



RRS Sir David Attenborough and the Polar Code

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MNI



LR Class

- ✕100A1 Polar Research Vessel
- Helideck
- LI
- PC4 Hull and Rudder
- PC5 propulsion
- LFPL
- ECO
- ✕LMC
- UMS
- PSMR*
- NAV1
- CAC1
- DP(AA)
- IBS
- SCM
- Winterisation D(-35), H(-35)
- Helicopter Landing Area



'Terror' – Cargo Tender





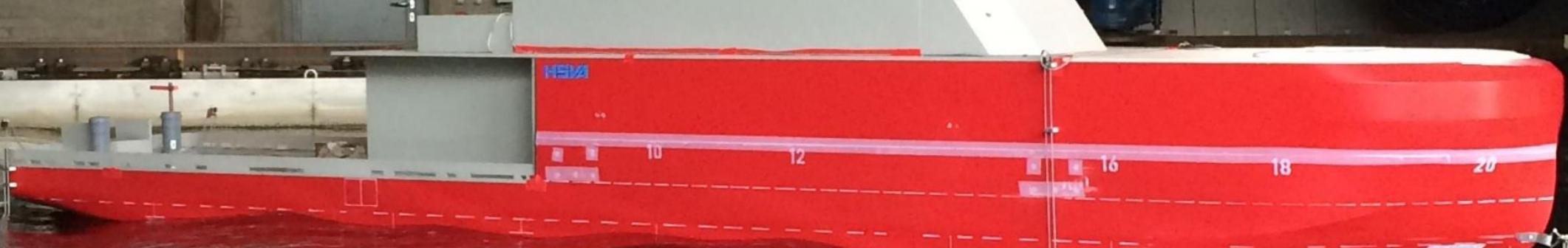
‘Erebus’ -
Workboat

**'SDA 1 + SDA 2' –
Humber inflatables**



Design Challenges





HSM

10 12 16 18 20



Polar Service Temperature -35°C



EXPIRY ● GEBRAUCH

MONTH JAN FEB MAR APR MAY JUN

1 2 3 4 5 6

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MONTH JAN FEB MAR APR MAY JUN

1 2 3 4 5 6

Expected Time to Rescue

90 Personnel

- 20 days ice
- 10 days sea









Ice Trials Schedule

- 17 – 22/1: Ice trials around Adelaide Is.
- 23 – 24/1: Transit Case Corner
- 25 – 28/1: Ice trials Bellingshausen Sea
- 28/1 – 11/2: Case Corner
- 12 – 14/2: Transit to Rothera



Finding the right ice conditions

Performance tests

- Fast ice
- 100cm thick
- 20cm snow layer
- Level / minimal ridging
- No inclusions of ice bergs
- ~ 5 x 2km minimum extend

