



South African
Weather Service

Weatherline 082 162

Optimising Buoy Deployments in the South Atlantic to Maximise Benefits for Weather Forecasting



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Overview

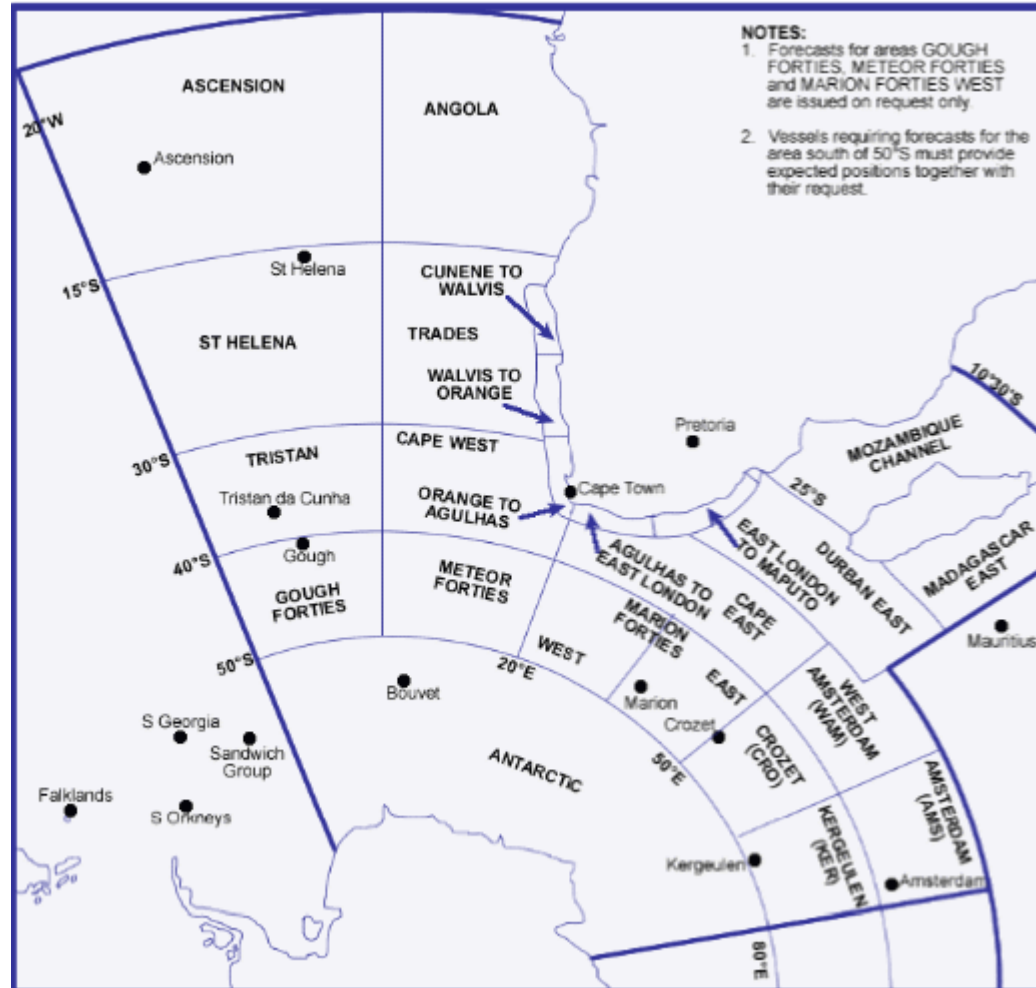
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- The SAWS is the authoritative voice on weather and climate in South Africa
 - Obligations in terms of providing public services, aviation and shipping, i.e. Metarea VII
- Our observations network;
 - Weather offices, Automatic Weather Stations (AWS), Climate stations, Radars, Drifting Weather Buoys and Volunteer Observing Ships (VOS)
- The South Atlantic Ocean is data sparse
 - South Atlantic is the breeding ground for frontal systems that track eastwards towards Southern Africa. During our winter it becomes critical that we monitor S Atlantic
 - AWS on South Thule, Tristan da Cunha
 - SA Agulhas
 - SVP-B buoys



