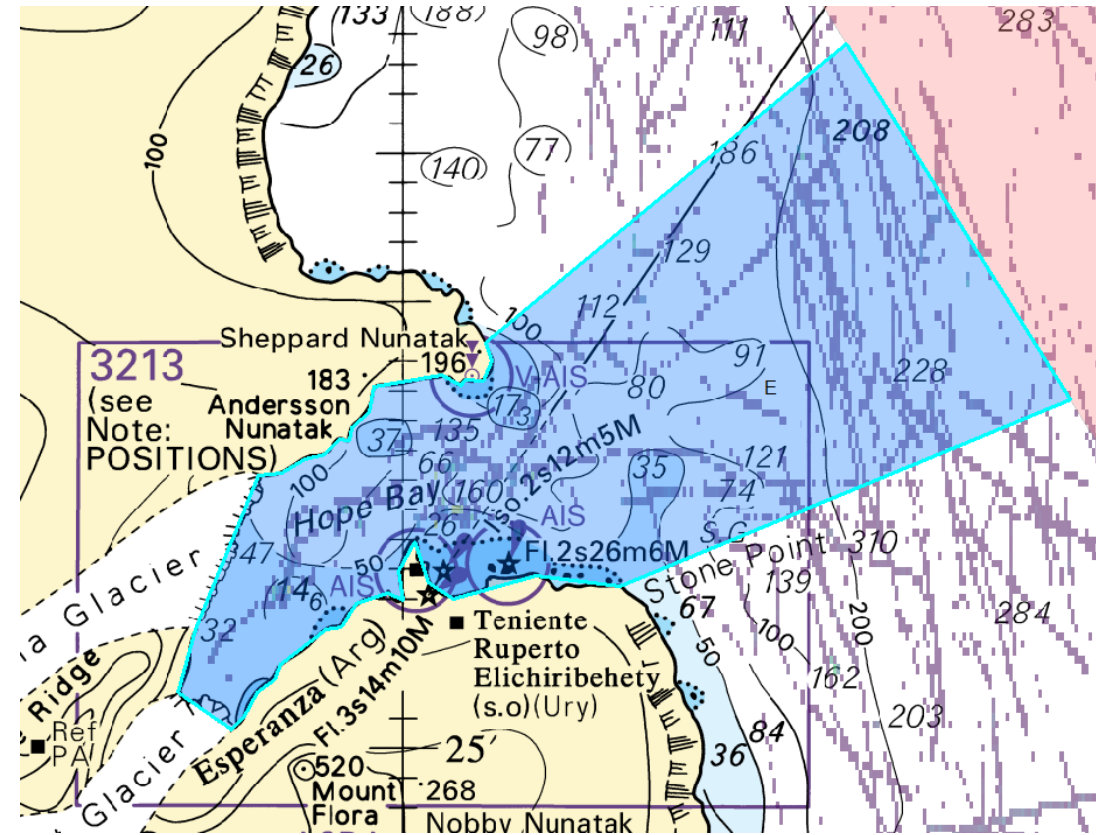
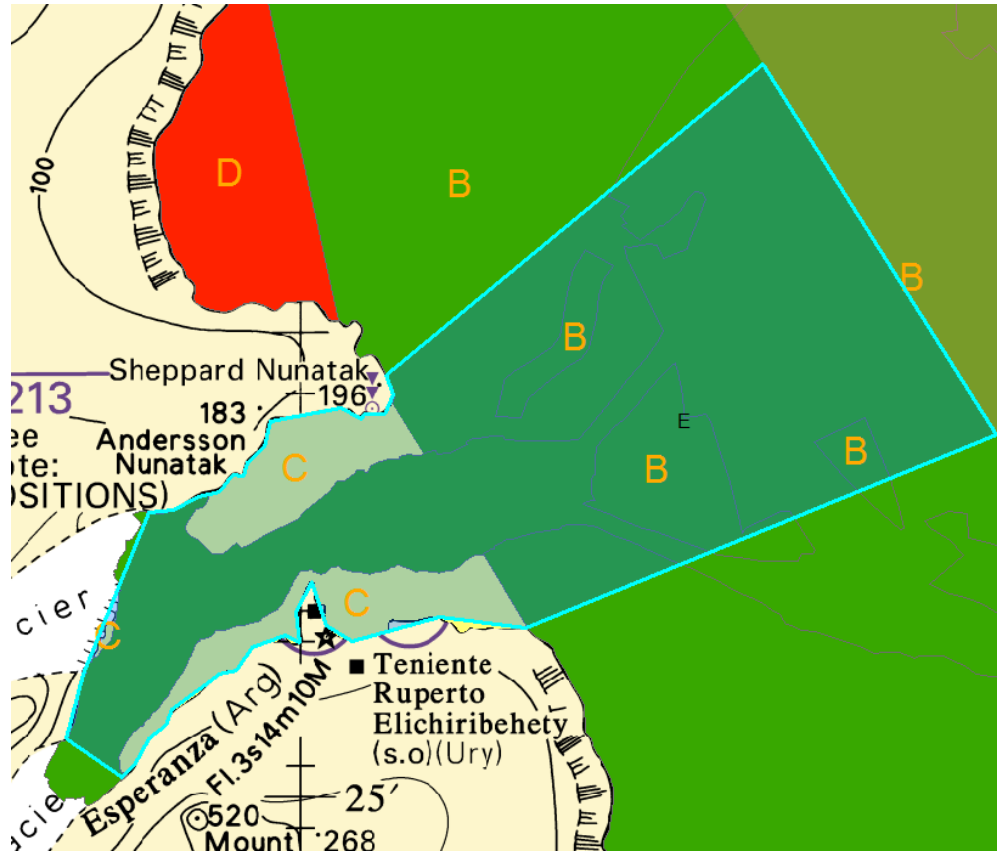
E. Hope Bay (INT9101 AR)

- ZOC B & C
- No change required



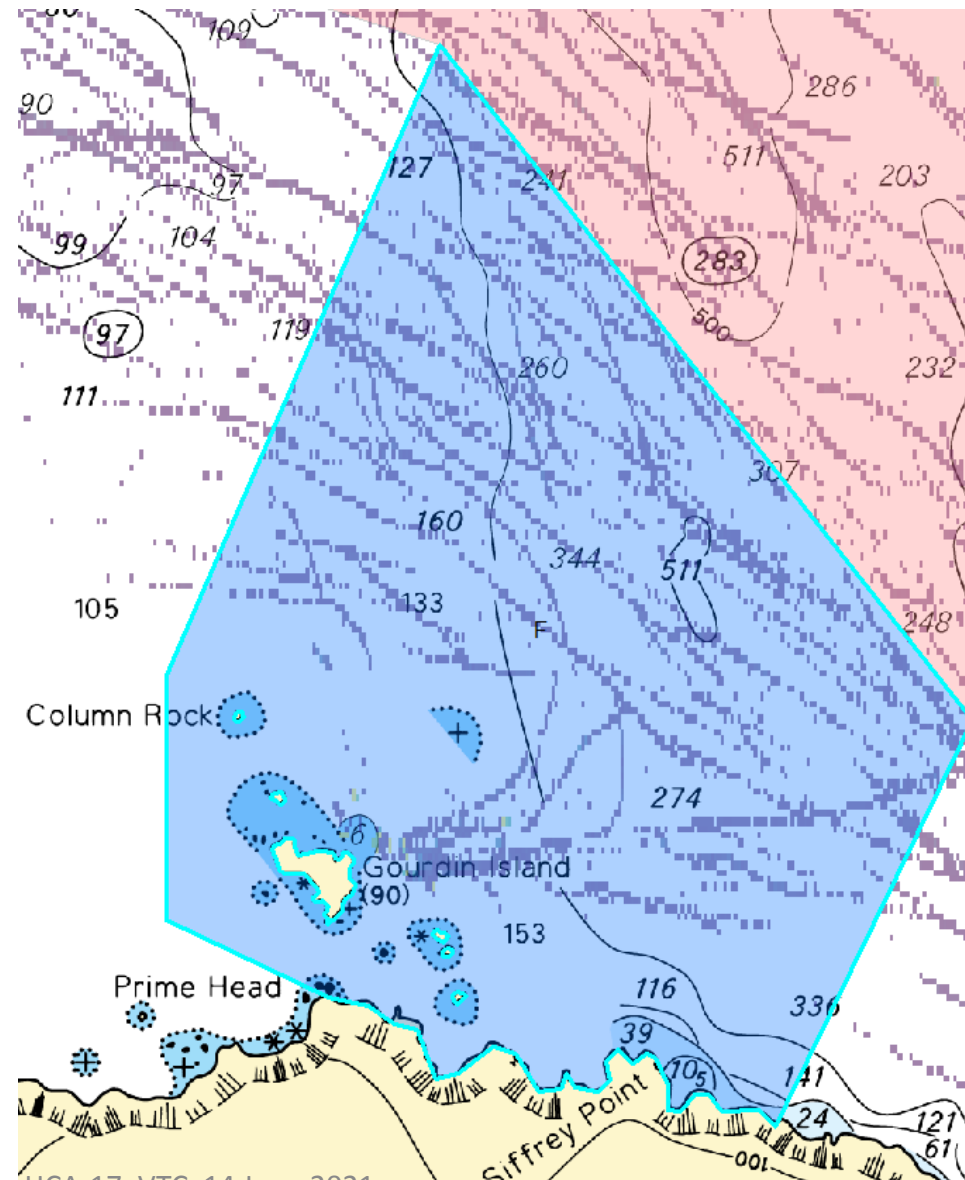
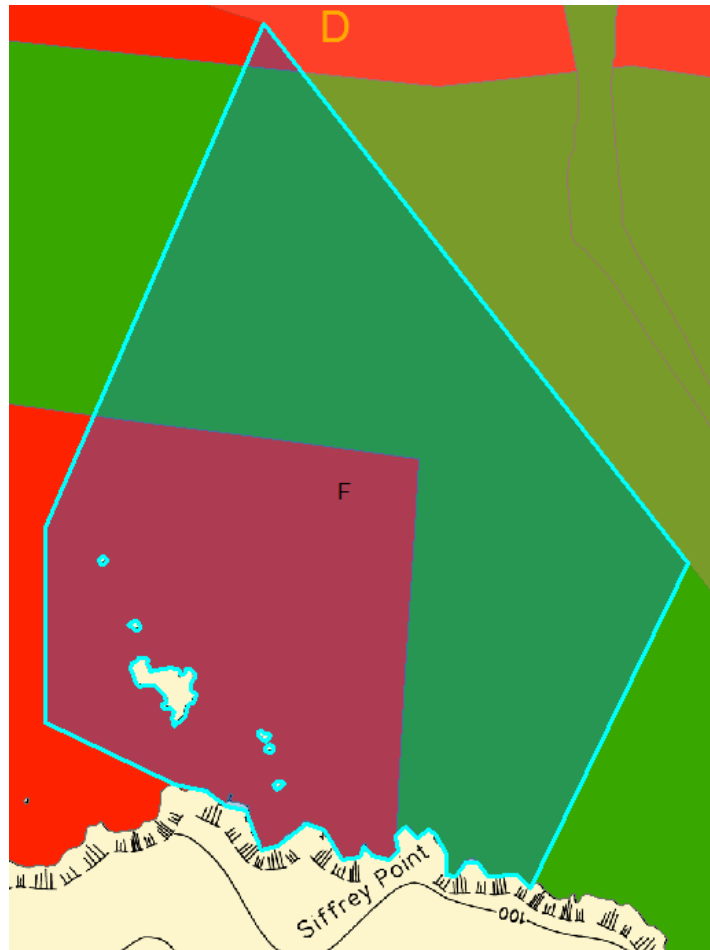
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F. Gourdin Island & Siffrey Point (INT9154 UK)

