



TEACHERS AND RESEARCHERS
EXPLORING AND COLLABORATING

Welcome to *PolarConnect*

Sea Floor Spreading and the Antarctic Circumpolar Current

With Jillian Worssam aboard the N.B. Palmer



15 October 2014

www.polartrac.com

Blackboard collaborate

Slides will be shown here

Exit the presentation

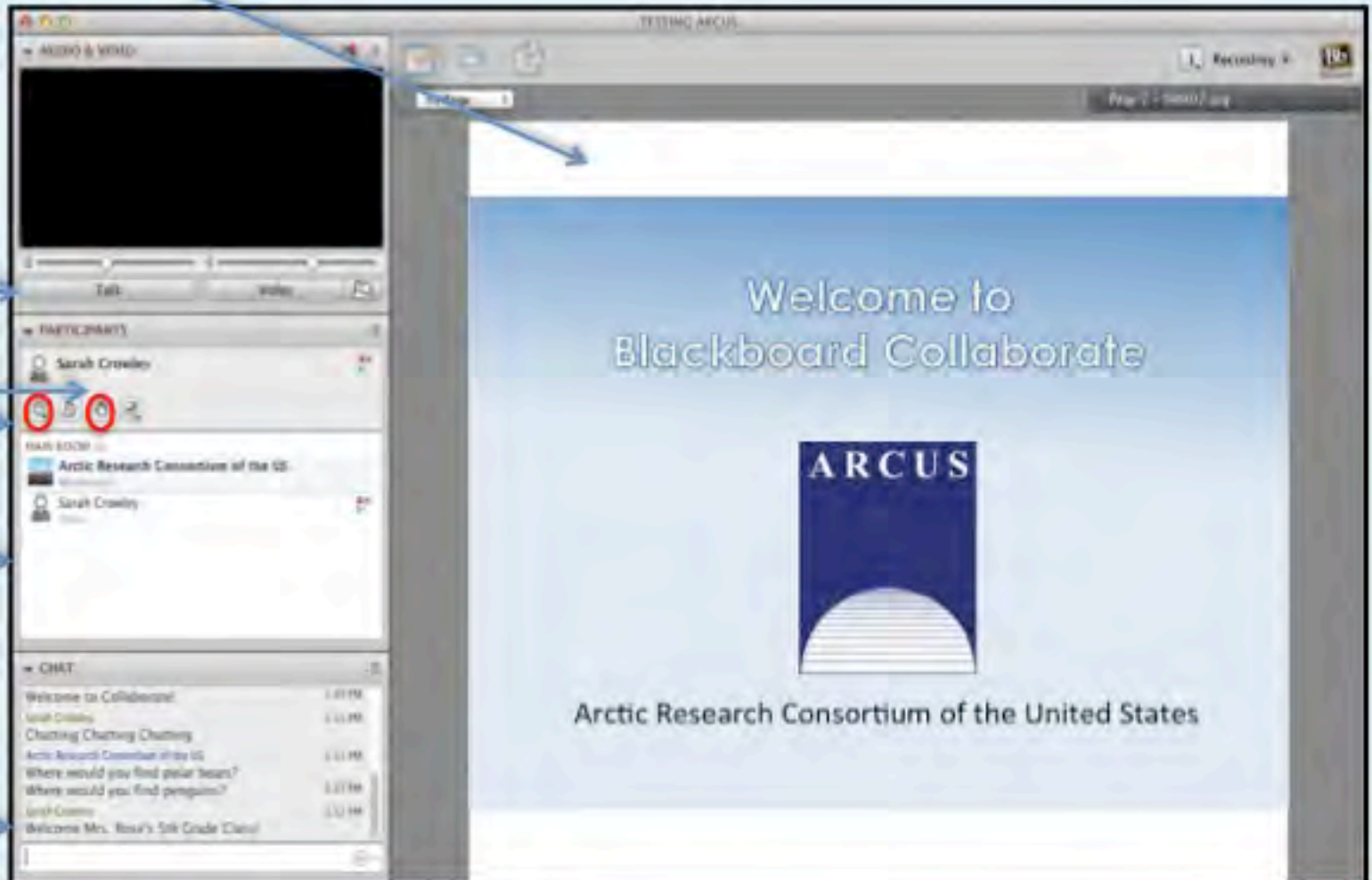
Click to Talk,
Unclick to finish talking