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Drifting Weather Buoy Programme

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- Antarctic Research and Supply Vessel: SA Agulhas
 - Undertakes relief voyages to the island/Antarctic bases annually and we make use of the opportunity by deploying buoys
- Identified partners to help with deployment
 - Alfred Wegner Instituut: POlarstern
 - Tristan da Cunha: Conservation Office
 - Falkland Islands: Fisheries Department
 - Argentina: Hydrographic Office of the Navy

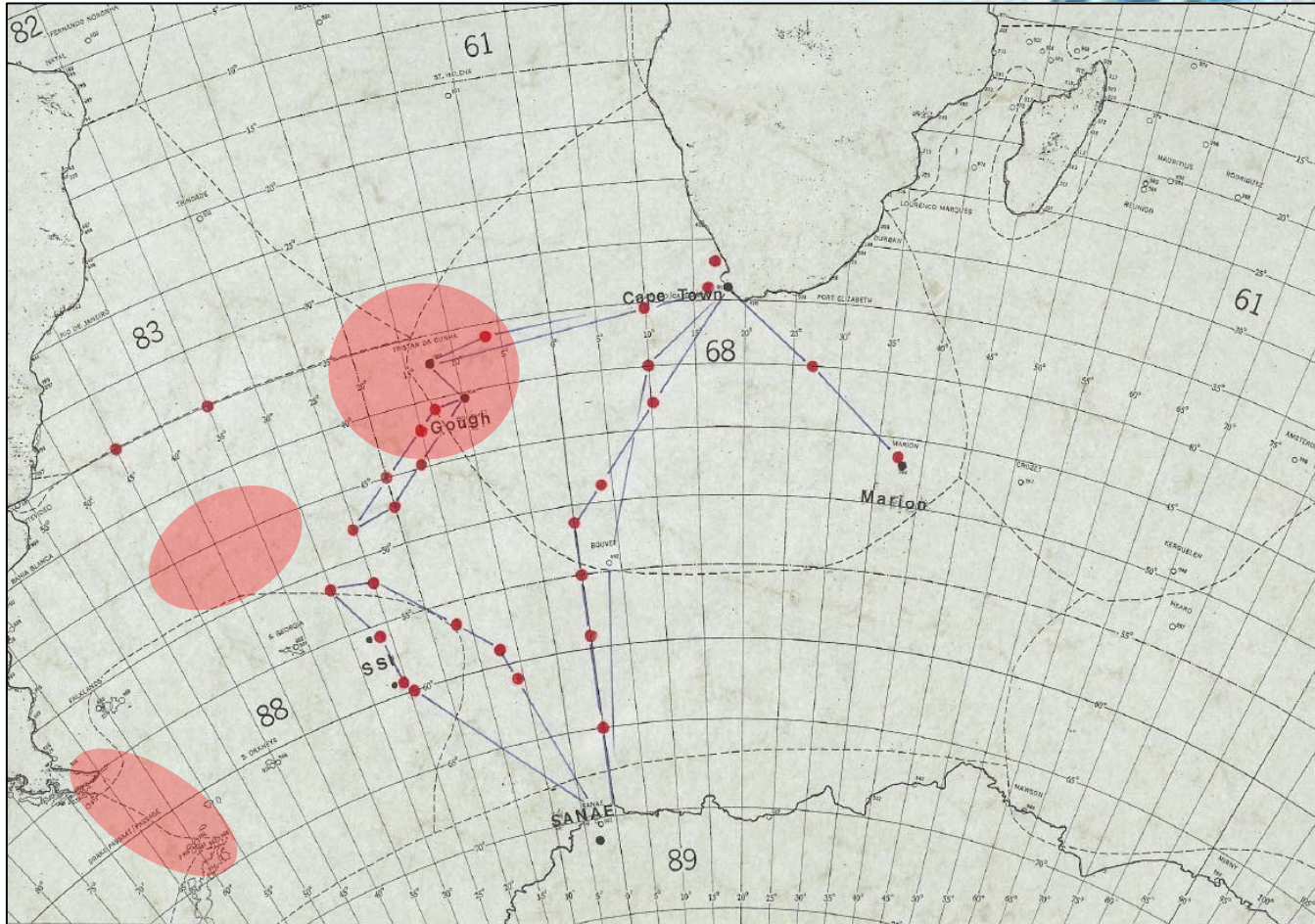




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Buoy Deployments

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- Deployment opportunities on annual relief voyages.

Drifting Weather Buoy Programme

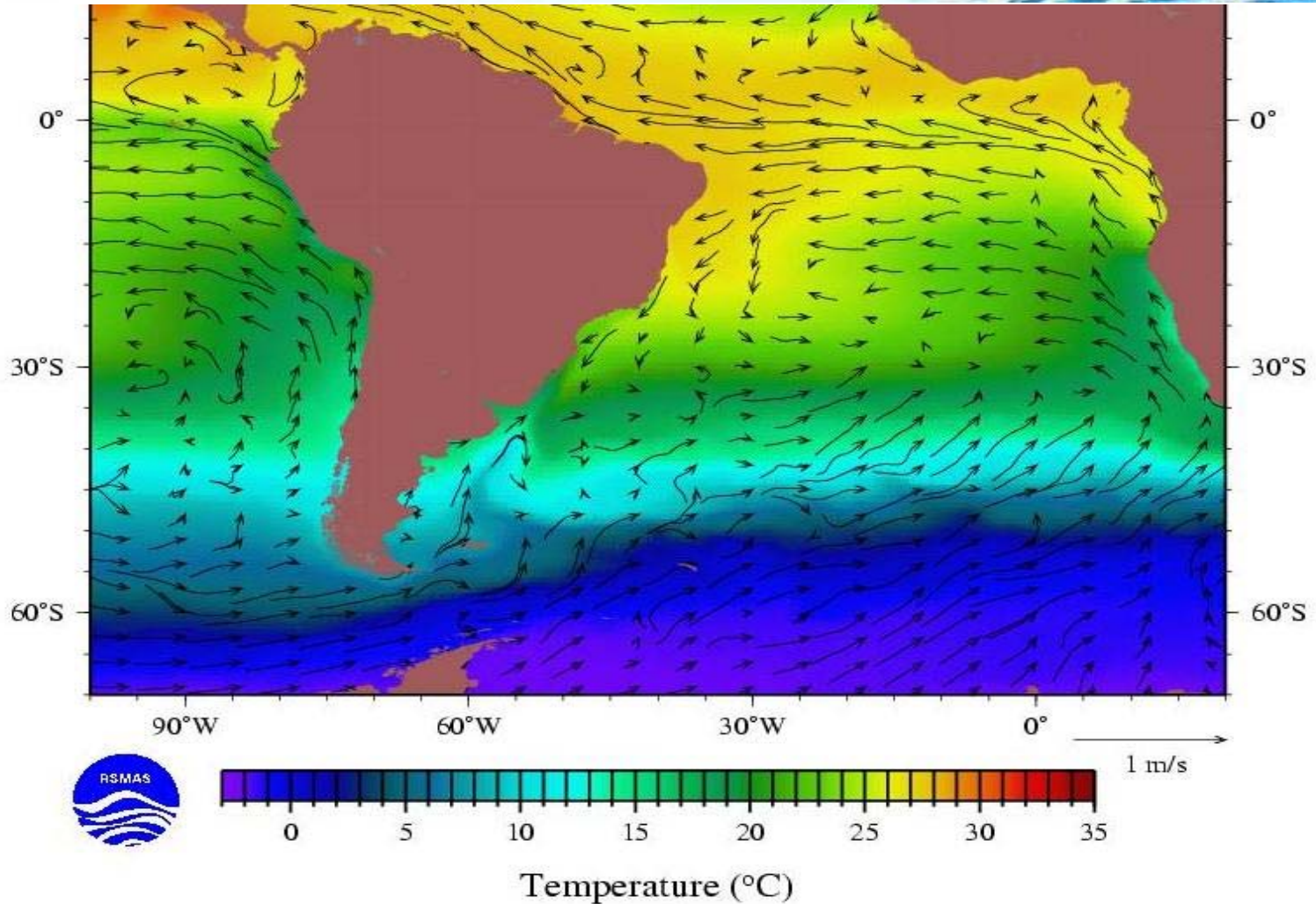
- 30-40 drifters deployed per year. 2007/2008 46 SVP-B deployed (incl. delivery to partners)
- Deployment position planned +/- 3 months prior to voyage
- SAWS is allocated available ship's time and we advise operators of our logistical requirements.