- ZOC B & D
- No change required



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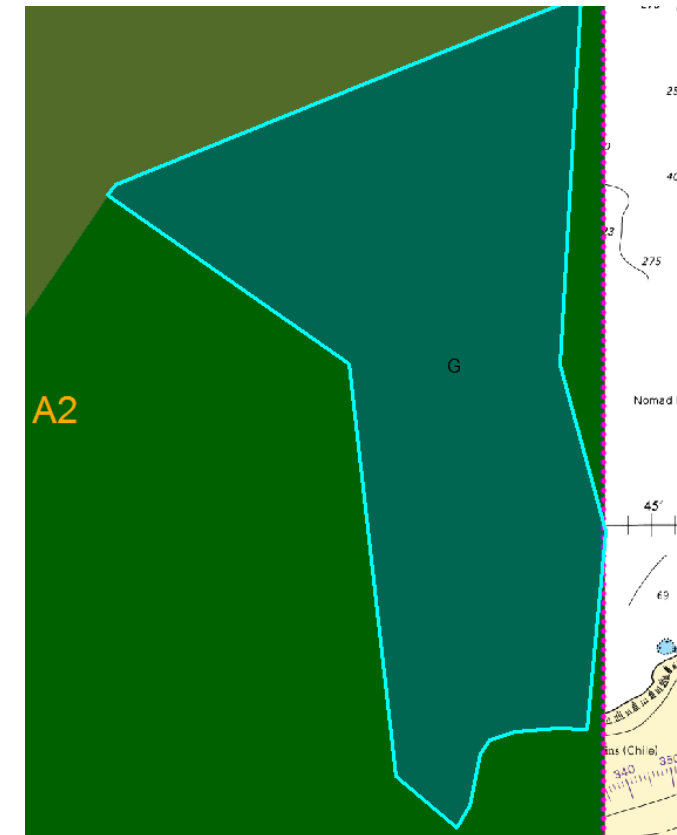
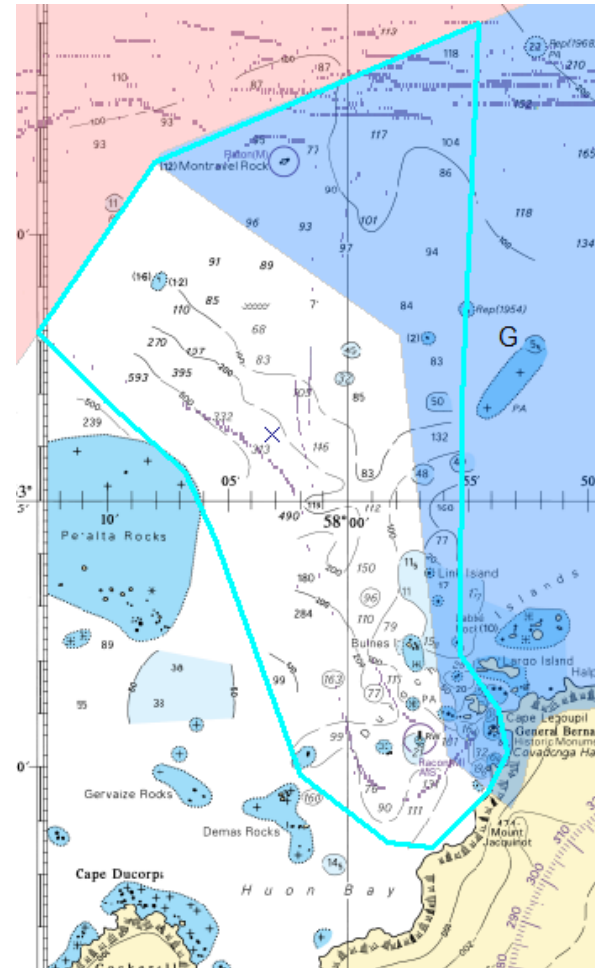
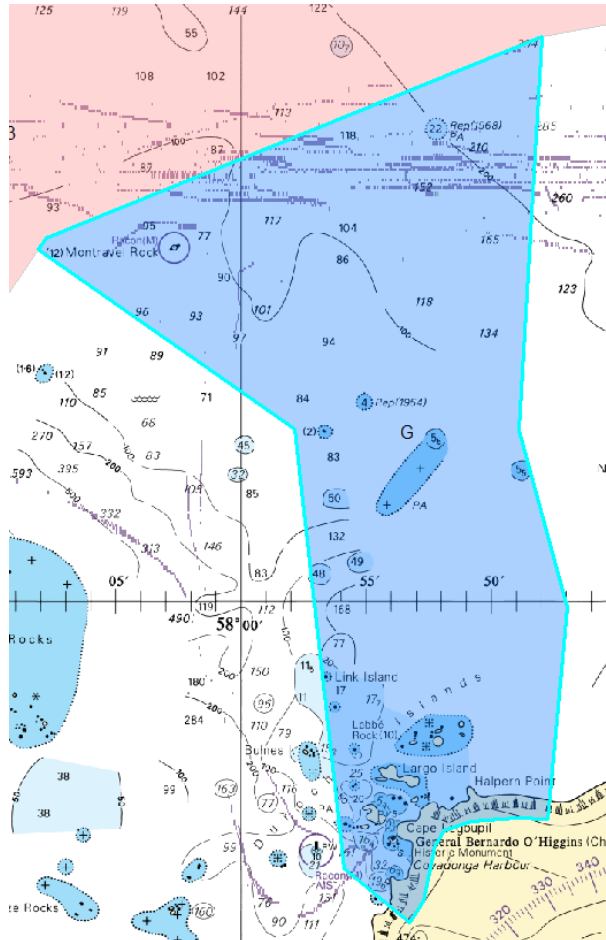
G. Bernardo O'Higgins & Approaches (INT9102 & 9155 CL 9154 UK)

- ZOC A2 (check with CL)
- Amend to reflect surveyed route west of Duroch Islands & AIS



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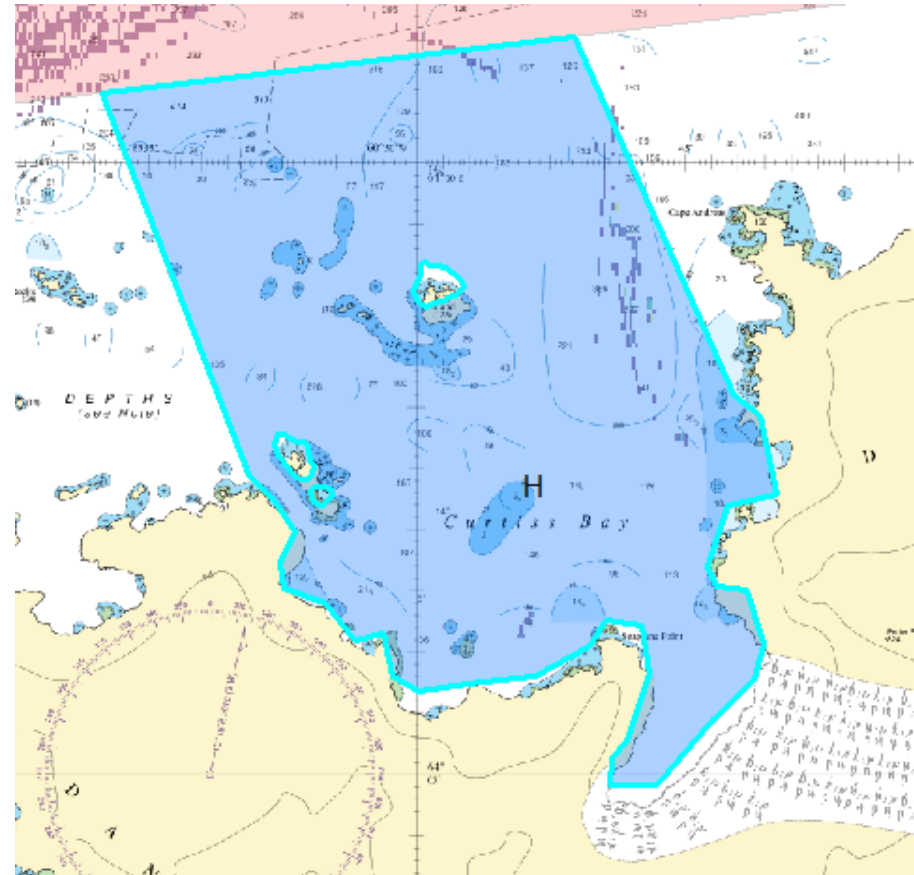
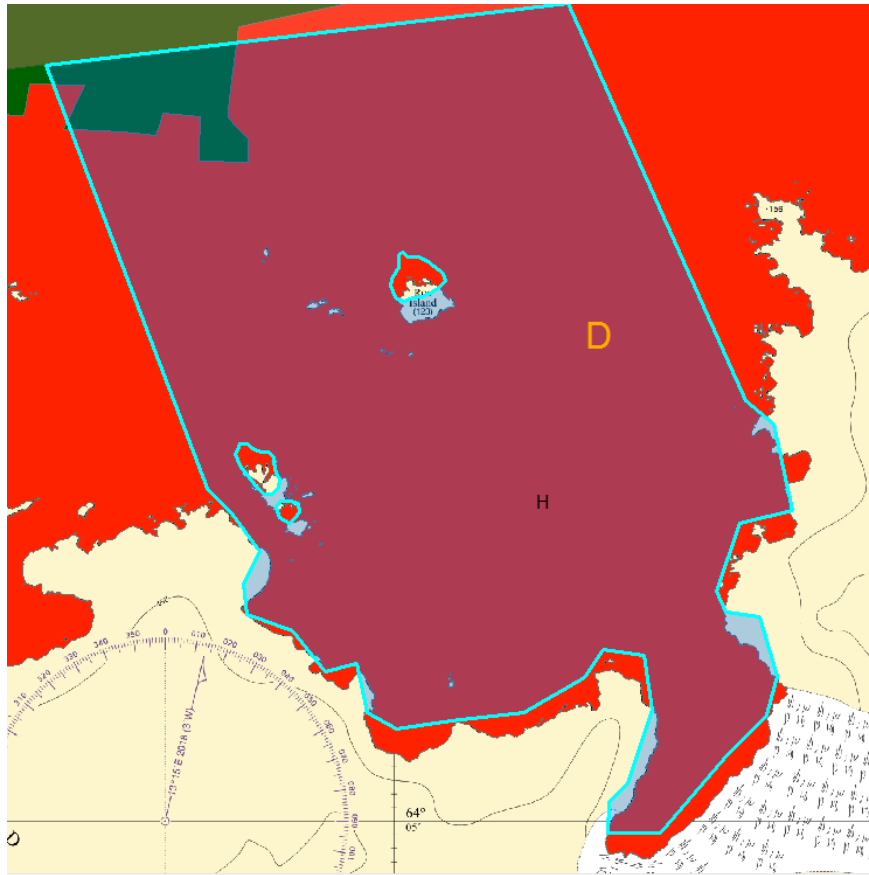
H. Curtiss Bay (INT9165 UK)

- ZOC D
- Minimal traffic – monitor requirement



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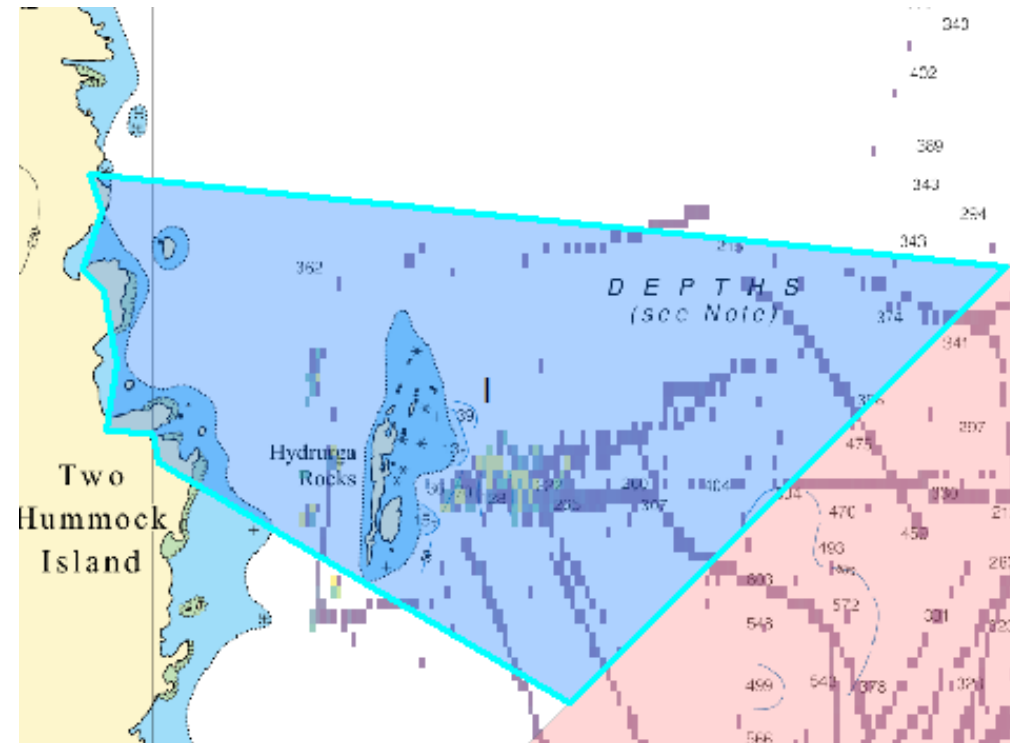
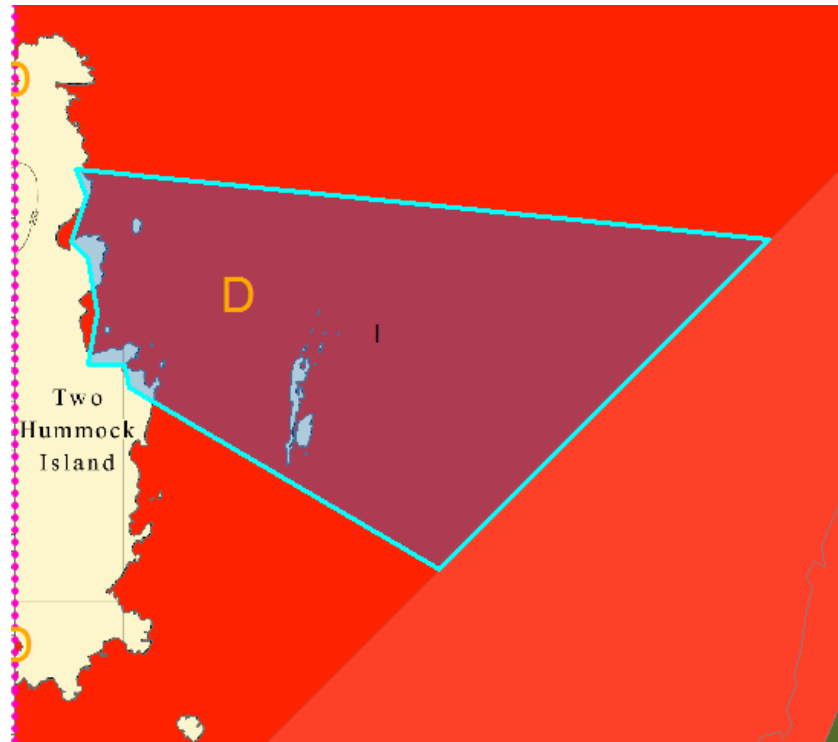
I. Hydruga Rocks (INT9165 UK)

