



Voyage Planning in Polar Waters

VOYAGE PLANNING

Introduction

My experience at sea, with a limit on sea stories. A students approach to exploration.

Margins of the Charts

Adapting to limited chart coverage. Risk assessments

Weather Routing

Making it up as we go along.

Contingency Planning

Search and Rescue and Sea Monsters

Crew Well Being

Managing expectations and life onboard.



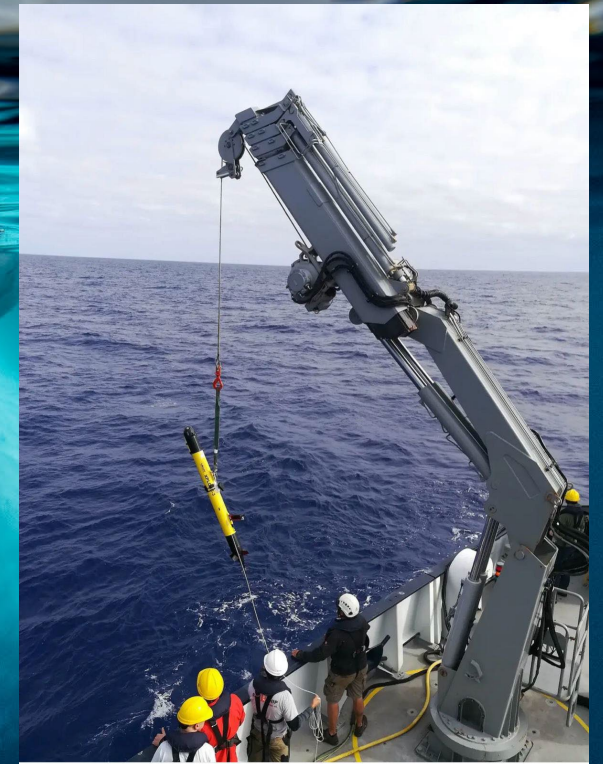
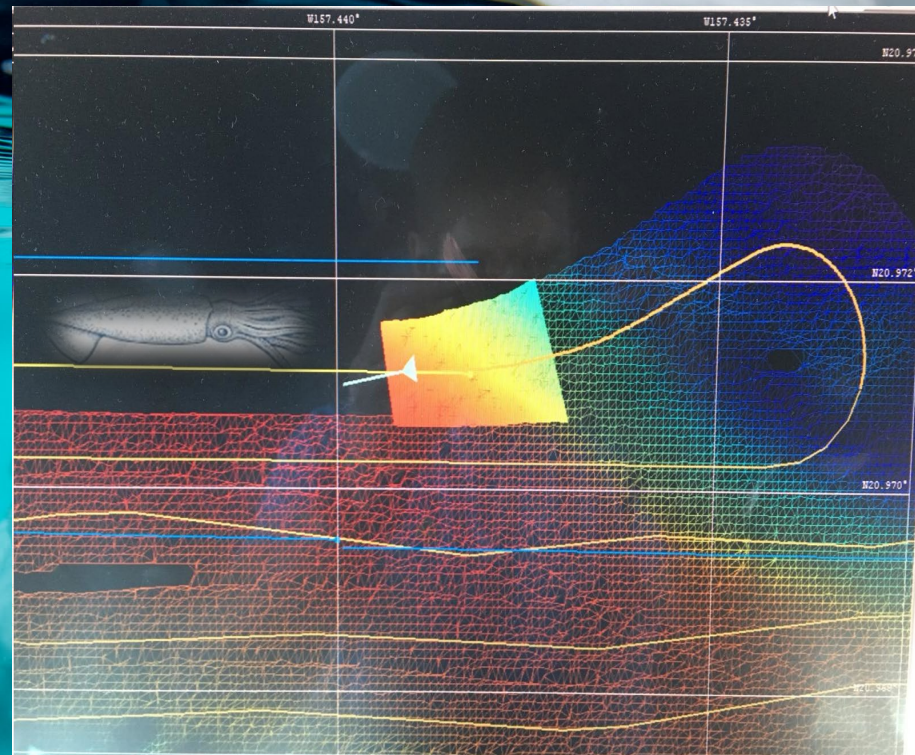
Searching and Beardless



