

Live from IPY!

with Mike Rhinard *and the Research Experience for Undergraduates (REU) team in Svalbard, Norway*



10 August 2009

12:00 noon ADT (10 am HST, 1 pm PDT, 2 pm MDT,
3 pm CDT, 4 pm EDT)



Welcome to HorizonWimba



Arctic Research Consortium of the United States

List of all participants

Raise your hand to ask a question

Return to the lobby or exit

Slides will be shown here

If using VOIP, press here to talk

'Chat' with one person or the entire group

The screenshot shows a Wimba webinar interface. At the top, a slide reads "Welcome to HorizonWimba" with the ARCUS logo and "Arctic Research Consortium of the United States" below it. A toolbar contains a "TALK" button, microphone, video, and other icons. A chat window at the bottom left shows a conversation. On the right, a "People (3)" list shows participants: Janet_Warburton, ronnie, and tina. At the bottom right, a navigation bar includes "Exit - Lobby - Help" options. Red circles highlight the "TALK" button, the chat window, the "People" list, and the "Exit - Lobby - Help" options. Arrows point from text labels to these elements.

Please note: Today's event will be recorded and archived at www.polartrec.com.



Roll Call

When called, please state your:

- ✓ Name
- ✓ School / Classroom
- ✓ The number of students participating from your classroom today



International Polar Year (IPY)

The International Polar Year (2007-2009) is an exciting scientific campaign focusing on the world's polar regions!

IPY is a time for discovery, science, learning, and awareness about the polar regions with activities for youth, scientists, and the public.

www.ipy.org



What is PolarTREC?

PolarTREC is a professional development experience in which K-12 teachers are paired with researchers in authentic polar research experiences.

In the next three years over 40 teachers from around the United States will join scientists in the Arctic and Antarctica in celebration of the International Polar Year!

www.polartrec.com



Today's Presenters:



Mike Rhinard

PolarTREC teacher, Boise School District, Boise, ID

Julie Brigham-Grette, researcher

Univ. of Massachusetts, Amherst, MA

Ross Powell, researcher

Northern Illinois Univ., DeKalb, IL

REU undergraduate students:

Theo Barnhart, Whitman College, Walla Walla, WA

Laura Kehrl, Dartmouth College, Hanover, NH

Hannah Marshburn, Univ. of Miami, Miami, FL

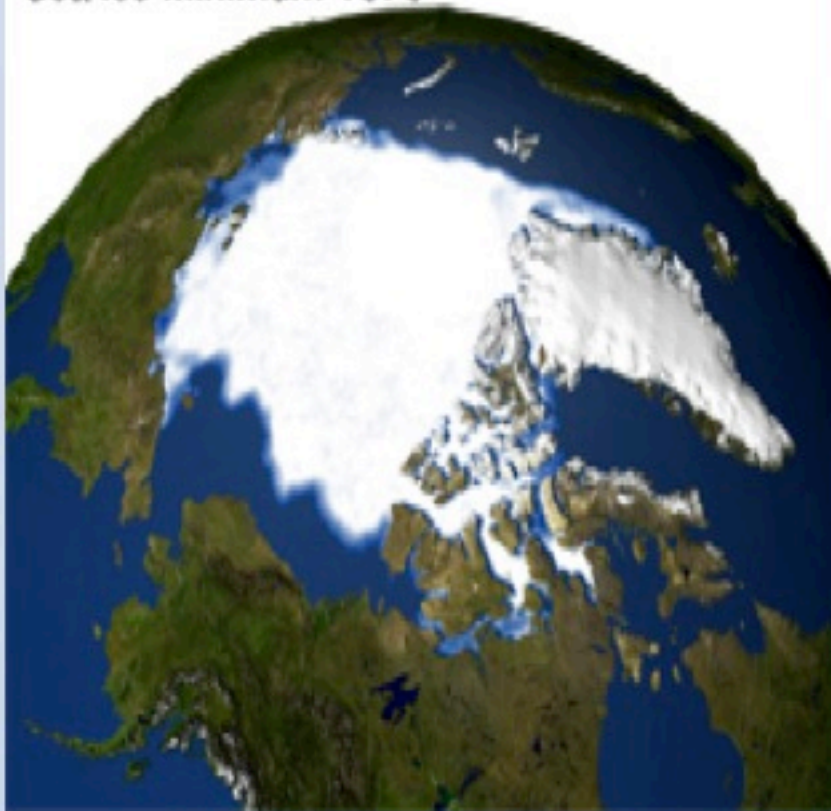
Laura Poppick, Bates College, Lewiston, ME

Phaedra Tinder, Bryn Mawr College, Bryn Mawr, PA

Hector Zamora, Univ. of Texas at El Paso, El Paso, TX

High Arctic Change

Sea Ice Minimum 1979



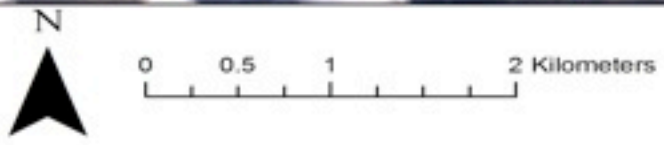
Sea Ice Minimum 2005



Where Are We?



