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delivering on distinction

# Morlais Project Environmental Statement

## Chapter 15: Shipping and Navigation

### Volume II

Applicant: Menter Môn Morlais Limited

Document Reference: PB5034-ES-015

Chapter 15: Shipping and Navigation

Author: MarineSpace

**MarineSpace**  
Making Sense of the Marine Environment™



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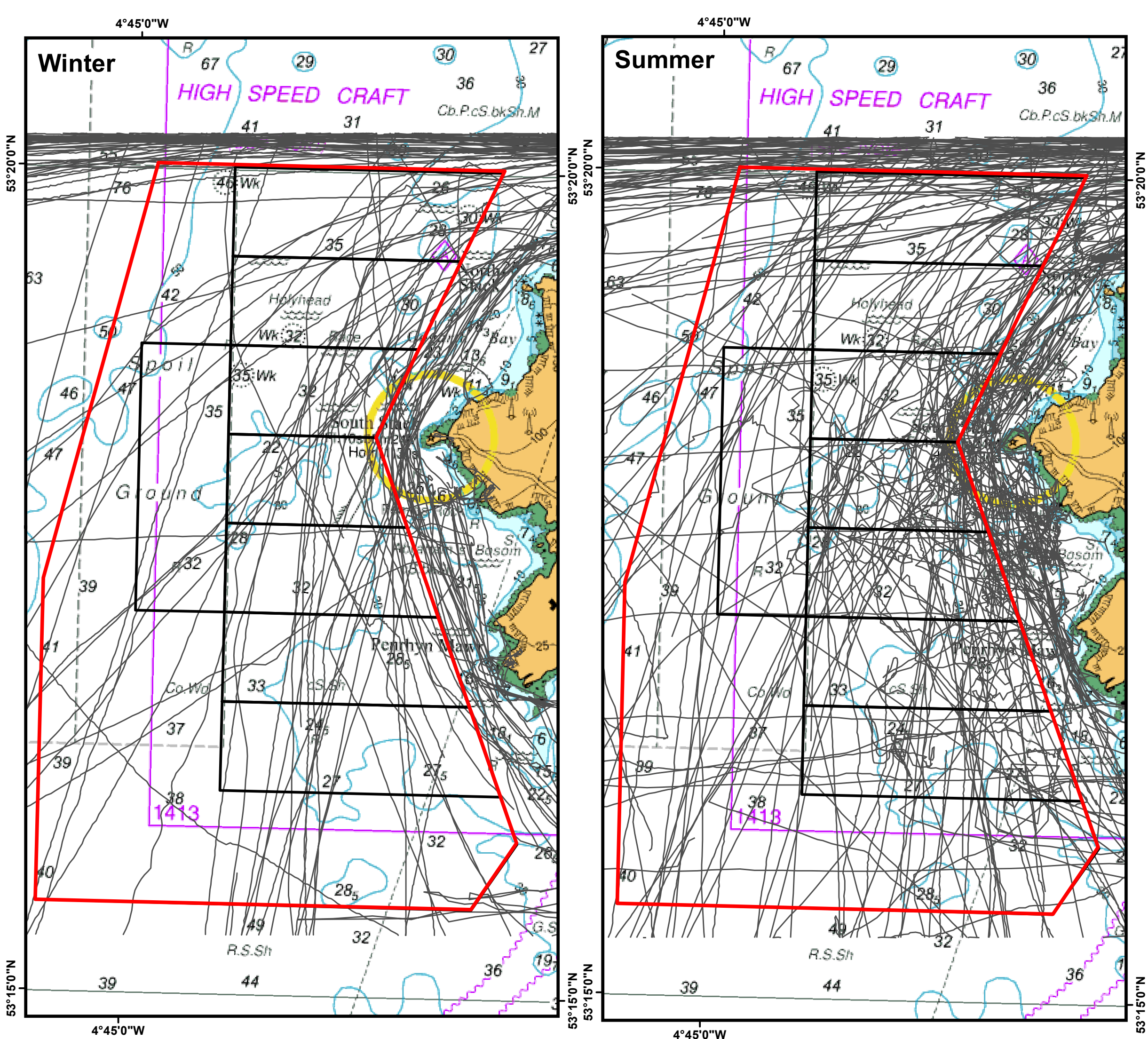
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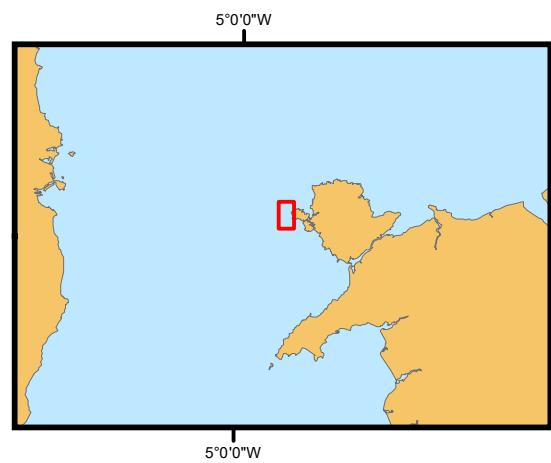
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**Figure 15-1**  
**Morlais NRA**  
**Vessel Transits - All Vessel Types**  
**Summer 2017**  
**Winter 2019.**

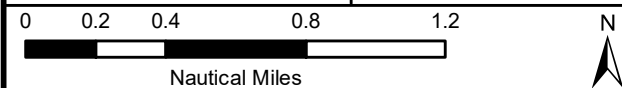


### Legend

-  Morlais Demonstation Zone
-  Subzones
-  Tracks - All Vessel Types

<b>Project No.</b> 18UK1479	<b>Date</b> 04/07/2019	<b>Issue Number</b> 001
<b>Author</b> Rebecca Worbey	<b>Checked by</b> André Cocuccio	<b>Scale at A3</b> 1:40,000