Operational tests

- Ice floe
- Min. 1km diameter
- Strong ice, not rotten





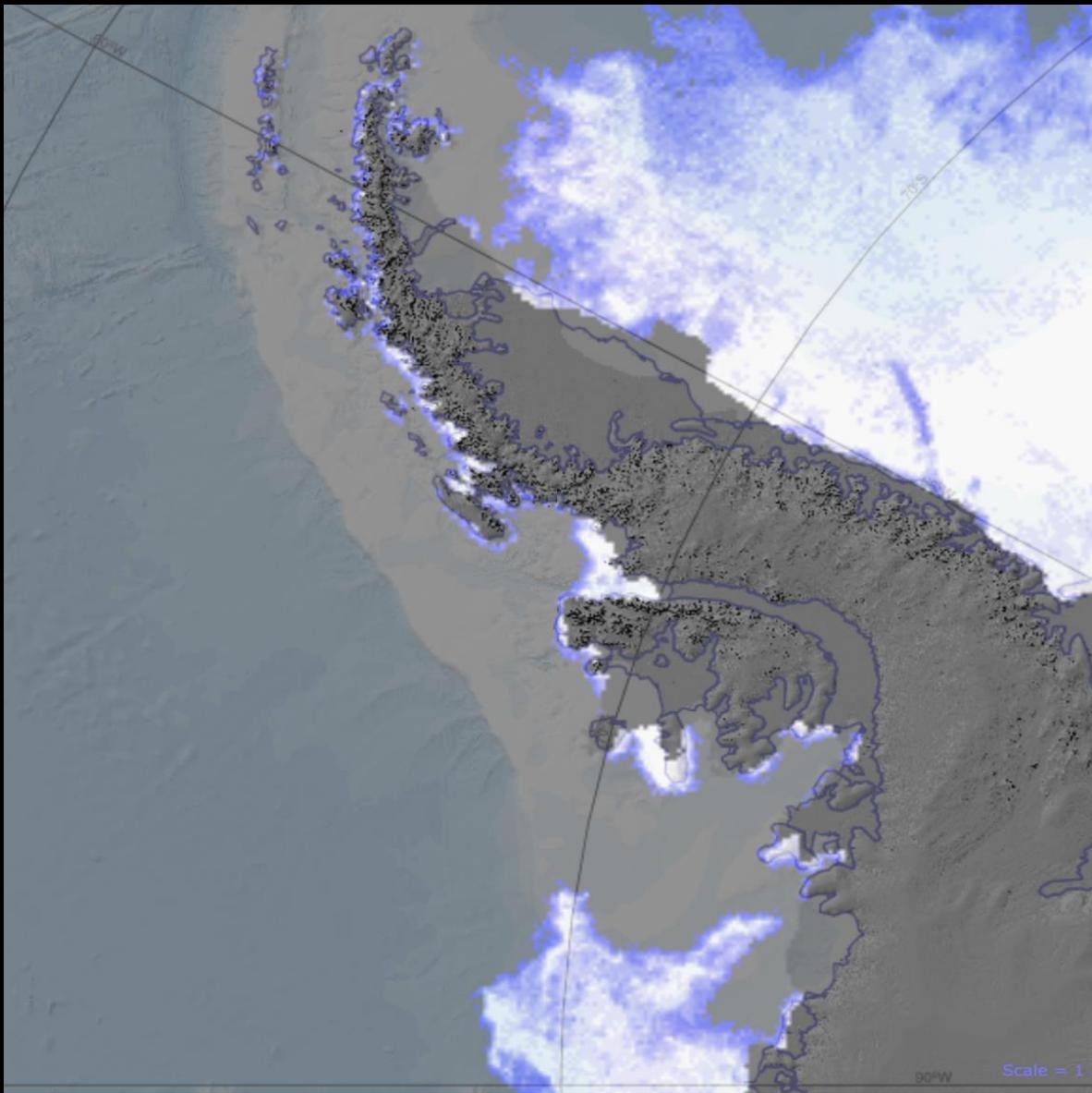
On-ice work

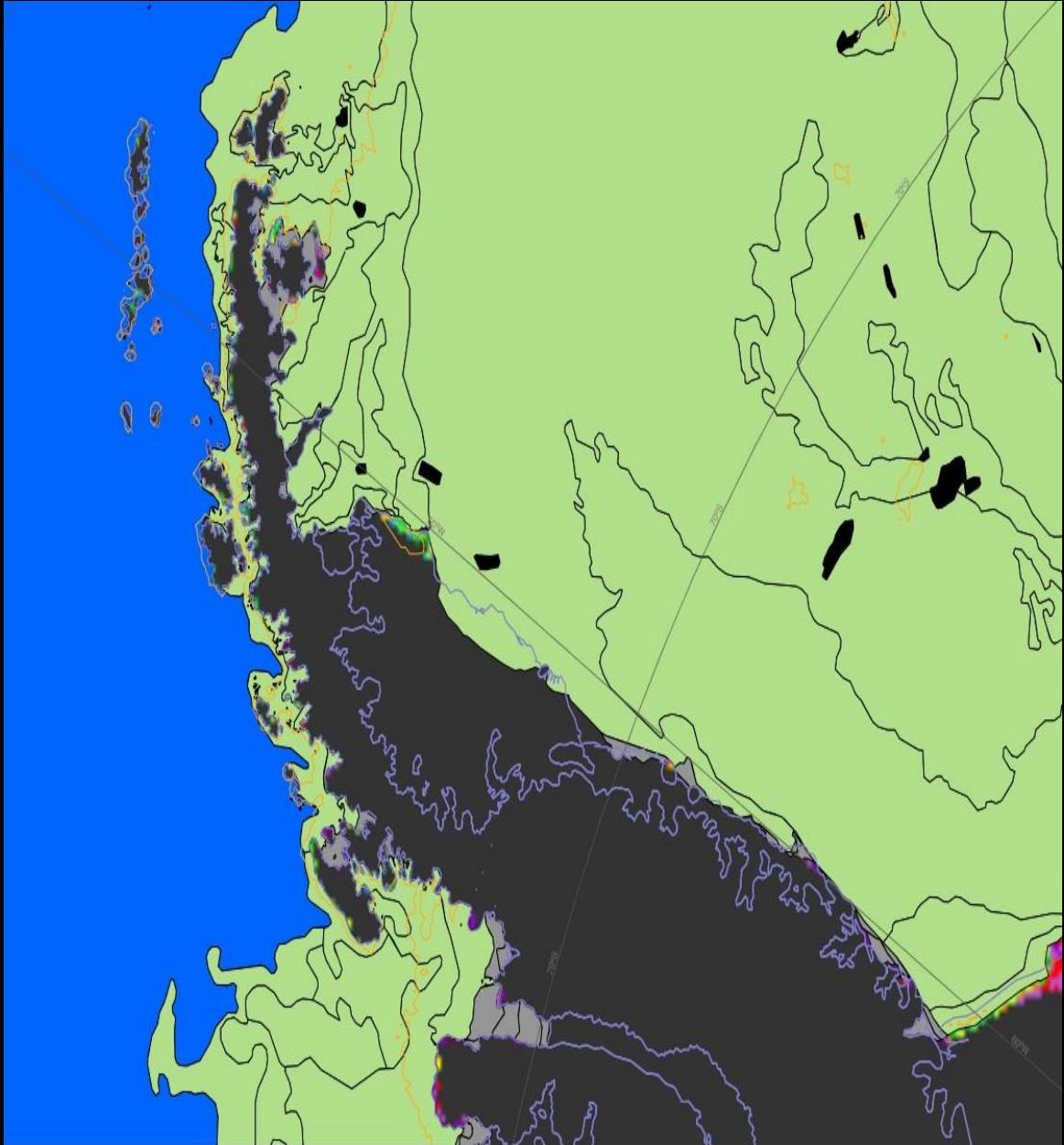
- Thickness measurements snow & ice
- Ice core extraction temperature, salinity, compression