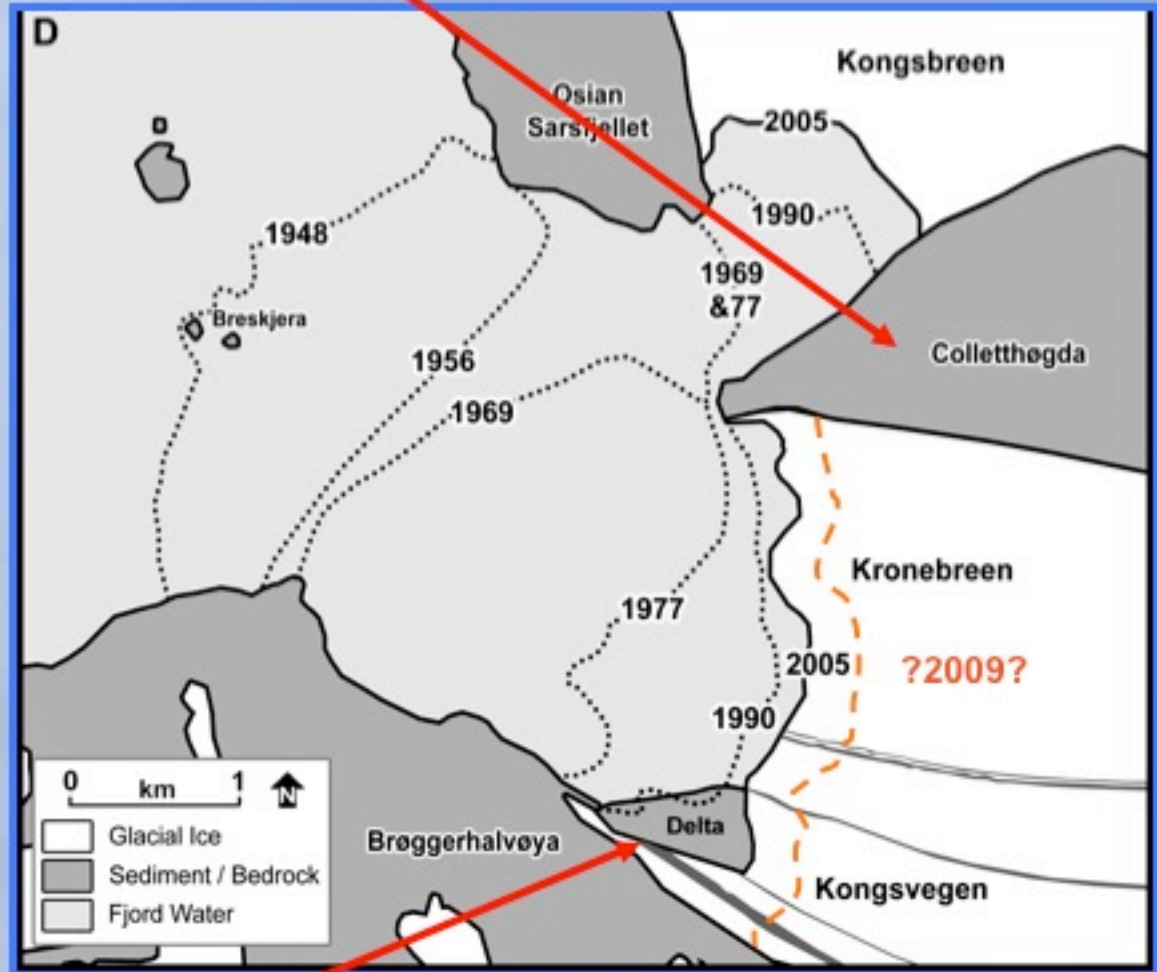
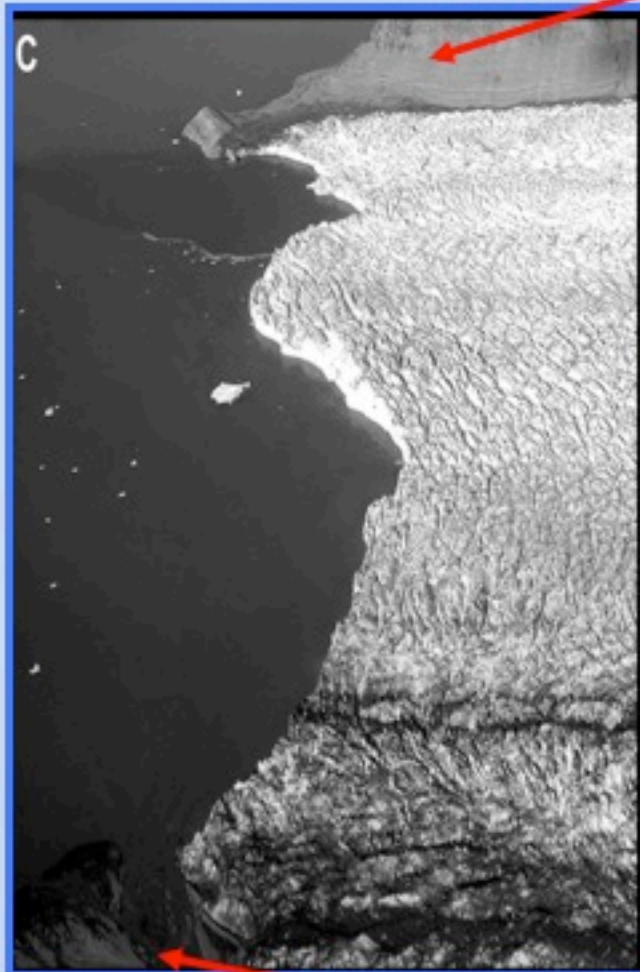
High Arctic Change - Svalbard