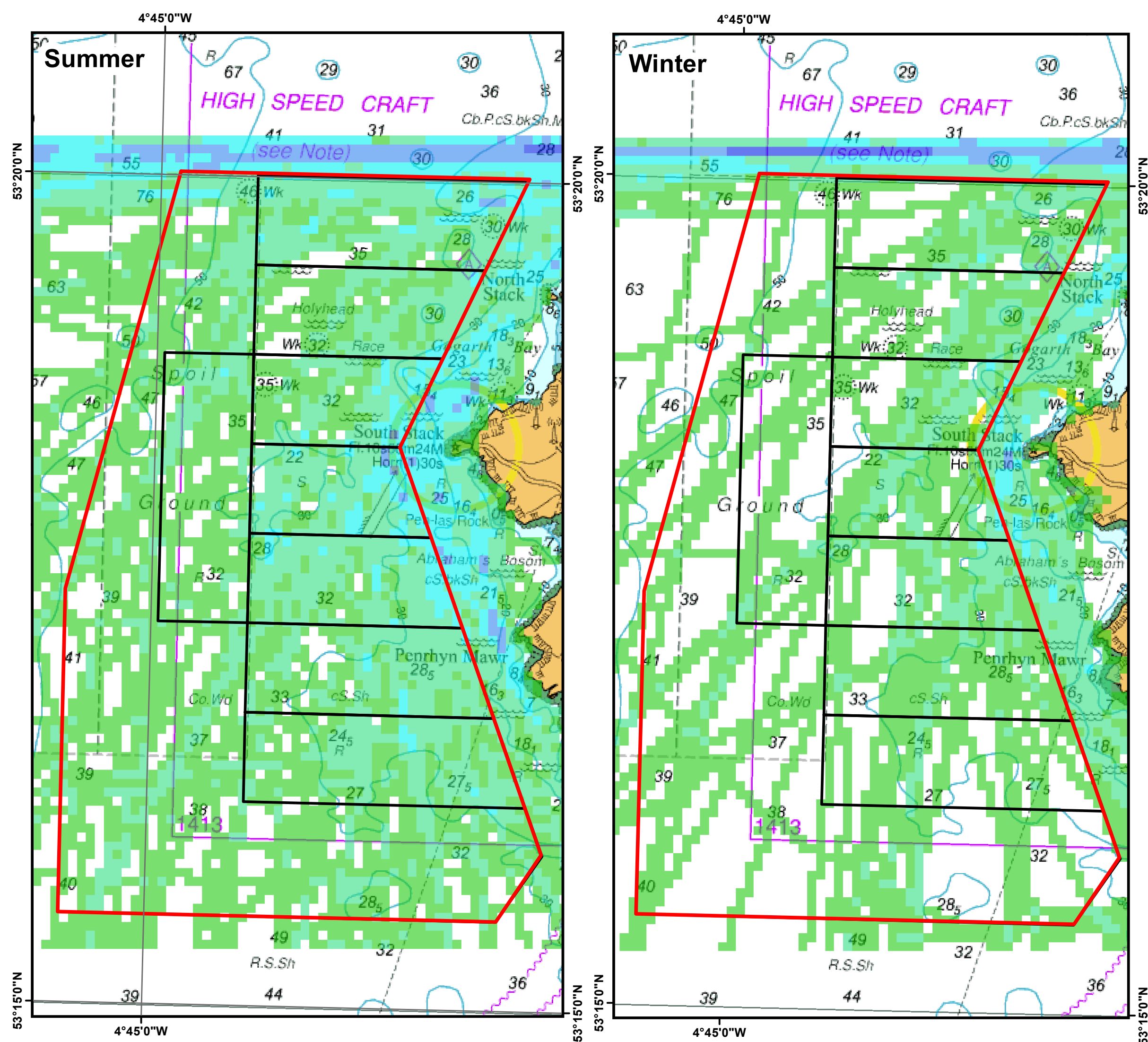
<b>Data Source</b> Summer AIS and RADAR - 26th August - 09th September 2017 Winter AIS and RADAR - 05th April - 19th April 2019 Tidal Lease - Crown Estate Chart -1970	<b>Coordinate System:</b> WGS 1984 UTM Zone 30N <b>Projection:</b> Transverse Mercator <b>Datum:</b> WGS 1984 <b>Units:</b> Meter
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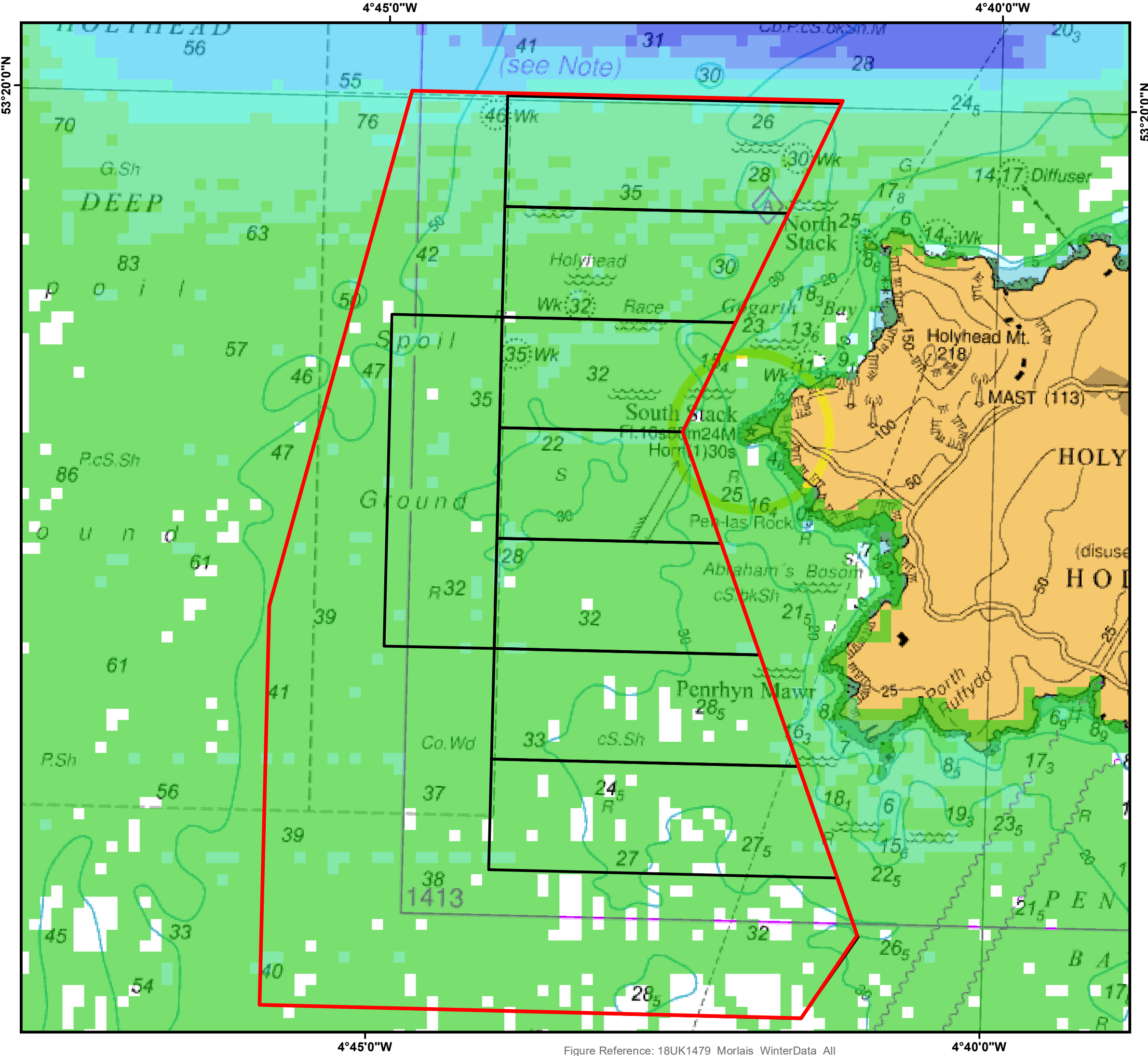


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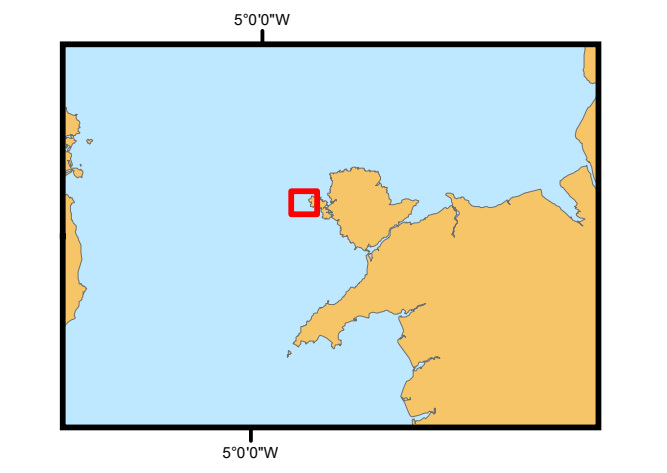











**Figure 15-3**  
**Morlais NRA**  
**Density - All Vessels**  
**1st October 2017 to 31 March**  
**2018**  
**AIS Only**





**Legend**


 Morlais Demonstration Zone


 Subzones

 3 - 4


 5 - 12

 13 - 32

 33 - 38

 39 - 48

**Transits per Month per 100m2**

 < 2



<b>Project No.</b> 18UK1479	<b>Date</b> 04/07/2019	<b>Issue Number</b> 001
<b>Author</b> Rebecca Worbey	<b>Checked by</b> André Cocuccio	<b>Scale at A3</b> 1:33,000
<b>Data Source</b> Data - Satellite AIS Tidal Lease - Crown Estate Chart - 1970		<b>Coordinate System:</b> WGS 1984 UTM Zone 30N <b>Projection:</b> Transverse Mercator <b>Datum:</b> WGS 1984 <b>Units:</b> Meter
<div><div>00.1250.250.50.75</div><div>Nautical Miles</div></div> <div><div></div><div>N</div></div>		
<div><div><div><b>Produced by:</b> Marico Marine Group United Kingdom Tel: +44 023 8081 1133</div><div><div>Marico Marine NZ New Zealand Tel: +64 04917 4959</div><div> www.marico.co.uk</div></div></div></div>		



