

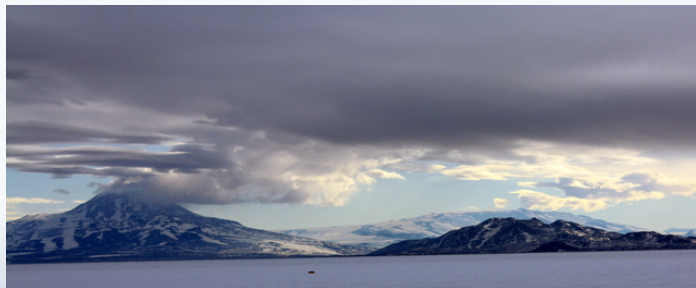


TEACHERS AND RESEARCHERS  
EXPLORING AND COLLABORATING

# Welcome to a Special Live Event!

## Antarctica Day 2012 and the WISSARD Project

with Mike LeBaron and  
Dr. Ross Powell



**3 December 2012**

[www.polar-trec.com](http://www.polar-trec.com)

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 shows the Blackboard Collaborate interface. The main window displays 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: "AUDIO & VIDEO" with a "Talk" button and a "Video" button; "PARTICIPANTS" with a list of participants including Sarah Crowley and Arctic Research Consortium of the US; "MAIN ROOM" with a list of participants; and "CHAT" with a list of messages. A "Recording" button is visible in the top right corner of the main window. Blue arrows point from the text labels on the left to the corresponding elements in the interface.

## Please Note:

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

# Participant Introductions

**Please type in the chat box:**

- ✓ Name
- ✓ Affiliation (School, Institution, Etc.)
- ✓ The number of students and adults participating with you in the same location



TEACHERS AND RESEARCHERS  
EXPLORING AND COLLABORATING

# 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.



TEACHERS AND RESEARCHERS  
EXPLORING AND COLLABORATING

# Questions

## During the Presentation:

- Type your question in the text chat box

## At the End of the Presentation:

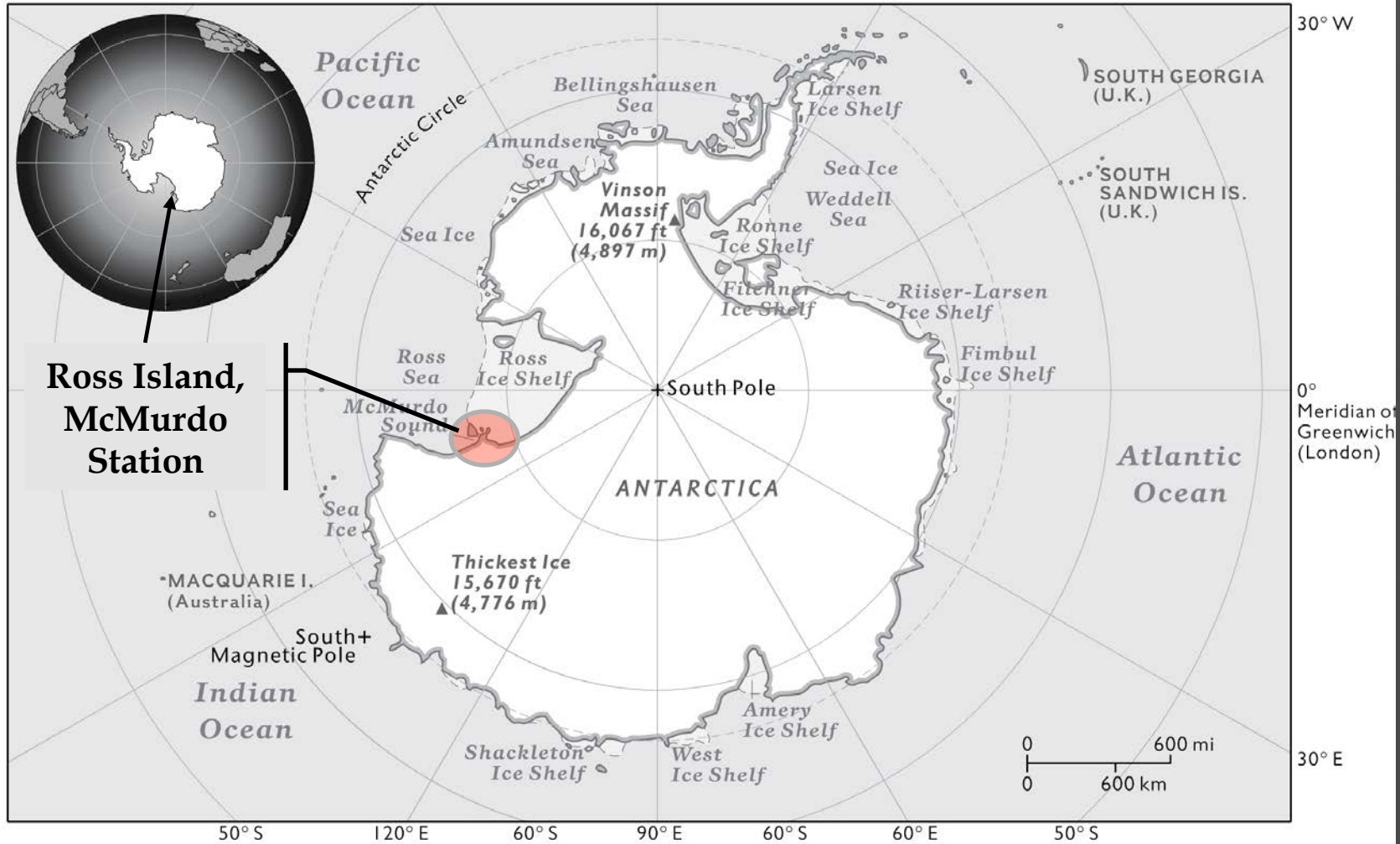
- Raise your hand with the “hand button”.
- PolarTREC staff will call on you.
- Speak loud and clear and directly into the phone to ask your question.