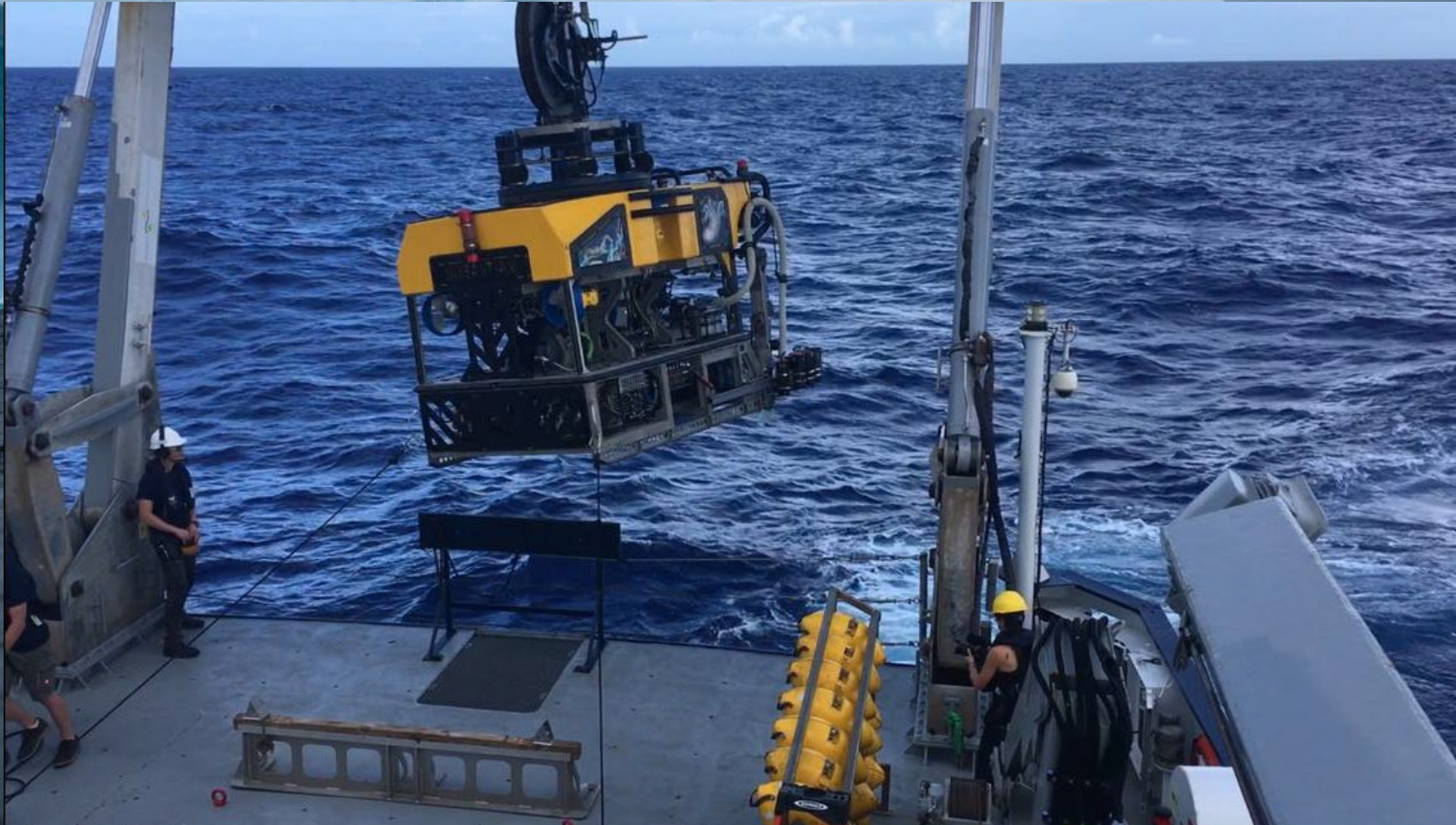


FALKOR

Filling in the Margins of the Charts



