

Polar Professional Development  
ED 593: Applied Physical Science Concepts for Educators

# Bringing the Transantarctic Expedition into the Classroom

Brian DuBay  
Grissom Middle School  
Warren, Michigan

**24 April 2013**



Picture from [www.wcskids.net](http://www.wcskids.net)



Slides will be shown here

Exit the presentation

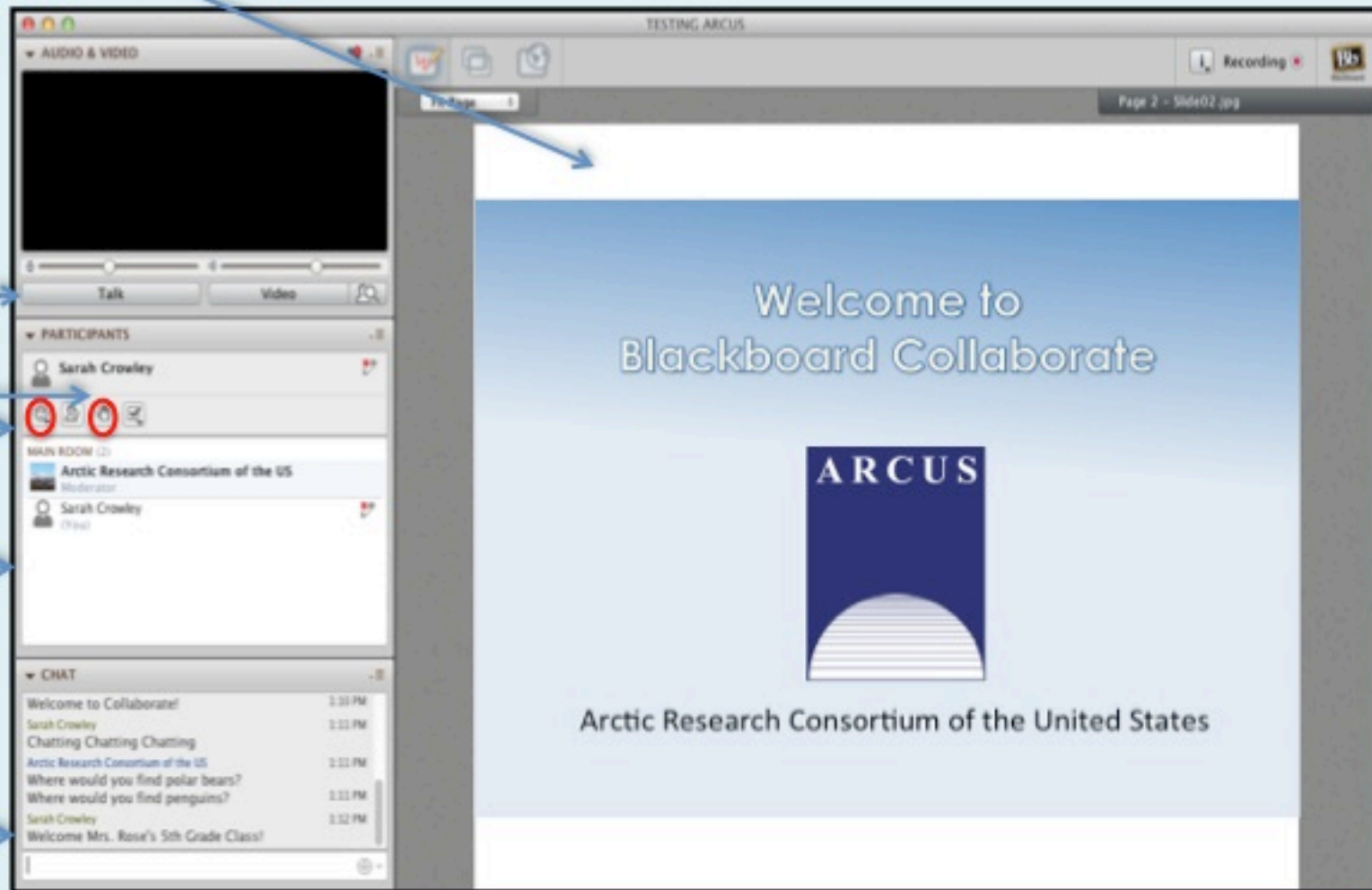
Click to Talk, Unclick to finish talking