July 10, 1999 Landsat 7 composite
UTM Zone 33 N projection

High Arctic Change

Bedrock Ridge



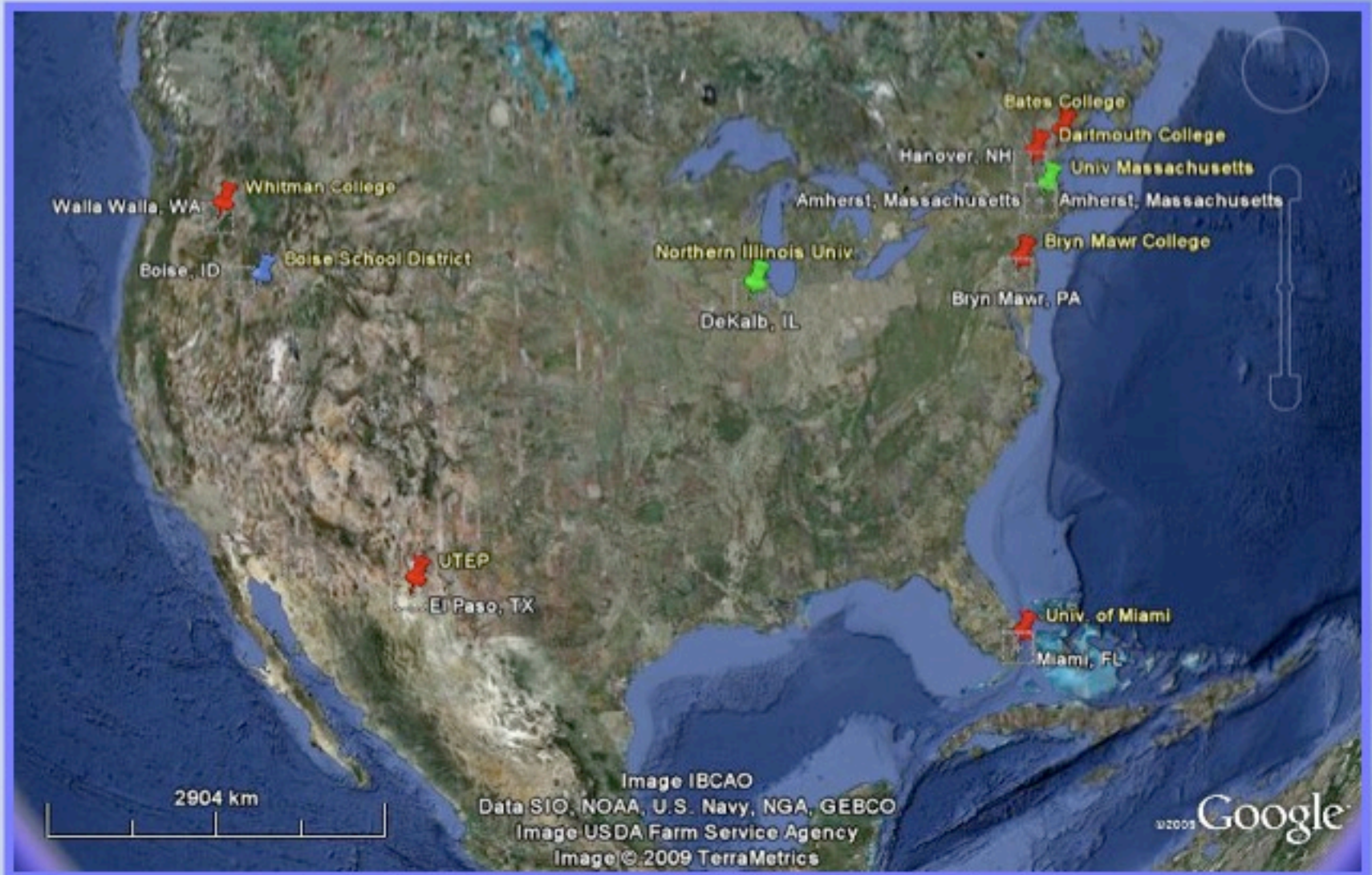
Delta



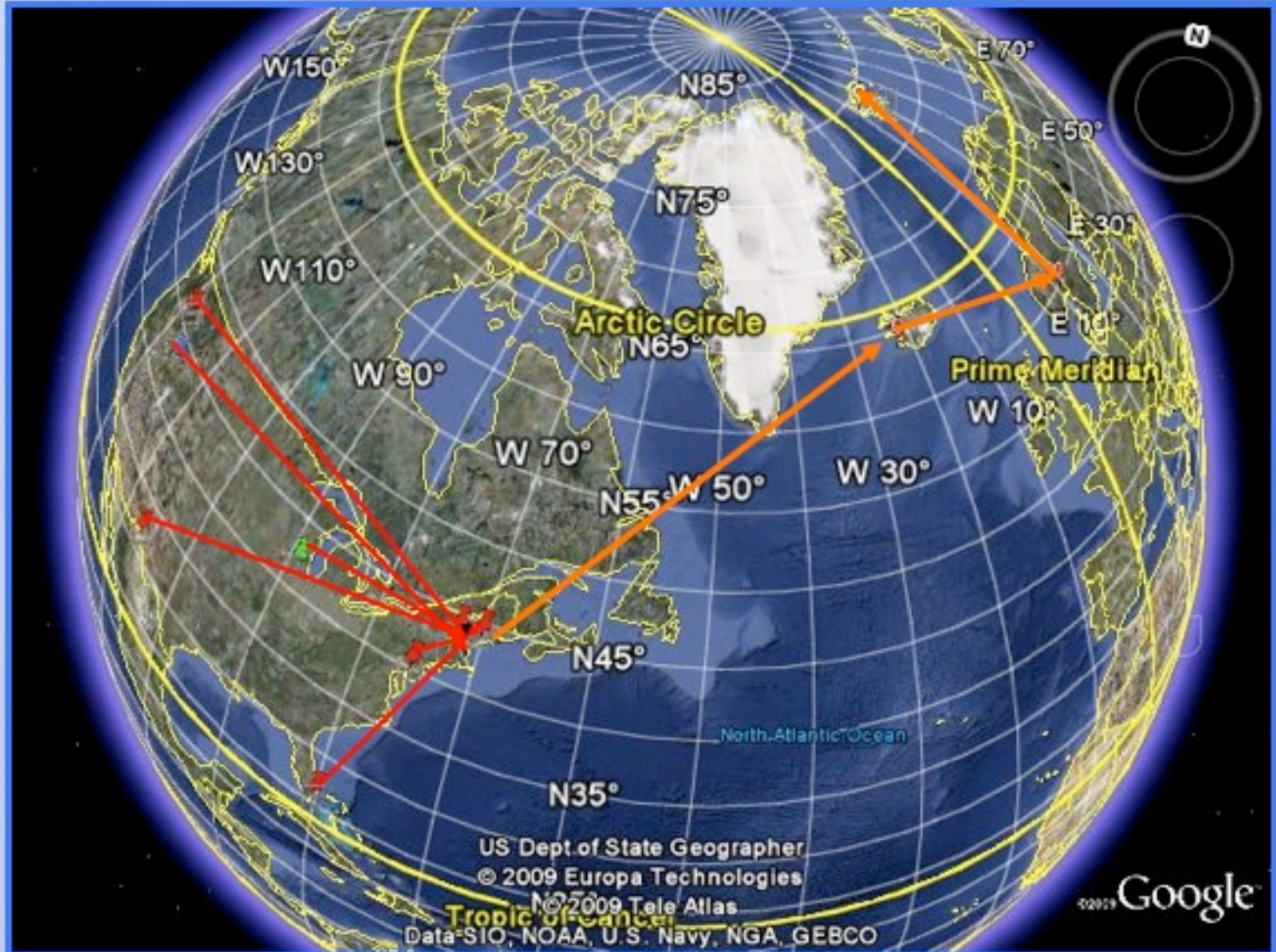
Research Experience for Undergraduates (REU)



