

Andy Henson NOC



**National
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NATURAL ENVIRONMENT RESEARCH COUNCIL

NERC SCIENCE OF THE
ENVIRONMENT

James Cook

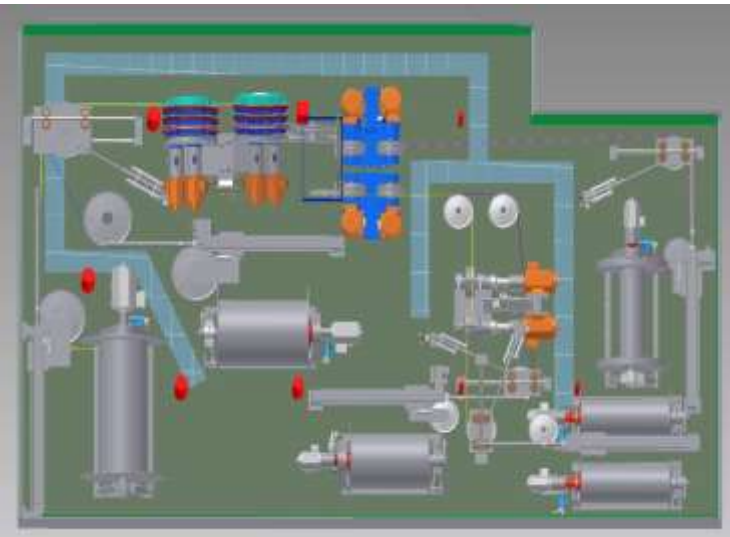


- Refit in Santander
- Operations in Pacific/Columbia
- JC 114 Seismics with Sonne
- Winch modifications
- 15-16 Pacific, North sea, Swapps, Mid atlantic



Discovery

- Ongoing winch issues.
- Winch traction unit cracking.
- Azimuth motors.



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Discovery



- Winch repair Norway
- Successful trials
- Shelf Seas Biogeochemistry
- Trials – Seismics, piston coring
- RAGNARoCC in US waters

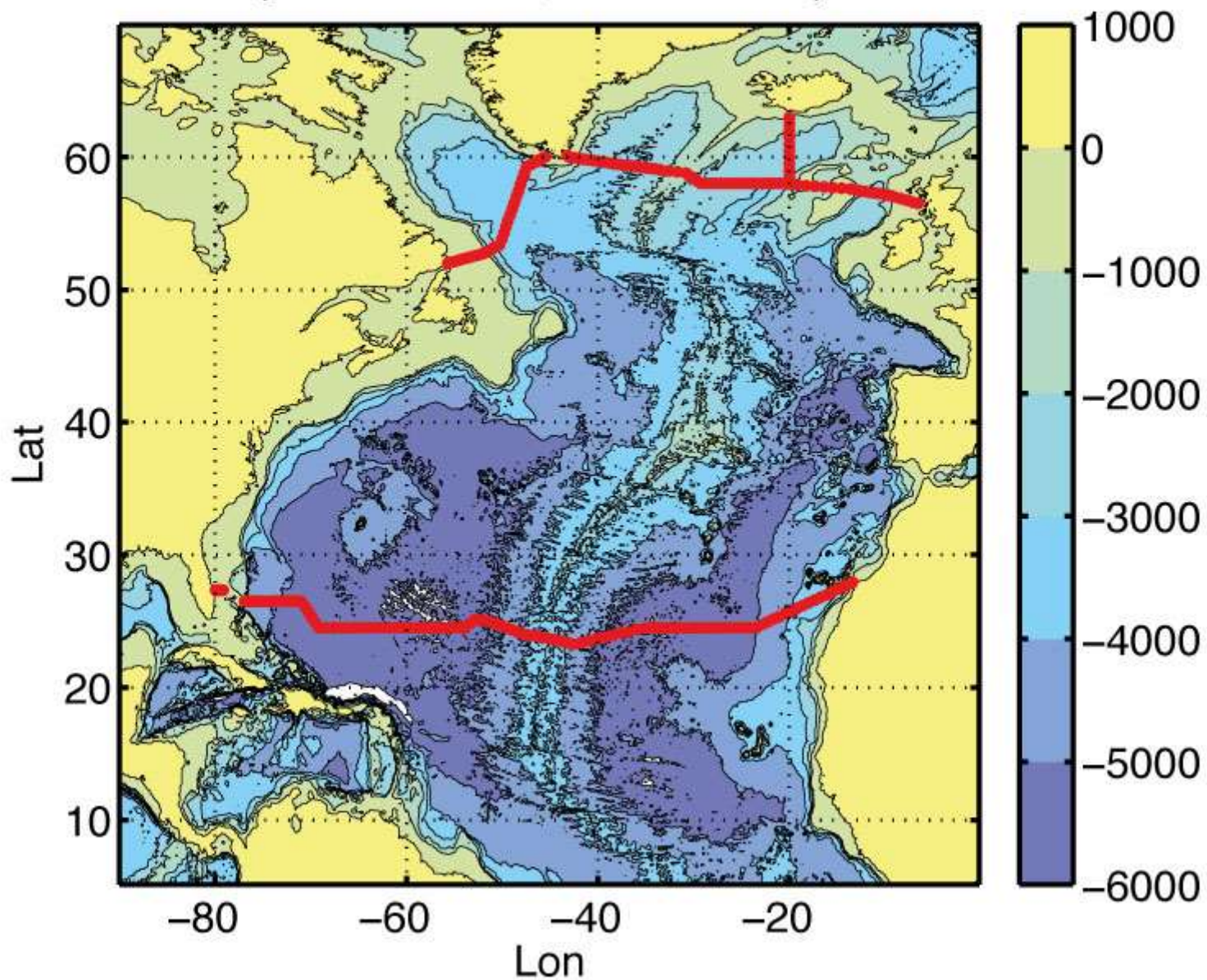


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RAGNARoCC North Atlantic Cruises
Subpolar (filled red circle, northern line) 2014
24N (filled red circle, southern line) 2015



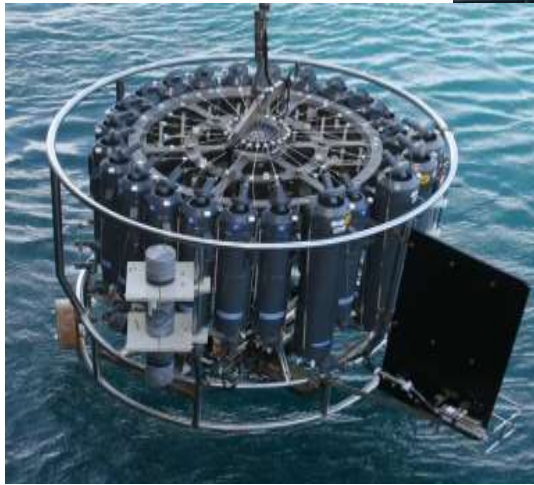
Challenges

- Marine staff, deck and Ceng.
- Flat funding, ownership and governance.
- Technician recruiting and retention.
- Dip clear
- Trials are expensive!



Technology

- Autonomy, MARSIC
- Coring, CTD 500+ sea days





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