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. On the right, a presentation slide titled "Welcome to Blackboard Collaborate" is shown, featuring the ARCUS logo and the text "Arctic Research Consortium of the United States". The slide is labeled "Page 2 - Slide02.jpg". On the left, a sidebar contains several sections: "AUDIO & VIDEO" with a "Talk" button and a "Video" button; "PARTICIPANTS" listing "Sarah Crowley" with icons for mute, video, and chat; "MAIN ROOM (2)" listing "Arctic Research Consortium of the US" as the moderator and "Sarah Crowley" as a participant; and "CHAT" showing a list of messages such as "Welcome to Collaborate!", "Sarah Crowley Chatting Chatting", and "Arctic Research Consortium of the US Where would you find polar bears?".

### Please Note:

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

# Questions

## During the Presentation:

- Type your question in the text chat box

## At the End of the Presentation:

- Raise your hand with the “hand button”.
- 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.**

# Participant Introductions

**When called, please state your:**

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

# 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.

From 2010-2013, nearly 50 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.

# Topics under discussion

- Public Outreach
  - Twitter
  - YouTube
  - Skype
  - Professional Development Meetings
  - Newspapers
- Video Journaling
  - Why videos instead of written journals
  - Student responses to videos
  - Tips on Making Movies.

# Connecting To Your Students Through Social Media



# Public Outreach

## Twitter

Setting up a dedicated school appropriate Twitter account, made gaining my student's attention easy and amazingly effective.

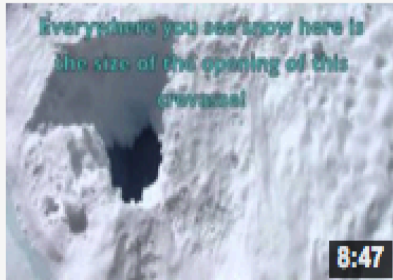
Now I use Twitter for classroom announcements, homework, and questions.

Of course any abuse of the Twitter account is punishable under school regulations.





# Public Outreach



## Installing Seismic Stations on Glacial Ice.mov

by PolarTRECProgram • 4 months ago • 99 views

Installing Seismic Stations on Glacial Ice with crevasses.

HD

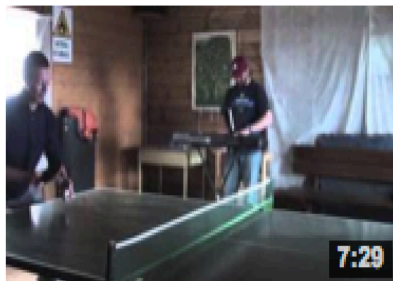


## Plethora Of Penguins.mov

by PolarTRECProgram • 4 months ago • 172 views

Cape Washington Emperor Penguin Rookery.

HD



## Weather Days Off At Terra Nova.mov

by PolarTRECProgram • 4 months ago • 83 views

Terra Nova Days Off.

HD



**PolarTRECProgram** 1 s  
What kind of plane is that

Reply - 👍 👎



**PolarTRECProgram** 1 s  
Where is Mcmurdo?

Reply - 👍 👎

## YouTube

- Links from websites to YouTube, means greater exposure.
- Comments were positive.
- Responding promptly is crucial.

YouTube comments gave me ideas on what to add to the next videos.

# Skype



Every time I Skyped the class, students were thrilled and word spread about the feed to students in other hours and grades.

# Public Outreach

## Professional Development Meetings



- Teachers have the shortest attention spans!
- Quick and to the point
- Talk with Curriculum groups or at professional development events

I spoke with staff, before my departure, for ideas they wanted me feature for their classroom while in Antarctica. This made the staff feel part of the experience.

Follow up meetings and being asked to visit other classroom helped the whole school, not just my students, feel involved.