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Atlantic Ocean Circulation

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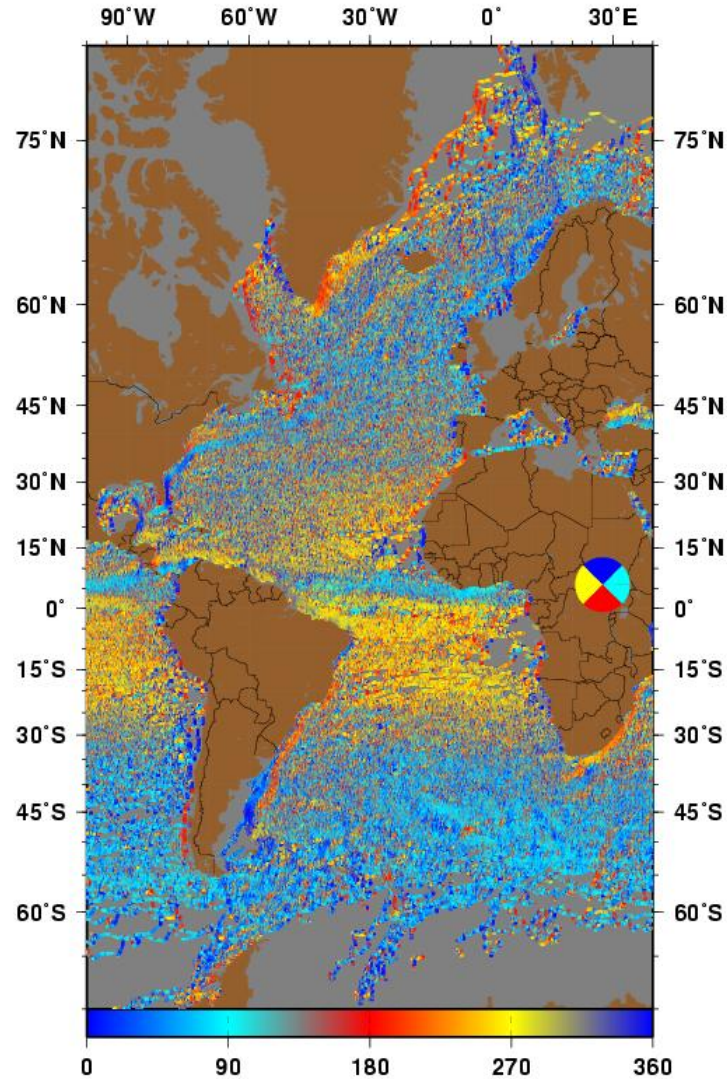