Raise your hand to ask a question

Share with emoticons

List of all participants

Chat with one person or the entire group



The screenshot displays the Blackboard Collaborate interface. The main area shows a presentation slide titled "Welcome to Blackboard Collaborate" with the ARCUS logo and the text "Arctic Research Consortium of the United States". The left sidebar contains several panels: a "Talk" panel with a microphone icon, a "PARTICIPANTS" panel listing "Sarah Crowley" with a hand icon, a "CHAT" panel with a list of messages, and a "SHARE" panel. Arrows from the text on the left point to these specific interface elements.

Please Note:

- Participants using the telephone can mute/unmute by **pressing *6** on the phone.
- Today's event will be recorded and archived.



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Participant Introductions

In the chat box, please share your:

- ✓ Name
- ✓ School / Institution
- ✓ The number of students and adults participating with you in the same location



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What is PolarTREC?

PolarTREC is a professional development experience in which K-12 teachers are paired with researchers for 2-6 week research experiences in the polar regions.

Since 2007, over 150 teachers from around the United States will join scientists in the Arctic and Antarctica to learn about science, the polar regions, and to share what they have learned with their students and communities.



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Questions

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At the End of the Presentation:

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- PolarTREC staff will call on you.
- Speak loud and clear and directly into the phone to ask your question.

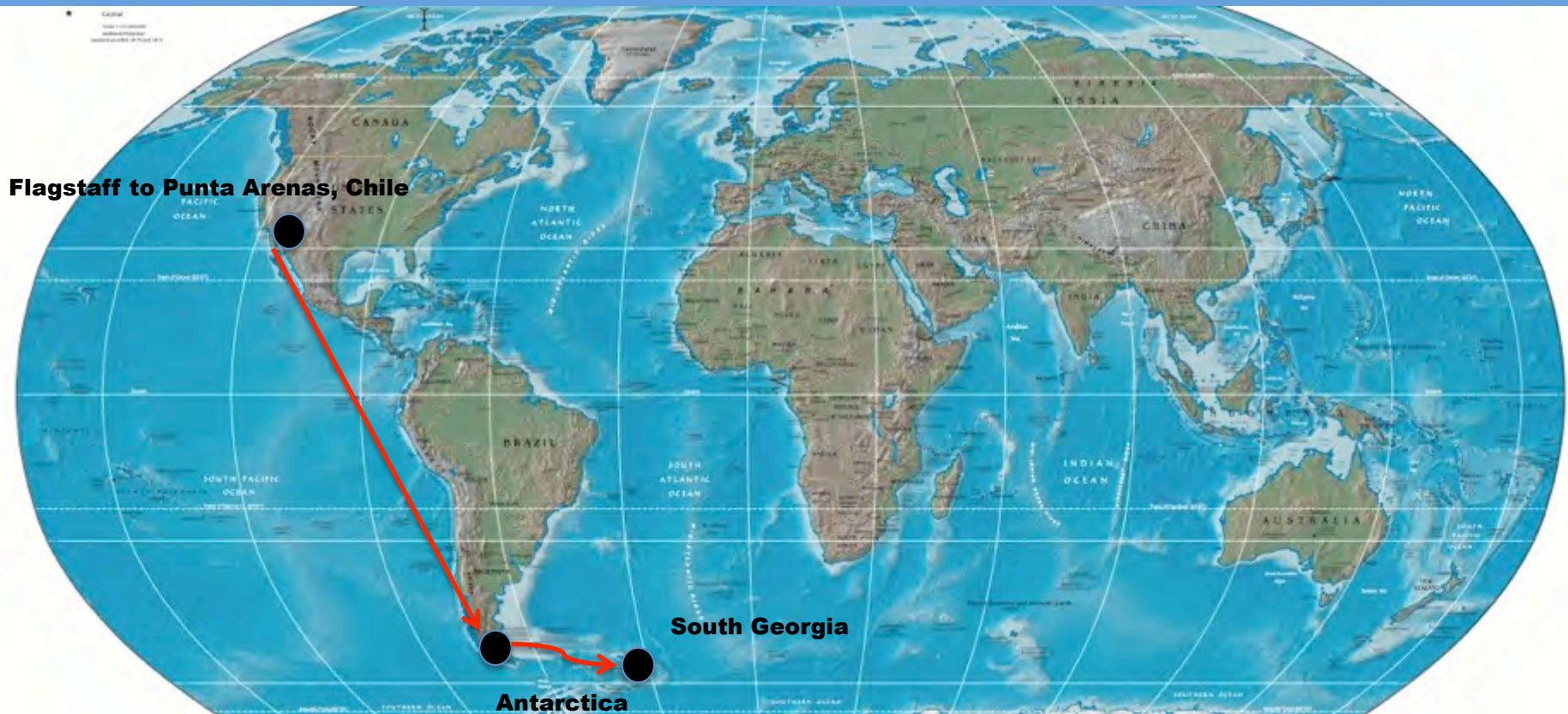
Click on the Talk button to speak.