Figure Reference: 18UK1479\_Morlais\_WinterData\_All

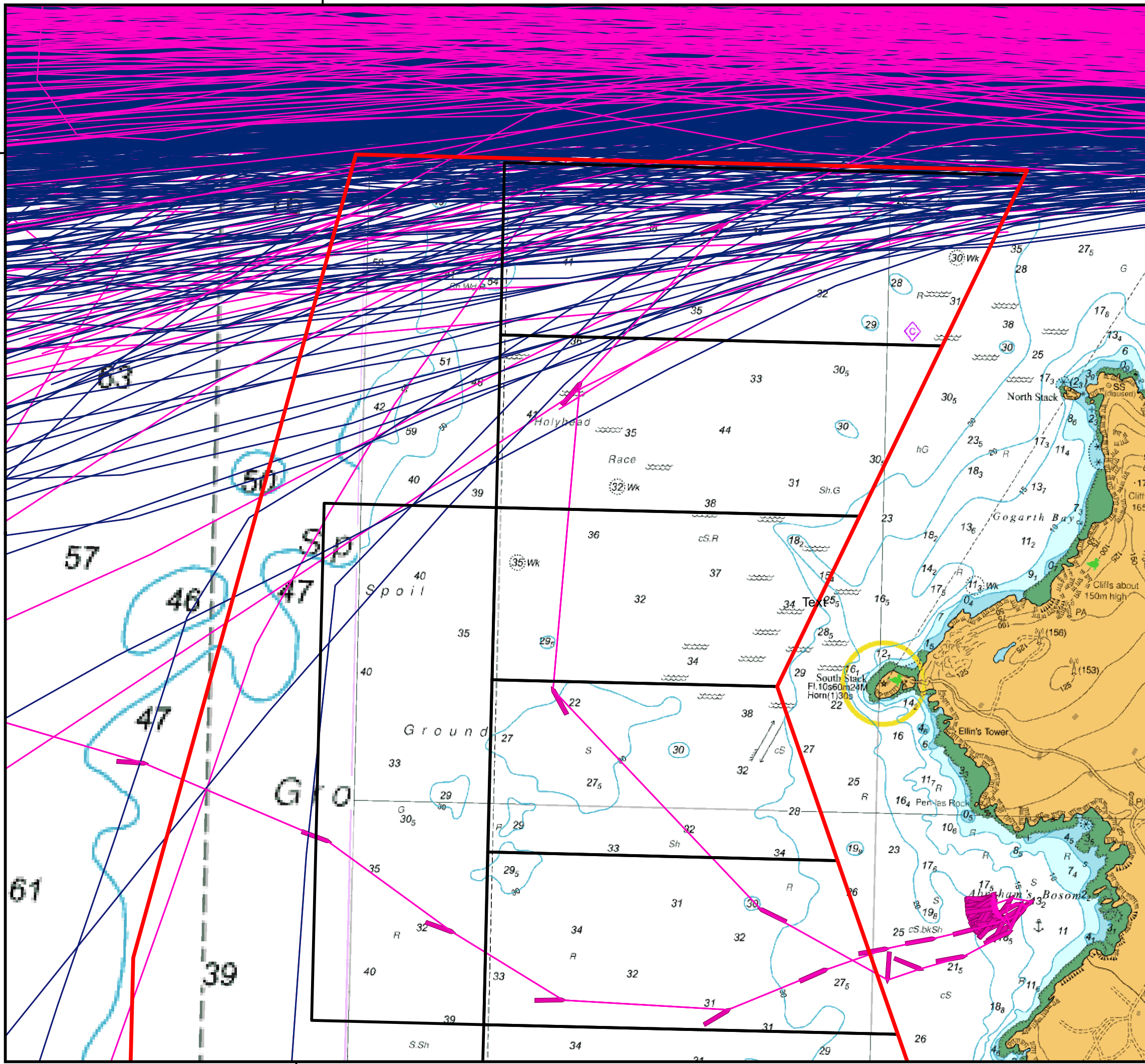






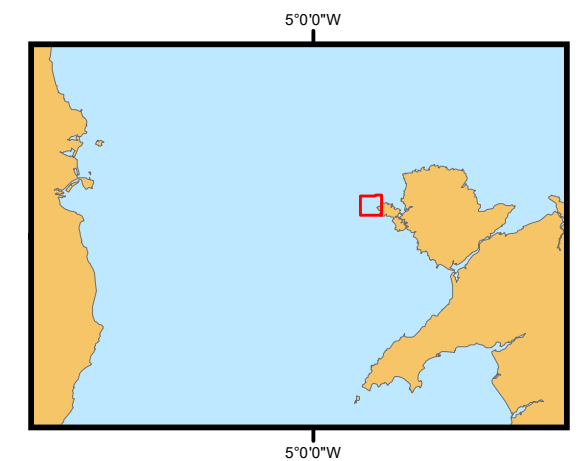
4°45'0"W

53°20'0"N








4°45'0"W

**Figure 15-6**  
**Morlais NRA**  
**Ferry Transits - 1st October**  
**2017 to 31 March 2018.**

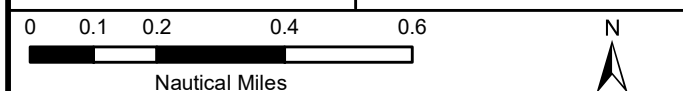


**Legend**

-  Morlais Demonstration Zone
-  Subzones
-  Epsilon
-  Tracks - Irish Ferries
-  Tracks - Stena Line

<b>Project No.</b> 18UK1479	<b>Date</b> 04/07/2019	<b>Issue Number</b> 001
<b>Author</b> Rebecca Worbey	<b>Checked by</b> André Cocuccio	<b>Scale at A3</b> 1:22,000