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Buoy Tracks

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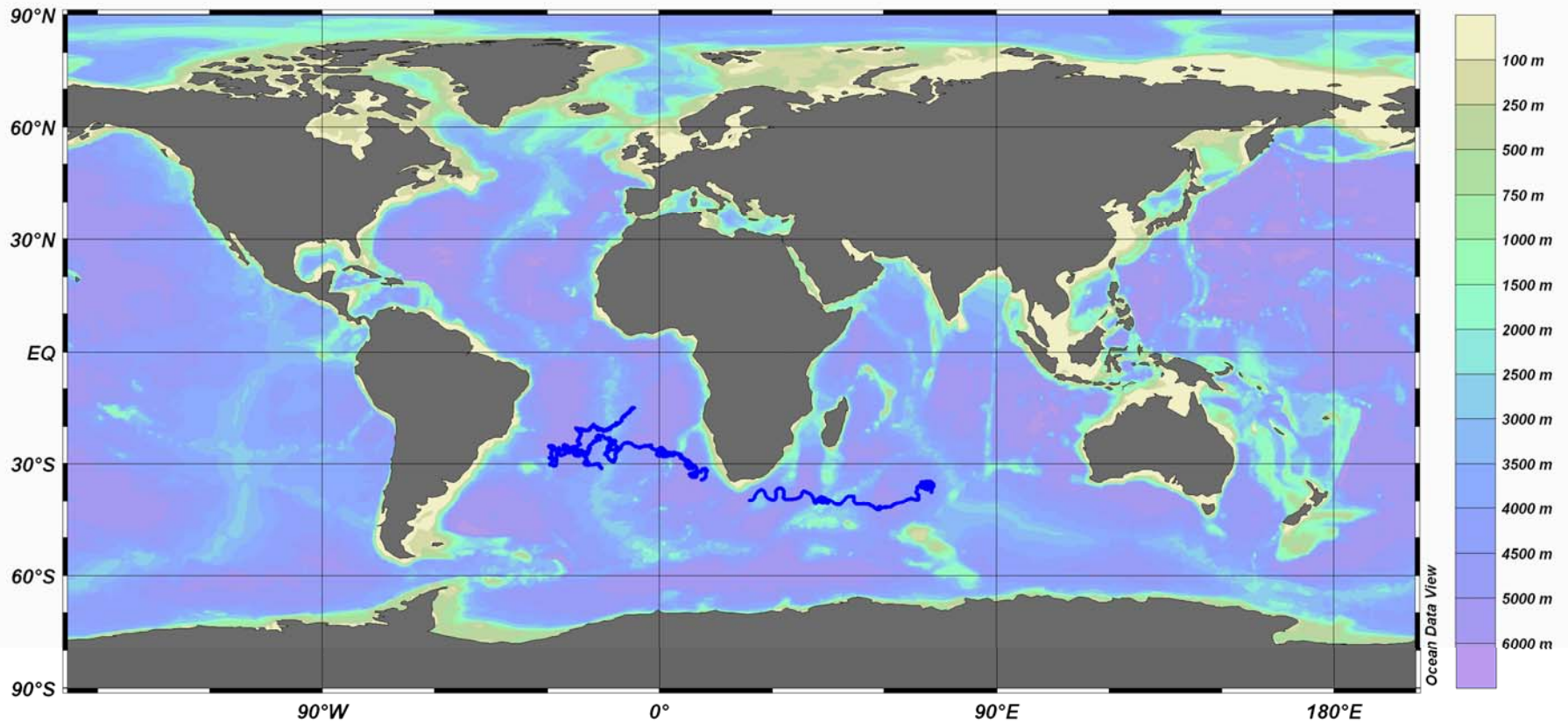