- ZOC D
- Vessels 'hugging' data track
- No change required



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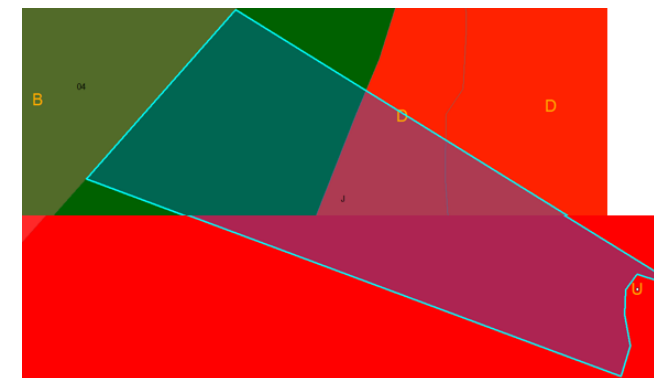
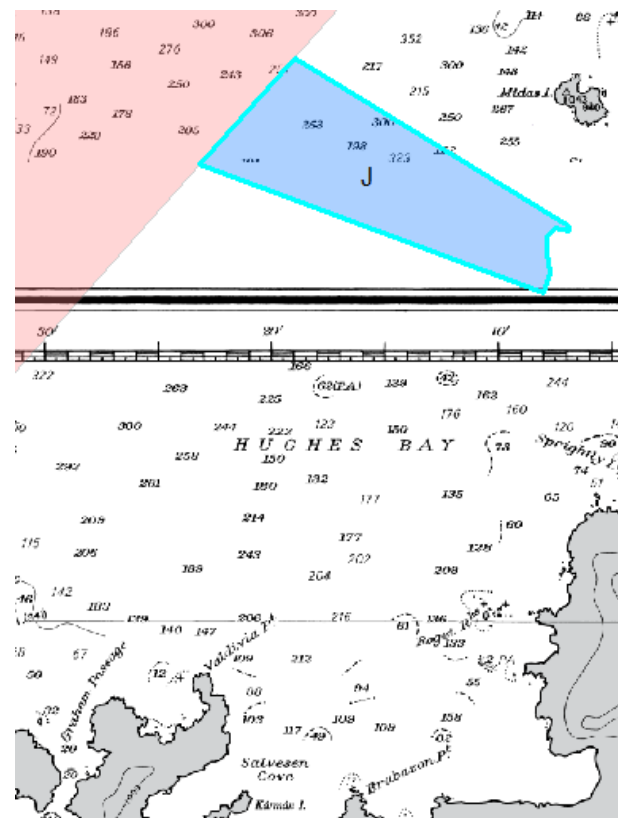
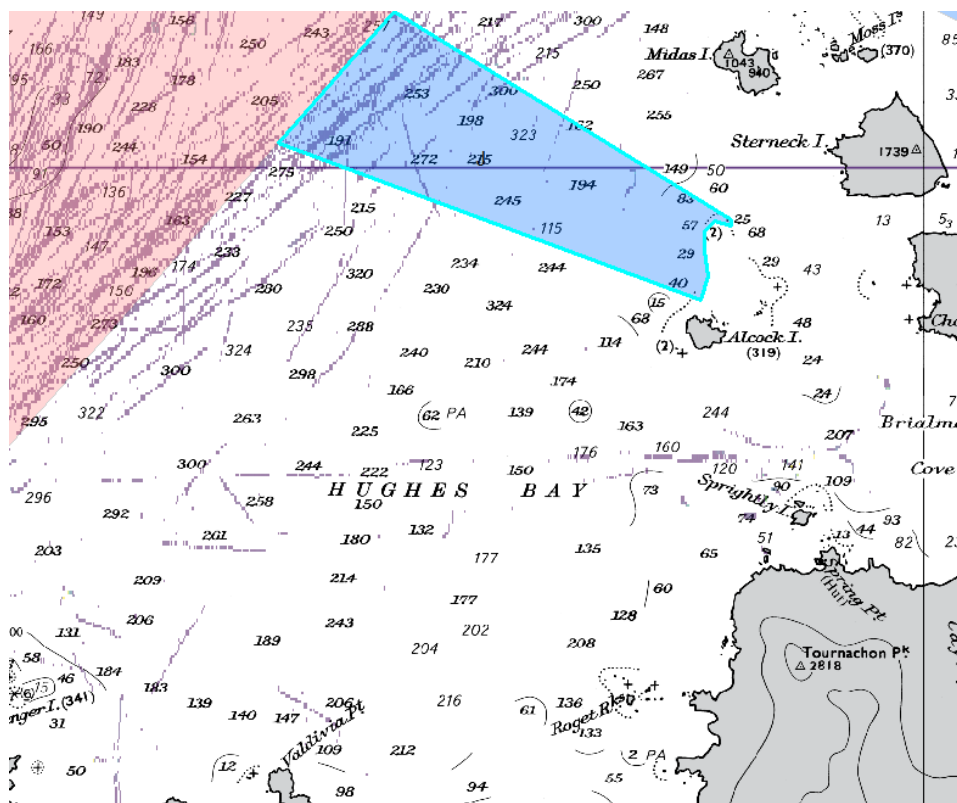


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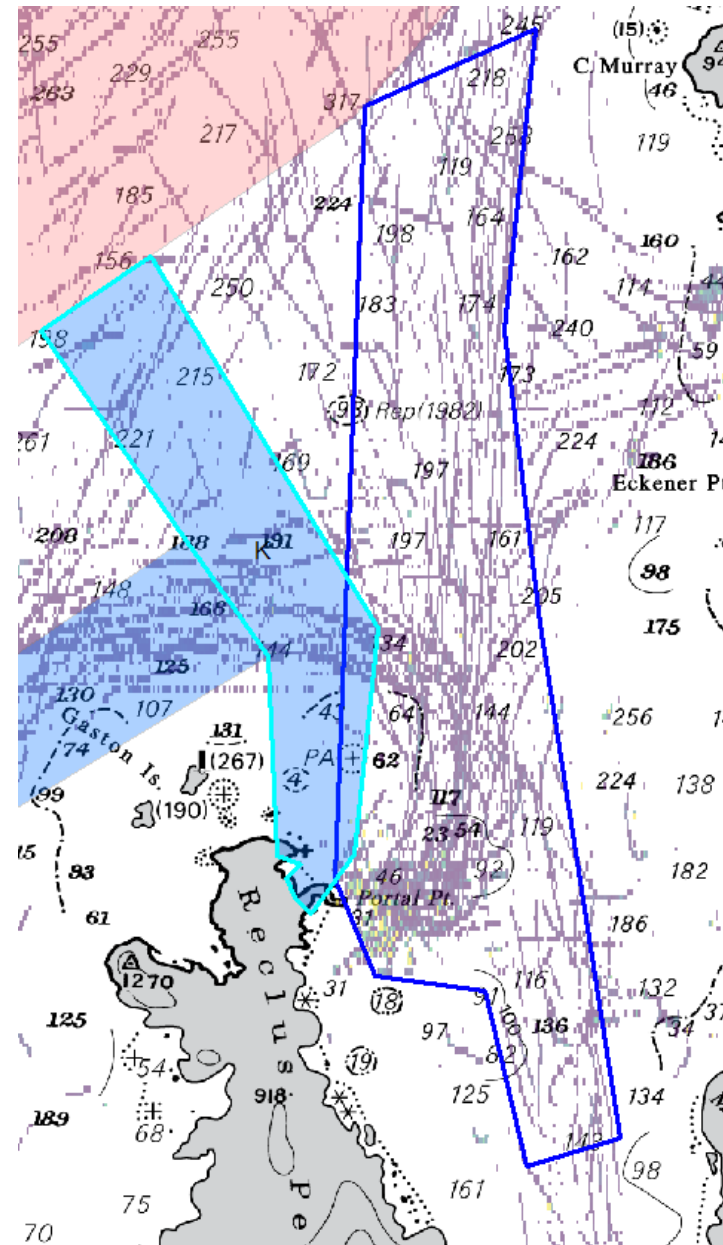
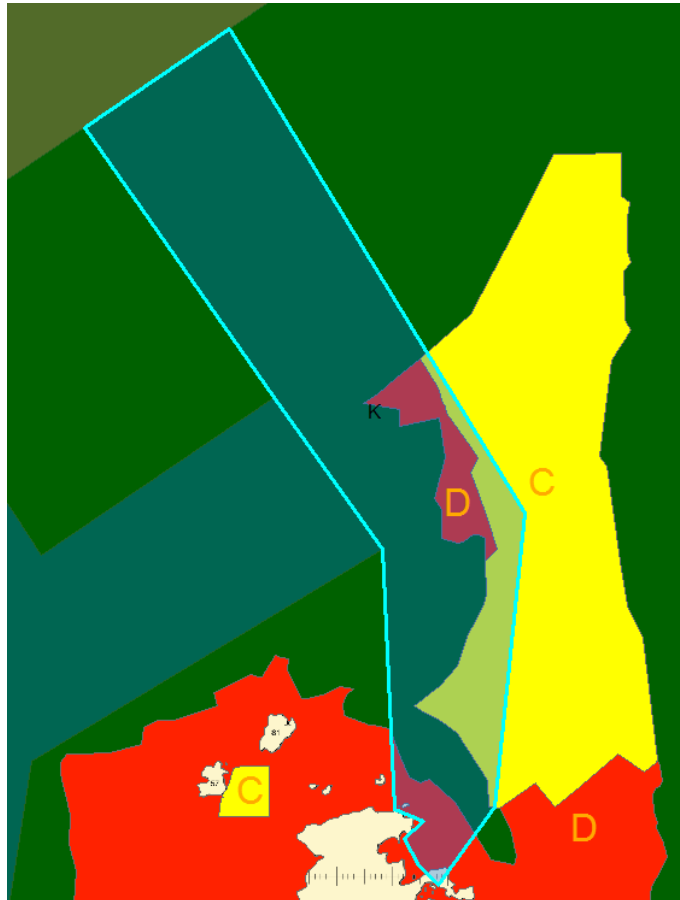
J. Alock Island (INT9156 AR)

- ZOC B&D
- No Traffic
- Monitor requirement for Hughes Bay
- Low Priority



K. Portal Point (INT9112 UK)

- ZOC B,C & D
- Amend as shown

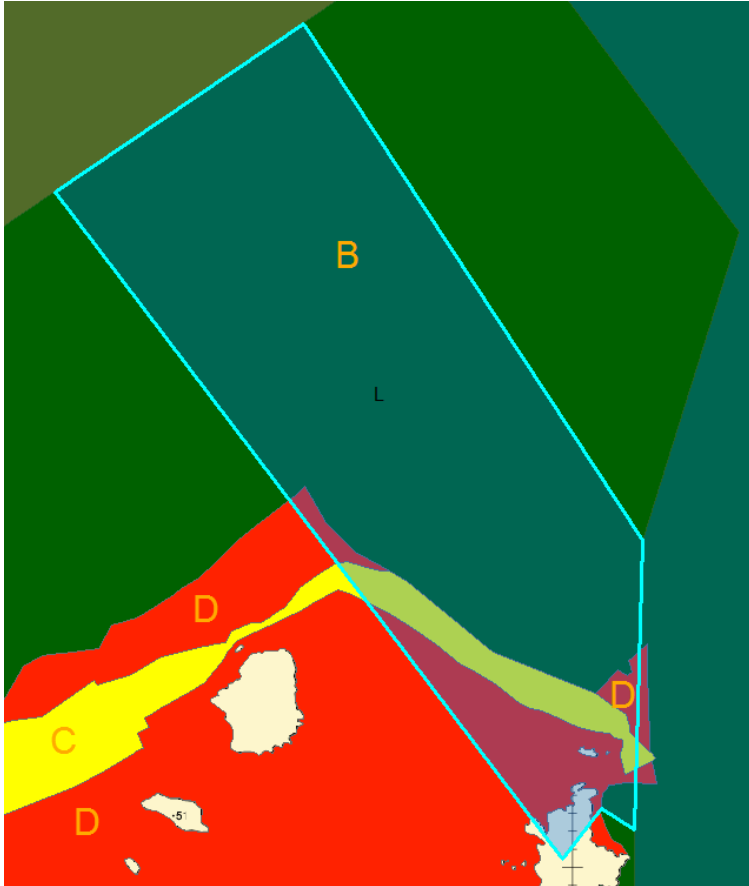


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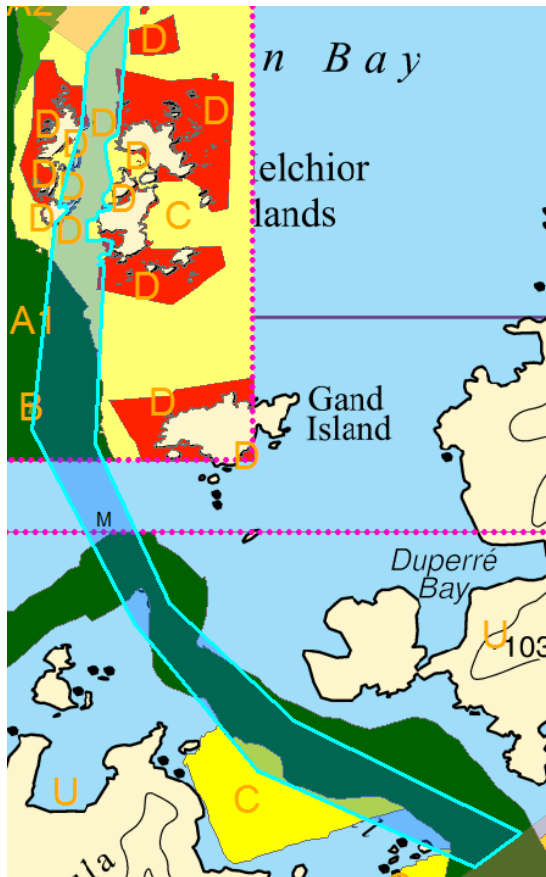
L. Enterprise Island (INT9166 UK)