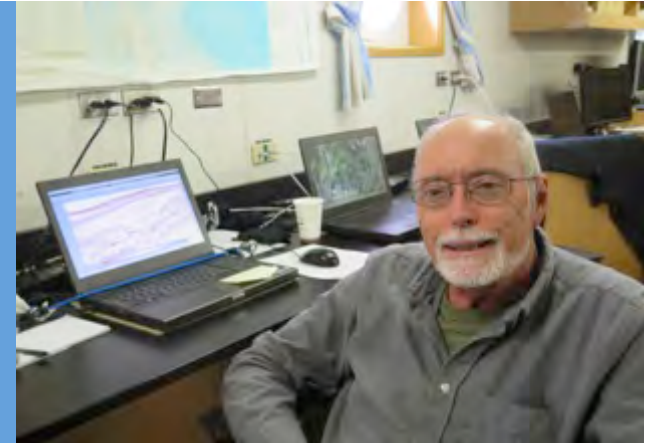
Unclick when you are done.

Sea Floor Spreading and The Antarctic Circumpolar Current



**Greetings from the Southern Ocean
&
South Georgia Island**





Captain John Souza

Chief Scientist and
Principal Investigator
Ian Dalziel

Principal Investigator
Larry Lawver





The Scientific team:
Geophysicists
Geologists
Ecologists
Marine Biologists
Engineers