Sub Sea Operations

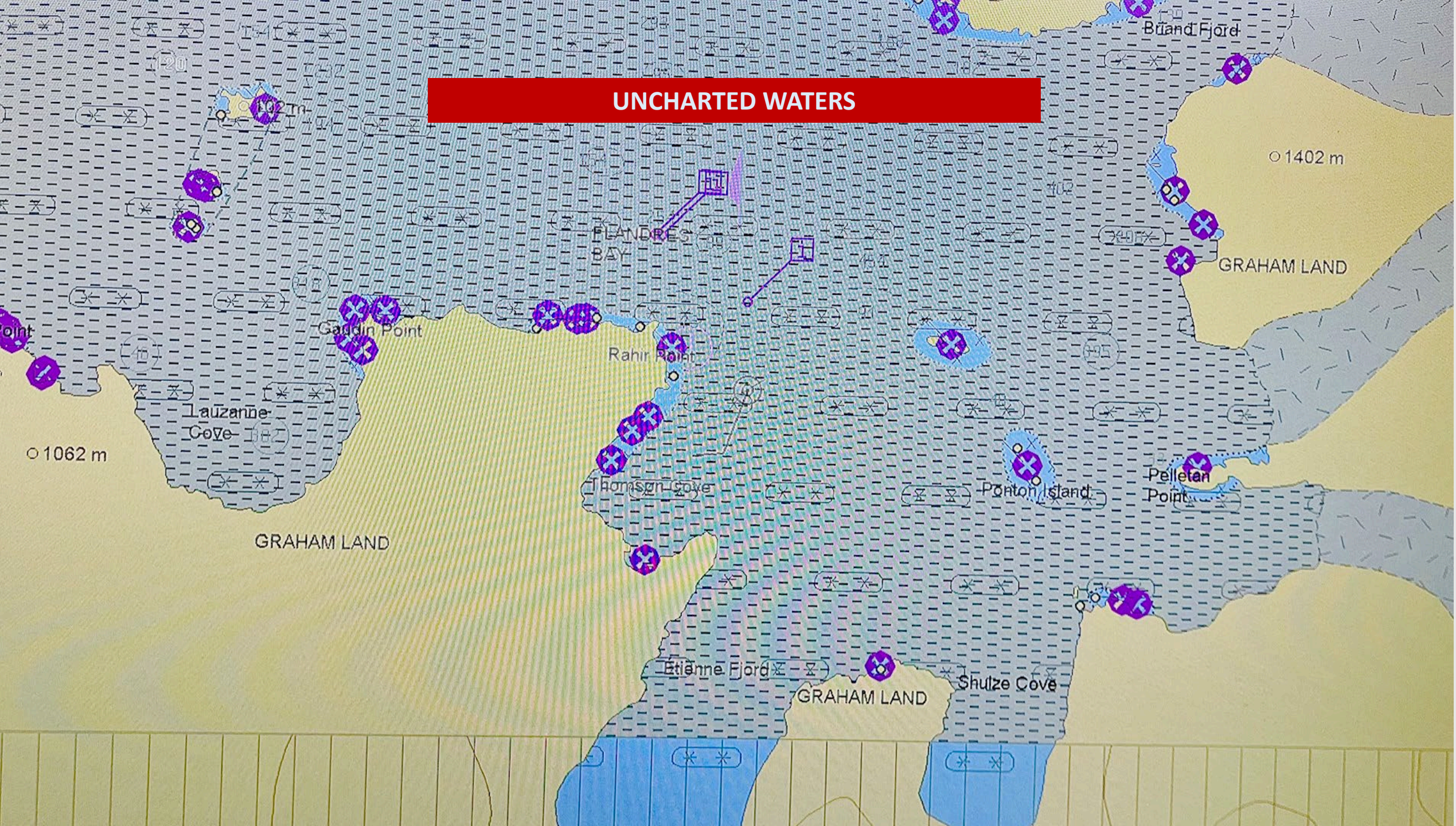