- ZOC B,C & D
- No change



M. Melchior Islands & Approaches (INT9157 CL, 9117 UK)

- ZoC A,B,C & D
- Traffic aligns with new published data to the west of Melchior Islands
- Discuss requirement

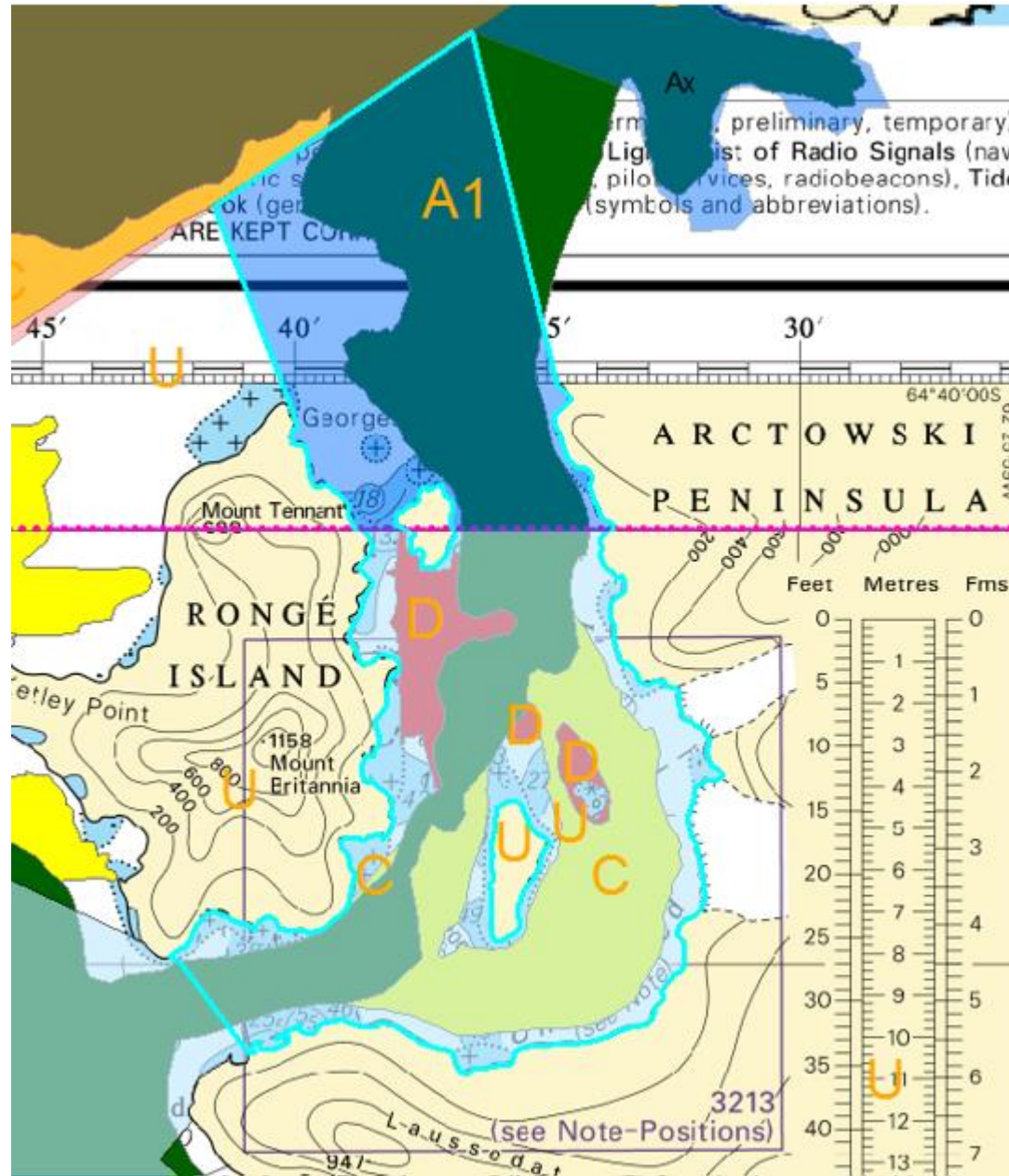
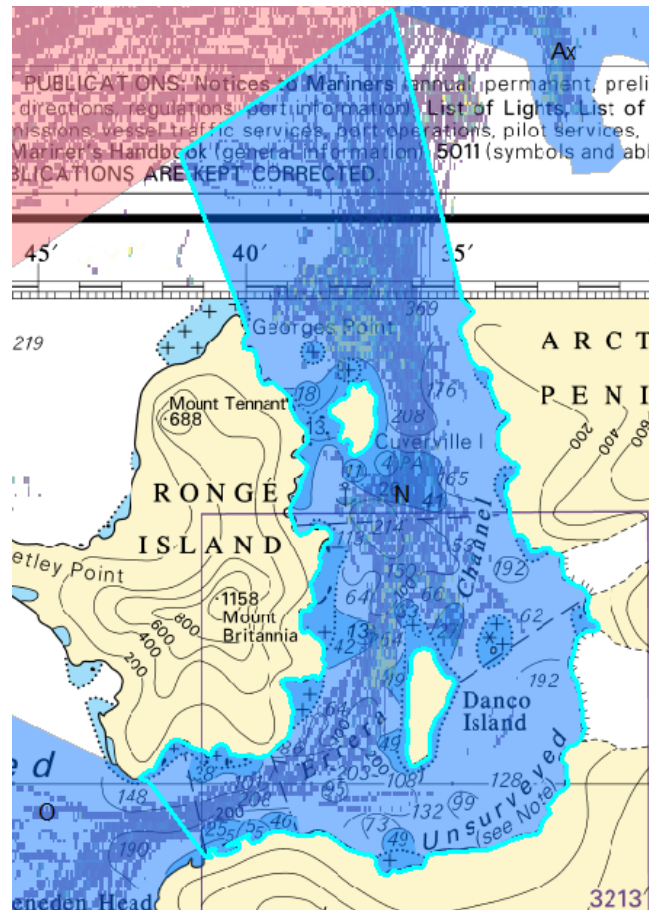


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N. Errera Channel (INT9103 CL)

- No change required
- ZOC A1, C & D



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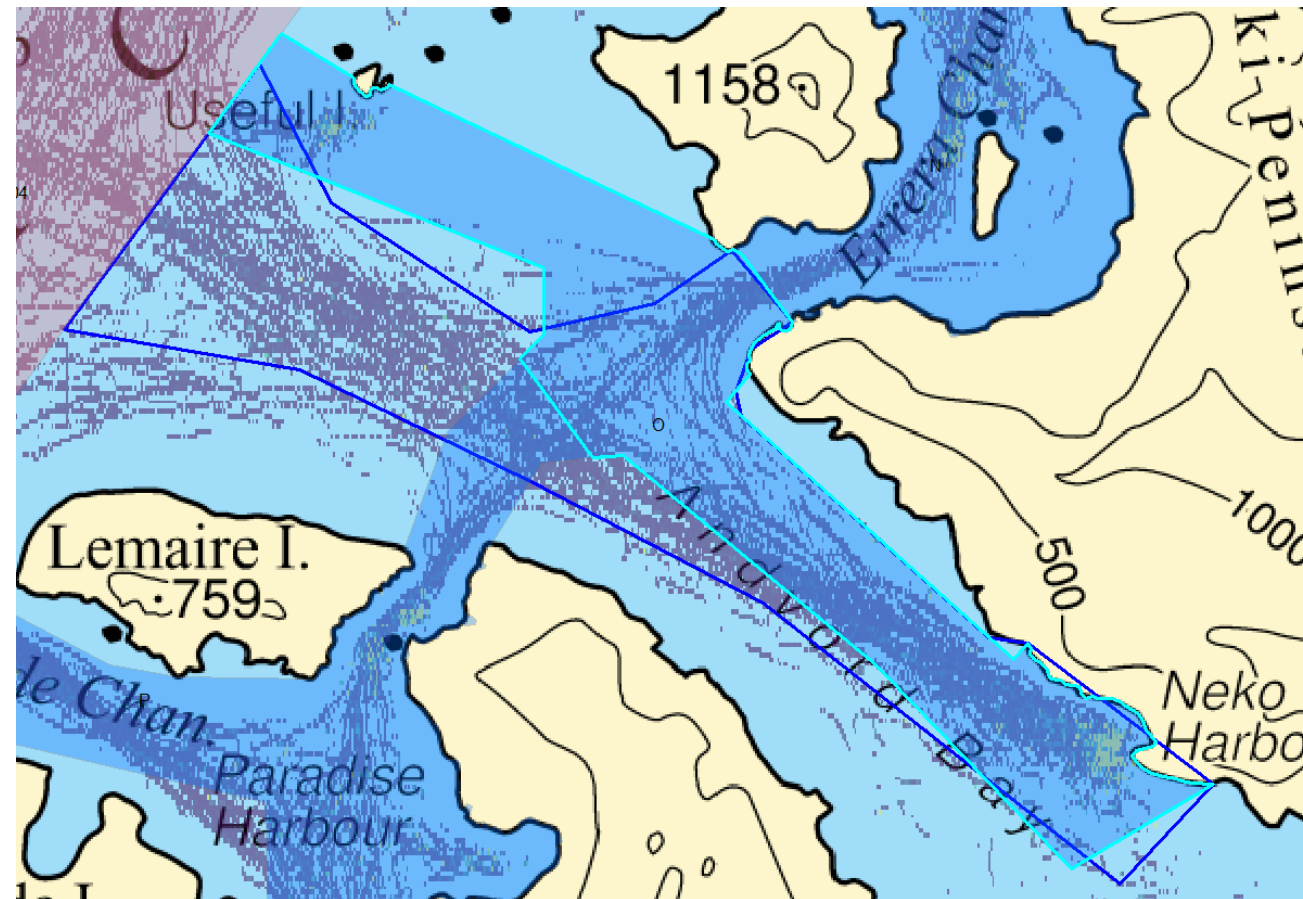
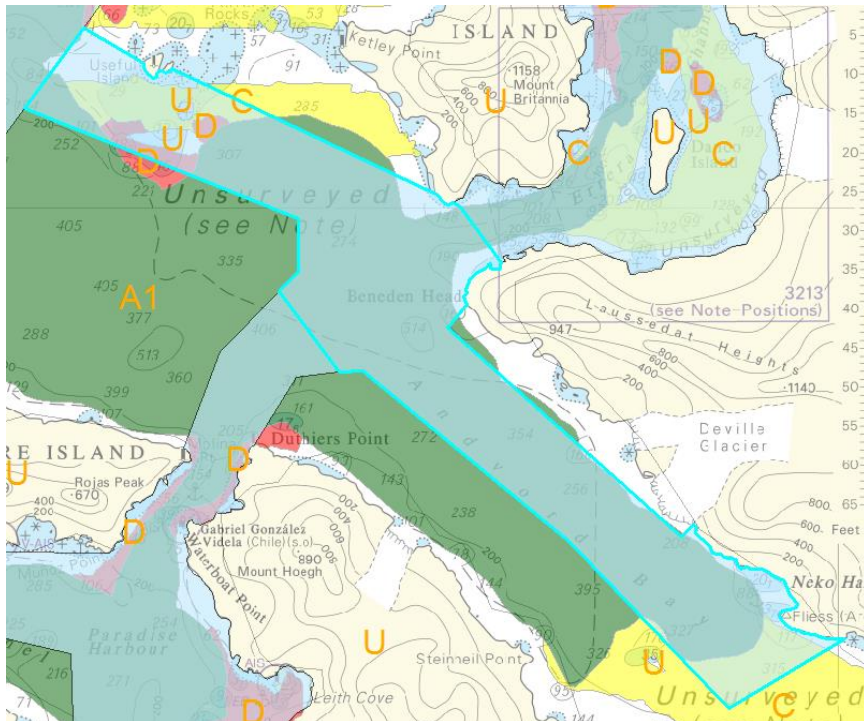
O. Andvord Bay (INT9158 UK)