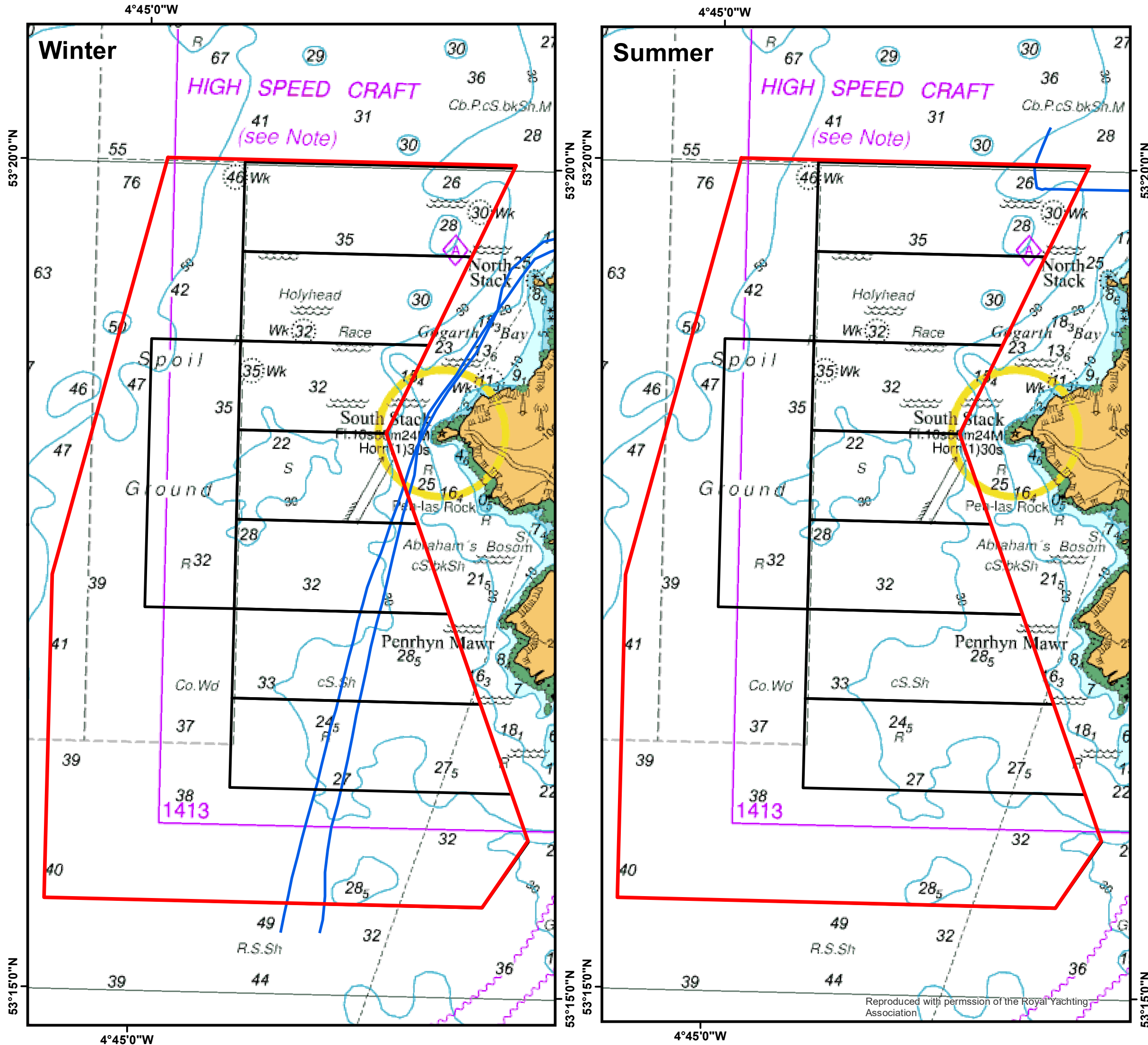
<b>Data Source</b> Data - Satellite AIS - 1st October 2017 - 31st March 2018. Tidal Lease - Crown Estate Chart - 1970	<b>Coordinate System:</b> WGS 1984 UTM Zone 30N <b>Projection:</b> Transverse Mercator <b>Datum:</b> WGS 1984 <b>Units:</b> Meter
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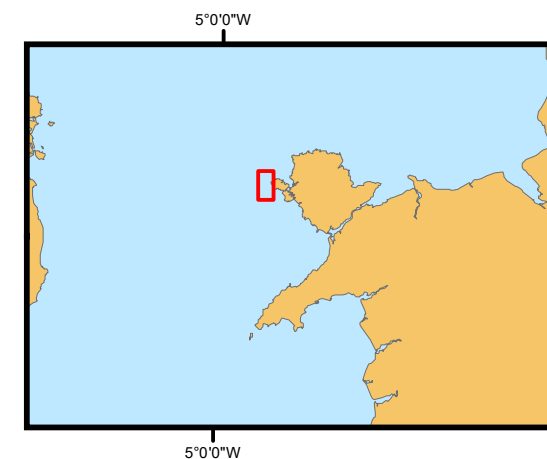
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**Figure 15-7**  
**Morlais NRA**  
**Military Vessel Transits**  
**Summer 2017**  
**Winter 2019.**

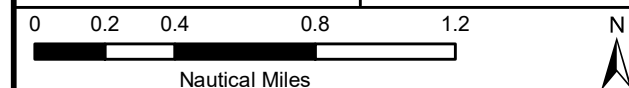


### Legend

-  Morlais Demonstration Zone
-  Subzones
-  Tracks - Military Vessels

<b>Project No.</b> 18UK1479	<b>Date</b> 04/07/2019	<b>Issue Number</b> 001
<b>Author</b> Rebecca Worbey	<b>Checked by</b> André Cocuccio	<b>Scale at A3</b> 1:40,000

