



West Antarctic Ice Sheet Divide Ice Core

Climate, Ice Sheet History, Cryobiology

Annual Science Meeting

The 2008 WAIS Divide science meeting will be held at the Sheraton Denver West Hotel in Lakewood, CO on 1-2 October 2008. If you're arriving from out of town, please plan to arrive in Lakewood by the evening of September 30. The meeting will begin promptly at 8:00 AM on October 1. If you plan on attending the meeting you must complete the online registration form (https://www.events.unh.edu/register.shtml?event_id=4775). Online registration has already begun and only online registrations will be accepted. If you register by Sunday, August 31 the registration fee is \$170. Registrations after August 31 will include an additional \$50 late fee. Registrations will not be accepted after September 20. Expanded abstracts and poster summaries will be provided at the meeting. In order for your abstract/poster summary to be included in the handout, all abstracts and poster summaries must be emailed to Mark Twickler by Monday, September 15, 2008.

Complete details about the meeting, including lodging information and instructions on how to submit abstracts and poster summaries, are located at: <http://www.waisdivide.unh.edu/meetings/index.html>

Deadlines:

August 31 – Last day to register for meeting at \$170 price point

August 31 – Last day to reserve one of the “special rate plan” hotel rooms at the Sheraton Denver West

September 15 – Last day to submit abstracts to Mark Twickler (mark.twickler@unh.edu)

September 20 – Last day to register for meeting (at \$220 price point)

On Friday, October 3 there will be a WAIS Divide Executive Committee Meeting. The meeting will be held at 8:00 AM and should finish by 2:00 PM. The Executive Committee Meeting is open to all WAIS Divide Participants. Please attend this meeting if you want to have an influence on the agenda topics listed below. This meeting will be held in the Hayden Room, Building 810 at the Denver Federal Center. There is a spot on the online registration form to indicate if you plan on attending the Executive Committee Meeting.

Items on the WAIS Divide Executive Committee Meeting agenda include:

- 1) Replicate coring (What is the plan? What are the conflicts? What are the science priorities?)
- 2) Logging (What is the plan? What are the conflicts? What are the science priorities?)
- 3) Basal sampling (What is the plan? What are the conflicts? What are the science priorities?)
- 4) Future of the SCO (What is the role of the SCO for the remainder of the project? How should it be structured? Who will propose in June 2009?)
- 5) Other?

Ken Taylor and Bruce Vaughn are organizing a long day hike in the mountains on September 30. If you are interested in joining them on the hike, please send Bruce an email (bruce.vaughn@colorado.edu).

Basal Sampling, Replicate Coring and Borehole Logging Science and Implementation Plans

Replicate Coring and Borehole Logging Science and Implementation Plan

The draft *Replicate Coring and Borehole Logging Science and Implementation Plan* is available for community comment. All comments should be sent directly to Jeff Severinghaus (jseveringhaus@ucsd.edu) by no later than September 30, 2008. The final version will be submitted to NSF on October 6.

The PDF version of the science and implementation plan, which includes all of the Supporting Documents, can be downloaded at: http://www.waisdivide.unh.edu/news/Replicate_coring_v2.5js.pdf The Word version of the science and implementation plan, to track comments using Track Changes, can be downloaded at http://www.waisdivide.unh.edu/news/Replicate_coring_v2.5js.doc

The *Replicate Coring and Borehole Logging Science and Implementation Plan* working group consists of Jeff Severinghaus, Ryan Bay, Ed Brook, Jihong Cole-Dai, Erin Pettit, and Todd Sowers.

There will be an open discussion of the draft *Replicate Coring and Borehole Logging Science and Implementation Plan* at the WAIS Divide Executive Committee Meeting in Lakewood, CO on Friday October 3.

Basal Sampling Science and Implementation Plan

The draft *Basal Sampling Science and Implementation Plan* will be available for community comment shortly. The *Basal Sampling Science and Implementation Plan* working group consists of John Priscu, Slawek Tulaczyk, Mark Skidmore, and Jim White.

There will be an open discussion of the draft *Basal Sampling Science and Implementation Plan* at the WAIS Divide Executive Committee Meeting in Lakewood, CO on Friday October 3.

2008 NICL Core Processing Line

In June and July we processed the 462 m of core (114-576 meters depth) that was collected during the 2007/2008 WAIS Divide field season and retrograded to NICL. Many thanks to everyone who participated in the core processing line (CPL).