**Click on the Talk button to speak.**

**Unclick when you are done.**



# Where are we?



**Ross Island,  
McMurdo  
Station**



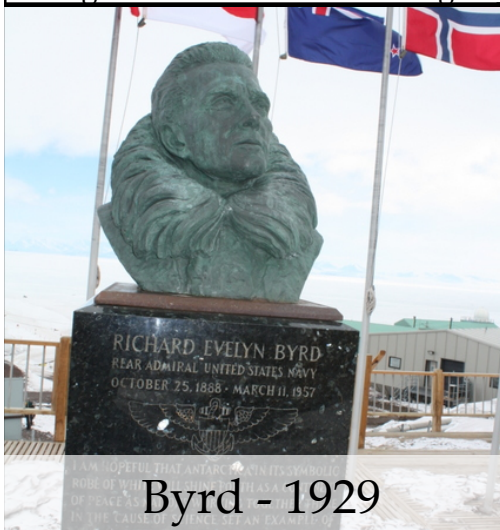
**education**

Copyright © 2009 National Geographic Society, Washington, D.C.

# Brief History of Antarctic Exploration



Sir James Clark Ross  
[ageofex.marinersmuseum.org](http://ageofex.marinersmuseum.org)



Shackleton - Endurance  
From [coolantarctica.com](http://coolantarctica.com)

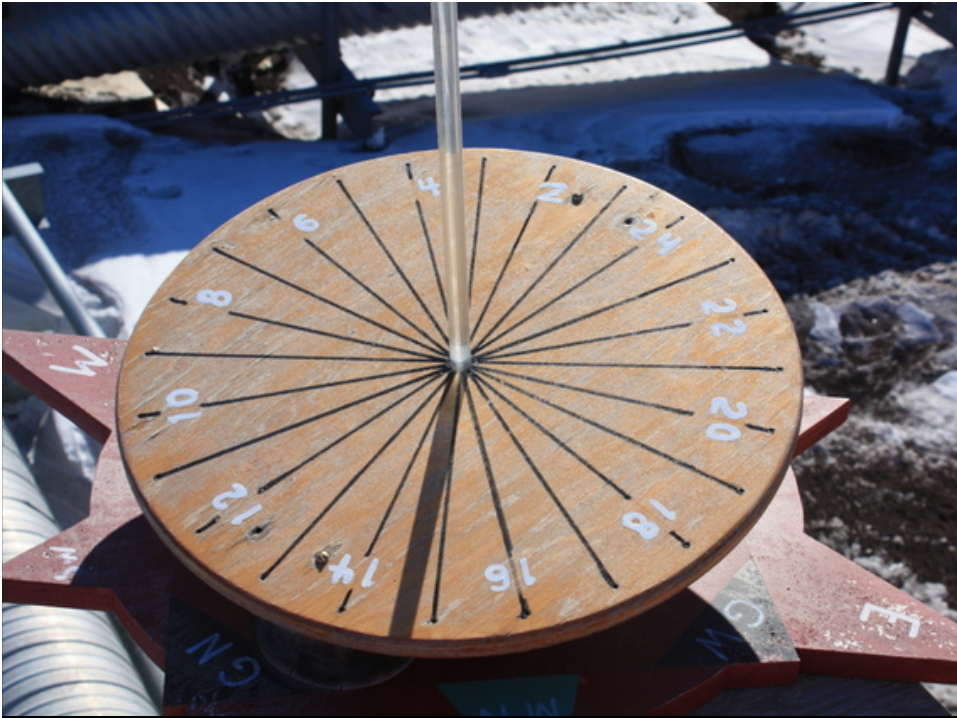


Amundsen at the pole, 1912  
From [coolantarctica.com](http://coolantarctica.com)