<b>Data Source</b> Summer AIS and RADAR - 26th August - 9th September 2017 Winter AIS and RADAR - 05th April - 19th April 2019. Tidal Lease - Crown Estate Chart -1970	<b>Coordinate System:</b> WGS 1984 UTM Zone 30N <b>Projection:</b> Transverse Mercator <b>Datum:</b> WGS 1984 <b>Units:</b> Meter
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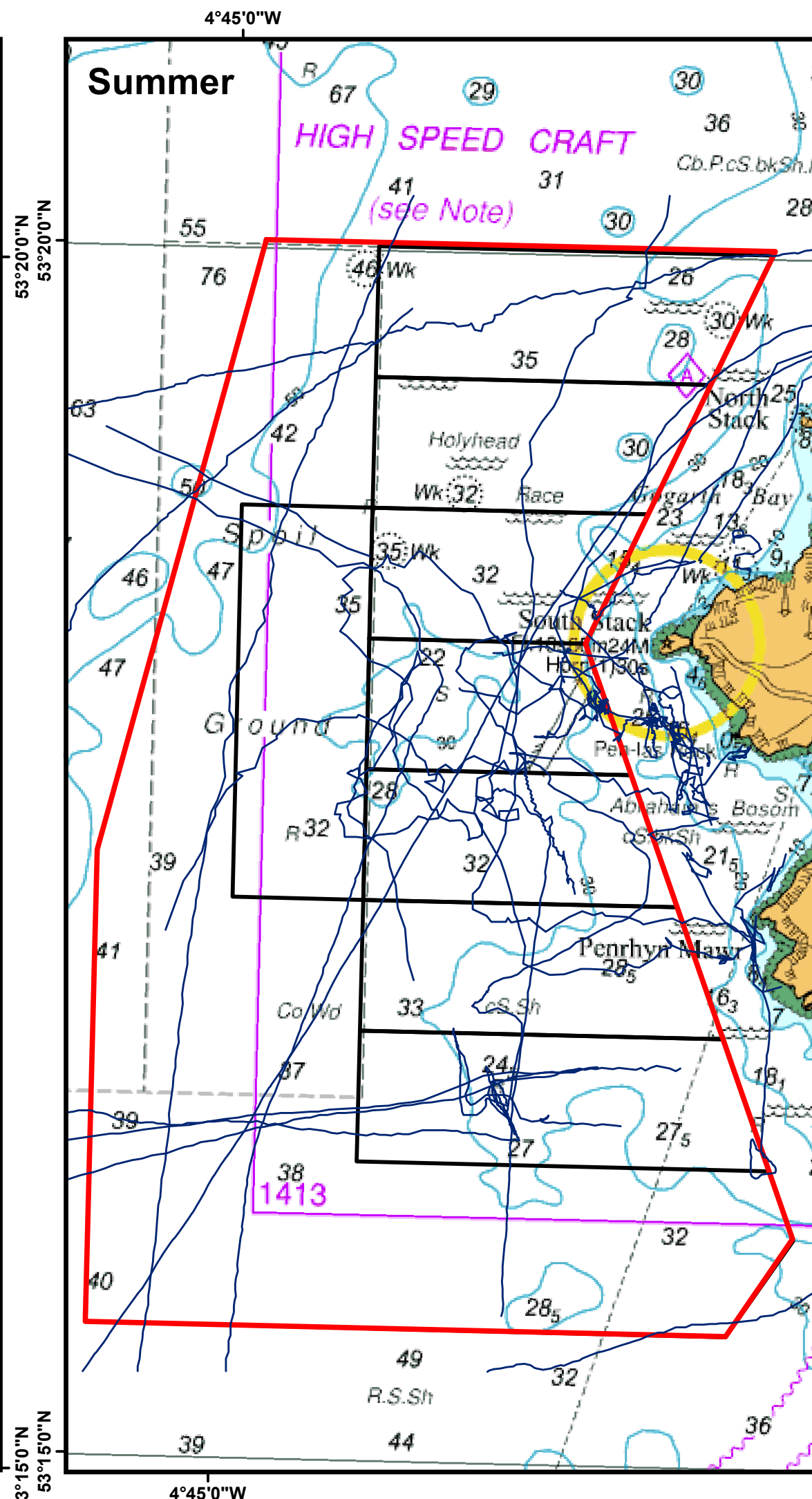
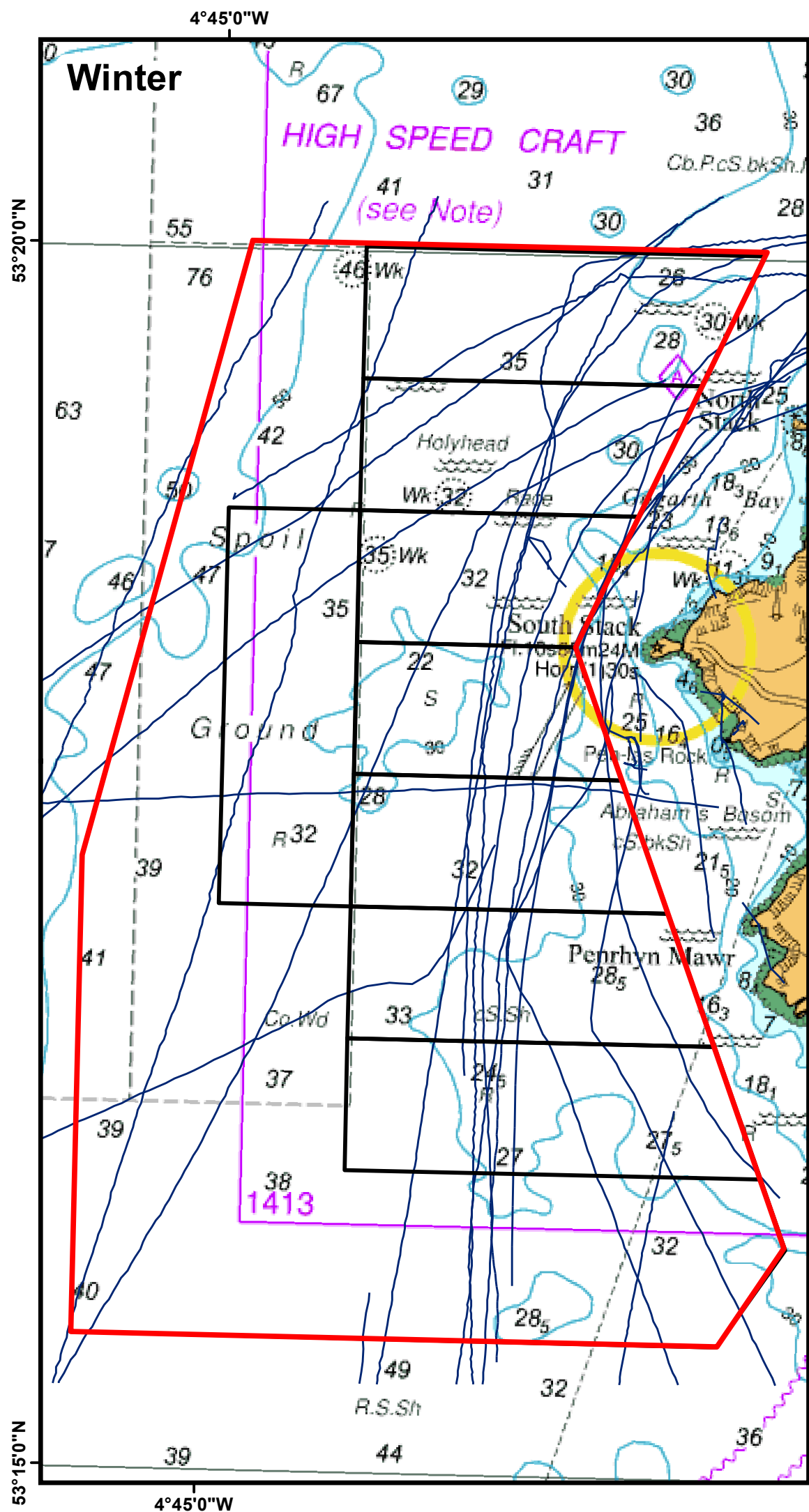


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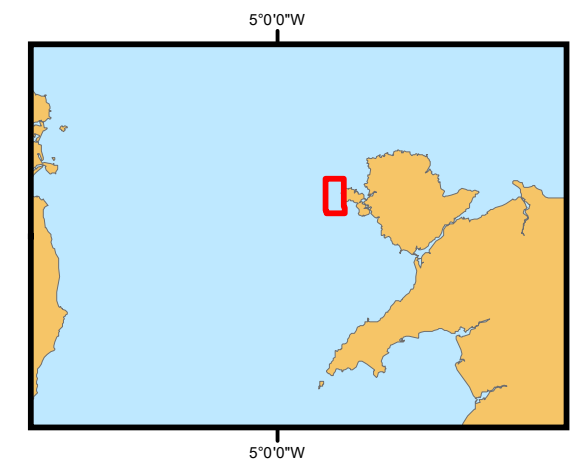






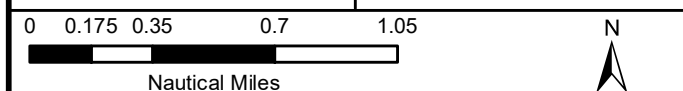


**Figure 15-9**  
**Morlais NRA**  
**Fishing Vessel Tracks**  
**Summer 2017**  
**Winter 2019.**



- Legend**
- Morlais Demonstration Zone
  - Subzones
  - Tracks - Fishing Vessels

<b>Project No.</b> 18UK1479	<b>Date</b> 04/07/2019	<b>Issue Number</b> 001
<b>Author</b> Rebecca Worbey	<b>Checked by</b> André Cocuccio	<b>Scale at A3</b> 1:40,000
<b>Data Source</b> Summer AIS and RADAR - 26th August - 09th September 2017 Winter AIS and RADAR - 05th April - 19th April 2019. Tidal Lease - Crown Estate Chart -1970		<b>Coordinate System:</b> WGS 1984 UTM Zone 30N <b>Projection:</b> Transverse Mercator <b>Datum:</b> WGS 1984 <b>Units:</b> Meter