- ZOC A & C
- Amend to reflect traffic pattern



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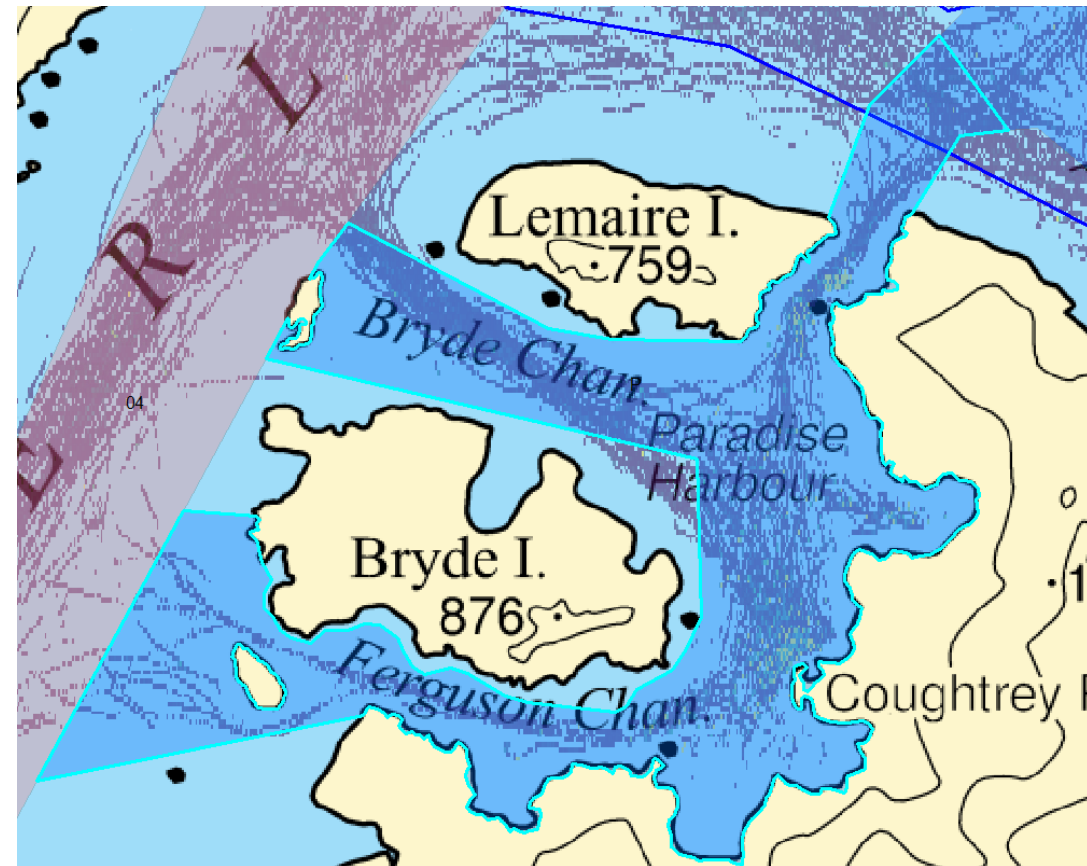
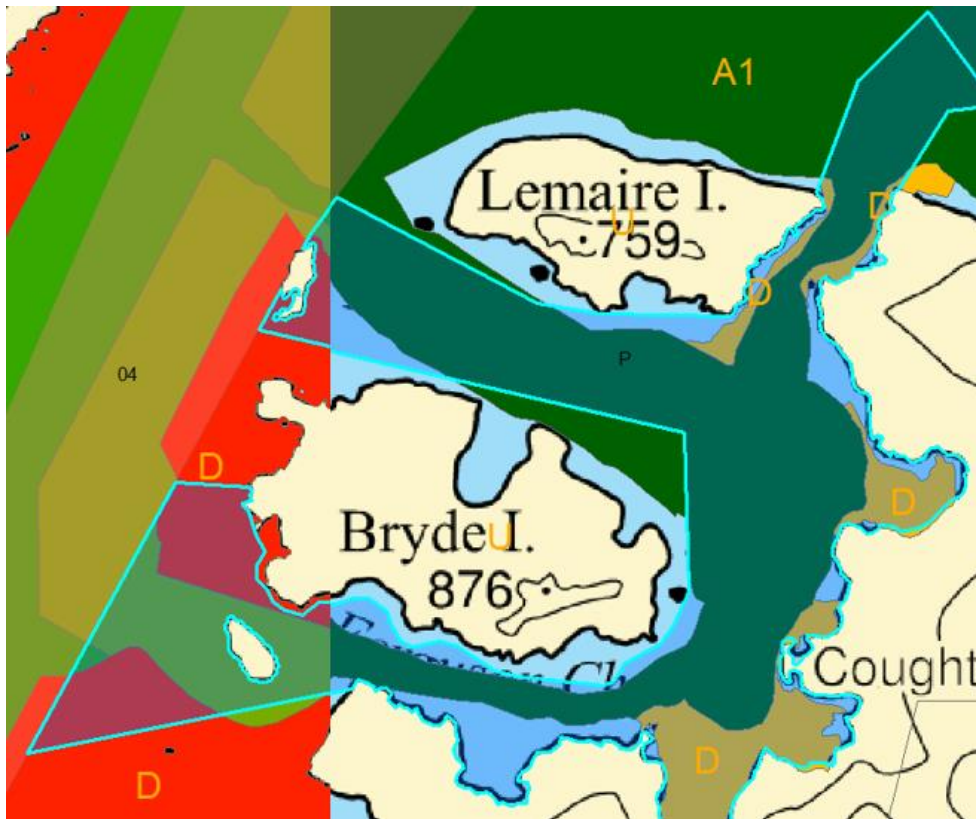
P. Paradise Harbour (INT9104 CL)

- ZOC A,B & D
- Generally in agreement with AIS



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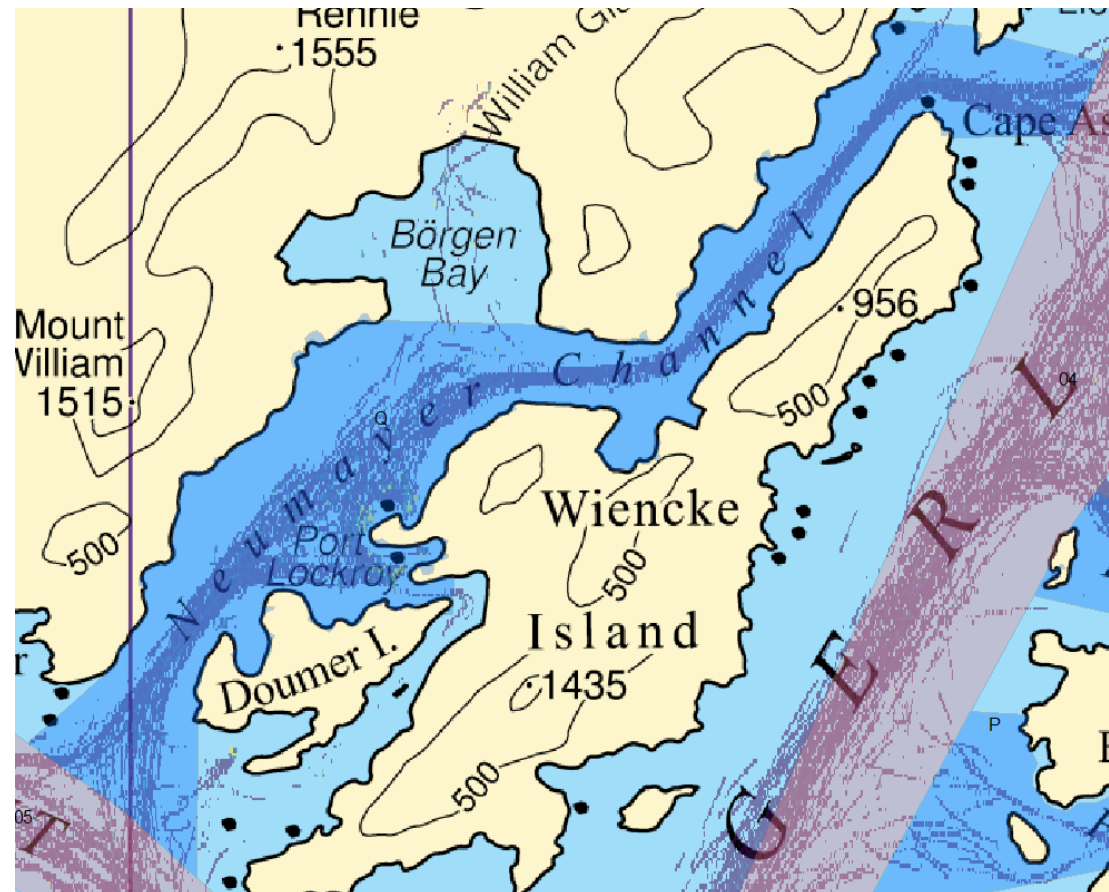
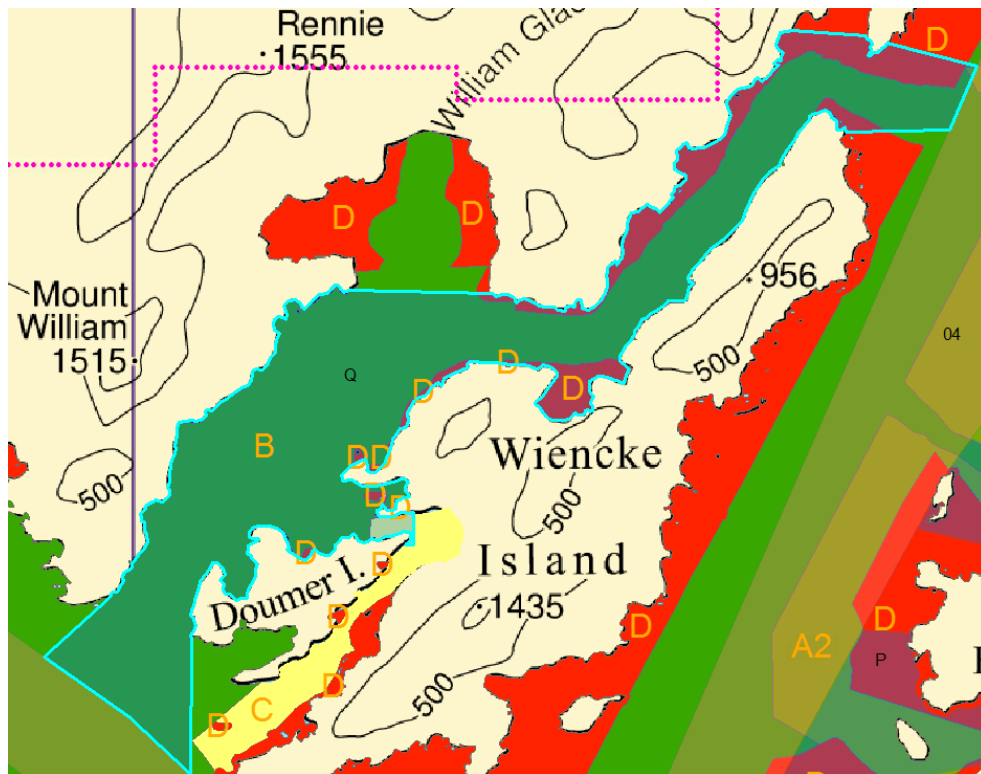
Q. Neumayer Channel & Port Lockroy (INT9158 UK, 9104 CL)