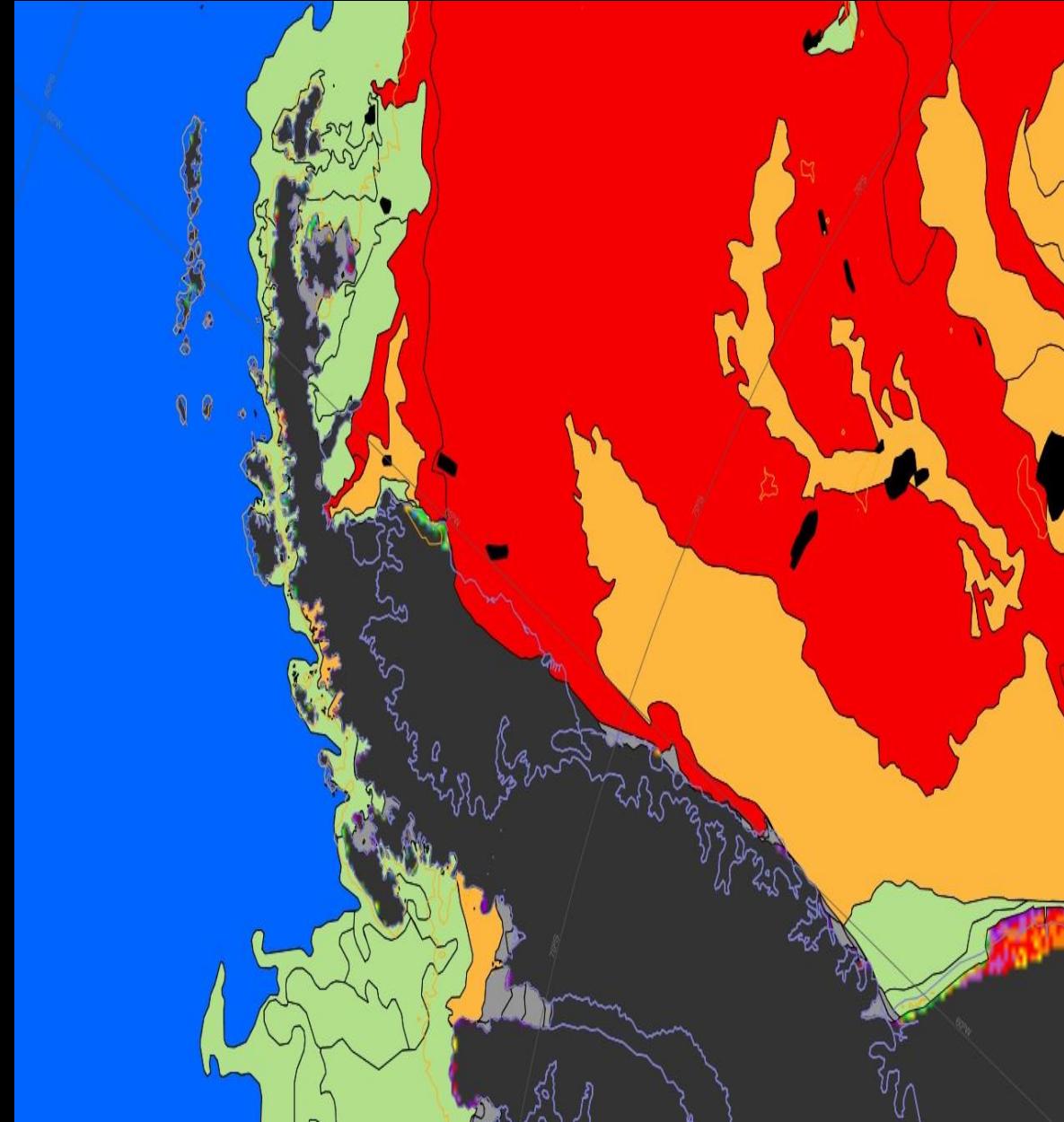
Challenges

- Too late in the season – most of the fast ice had disappeared
- High air temperatures
- Very thick snow layer / humidity
- Competing schedules





PC1 Vessel 12th October 2022



PC5 Vessel 12th October 2022



end