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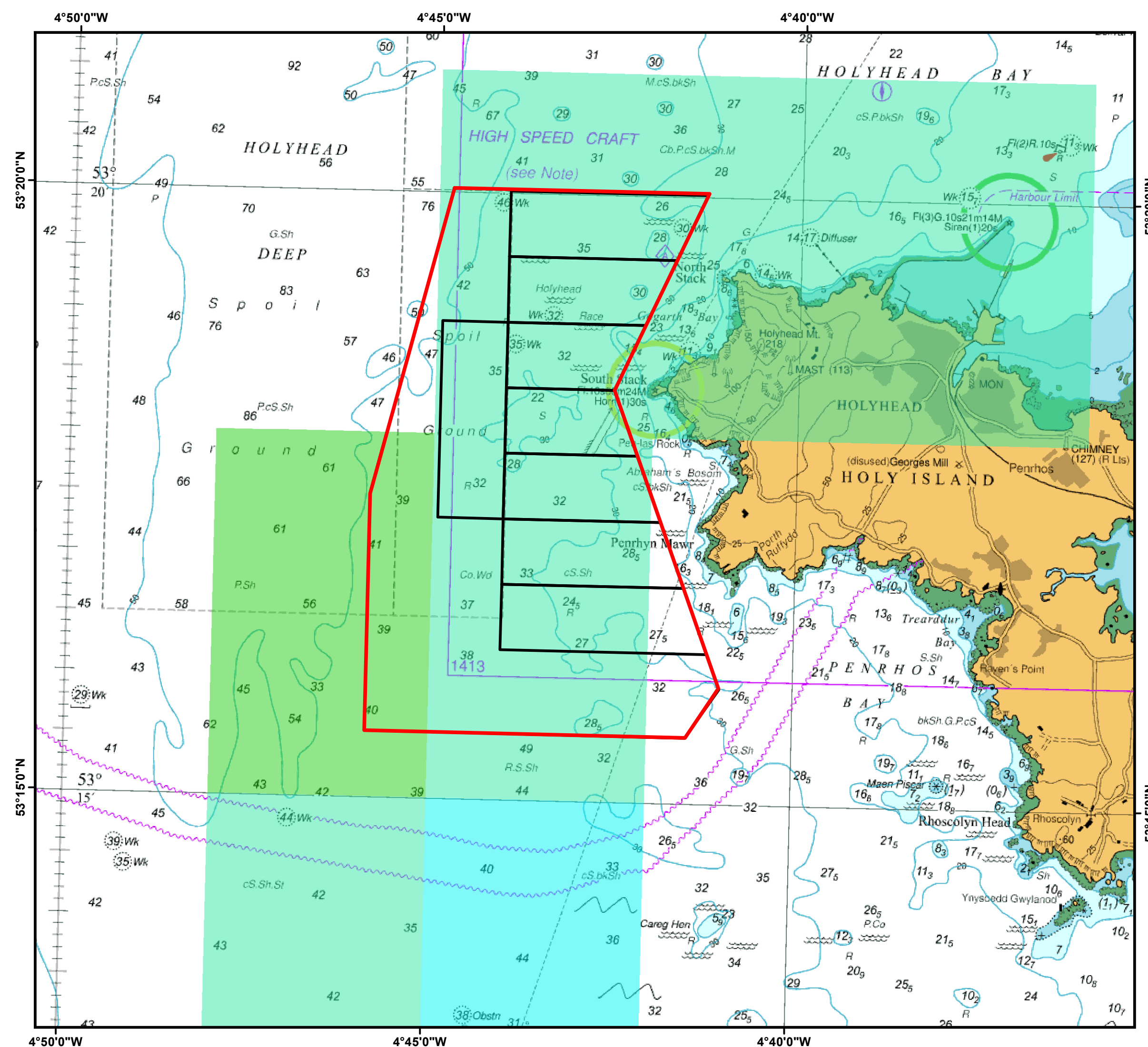
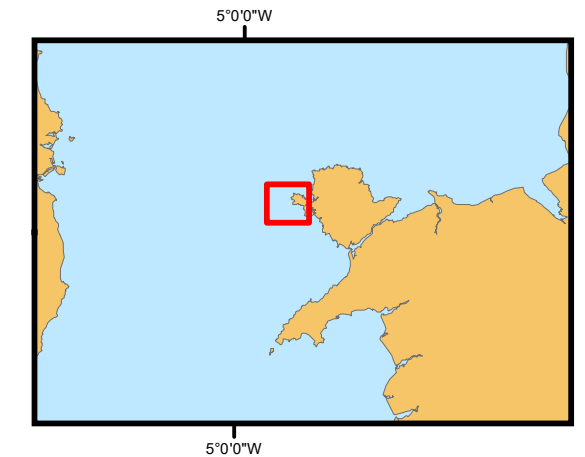
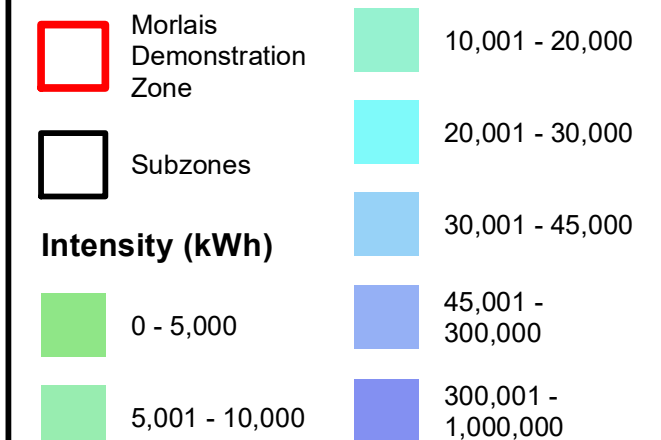


Figure 15-10  
UK Fishing Intensity (kWh) from  
VMS data - 2016.



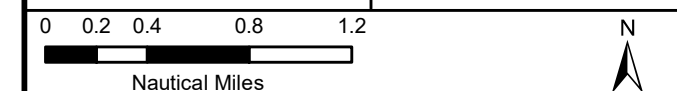
#### Legend



Project No.	Date	Issue Number
18UK1479	04/07/2019	001

Author	Checked by	Scale at A3
Rebecca Worbey	André Cocuccio	1:55,000

Data Source	Coordinate System:
Data - MMO Tidal Lease - Crown Estate Chart -1970	WGS 1984 UTM Zone 30N Projection: Transverse Mercator Datum: WGS 1984 Units: Meter