# What is special about Antarctica?

**It's the coldest, driest place on Earth.**

**It is the last continent on Earth to be explored.**

**Man has done very little to affect the land and environment.**

**It is one of the few places on Earth that man has agreed to preserve and keep as it is.**

# The Antarctic Treaty

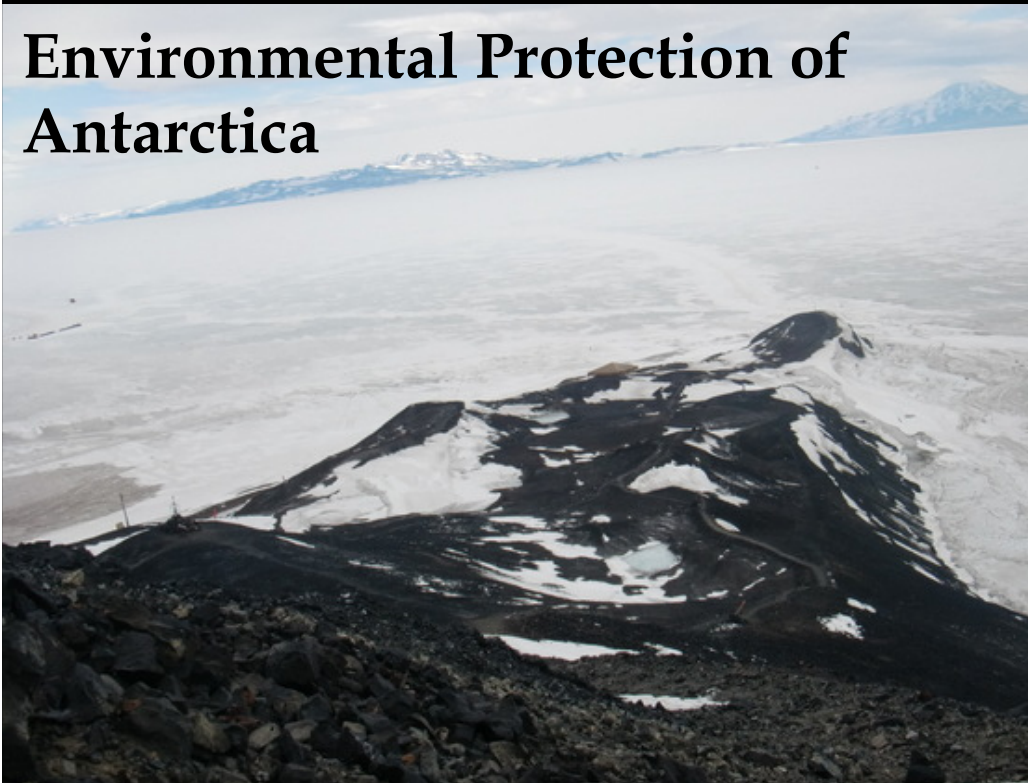
- ▣ Written in 1959 to create a “common”
- ▣ Observed by 48 Countries
- ▣ Requires:
  - Peaceful uses of Antarctica, no military presence
  - Activities be limited to scientific research
  - Results of scientific research are to be shared
  - No country may claim any lands
  - No one may explode nuclear devices or dump nuclear wastes
  - No mining or resource exploitation

# Protecting the Common





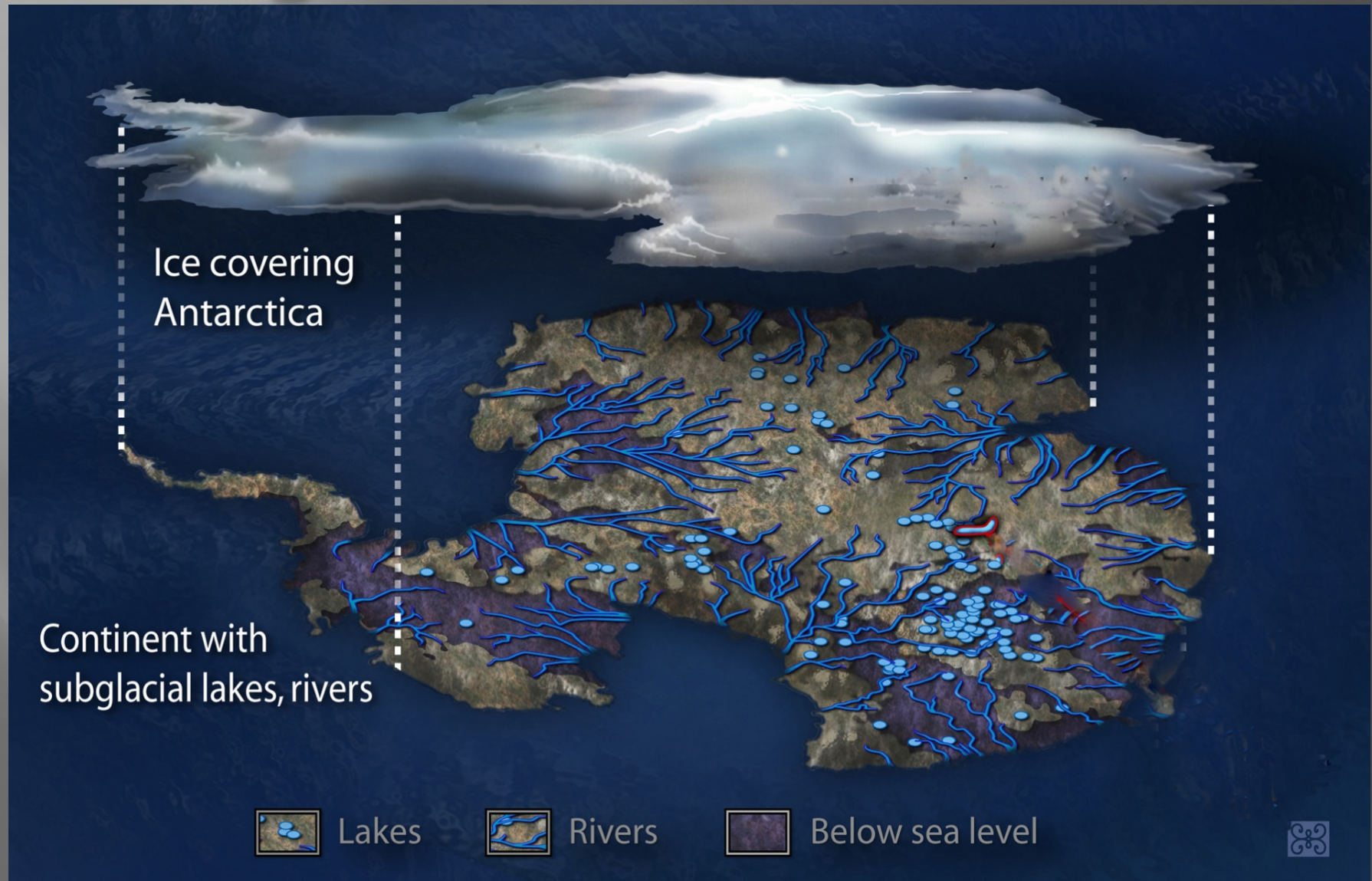
## Environmental Protection of Antarctica