Getting here . . . from where?



Getting from there . . . to here!

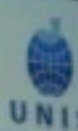



Field Safety Training



Field safety on Svalbard

~ summer and autumn ~

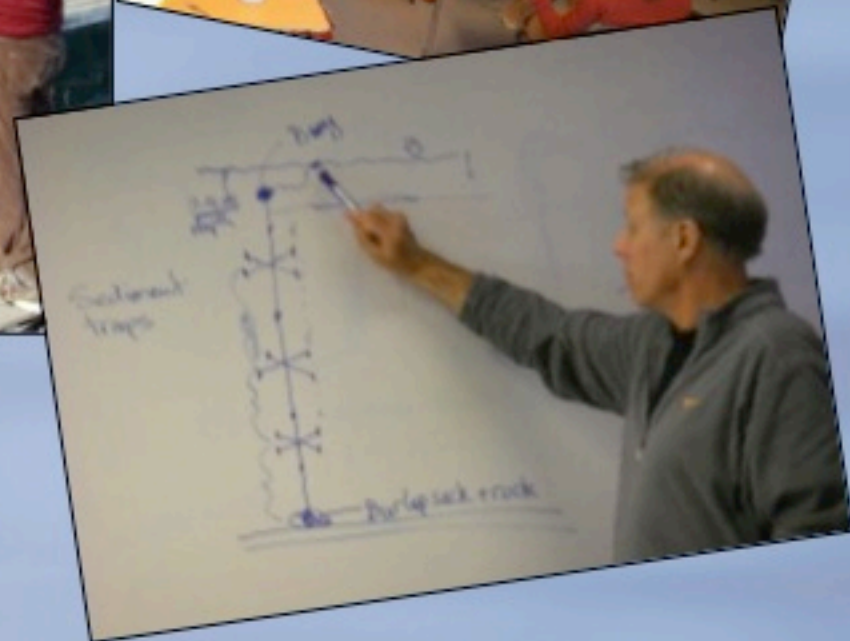



- The weather on Svalbard
- Clothing suited for fieldwork
- Movement on glaciers
- Working in mountains
- Hiking on tundra
- Movement on sea ice
- Travelling at sea
- The arctic wildlife
- Establishing a tent camp
- Field safety equipment
- Safety routines during fieldwork
- The arctic environment

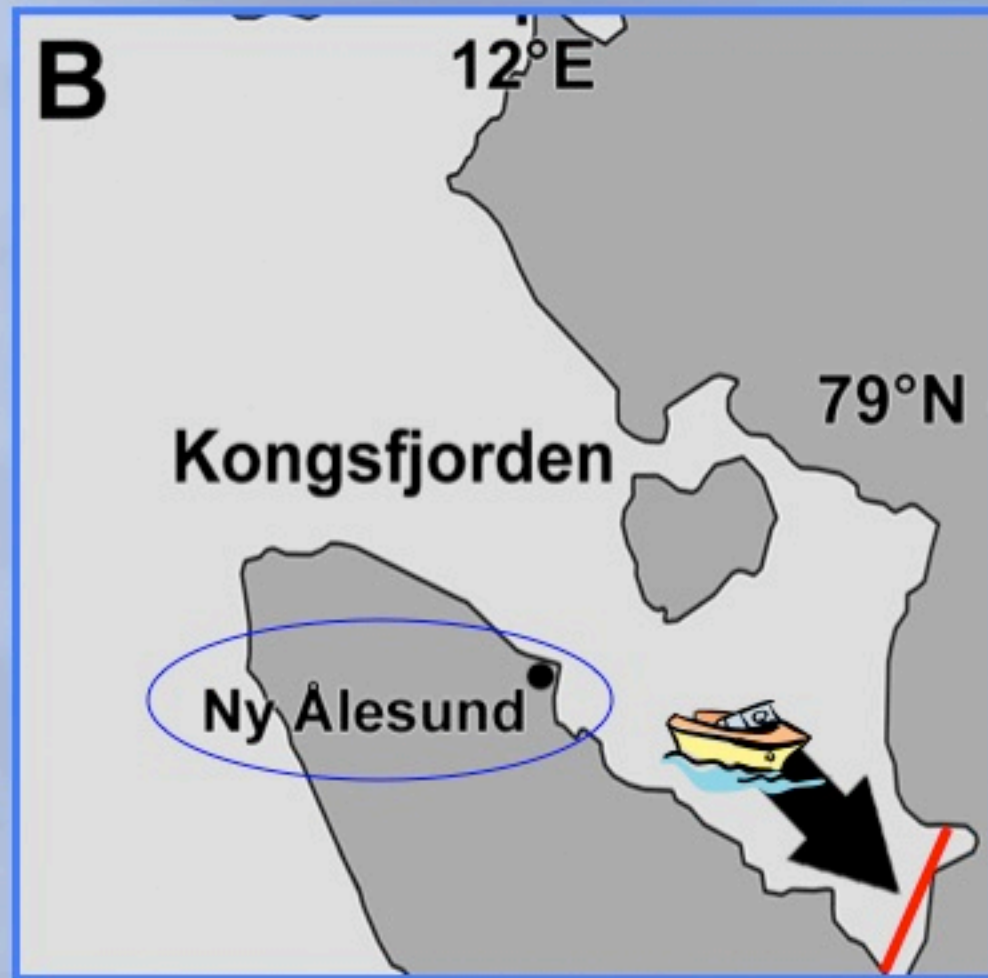
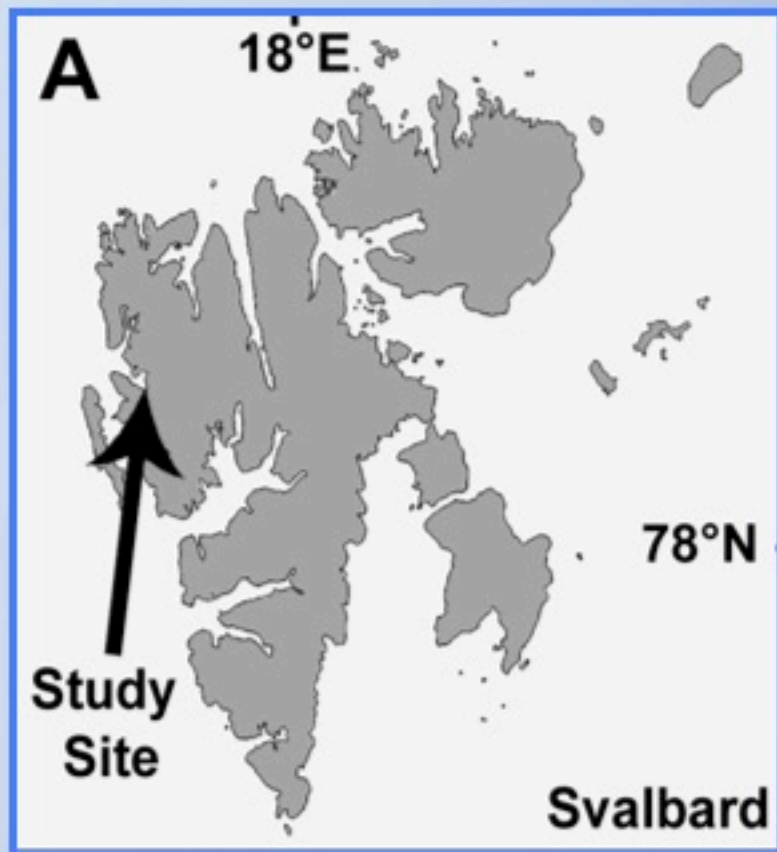