The Mission

The Students

The Planning



The Scientific Team

Nico

Joel

Nick

Bob

Phil

Marcy

Lexie

Steffen



Larry

Ian

Bud

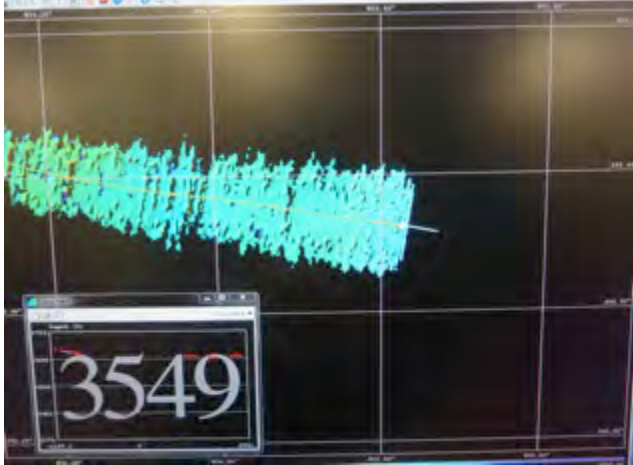
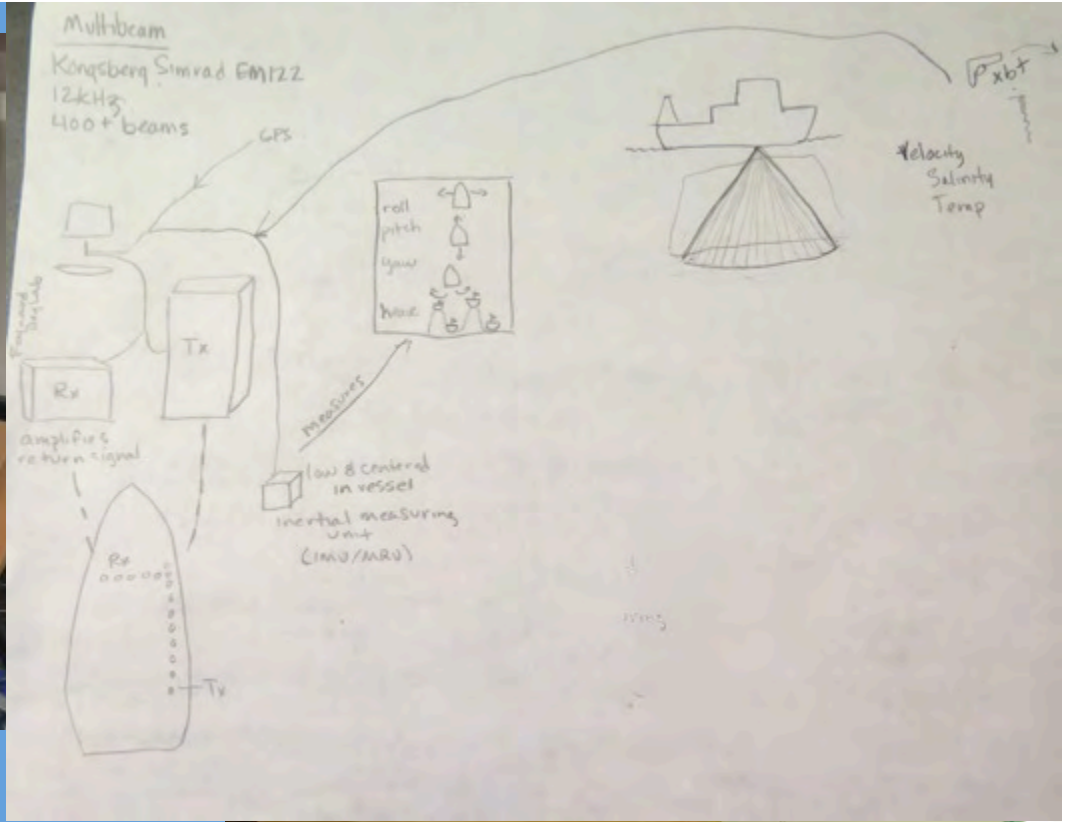
Graham