# Public Outreach

- Newspapers
  - More important than you would think
- Community involvement changes everything!

www.candgnews.com

WARREN WEEKLY, October 10, 2012 – 21A

## Southern exposure

### Grissom teacher headed to Antarctica through grant program

BY CORTNEY CASEY  
ccasey@candgnews.com

Brian Dubay is still weeks away from leaving for Antarctica, but already his eighth-grade social studies students at Grissom Middle School are learning a little something about the icy continent.

"They want me to bring back a polar bear, and so I had to explain, 'No, that's the North Pole,'" he laughed. "They said, 'OK, bring us back a penguin,' and I said, 'No, that's illegal!'"

What Dubay does plan to bring back is abundant firsthand knowledge from accompanying researcher Samantha Hansen on a Tectonic History of the Transantarctic Mountains expedition.

Hansen, an assistant professor at the University of Alabama, is completing a seismic array that will collect data on earthquakes in an effort to explain the formation of the Transantarctic Mountains and Wilkes Subglacial Basin.

While most mountains result from collision between continents, that's not the case in Antarctica, and researchers are trying to determine exactly what caused it, said Dubay.

when the kids are in class, but he's determined to make it work.

"It'll all be live, but I'll be ... a day and like 12 hours ahead," he said. "I'll be doing it in the middle of the night where I'm at. That's going to be a little tricky."

Principal Joseph Konal said he was pleased that Grissom students will be able to experience real-world examples of scientific research through Dubay's adventure.

"I'm looking forward to the opportunity that he may have, and the fact that he's going to be sharing these experiences with our students is fantastic," he said. "This should be exciting for us."

Dubay, who already travels frequently for mathematics and geology research, said he became intrigued by the prospect of going to Antarctica after learning about PolarTREC from a professor at Wayne State University.

After the application and selection process — which involved demonstrating his engagement as a teacher, his commitment to involving students in the process, his teaching methodology, technological abilities, etc., then being tapped by a specific



Photo provided

Grissom Middle School teacher Brian Dubay bundles up during a conference in Fairbanks, Alaska, that served as a "two-week crash course" for his upcoming trip to Antarctica. Dubay plans to connect with his students via Skype and report back on his experiences through online posts.

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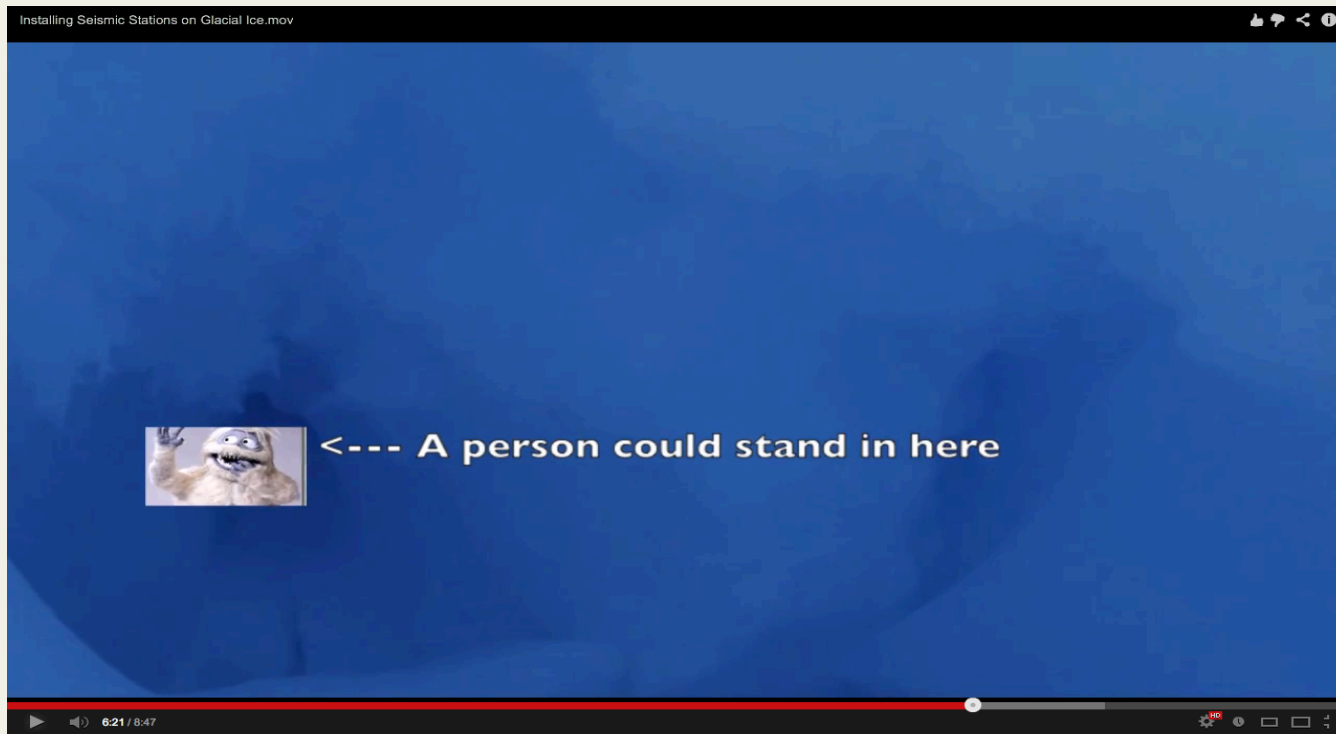
TOP 100 WORKPLACES 2011