Training In the Classroom



WHERE?

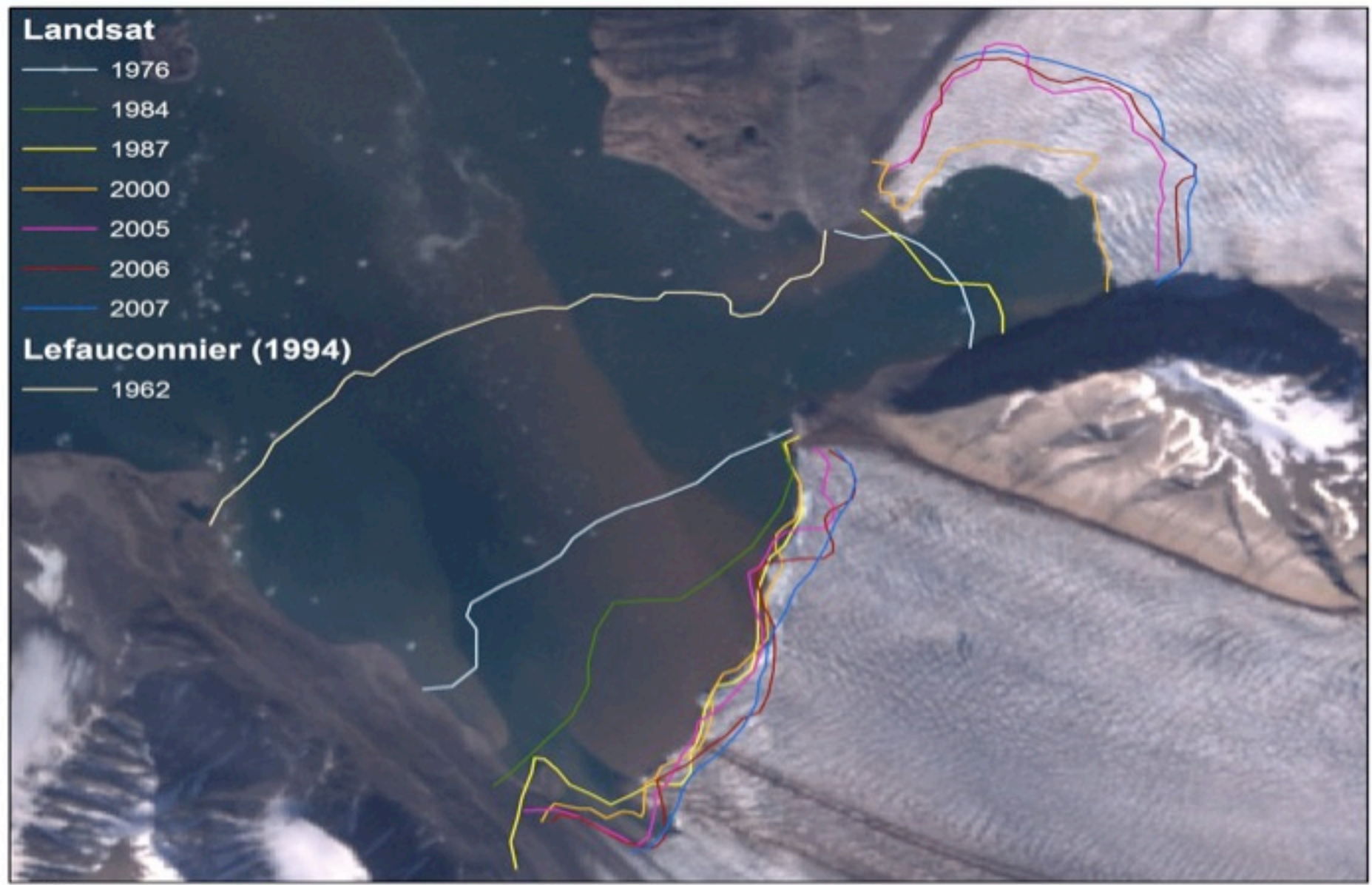


Landsat

- 1976
- 1984
- 1987
- 2000
- 2005
- 2006
- 2007

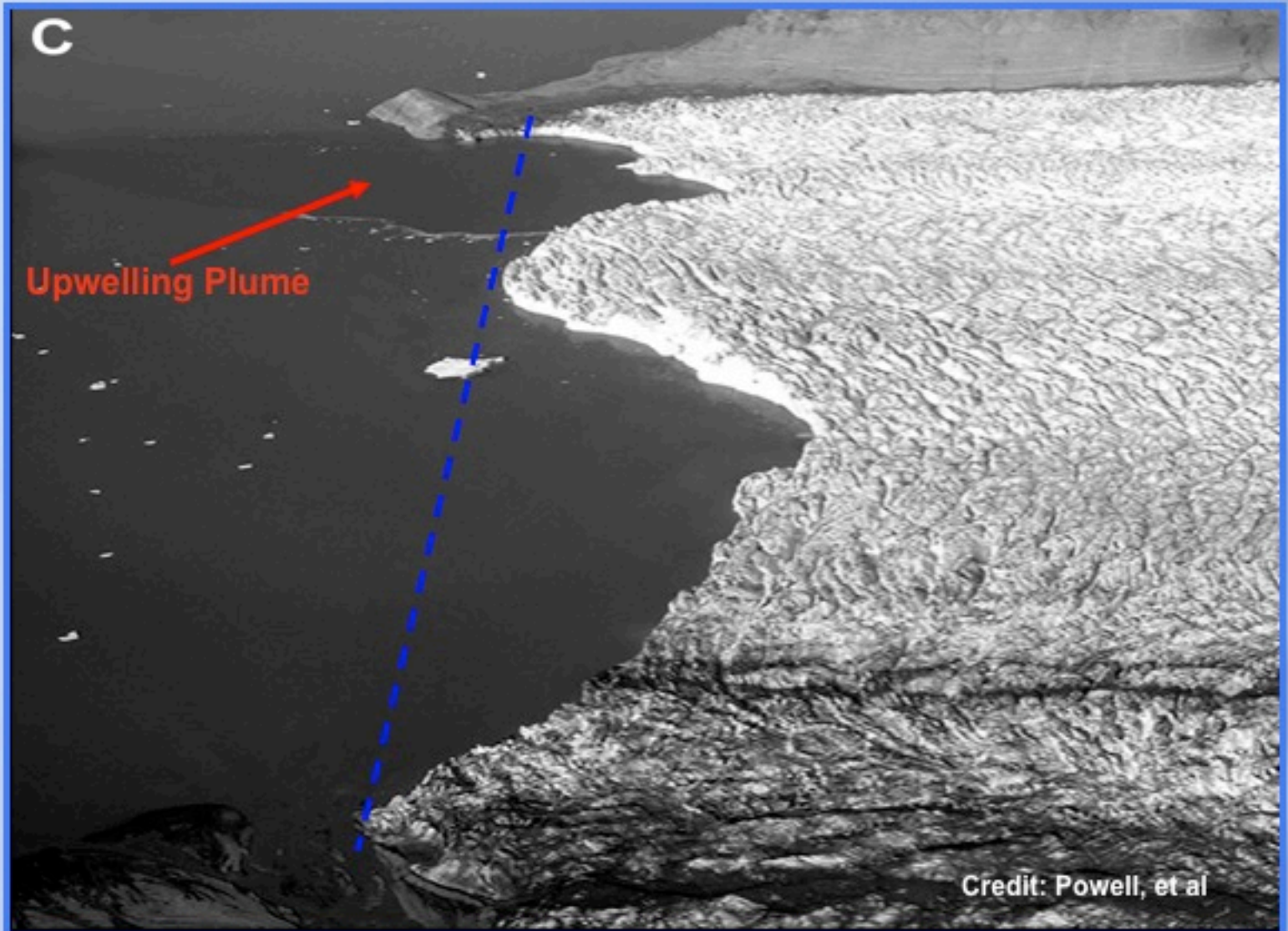
Lefauconnier (1994)