Julie

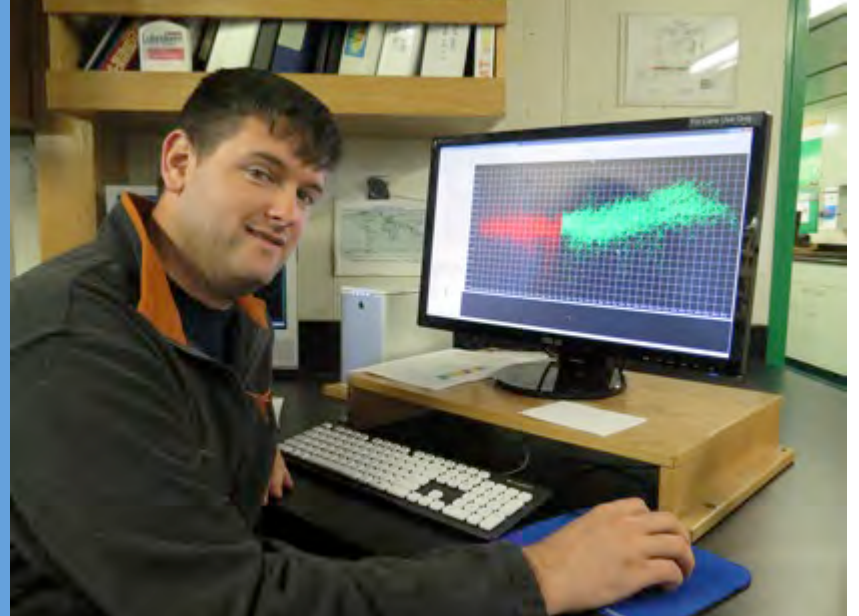
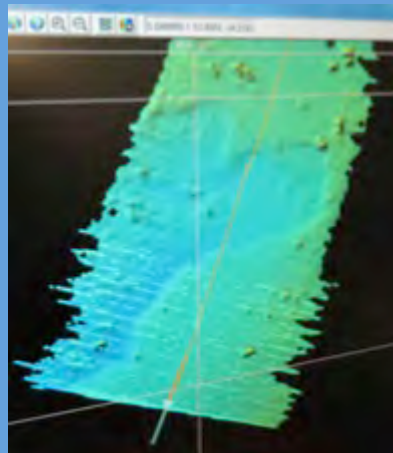
Marissa

Nina

Kory



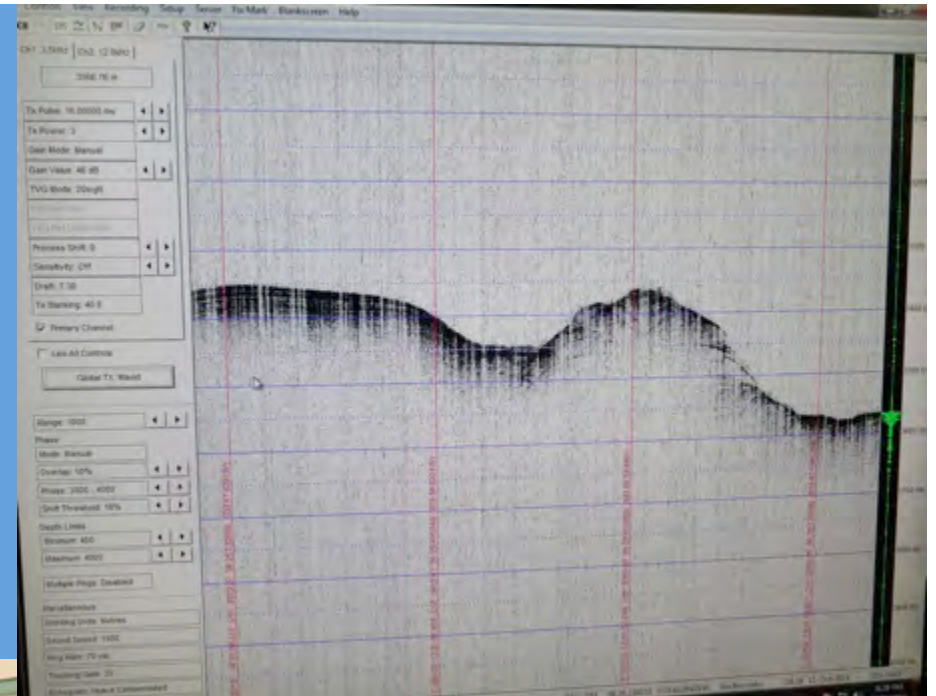
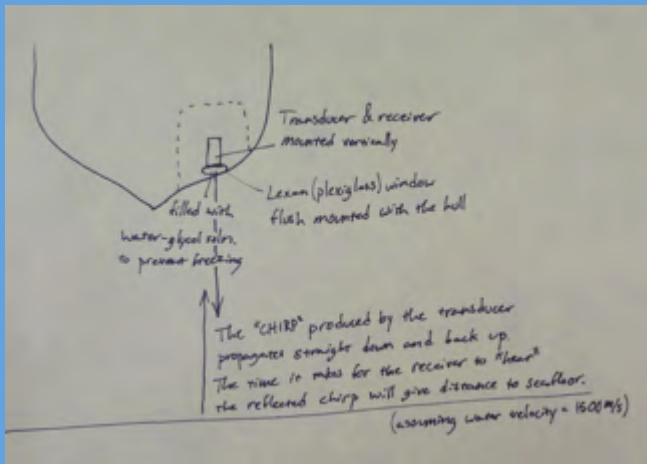
The Multibeam