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OR APPLY ONLINE AT  
www.homeinstead.com/2012

See DUBAY on page 25A

# Video Journaling

- Why videos instead of written journals?
  - Journals with pictures are effective but videos give a more complete experience.
  - My first journal entry most students did not read, but once I started video journaling the feedback was astounding.
  - Students still tell stories and comment on what they viewed.



# Video Journaling

- Student Responses



- Comments allow you to know what is working and what is not.
- Students always have their phones with them.
  - They did not need to be in class to check up on the expedition.

# Video Journaling

- Tips on making videos
  - Be entertaining and humorous
  - Keep it short (under 10 minutes)
  - Add music
  - Sneak in curriculum content
  - Finish the video with discussion topics\*\*\*
  - I utilized Imovie.

# Proof Read!!

The Journey To Antarctica - YouTube

www.youtube.com/watch?v=5ArEgv-RVzk

ARCUS ARCUS WebMail PolarTREC

Disable Cookies CSS Forms Images Information Miscellaneous Outline Resize Tools View Source Options

Warren Consolidated Schools Textbook Links The Journey To Antarctica - Yo...

YouTube brian dubay antarctica

GUIDE

MORE RESULTS brian dubay antarctica

**ABSOLUTLY!!**

1:52 / 1:59

Analytics Video Manager

The Journey To Antarctica

PolarTRECProgram · 597 videos

146 views

**TAMNET Team Intoduction.mov**  
by PolarTRECProgram  
92 views  
6:45