- ZOC B & D



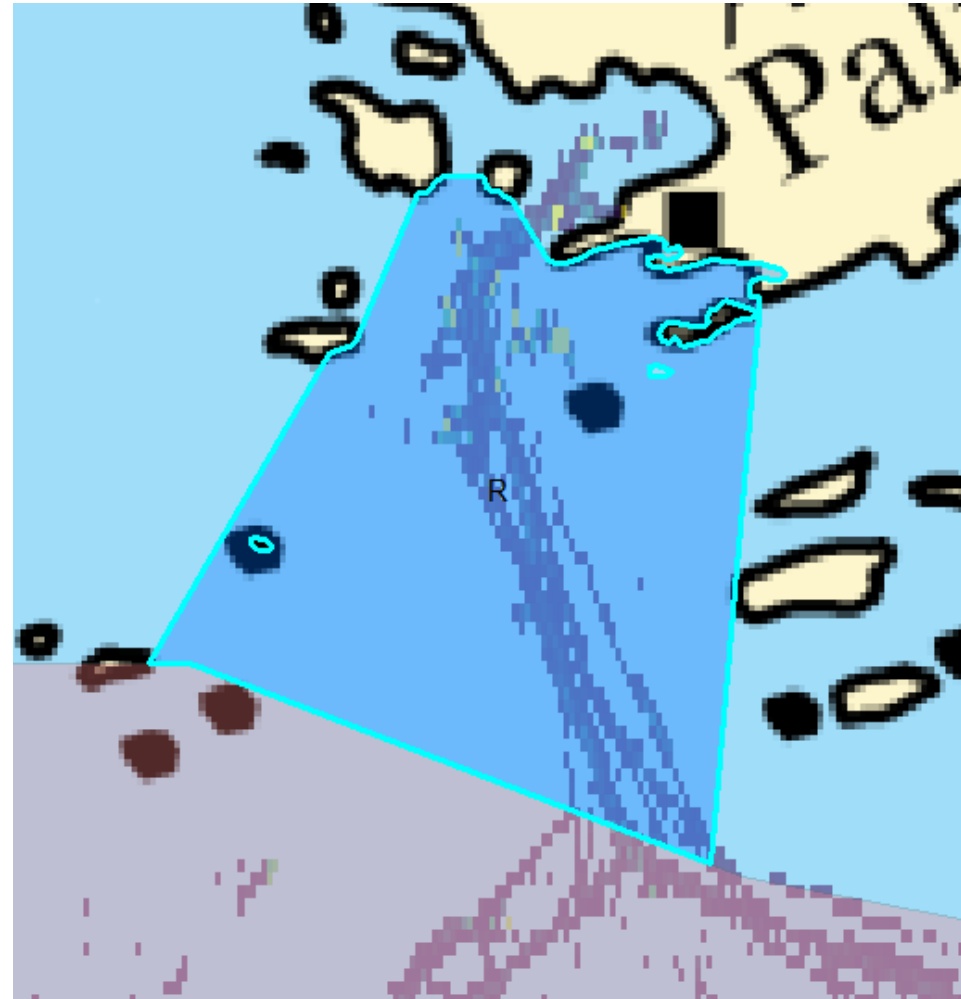
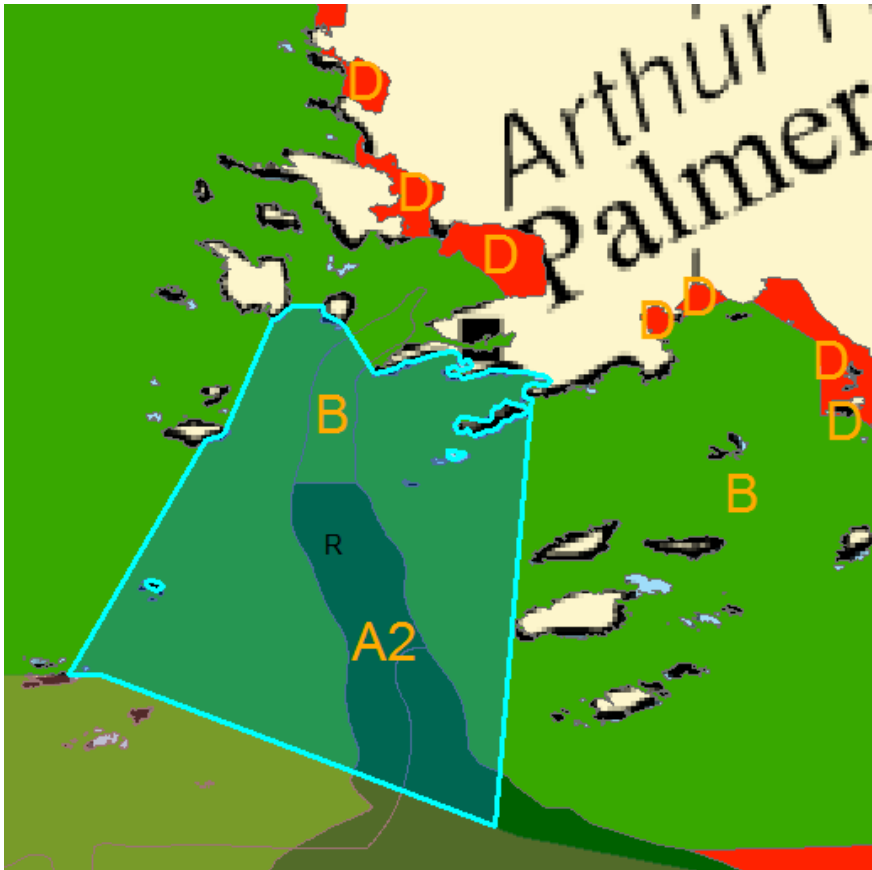
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R. Arthur Harbour (Palmer) INT9107 (UK)

- ZOC A & B
- No change



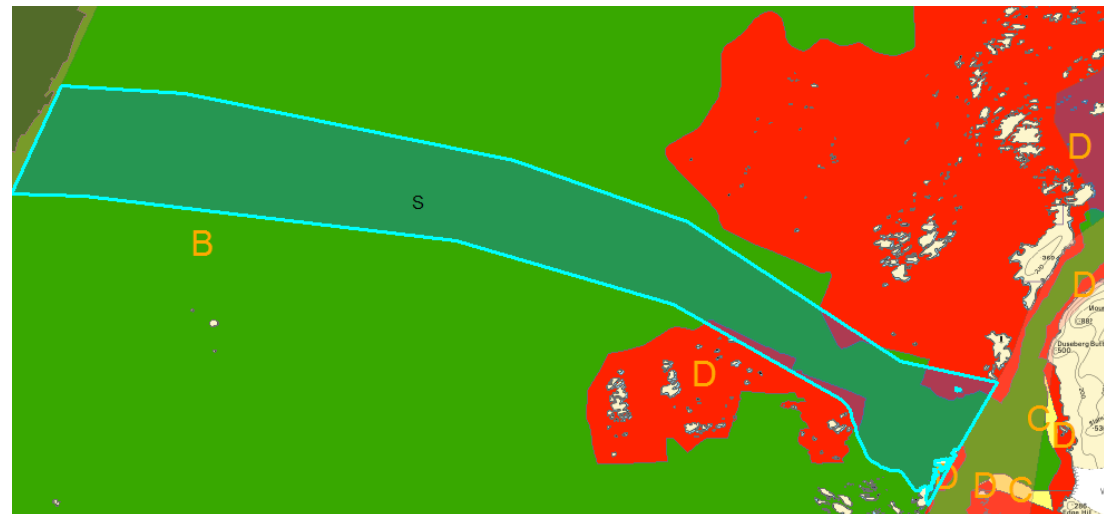
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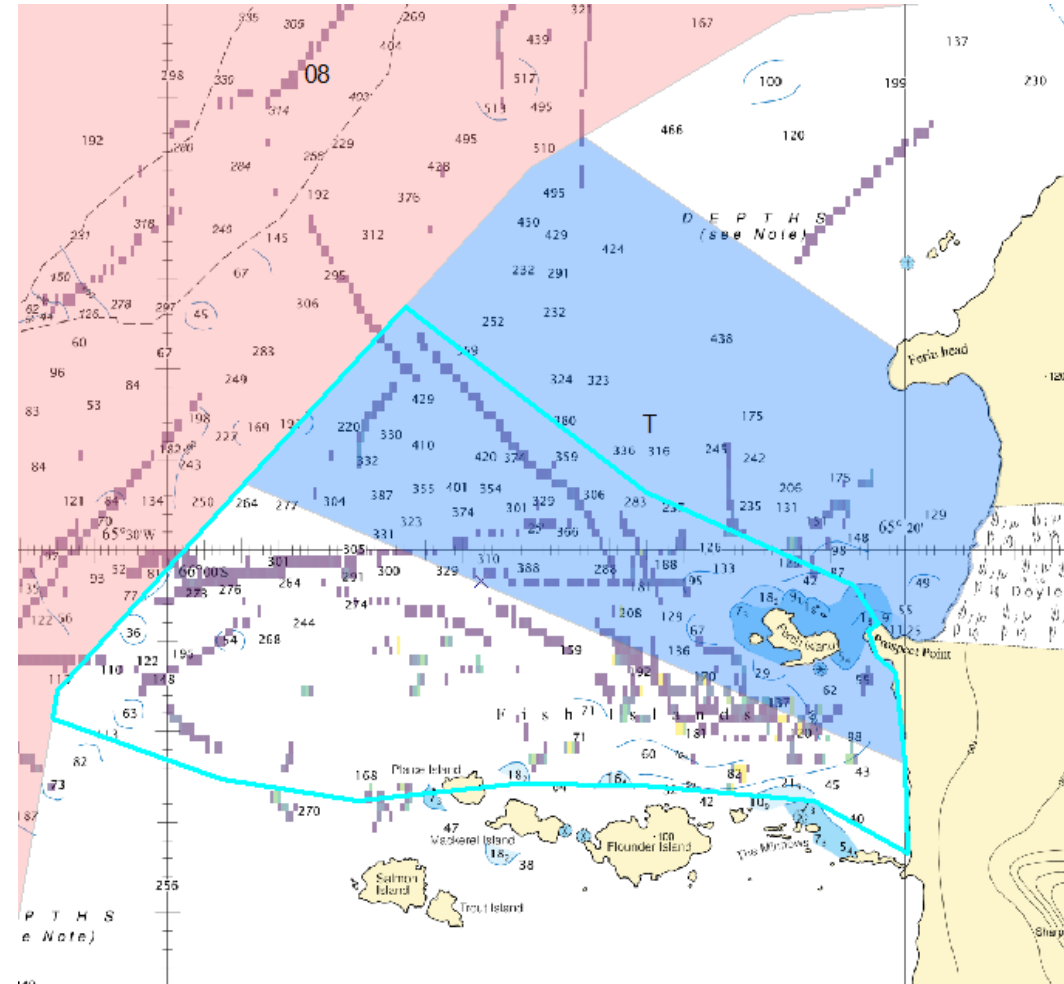
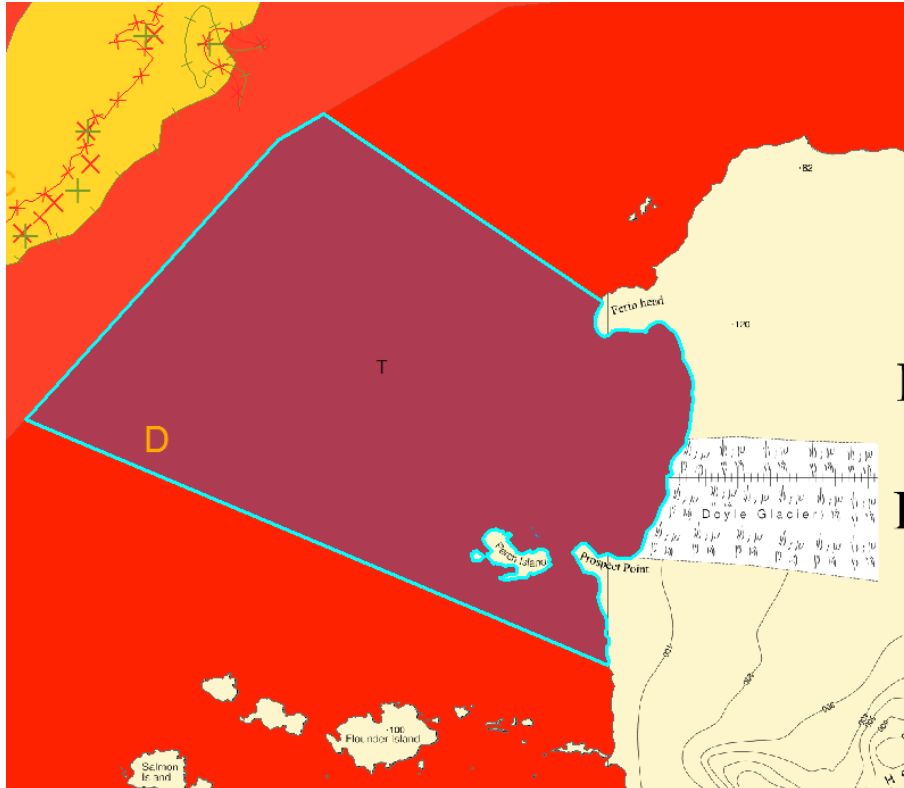
S. French Passage (INT9106 UK)

-
- A map of the Weddell Sea region, showing the French Passage and various islands. The map includes labels for 'WILHELMAR', 'French Passage', 'Myriad Islands', 'Hov', 'Vedel Islands', 'Petermann I.', 'Cruls Islands', 'Sooty Rock', 'Betbeder Islands', and 'Argentine Islands'. It also features numerous numerical data points (e.g., 93, 14, 324, 143, 300, 349, 102, 282, 91, 168, 53, 79, 59, 128, 125, 38, 31, 27, 677, 66, 75, 29, 55, 18, 7) and a coordinate grid.