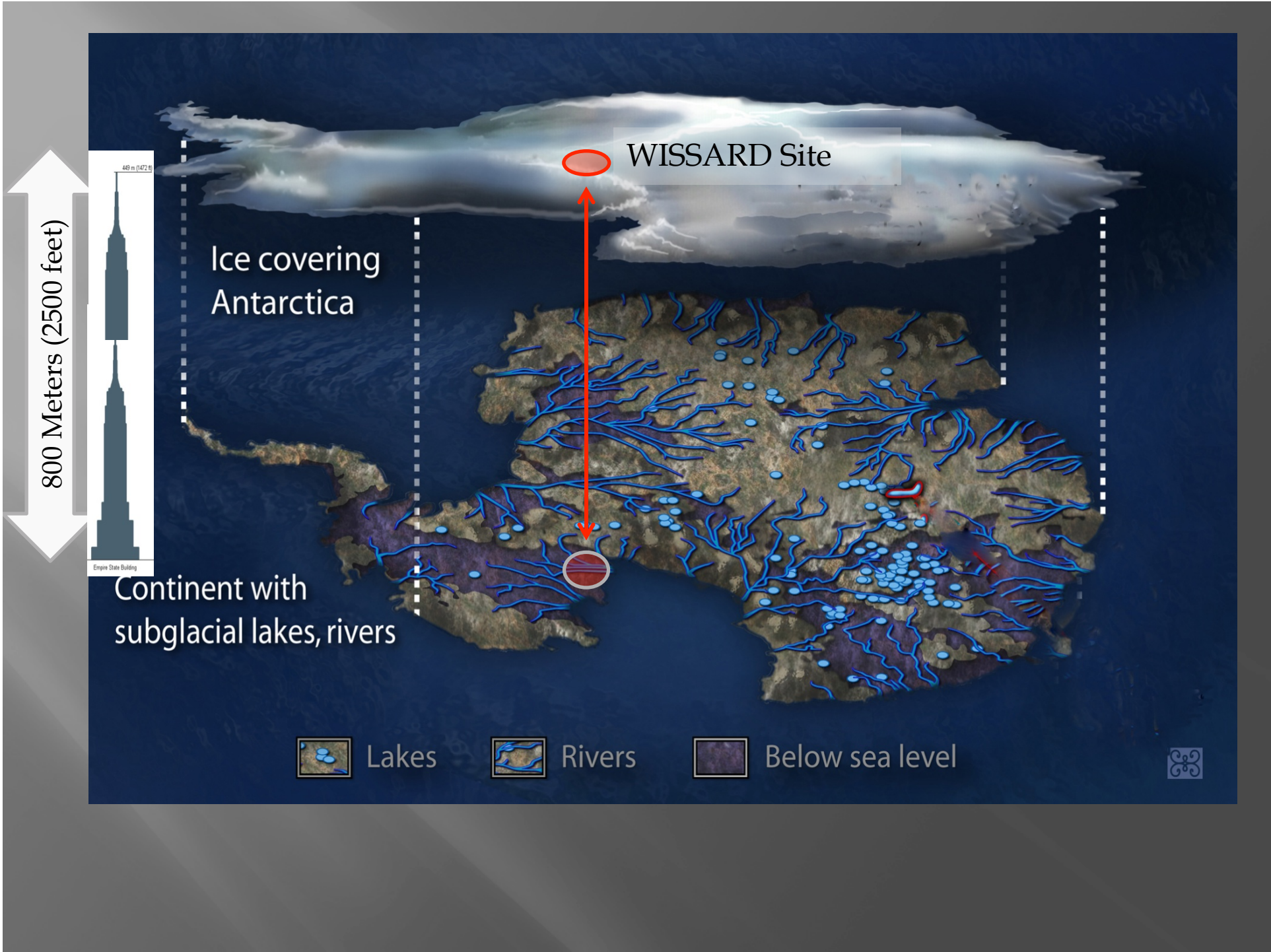




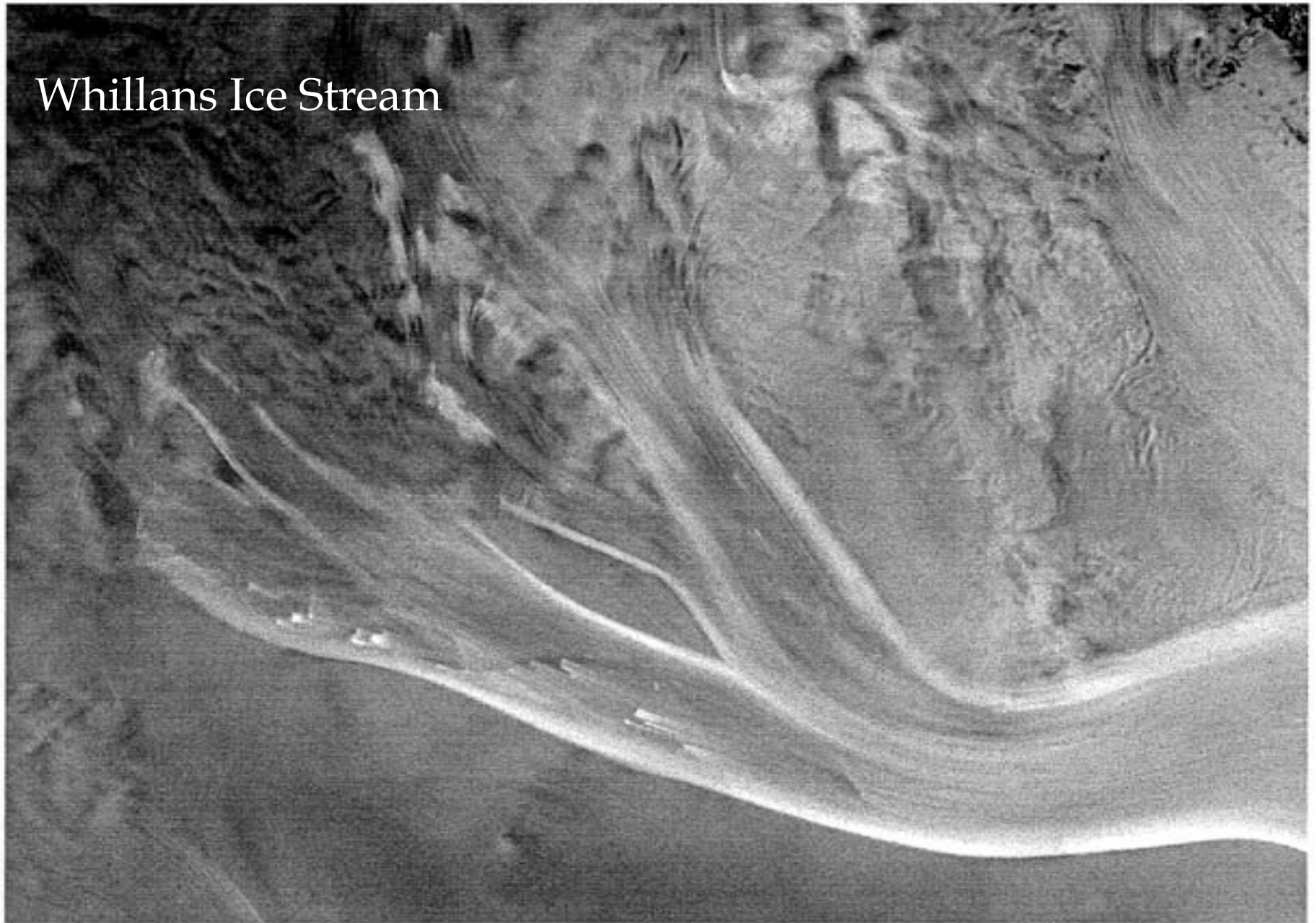


# Subglacial Rivers and Lakes