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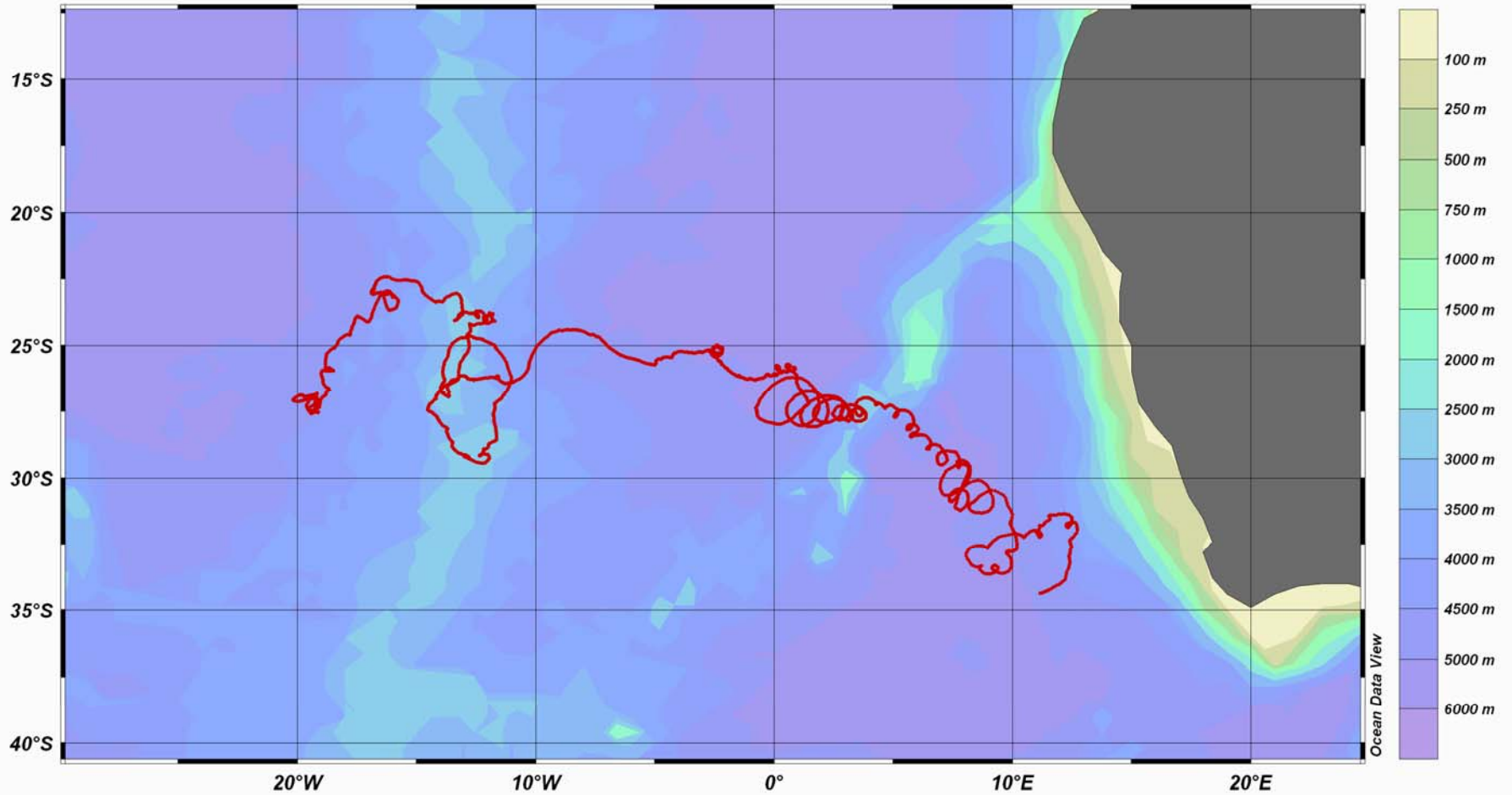
Buoy Tracks