T. Prospect Point (INT9107 UK)

- ZOC D
- Amend to reflect AIS



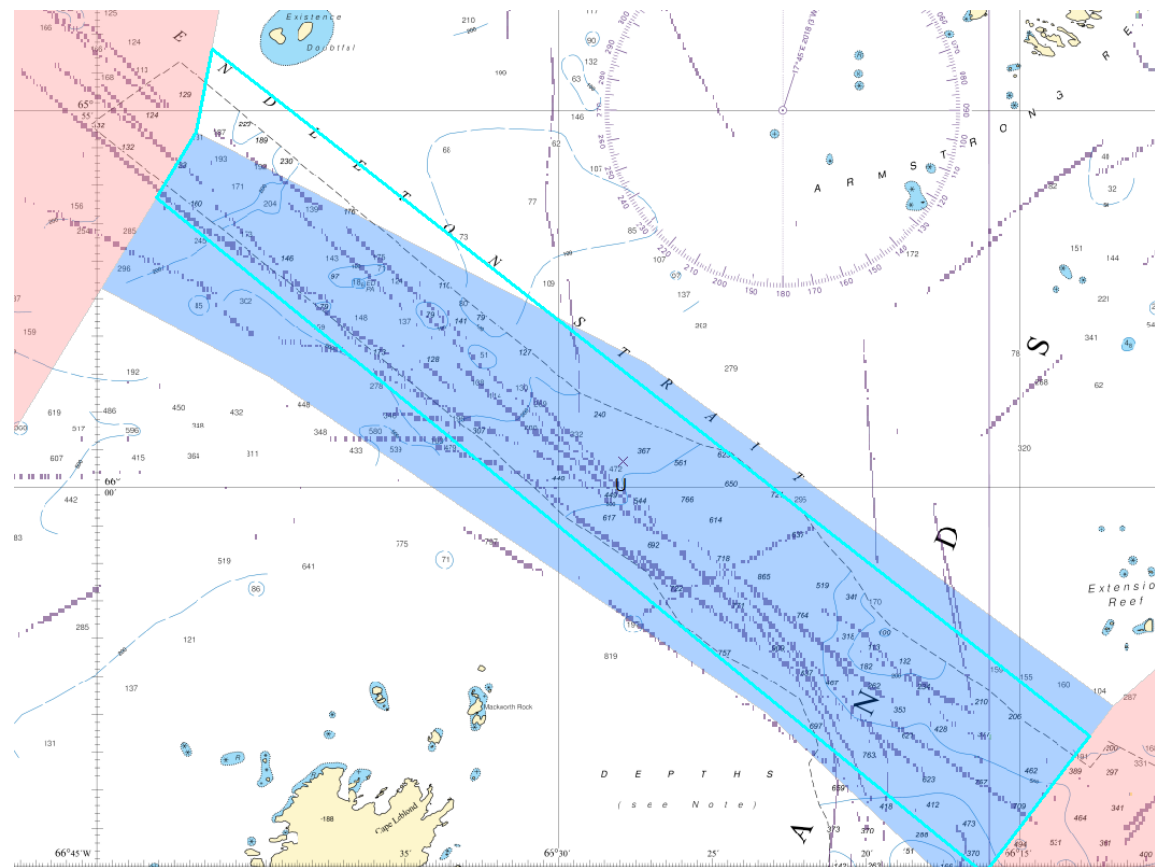
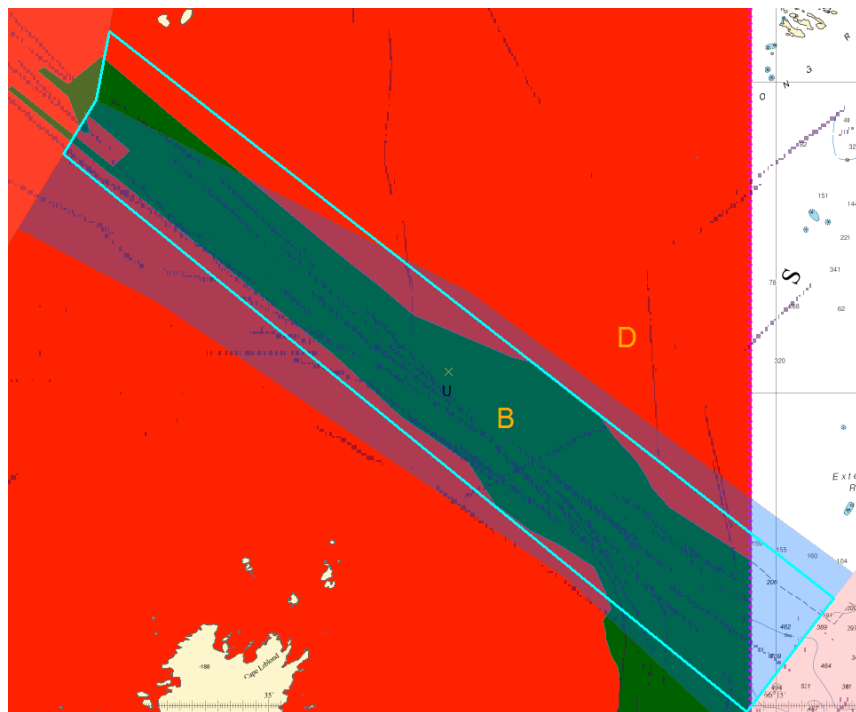
U.Pendleton Strait (INT9519 UK)

- Traffic using surveyed route
- Amend polygon to reflect
- ZOC B&D



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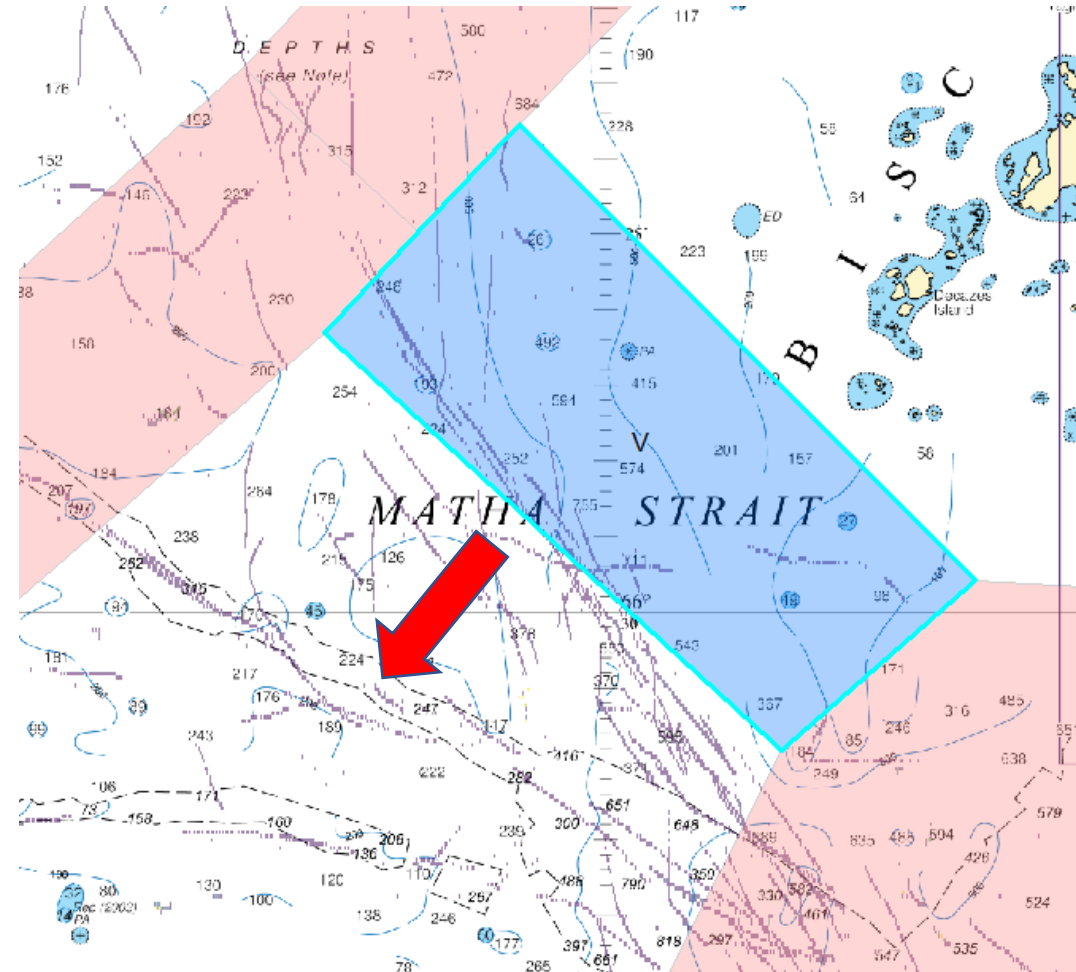
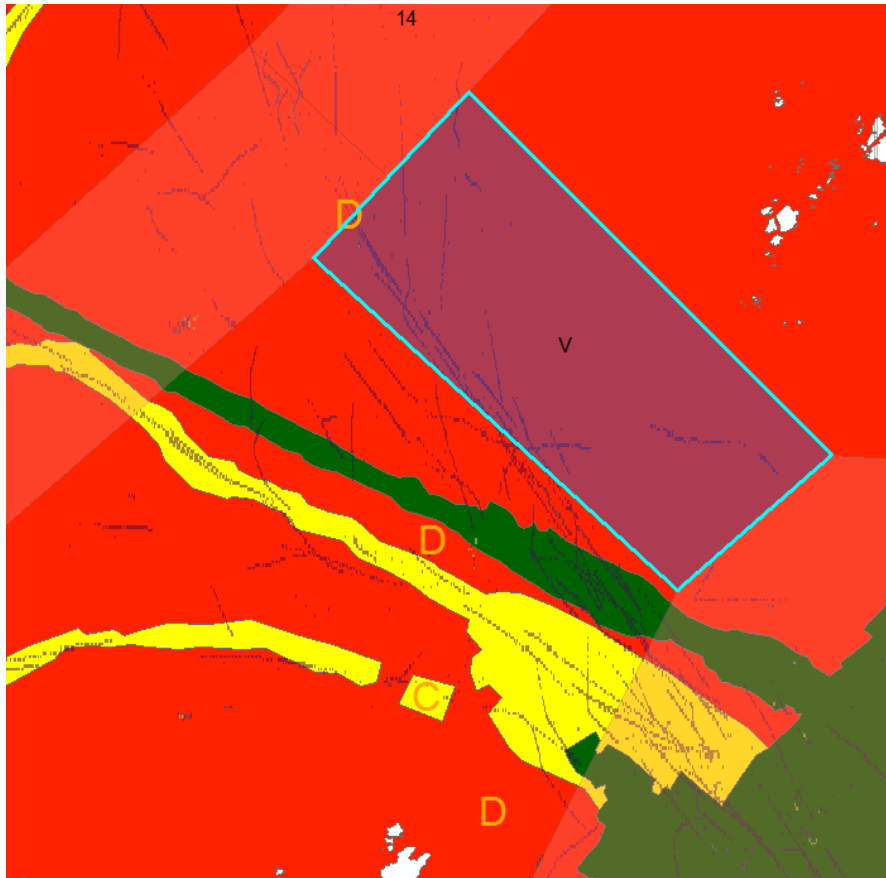


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V. Matha Strait (INT9160 UK)

- Amend polygon to reflect data and AIS and build on existing data
- ZOC D – UK surveys planned