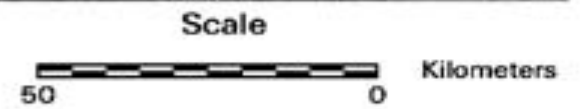




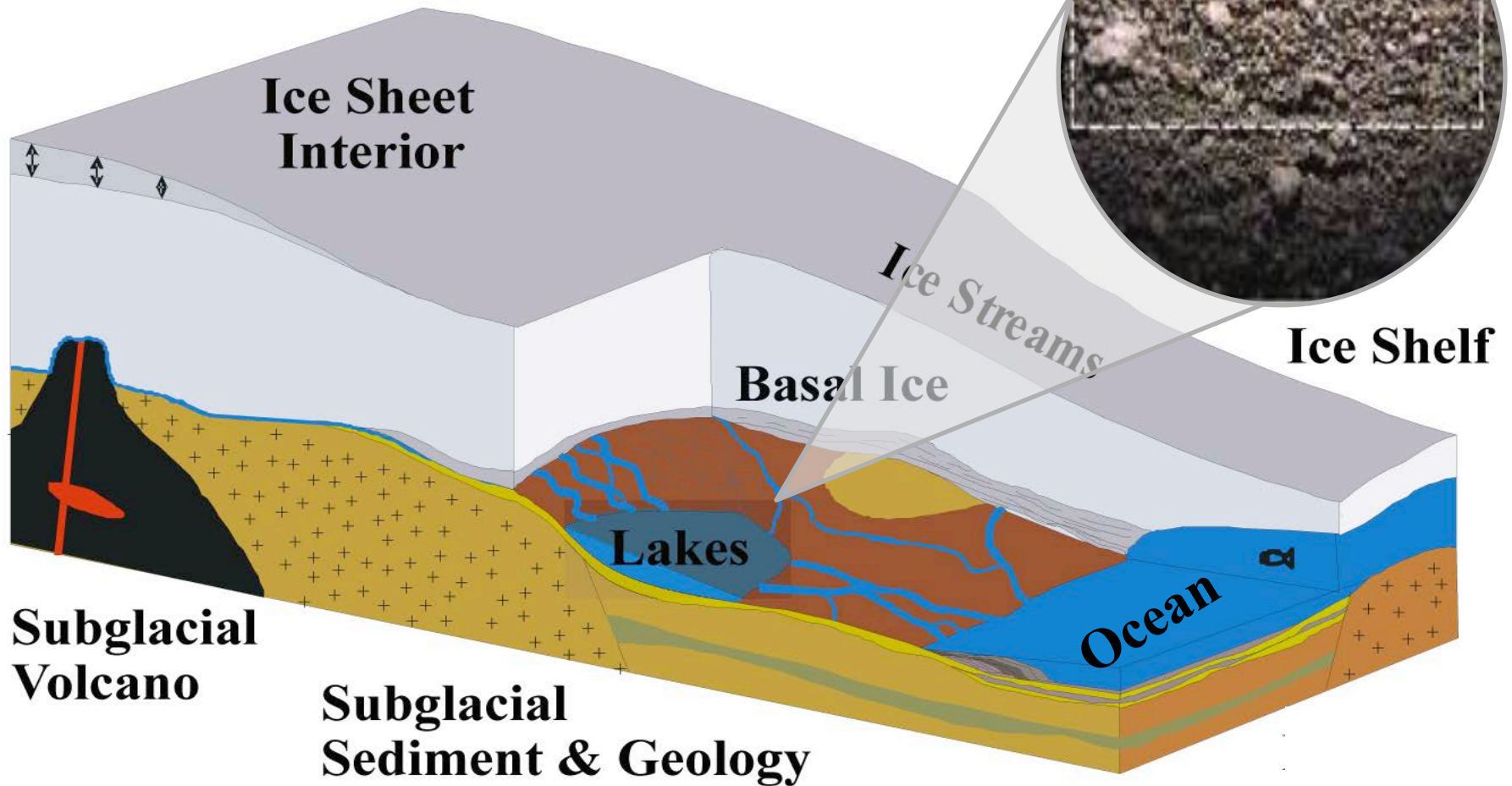
# Whillans Ice Stream



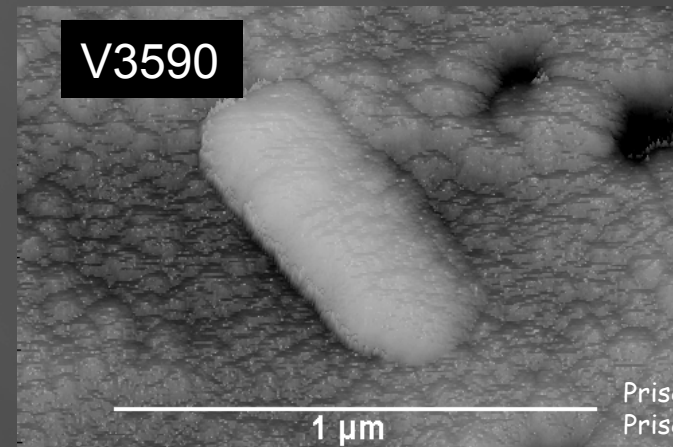