- 1962

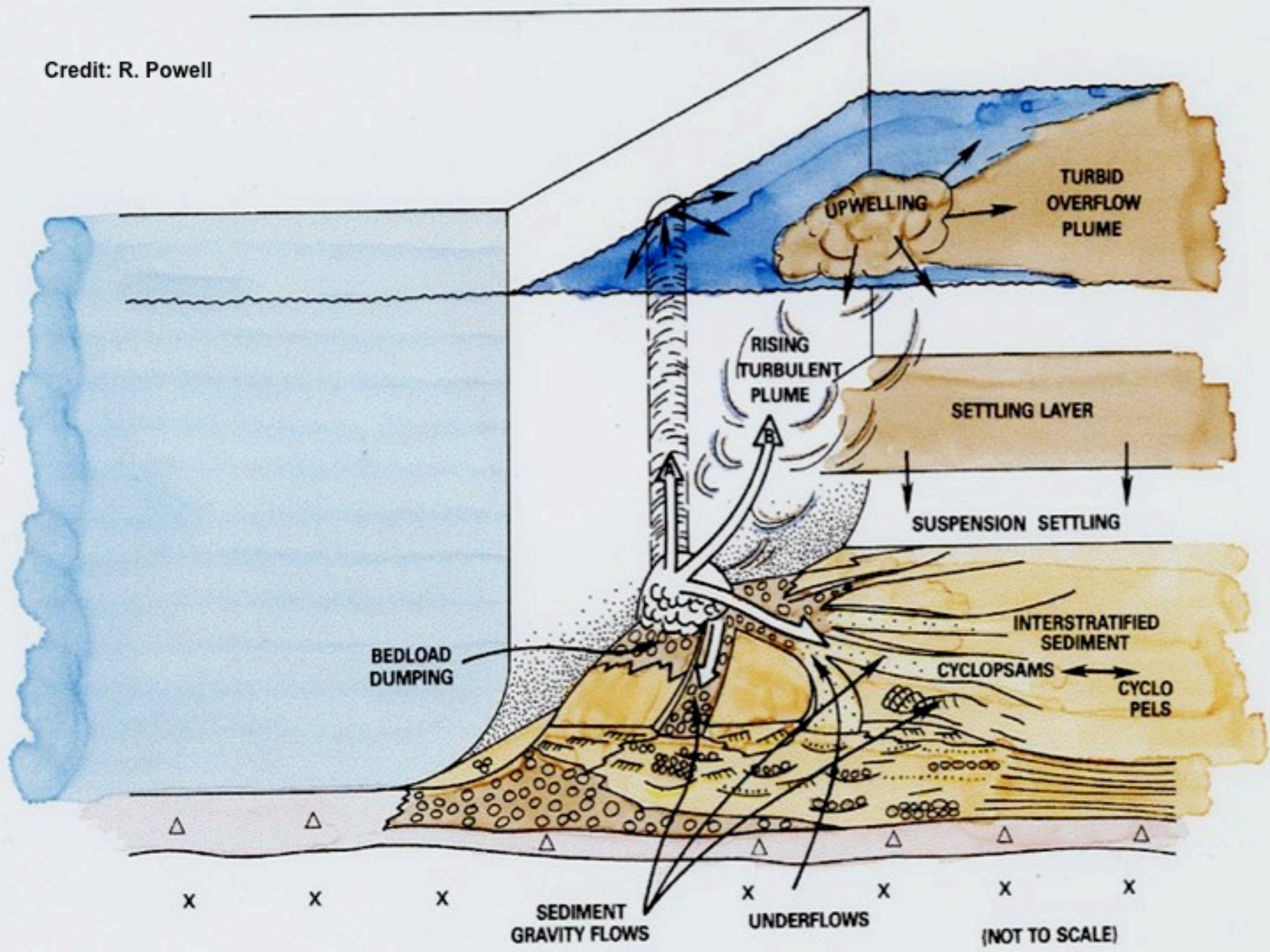


July 10, 1999 Landsat 7 composite
UTM Zone 33 N projection

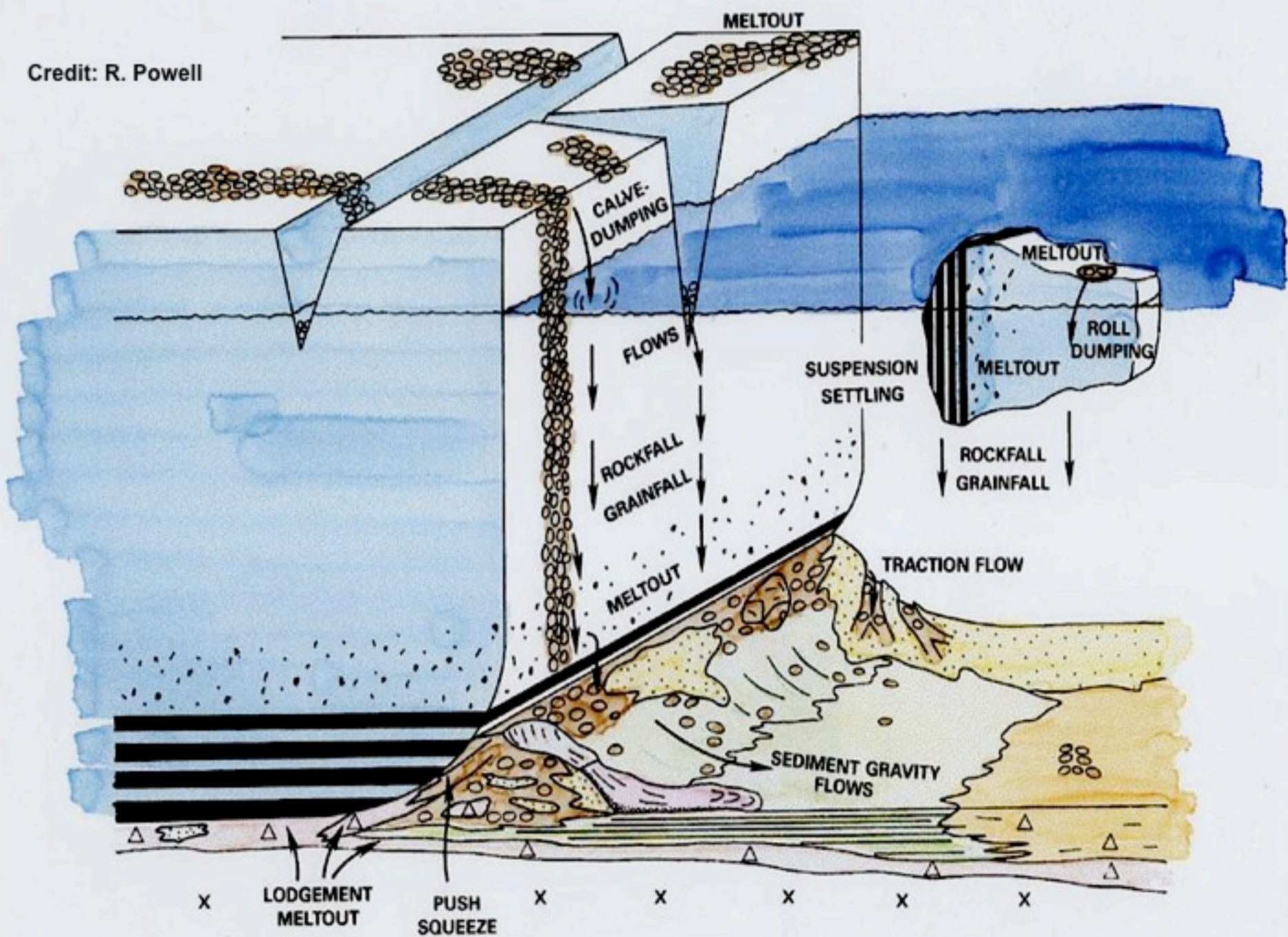
Ablation – Subglacial Meltwater



Credit: R. Powell



Credit: R. Powell



(NOT TO SCALE)



Our daily commute



What are we doing?