**TransAntarctic Scenery.mov**  
by PolarTRECProgram  
54 views  
10:58

**Installing Seismic Stations on Glacial Ice.mov**  
by PolarTRECProgram  
99 views  
8:47

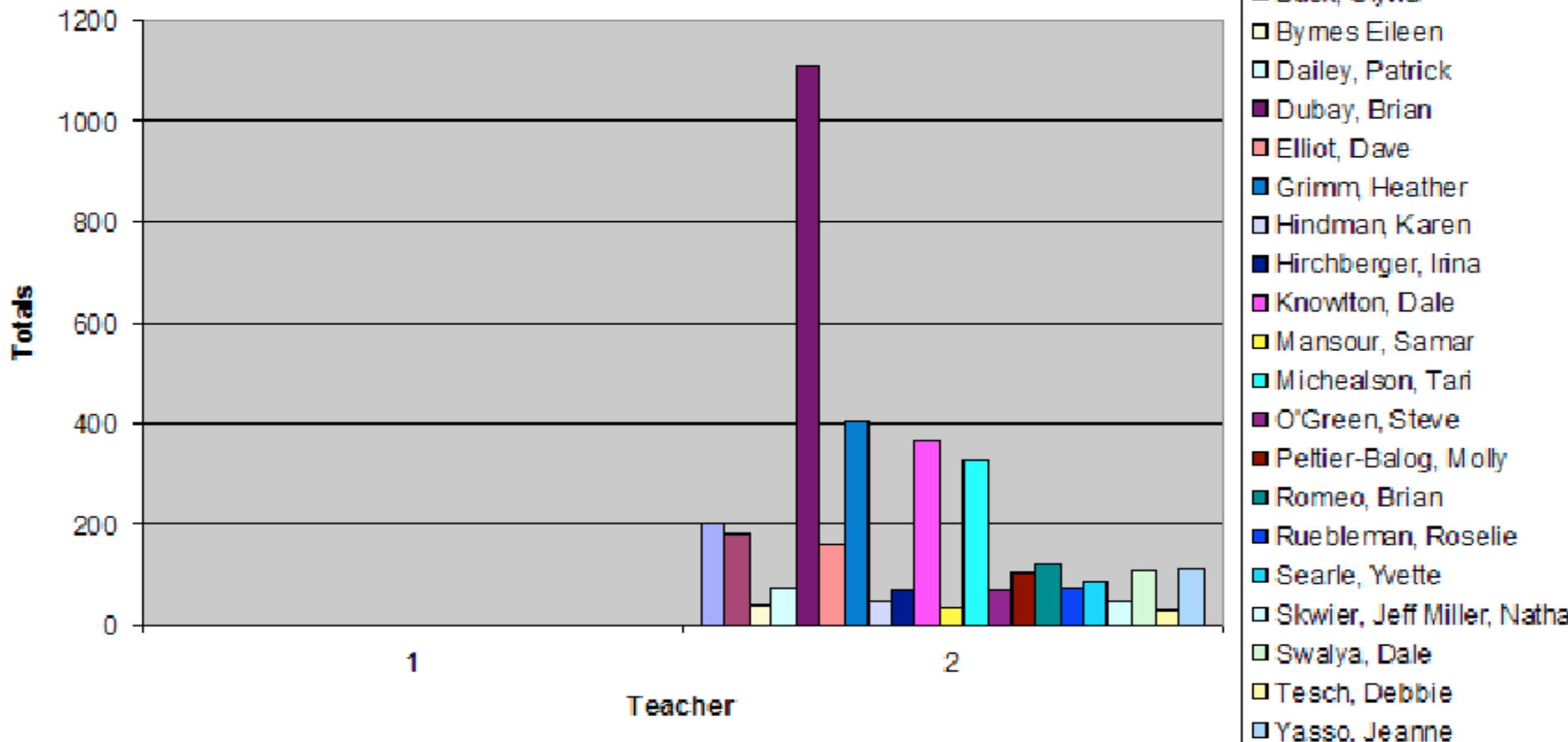
**Eyes**  
by PolarTRECProgram  
13 views  
1:12:21

**Bryan Dubay**  
by jdperformance1  
59 views  
5:09



# Once everyone is on your side... Incredible things can happen

Food Drive Tally



At first this started as a joke..

Installing Seismic Stations on Glacial Ice.mov



**I claim this as Mt. DuBay**



# Was all this worth it?

I can ask my students do they remember ....

Where is Antarctica, Where is McMurdo, how a seismometer works, what do emperor penguins sound like, and why was Dr. Hansen placing these seismometers in Antarctica...

And they remember!!

**Success!!!**

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TEACHERS AND RESEARCHERS  
EXPLORING AND COLLABORATING

# Teachers: Join PolarTREC!

[www.polartrec.com/about/join](http://www.polartrec.com/about/join)

Every teacher can participate in different ways:

- **Following Expeditions**
- **Participate in PolarConnect Events**
- **Join the Polar Education Email List**
- **Take Online Professional Development Courses**
- **Become a PolarTREC Teacher!**



TEACHERS AND RESEARCHERS  
EXPLORING AND COLLABORATING

# Upcoming Events

Watch for and register for upcoming events at [www.polartrec.com](http://www.polartrec.com)!

# Thank You!

*An archive of the event will be available shortly.*

<http://www.polar-trec.com/polar-connect/archive>