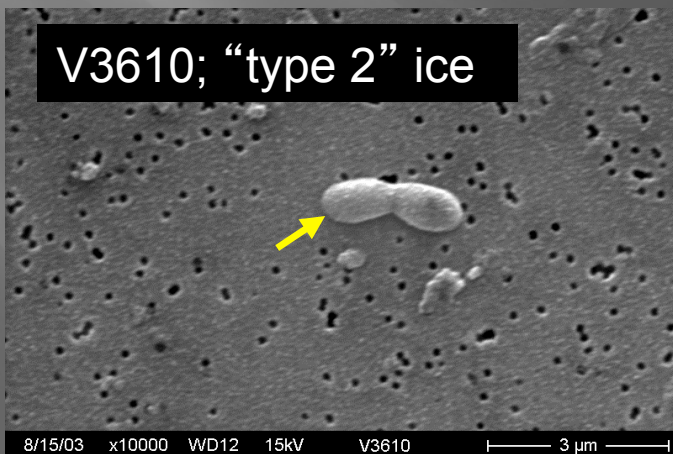
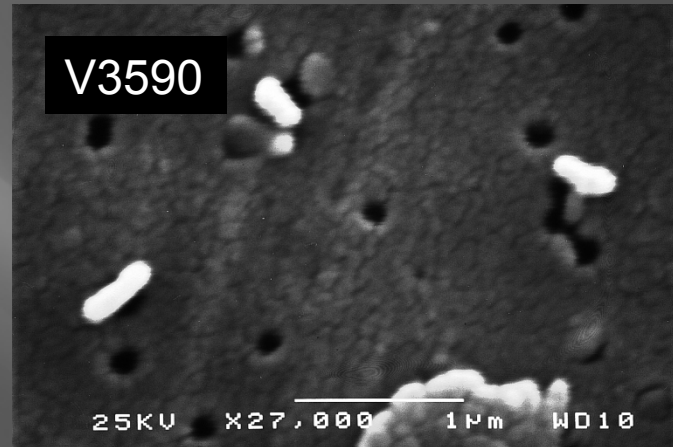
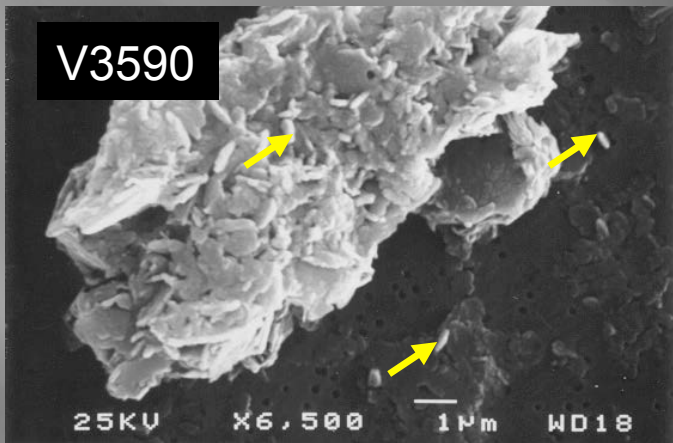