CTD



ECHOSOUNDER



Head in a bag?



What are we doing?



Tide Gauge



**Rock & Iceberg
Sampling**

What are we doing?



Sediment Traps



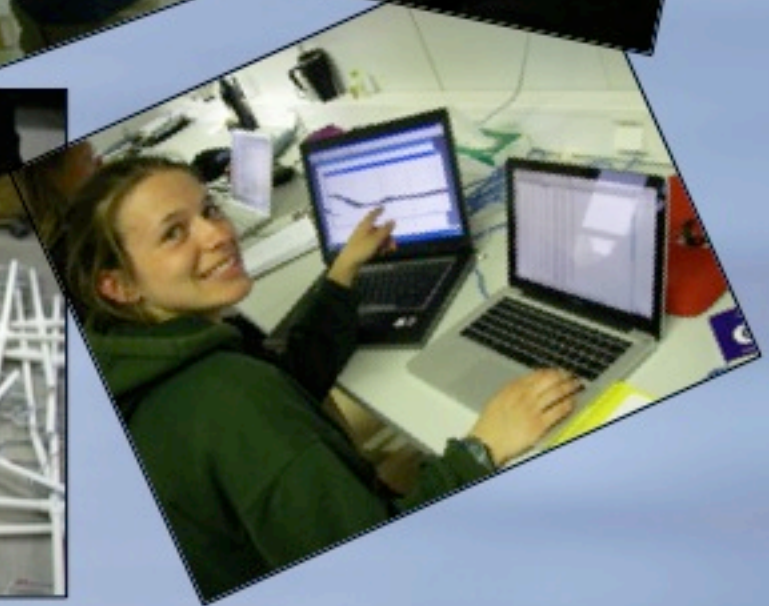
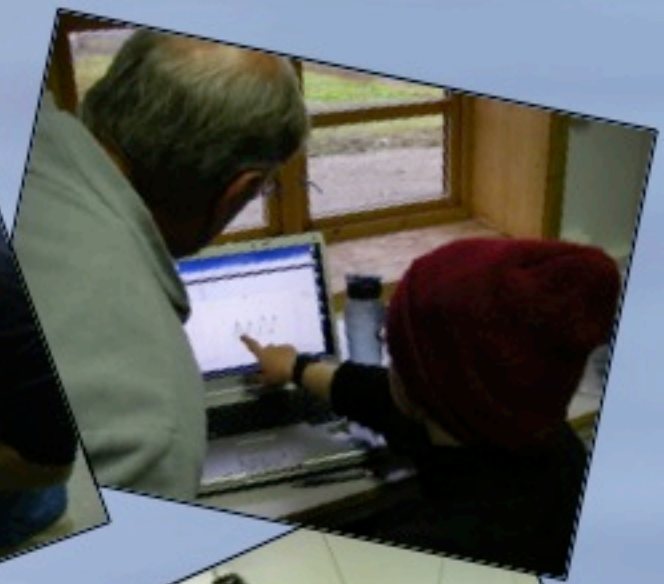
Ekman

What are we doing?



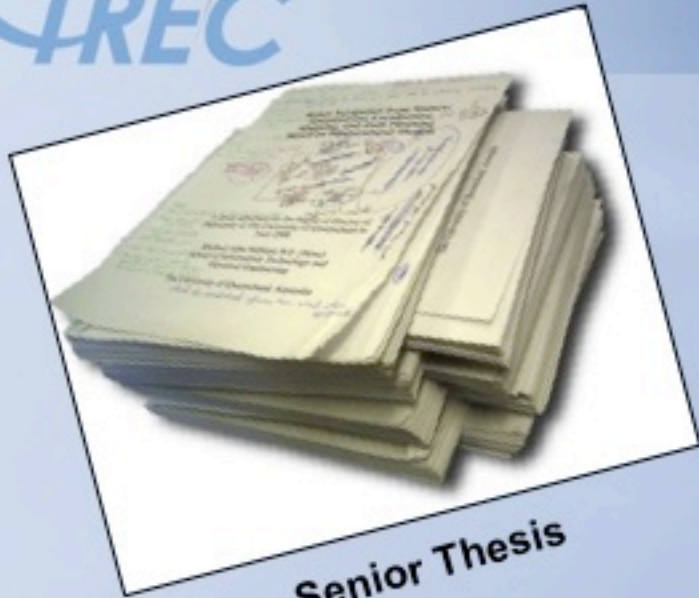
Sediment Coring

What are we doing?





Why are we doing this?



Senior Thesis



40th Annual International Arctic Research Workshop
Boulder, Colorado



Ny Ålesund, Svalbard - a special place



Photo Credits: M. Rhinard, J. Brigham-Grette, R. Powell

Questions?

A scenic view of a large waterfall cascading down a rocky cliff face into a body of water. A small boat is visible on the water in the foreground.

When asking a question, speak slow, loud, and clear and say your:

- **Name**
- **School or Organization**
- **Who your question is addressed to**
- **Question**

HAPPY BIRTHDAY Laura K!!!





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Thank You!

The archive of this event will be available shortly at:

[www.polartrec.com!](http://www.polartrec.com)

If you have further questions, please contact us at:

info@polartrec.com

or call 1-907-474-1600