“seeing” the ocean floor

The Knudsen “Chirp”

“Seeing” below the surface about 100 meters



**The seismic source
“seeing” below the surface...
and in some cases
Over a kilometer**





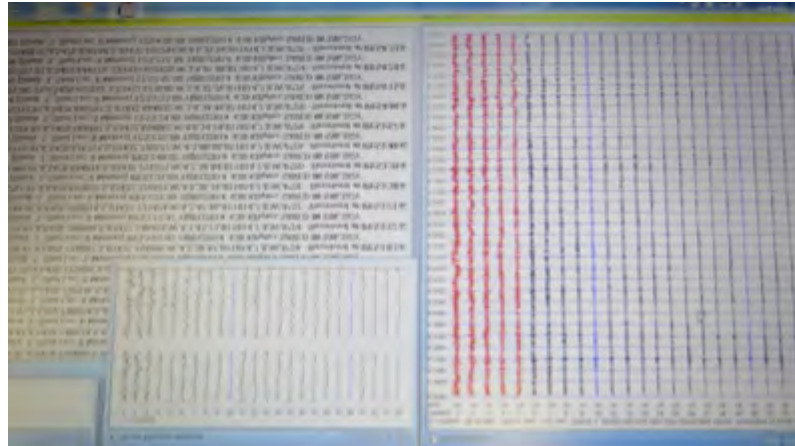
Seismic Source

Magnetometer

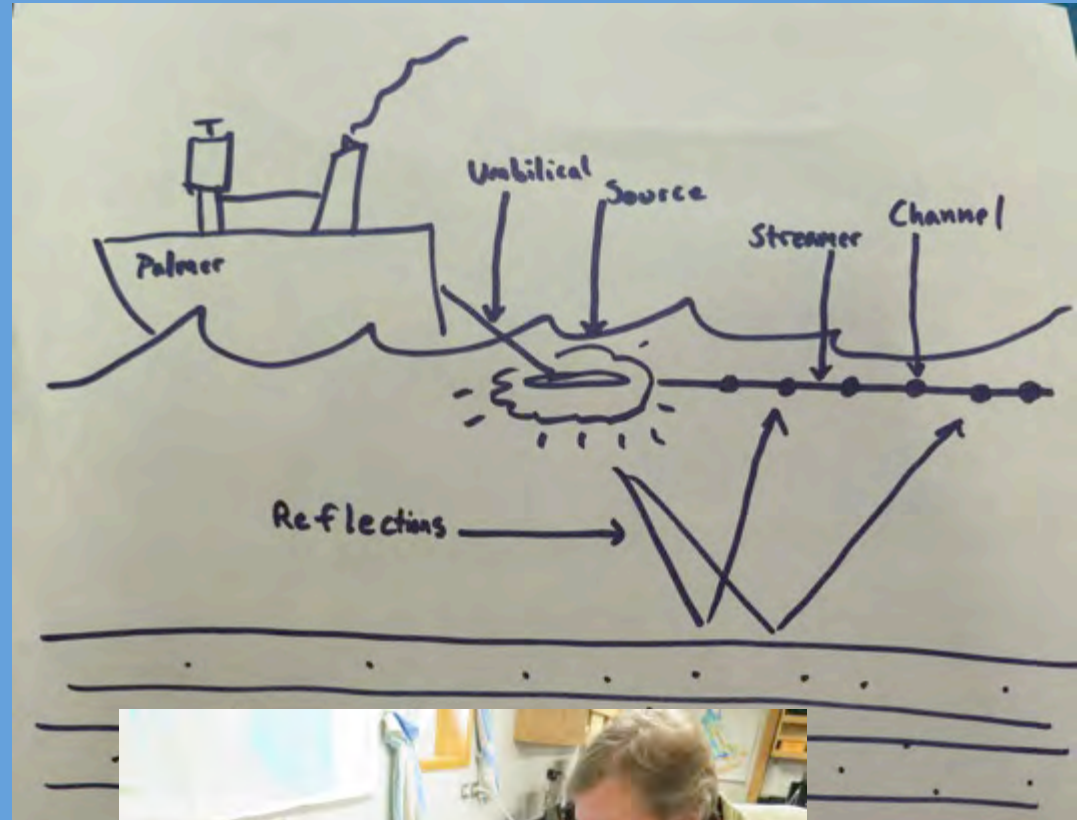
Seismic Receiver



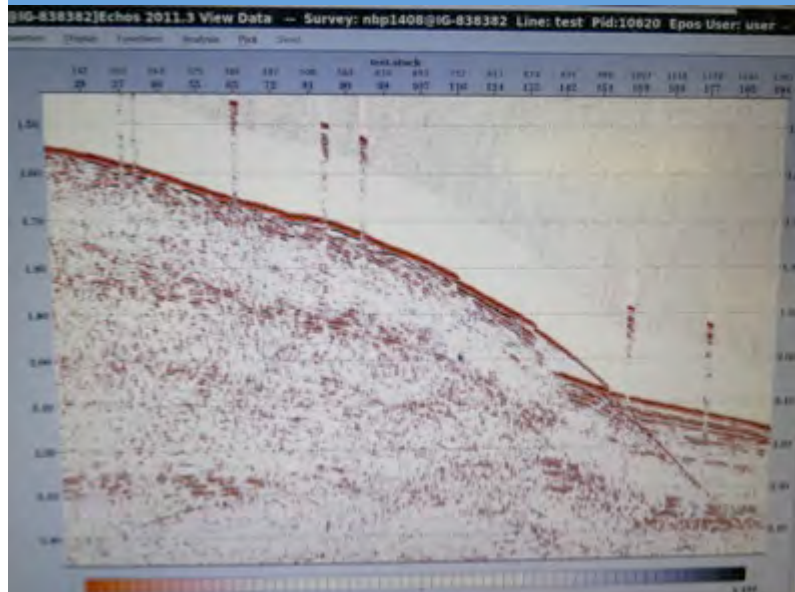
The magnetometer