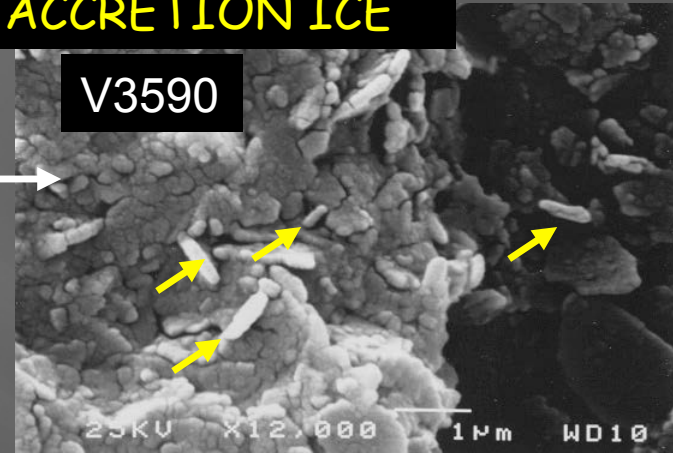
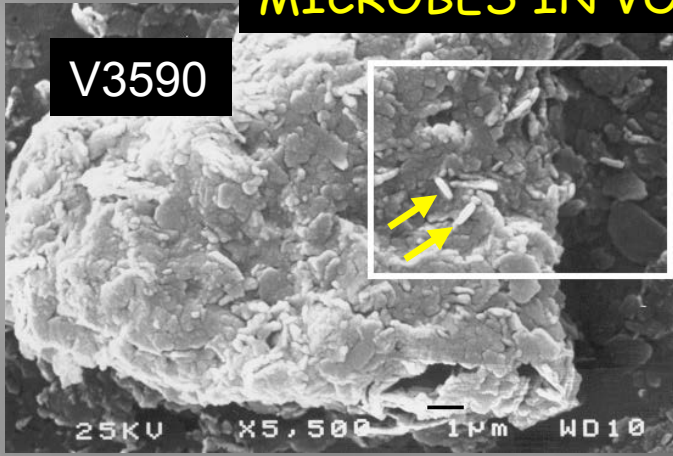
From [researchnews.osu.edu](http://researchnews.osu.edu)