2008/2009 Antarctic Field Season

Due to budget constraints at NSF, there have been deep and wide cuts to the upcoming Antarctic field season. Many logistics and science projects have been postponed. You can read the details of the bad news at: http://www.nsf.gov/od/opp/ant/usap_pi_alert.pdf

There is, however, good news for WAIS Divide ice coring. NSF has said:

“WAIS Divide Ice Core Drilling will proceed at a level that will allow completion of drilling through the brittle ice interval.”

The brittle ice interval will extend to a depth of 1450 m to 1600 m. We won't know the exact depth until we recover core that we can cut without shattering the ice. There are many logistical and drilling reasons why we may not get through the brittle ice interval by the end of this field season, but it is great that NSF has made our objective a priority. RPSC (Matthew Kippenhan), the SCO, and NSF were able to pass enough information back and forth that we were able to make our arguments for being one of the priority projects, and that effort paid off.

Even if we do meet our objective for this season, there will not be any core retrograded to the USA because it will all be brittle ice that has to sit on site for a year before it is stable enough to transport without damage, and also because we do not have shipping containers with redundant refrigeration systems.

WSD is scheduled for a Basler put-in around 27-October. The current plan is to have ICDS, SCO and NICL personnel arrive to camp between 26-November and 5-December, with drilling operations resuming at 580-



(Photo Credit: Jay Johnson, ICDS)

meters depth on 10-December. At the end of the season, the winch for the DISC Drill will be re-spooled with the longer 3800-meter cable. According to the current schedule, we will have 34 days of drilling this season at WSD, six days less than previously scheduled. We will drill 24 hours per day, six days per week, still with the goal of getting through the brittle ice zone. However, given the shortened drilling season this year it is uncertain whether we will be able to reach this goal. As mentioned previously, all ice drilled this season will winter-over at WSD, which means there will be no WSD core processing line at NICL in summer 2009.

Design Modifications for Recovering 4-Meter Ice Cores with the DISC Drill

(Charlie Bentley et al., Ice Coring and Drilling Services)

The DISC drill was designed to take cores 4 meters long, the length of its core barrel. In practice, both in the Greenland testing and in the WAIS Divide production drilling, the recovered core lengths have been less than 3 meters. ICDS is not satisfied with this situation and is planning action to achieve 4-m cores. They have prepared an information paper on these plans, which they have posted on their website:

<http://www.ssec.wisc.edu/icds/reports/4metercores.pdf>.

Outreach Website

(Zach Smith, Wright Center for Science Education)

Thanks to support by Ken, Mark, and Joe and the Wright Center for Science Education at Tufts University we have been able to produce and host an outreach website for the WAIS Divide project at http://www.tufts.edu/as/wright_center/wdop/index.html. The website has been populated with the 60+ field reports/blogs from the 07-08 field season, images, movies, educational activities, presenter information, and links to a variety of other educational resources. We have been busy getting the ice cores on the road with over two-dozen in-person presentations so far this spring and summer to schools, church groups, science festivals, lab tours and National Science Teacher conventions by Zach Smith, Scott Battaion (media director at the Wright Center and outreach website designer), Mark Twickler, Joe Souney, Anais Orsi, Rebecca Anderson, and Sylvia Englund. Additional student activities based around WAIS Divide are being developed for formal and informal educators along with links to many other well-written climate science materials. Currently, much of the outreach efforts are funded in-kind by the Wright Center.

We have also partnered with organizations such as the New England Science Center Collaborative and Clean Air-Cool Planet of Portsmouth, NH to include their "Climate Change Backpack" as a resource of educational materials for informal educators. Clean Air-Cool Planet worked with us to obtain corporate participation at our weeklong teacher workshop this past July in Glacier Park, Montana where information about WAIS Divide ice coring was highlighted. The workshop was sponsored by the Wright Center and NASA and assisted by personnel at the National Park Service, US Fish and Wildlife Service, University of Montana, Clean Air-Cool Planet, NASA, and others. We are still looking for grant opportunities to continue to fund these efforts and others.

We always appreciate images, video, links to/from scientific websites, information on personal/group outreach activities, and any comments or information WAIS Divide personnel may be willing to contribute to the outreach efforts. Possibly the most important is information about any public presentations that WAIS Divide personnel have done/will do - Where the ice meets the road!

More materials and activities will be added as they become available. Contact Zach Smith (zach.smith@tufts.edu) for more information.



WAIS Divide Ice Core Project - Science Coordination Office (SCO)

Kendrick Taylor, Chief Scientist, Desert Research Institute

Joe Souney, University of New Hampshire

Mark Twickler, University of New Hampshire