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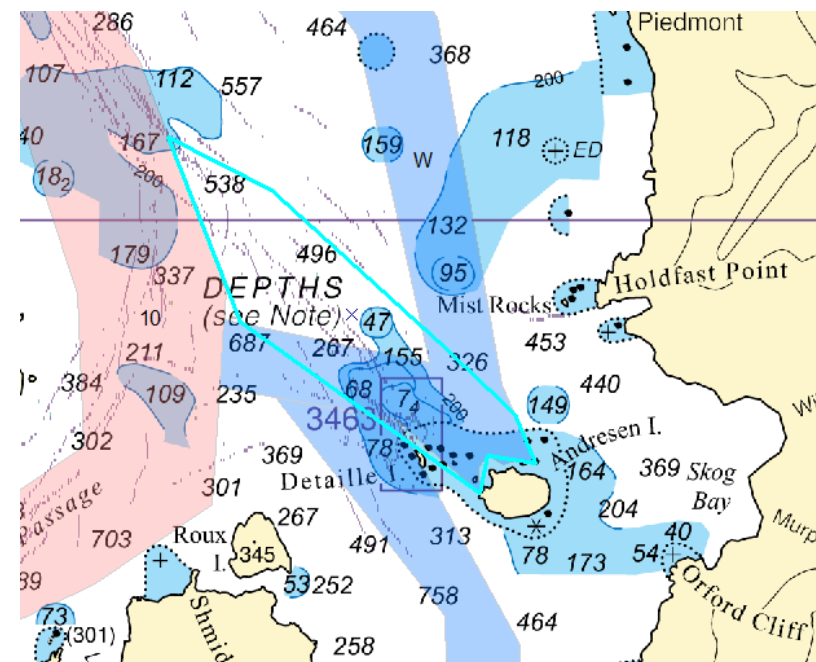
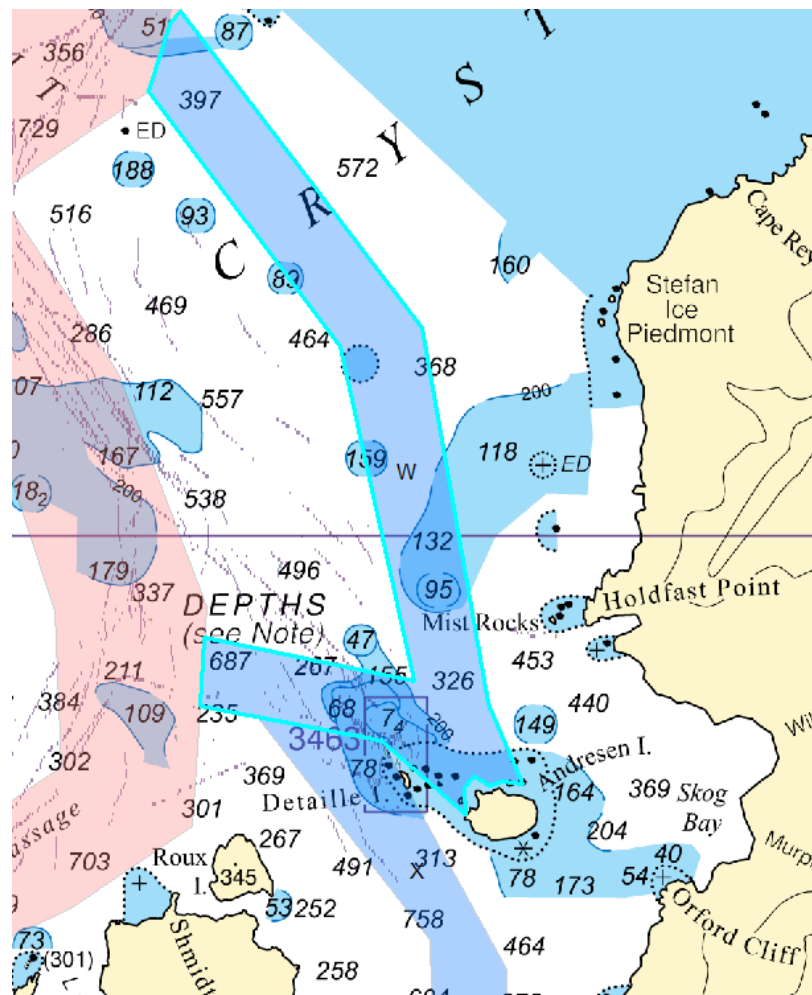
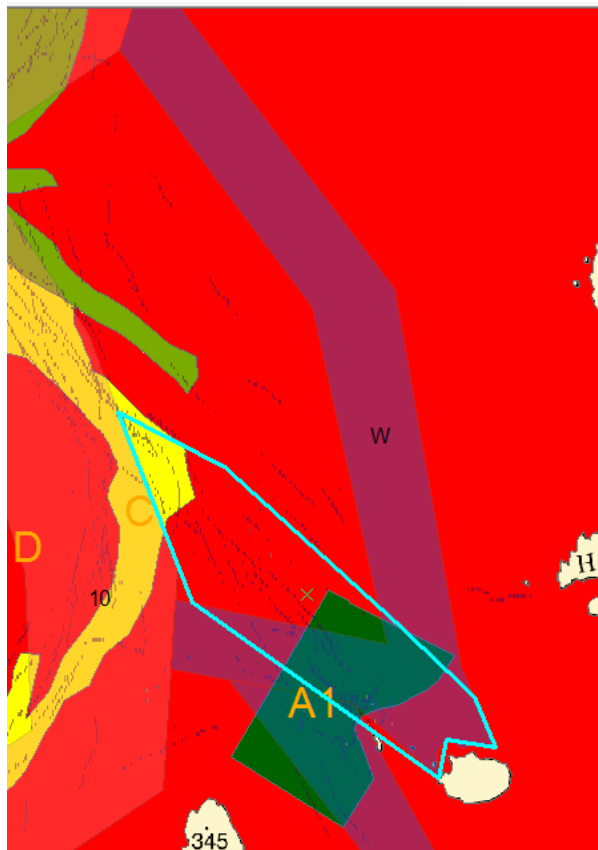
W. Dettelle Island & Approaches (INT9117 UK & 9161 CL)

- Minimal AIS
- Amend to reflect AIS or merge with 'X'
- ZOC D, A1 & C



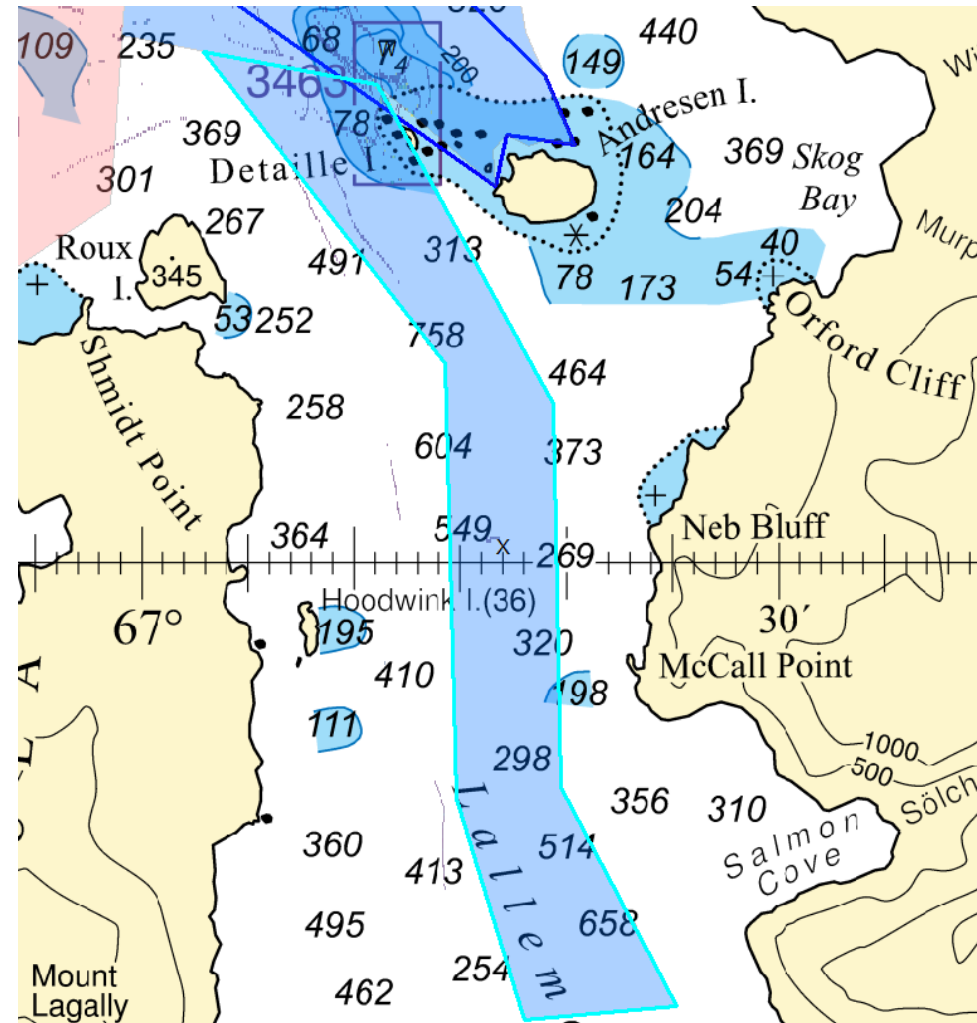
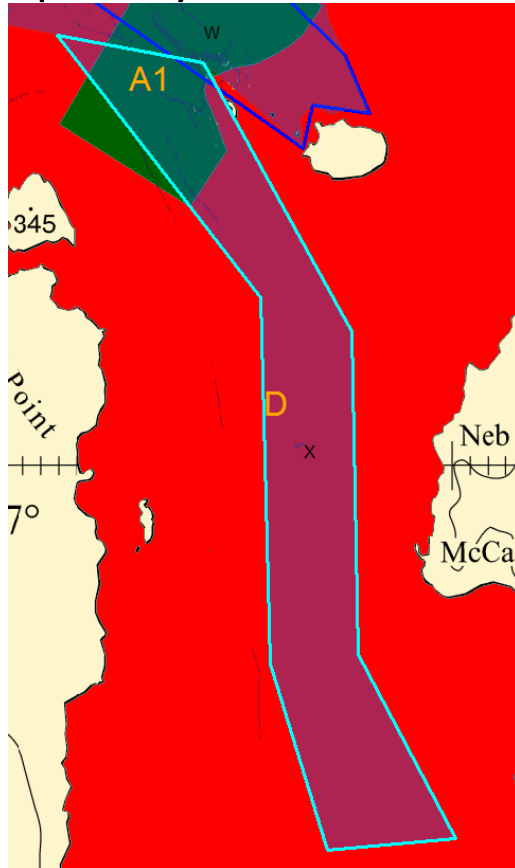
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X. Lallemand Fjord (INT9161 CL)

- Largely no AIS
- Merge with 'W'
- ZOC A1 & D
- Low priority – consider removing

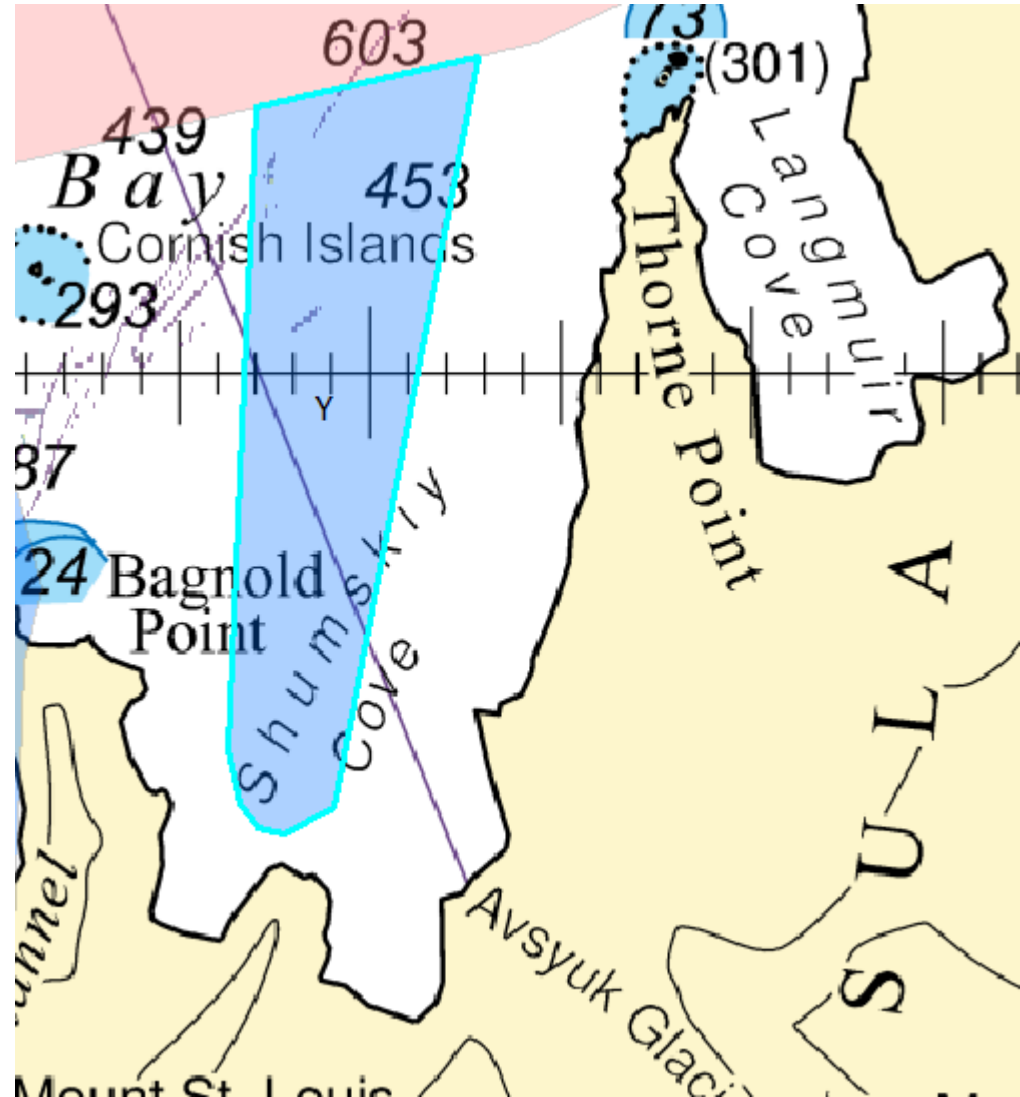
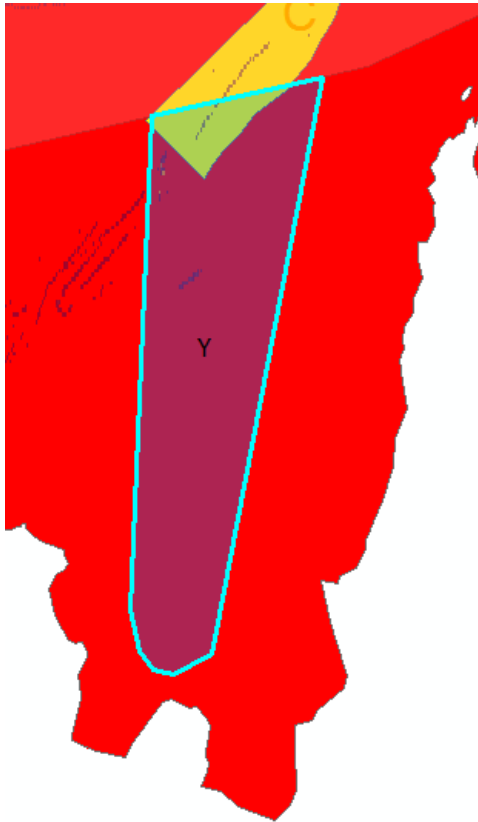


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Y. Shumskiy Cove (INT9108 CL)

- No AIS 2018-20
- Merge with 'W'
- ZOC D & C
- Low priority – consider removing



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Z. Rothera (INT9109 UK)

- Amend corridor
- ZOC B & D
- Surveys planned 21-22