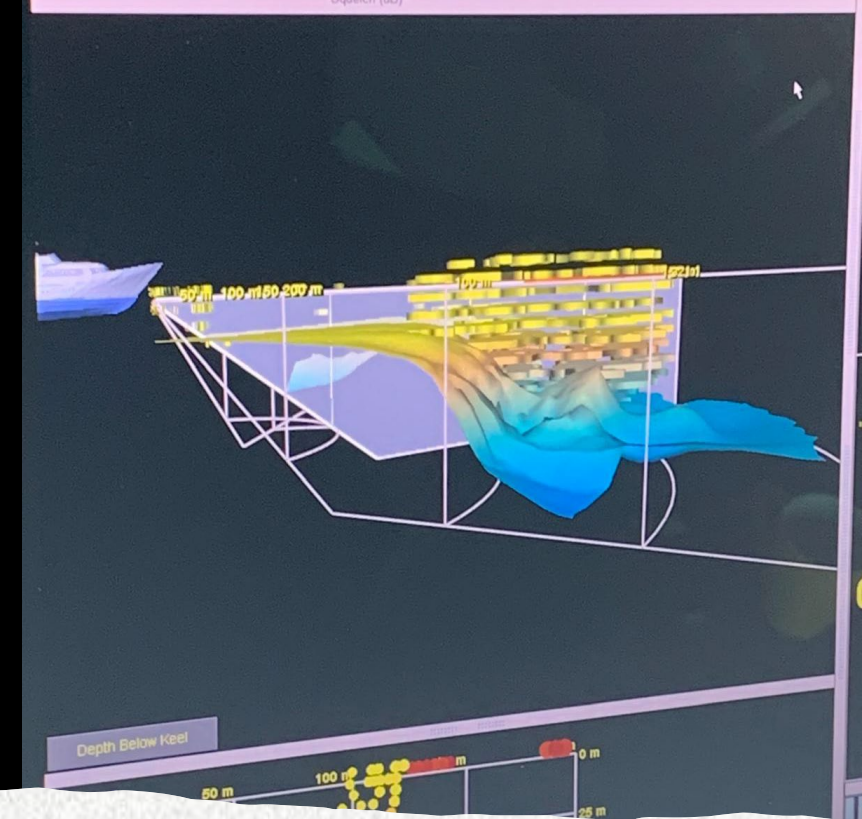
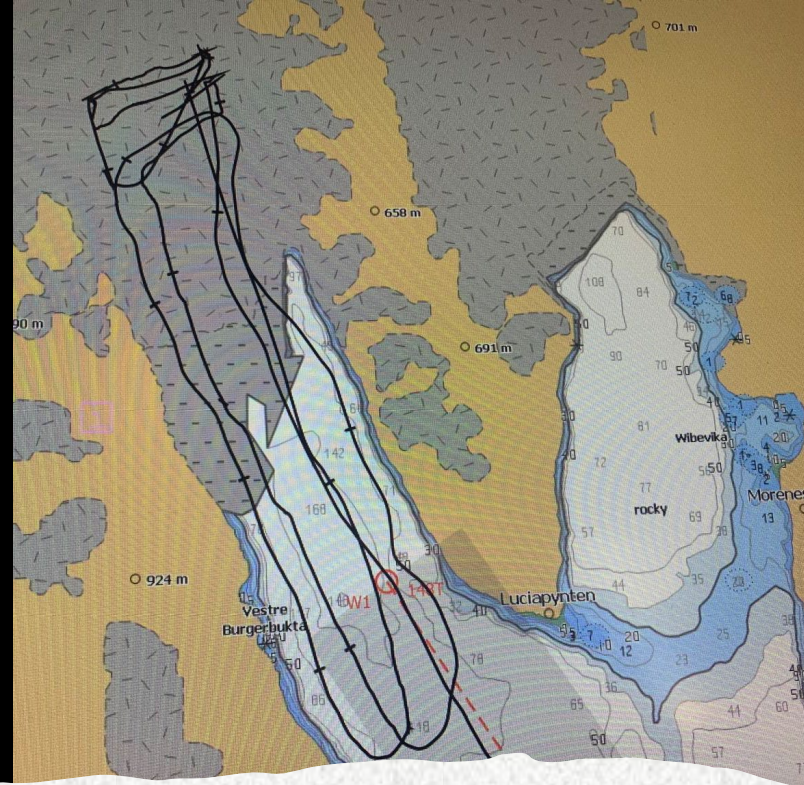