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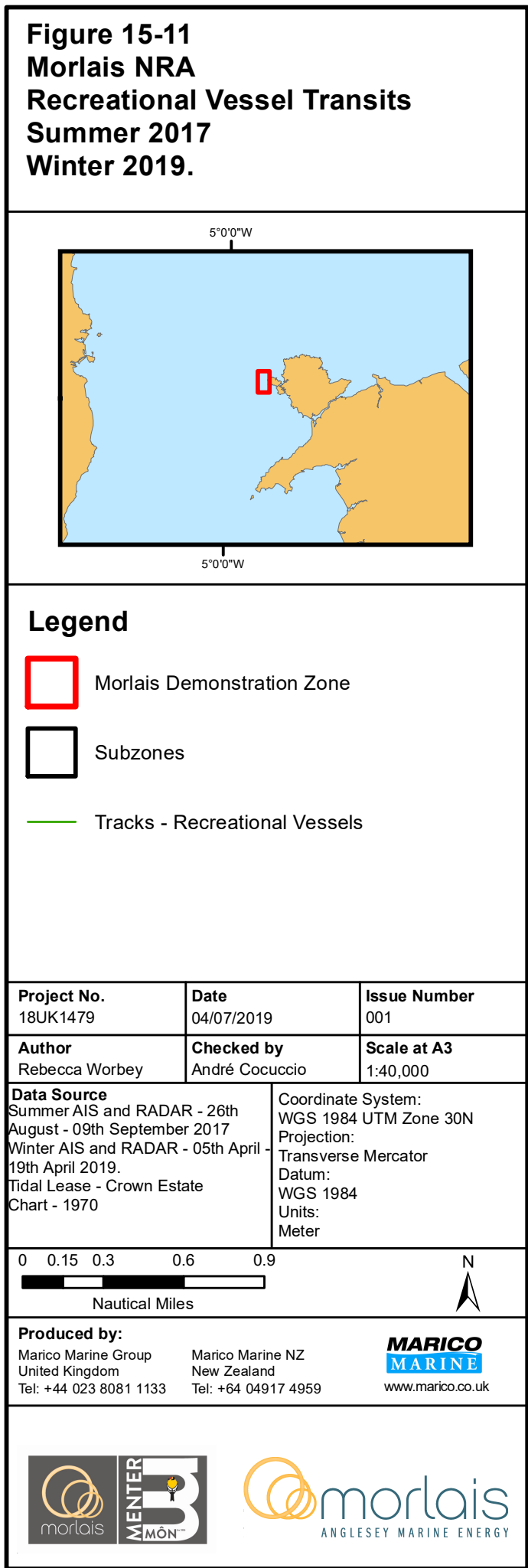
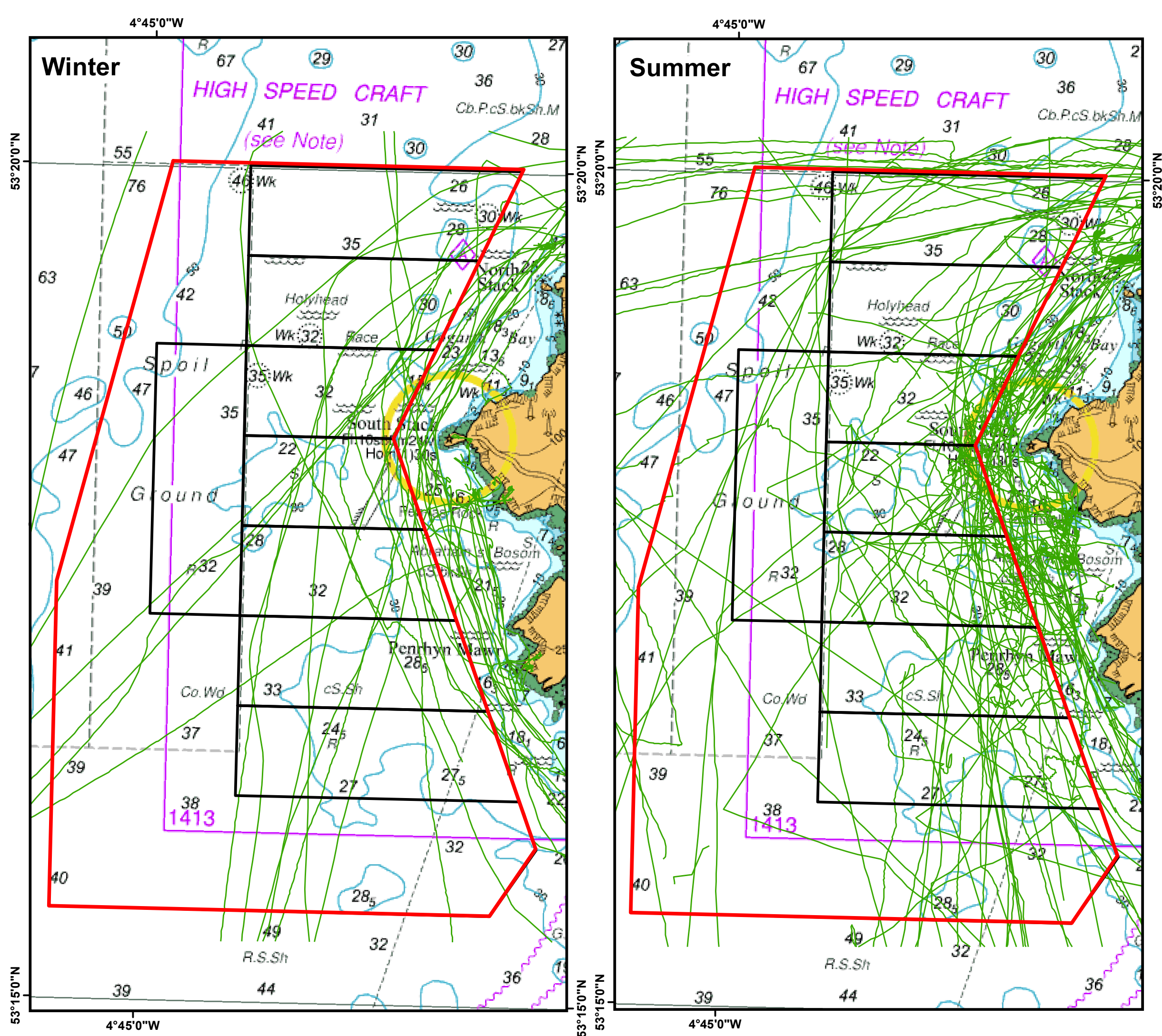
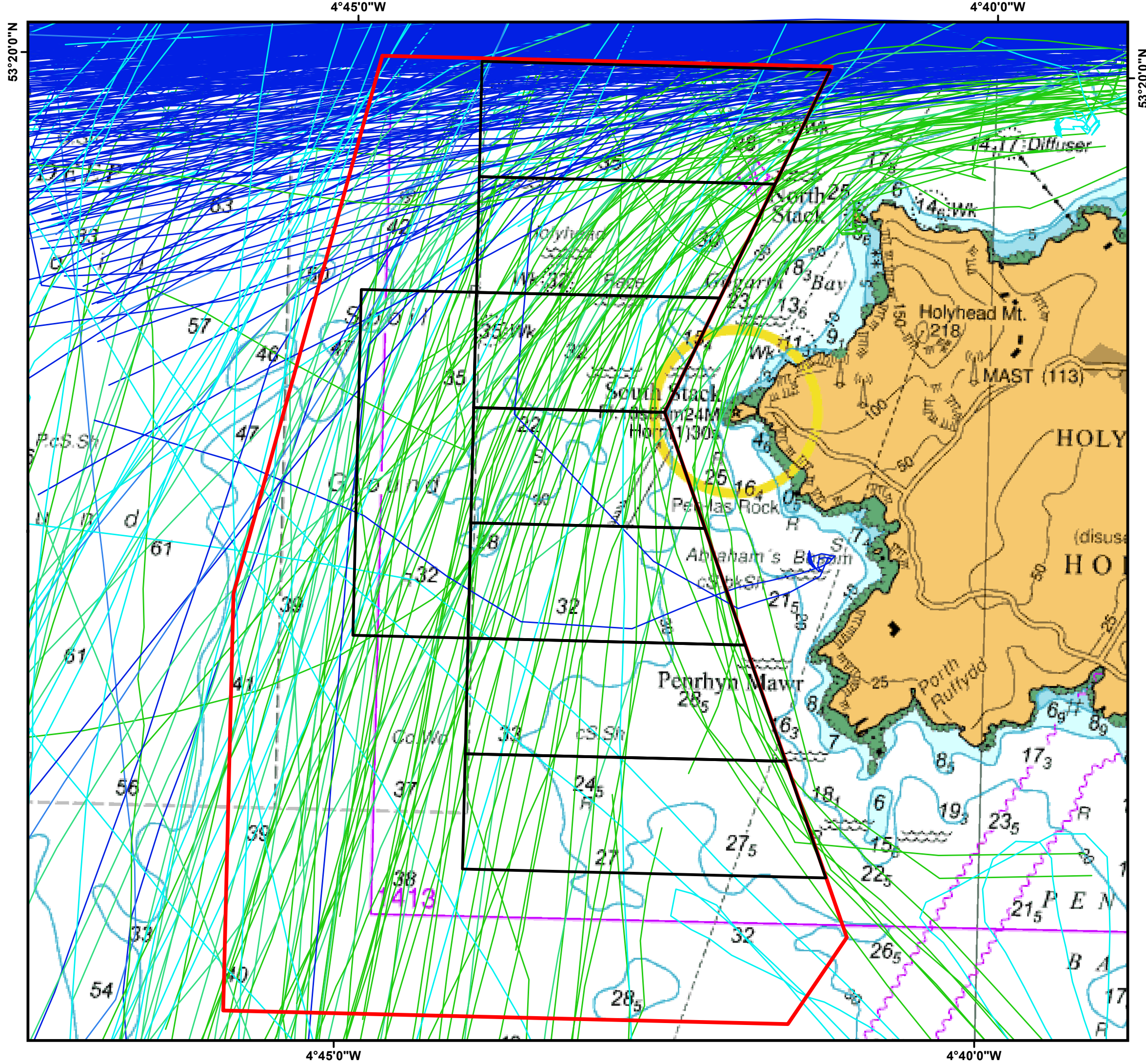
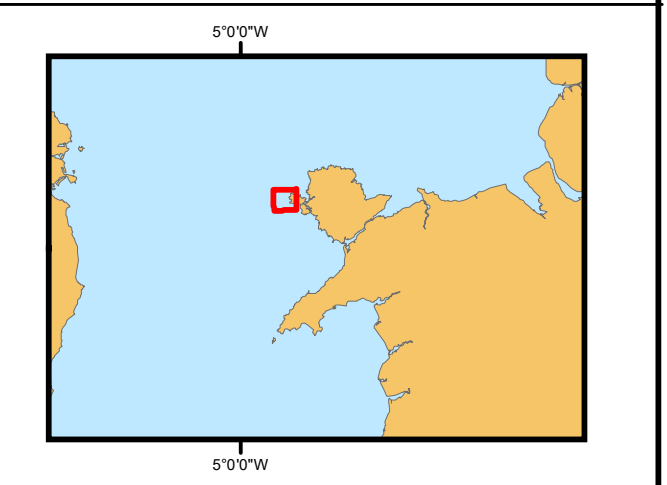