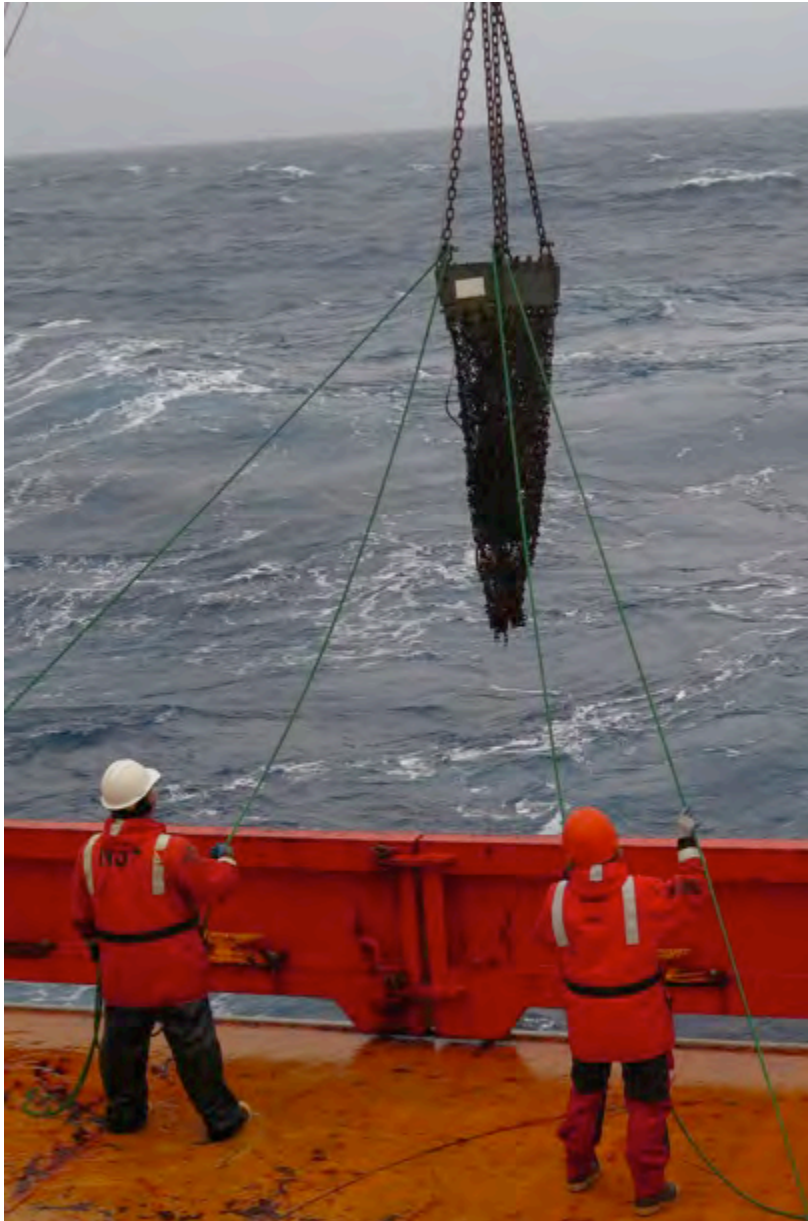
Raw data



Data decoded



The Dredge

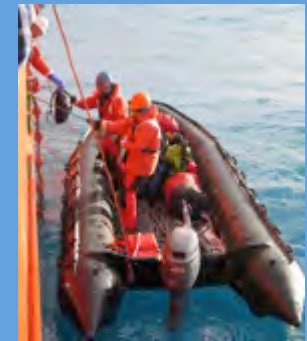


Looking for basement, volcanic samples

The dredge brings up:
Drop stones
Biological samples
HOPEFULLY Volcanic samples

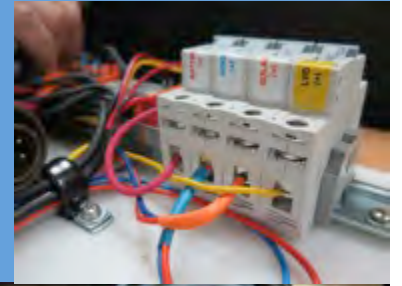


Preparing to go ashore for GPS installation





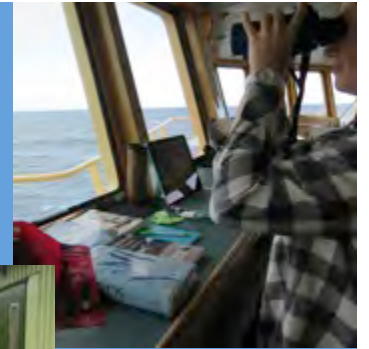
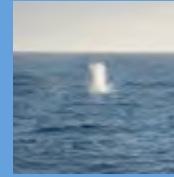
Setting up the GPS station





Success
GPS station has
been
established





Protected Species Observers







Thanks for participating in our polar connect from the Scotia Sea.

Any questions?



The faces of science!



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Thank You!

An archive of the event will be available shortly.
<http://www.polartrac.com/polar-connect/archive>