Where the Ice Meets the Sea



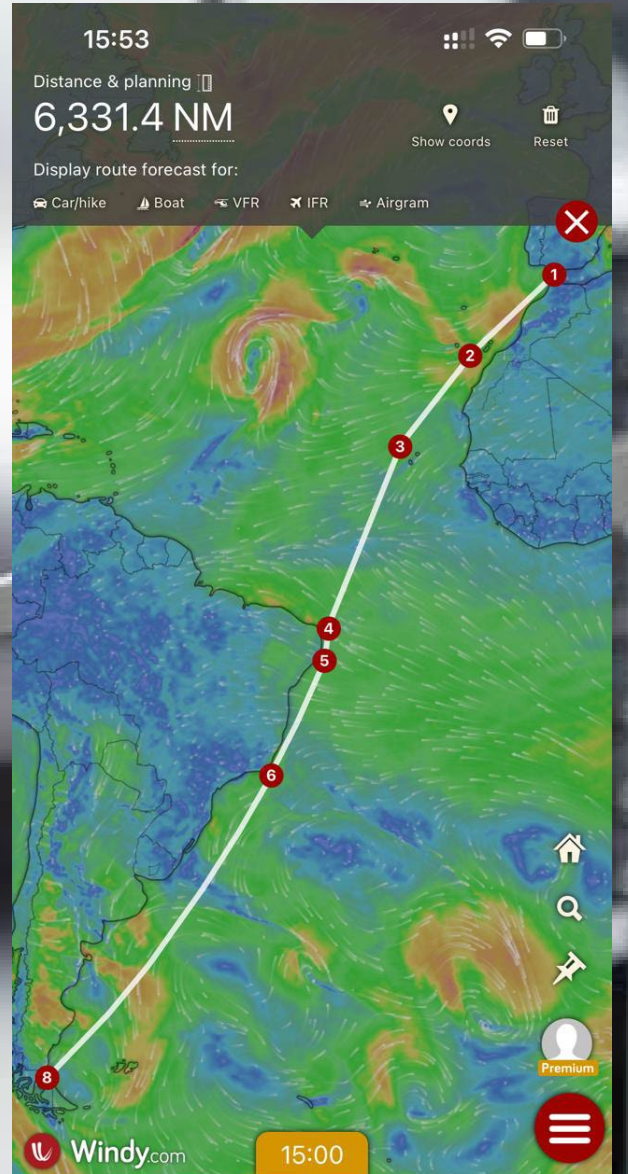
UNCHARTED WATERS

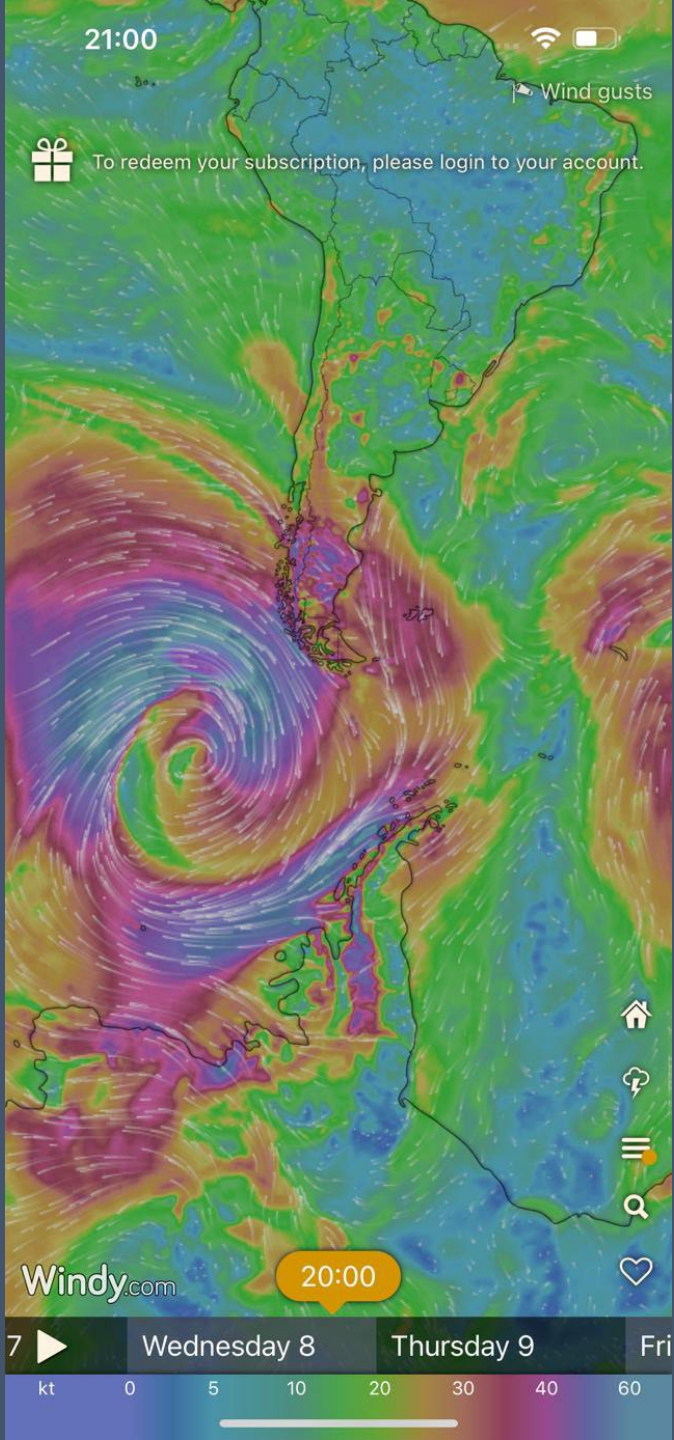




Looking Ahead

- Multibeam for survey work.
- Advantages to forward looking sonar



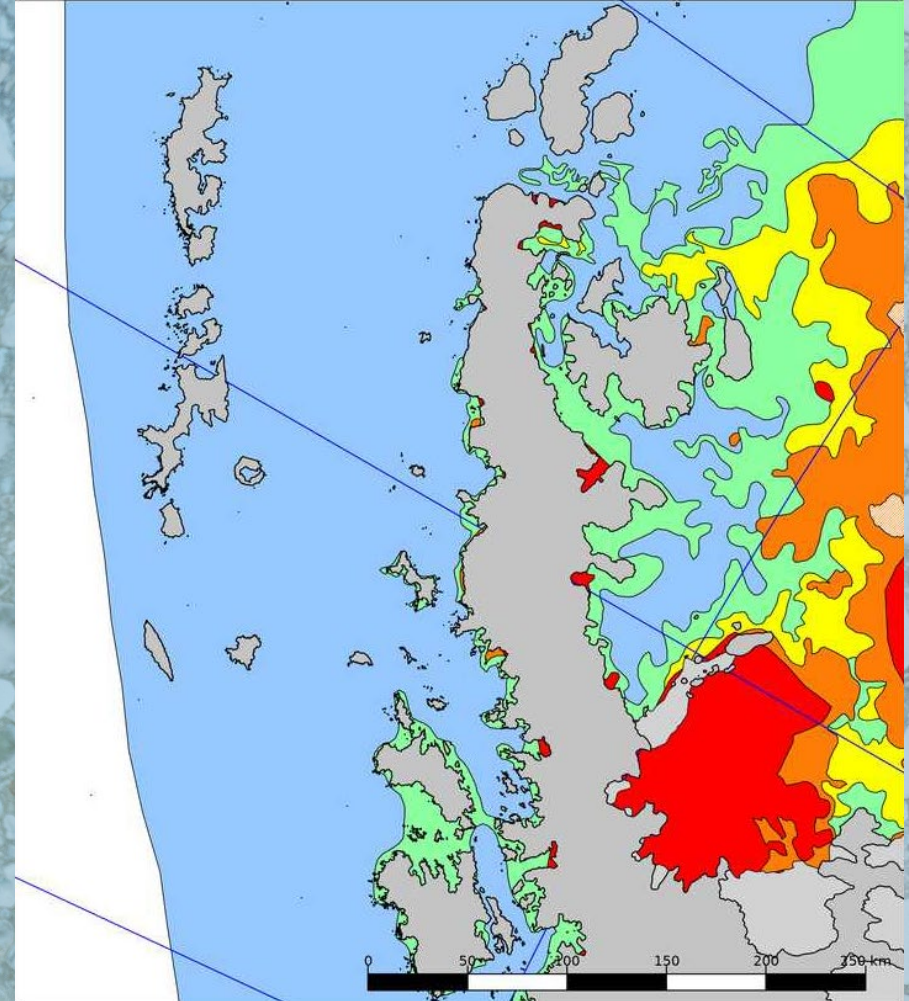


Predicting the Weather























Microsoft Hyperlapse Pro





Ice Categories

 10/10m	 Fast Ice	 7-9/10m	 Close Drift Ice	 1-4/10m	 Very Open Drift Ice
 5-6/10m	 Very Close Drift Ice	 4-7/10m	 Open Drift Ice	 9-12/10m	 Open Water
 Ice Shelf	 NIC ID	 Iceberg	 NIC ID	 NIC Iceberg	

Projection: Polar Stereographic, True Scale at 90°S, WGS84 Scale: 2,438,055
 Map Corners:
 UL = 60°49'13.329"S, 57°15'13.185"W UR = 63°56'18.036"S, 57°32'37.918"W
 LR = 66°55'40.829"S, 64°9'48.485"W LL = 63°24'32.545"S, 67°53'1.740"W
 Coastline Data: GSHHS version 2.2.0 (<http://www.coast.hawaii.edu/wessel/gshhs/>)
 Antarctic Digital Database 6.0 (<http://www.aad.acron.org/>)

 Copernicus

 Sentinel-1 Radarsat-2

 Sea Surface Temperature

Contingencies







Thank you