Figure Reference: 18UK1479\_Morlais\_Recreation





**Figure 15-12**  
**Morlais NRA**  
**Vessel transits by Length Over- All**  
**(LOA)**  
**AIS Only - 1st October 2017 to 31**  
**March 2018.**



**Legend**

Morlais Demonstration Zone

Subzones

22 - 55

56 - 113

114 - 166

167 - 211

**LOA (m)**

0 - 21

22 - 55

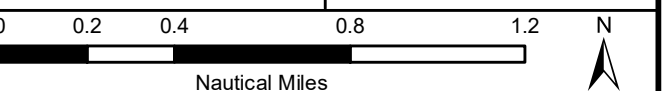
56 - 113

114 - 166

167 - 211

<b>Project No.</b> 18UK1479	<b>Date</b> 04/07/2019	<b>Issue Number</b> 001
<b>Author</b> Rebecca Worbey	<b>Checked by</b> André Cocuccio	<b>Scale at A3</b> 1:32,000

<b>Data Source</b> Data - Satellite AIS Tidal Lease - Crown Estate Charts 1970 1413-0 - Approaches to Holyhead (MarineFIND)	<b>Coordinate System:</b> WGS 1984 UTM Zone 30N <b>Projection:</b> Transverse Mercator <b>Datum:</b> WGS 1984 <b>Units:</b> Meter
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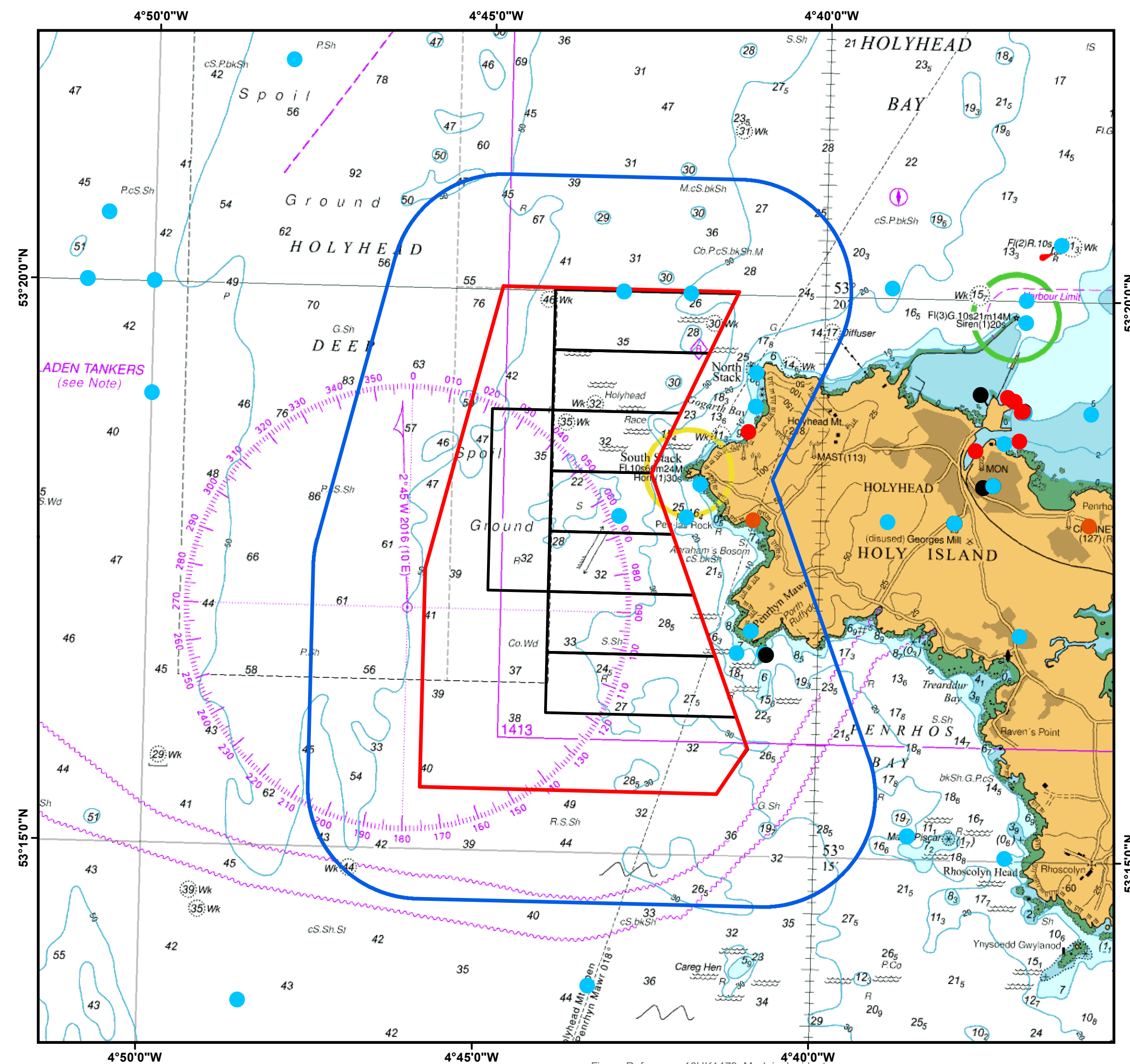
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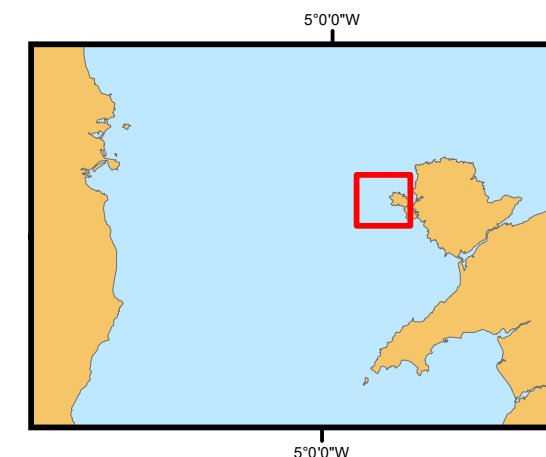
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**Figure 15-13**  
**Morlais NRA**  
**Marine Accident Investigation**  
**Branch (MAIB) Incidents 1997 to**  
**2017.**



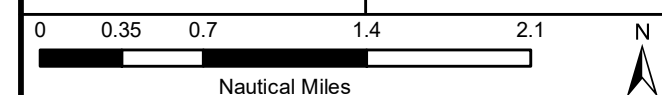
### Legend

- Morlais Demonstration Zone
- Subzones
- 1nm Buffer
- Collision
- Contact
- Grounding
- Other Incident

<b>Project No.</b> 18UK1479	<b>Date</b> 04/07/2019	<b>Issue Number</b> 001
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<b>Author</b> Rebecca Worbe	<b>Checked by</b> André Cocuccio	<b>Scale at A3</b> 1:60,000
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<b>Data Source</b> Data - MAIB Tidal Lease - Crown Estate Chart - 1970	<b>Coordinate System:</b> WGS 1984 UTM Zone 30N <b>Projection:</b> Transverse Mercator <b>Datum:</b> WGS 1984 <b>Units:</b> Meter
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