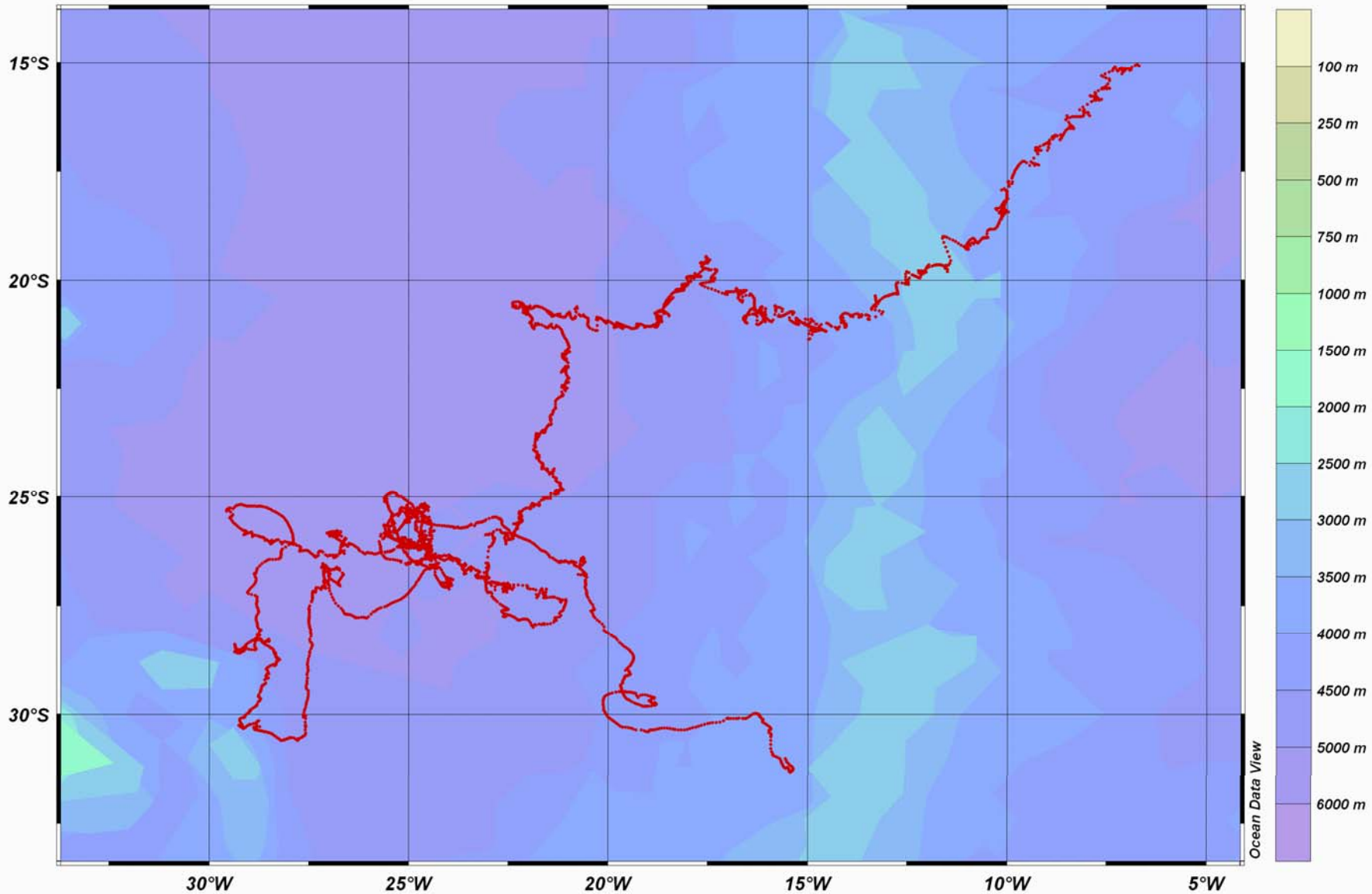
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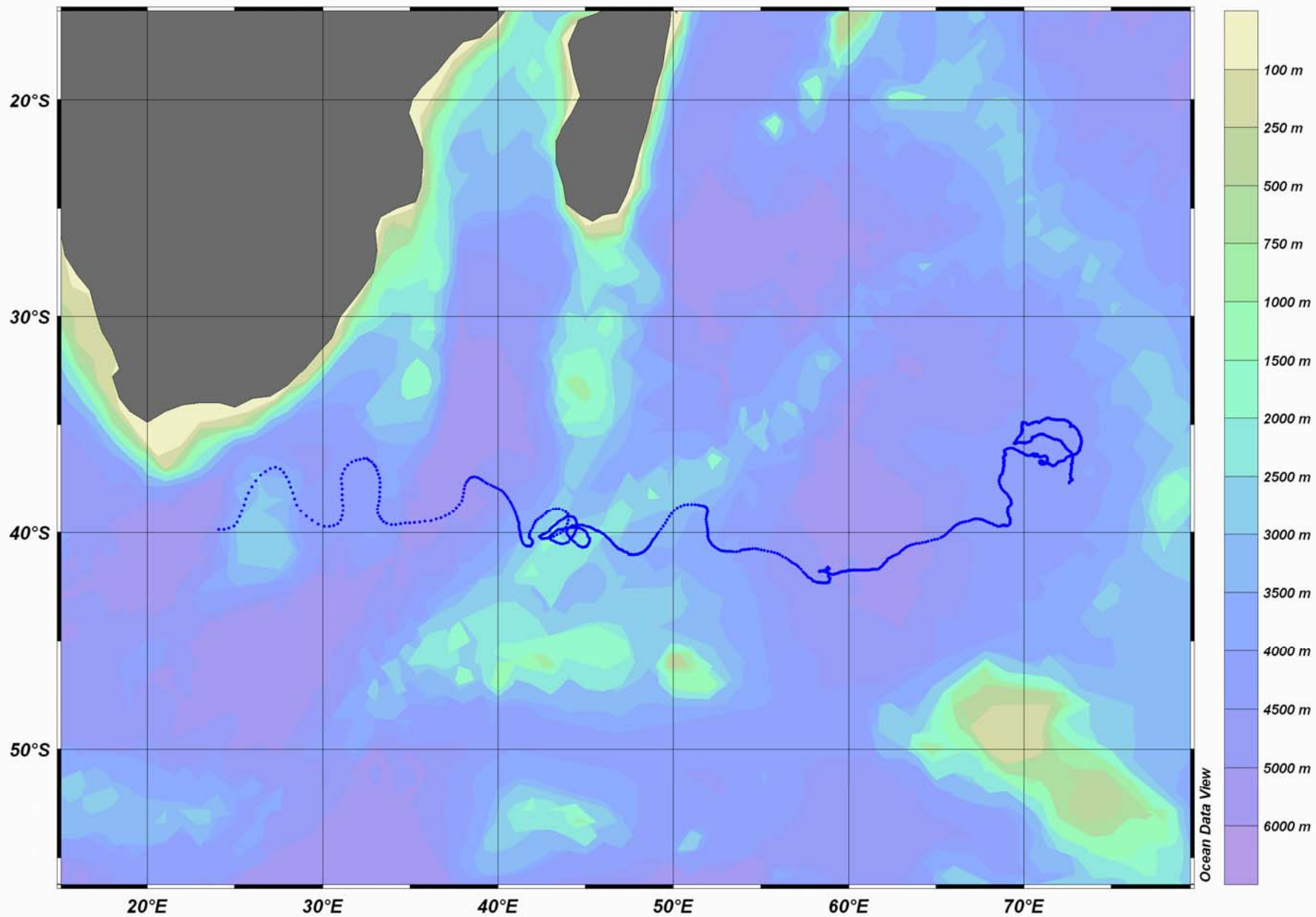




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Challenges

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- Limited coverage during voyages
- High cost of shipping time
- Limited deployment opportunities



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Recommendations

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- Explore other deployment opportunities
 - Antarctic tour operators
- All ocean observations are useful



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