**Subglacial sediments**  
(image from <http://www.sale.scar.org>)

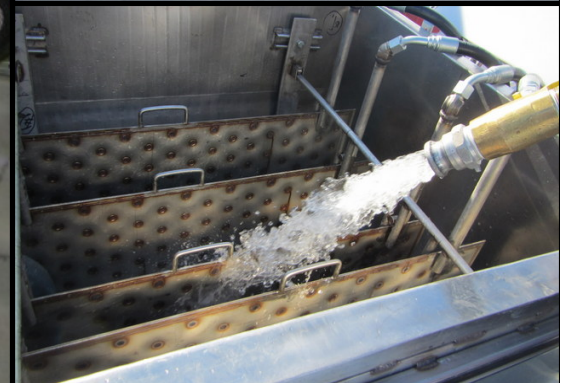


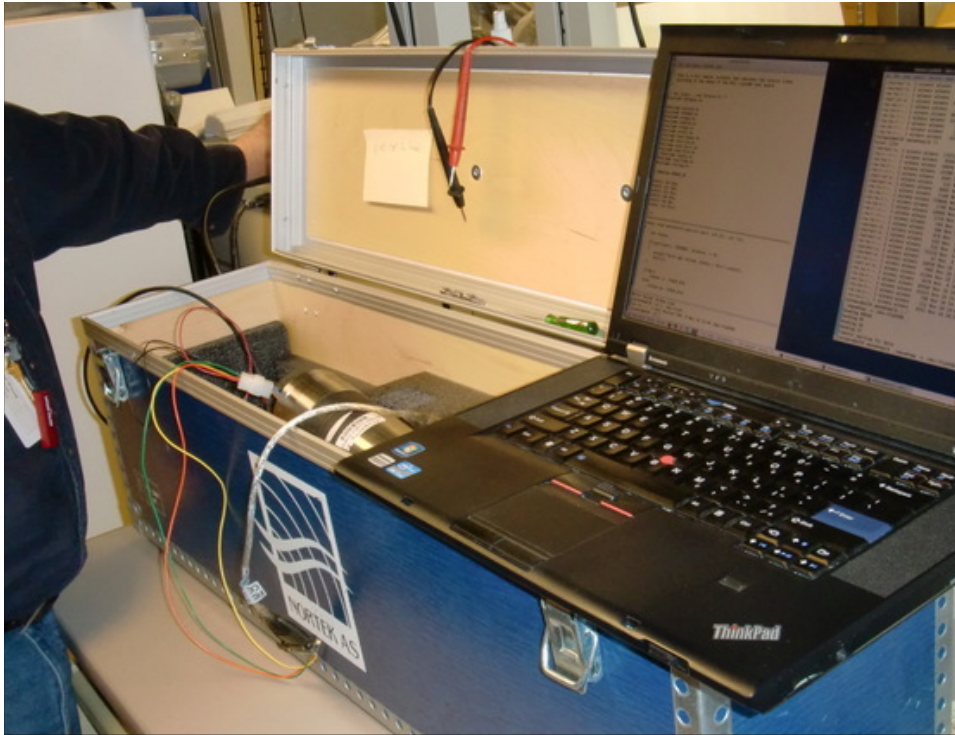
# MICROBES IN VOSTOK ACCRETION ICE



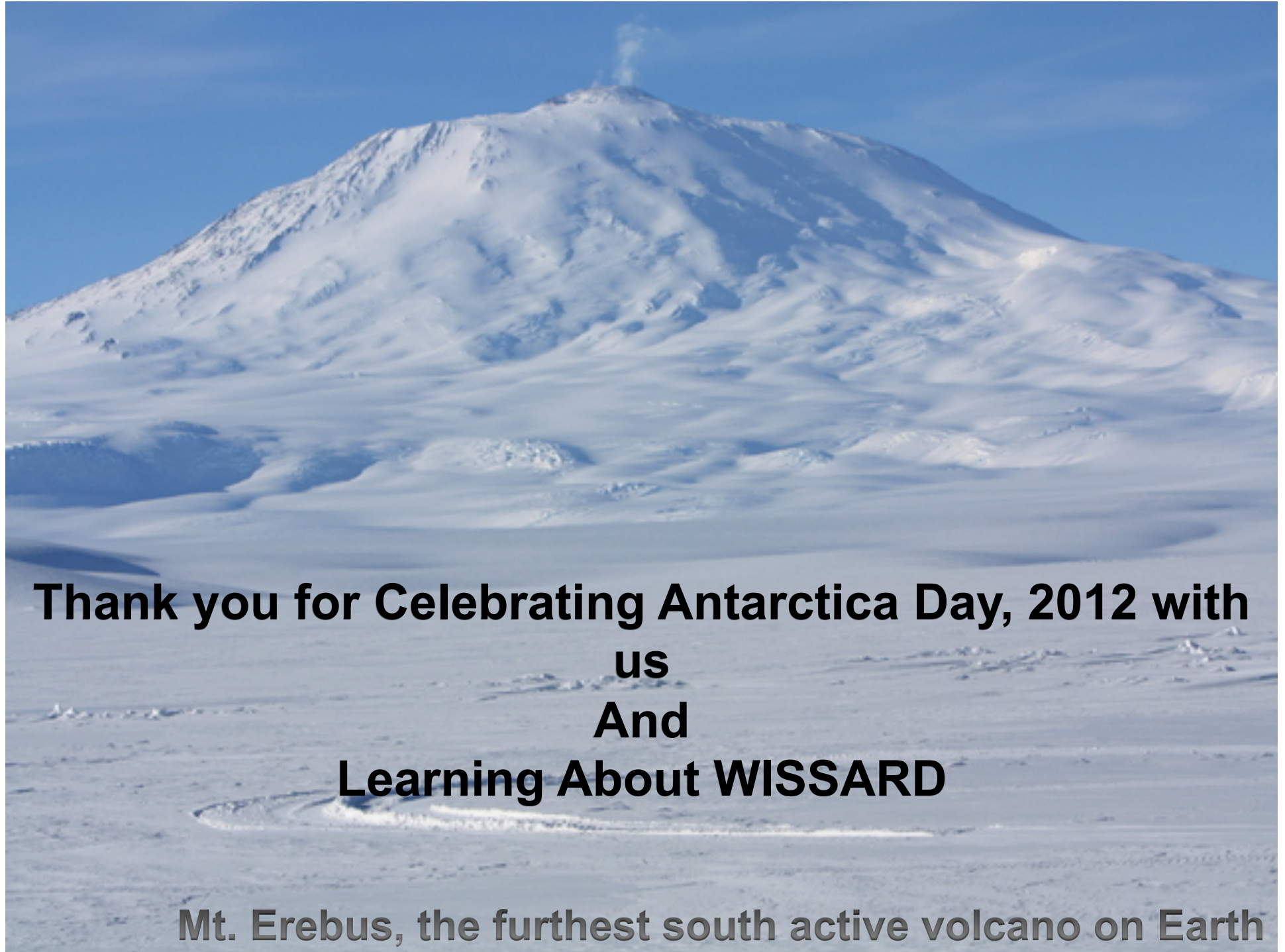
Priscu et al. 1999;  
Priscu unpubl.

# Drilling and Testing Operations









**Thank you for Celebrating Antarctica Day, 2012 with  
us  
And  
Learning About WISSARD**

**Mt. Erebus, the furthest south active volcano on Earth**



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)



TEACHERS AND RESEARCHERS  
EXPLORING AND COLLABORATING

# Thank You!

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

