

# 7th INTERNATIONAL WORKSHOP ON ICE DRILLING TECHNOLOGY



Pyle Center, University of Wisconsin, Madison, WI, USA  
9-13 September 2013

*Co-sponsored by:*

Ice Drilling Program Office – Ice Drilling Design and Operations (IDPO-IDDO)  
International Partnerships in Ice Core Sciences (IPICS)  
International Glaciological Society (IGS)

*Conveners:*

Mary Albert (Ice Drilling Program Office)  
Charlie Bentley (Ice Drilling Design and Operations)  
Frank Wilhelms (Alfred-Wegener Institute, Bremerhaven)

SECOND CIRCULAR

April 2013

<http://icedrill.org/7th-international-workshop-on-ice-drilling-technology/>

## **THEME**

Following in the footsteps of the six previous ice drilling technology workshops held between 1974 and 2006, the Seventh International Workshop on Ice Drilling Technology will take a comprehensive look at the latest innovations in ice drilling technology, including ice coring, borehole logging, subglacial sampling, core logging and handling, and field logistics. The workshop falls in a time between the successful completion of several technologically innovative deep (NEEM and WAIS Divide) and intermediate depth (Talos Dome and James Ross Island) drilling programs, and several new innovative ice drilling endeavors (Subglacial Lake Ellsworth, Subglacial Lake Whillans, Subglacial Lake Vostok, Roosevelt Island, South Pole 1500m Ice Core, Aurora Basin, Renland Ice Cap project, Dome A). The ice drilling community has continued to grow, and great technological advancements have been made since the last ice drilling technology workshop in 2006. Despite this, there are still numerous challenges that face the ice drilling community, such as fast access drilling, subglacial bedrock drilling, contamination-free sampling of subglacial water, in-situ probes (ISP), and the identification of the next-generation of drill fluids. The workshop will promote the exchange of knowledge, ideas, and experience among many countries and individuals who are involved in ice drilling projects. People active in the technical side of ice drilling are most especially encouraged to participate, as are technical representatives from nations who have recently begun ice drilling programs for the first time.

Workshop topics will potentially include:

- Shallow ice drilling
- Intermediate depth ice drilling
- Deep ice drilling
- High altitude drilling
- Ice drilling in complicated conditions (warm ice, water-saturated firn/ice, brittle ice)
- Hot water and rapid access drilling
- Thermal drilling
- In situ probes
- Special aspects of ice drilling technology (control systems, surface and auxiliary equipment, drill cables, manufacturing of parts, safety)
- Directional drilling and replicate sampling
- Subglacial sampling (water, sediment, bedrock)
- Penetration into subglacial lakes
- Emerging technologies
- New challenges and innovative answers to old challenges
- Ice drill and bore-hole recovery systems
- Drilling fluids
- Bore-hole logging
- Ice core handling and quality control
- Logistics and drill camp operations
- Lessons learned through important failures
- (Future) ice drilling projects

## **SESSIONS**

The workshop will begin Monday evening with registration and an icebreaker. The main form of presentations will be oral sessions (approx. 20 min per talk) during the day on Tuesday through Friday. On Tuesday, from 3:00 pm to 8:00 pm, there will be a dedicated poster session. The posters will be displayed in their own room near the meeting room, and may remain on display for the duration of the conference. On Wednesday afternoon there will be an optional field trip.

## **ABSTRACTS**

Participants wishing to give an oral presentation and/or present a poster are required to submit an abstract. The deadline for submitting abstracts is 30 June 2013. A program containing all of the submitted abstracts will be provided to all workshop participants. In order for your abstract to be included in the program handout it must be submitted by the deadline. All abstracts must be submitted by using the online form located at:

<http://icedrill.org/7th-international-workshop-on-ice-drilling-technology/submit-abstract.shtml>

## **POSTERS**

If you wish to present a poster you must submit an abstract by the abstract deadline (see ABSTRACTS above for details). Poster boards are PORTRAIT format. Please aim for PORTRAIT A0 editing and printing, i.e. 85 cm width and 120 cm height. We will NOT be able to accommodate Landscape posters. Also, posters must be printed before arriving at the workshop. There will be no A0 printing facility available for use at the workshop.

## **REGISTRATION**

The registration fee for the workshop is \$225 US dollars (USD). The registration fee covers the icebreaker, daily morning/afternoon coffee/snacks and luncheons, the mid-week field trip, and the workshop banquet. Lodging is not included in the registration fee (see Accommodation below).

If you will have accompanying persons with you, they can attend the icebreaker, the mid-week field trip, and the workshop banquet for an additional fee of \$66 USD each.

All registrations must be made through the workshop's online registration form at:  
[https://www.events.unh.edu/RegistrationForm.pm?event\\_id=14952](https://www.events.unh.edu/RegistrationForm.pm?event_id=14952)

The deadline for registration is 30 June 2013.

## **VENUE AND LOCATION**

The workshop will be held at the Pyle Center on the campus of the University of Wisconsin, Madison (UW-Madison). The workshop will be on the third floor of the Pyle Center. The UW-Madison campus is a 20-minute drive from Madison's Dane County Regional Airport (MSN). There are ample cabs/taxis waiting at the airport that participants can use to travel to their choice of accommodation (see Accommodation below).

Madison, the capital of Wisconsin, is located in south-central Wisconsin, 77 miles (124 km) west of Milwaukee and 122 miles (196 km) northwest of Chicago. The city is sometimes described as *The City of Four Lakes*, comprising the four successive lakes of the Yahara River: Lake Mendota ("Fourth Lake"), Lake Monona ("Third Lake"), Lake Waubesa ("Second Lake") and Lake Kegonsa ("First Lake"), although Waubesa and Kegonsa are not actually in Madison, but just south of it. Madison has a population of roughly 237,000. Early September is characterized by occasional precipitation and an average daily high and low temperature of roughly 23 °C (74 °F) and 12 °C (53 °F), respectively.

## **ACCOMMODATION**

Workshop participants must make their own hotel reservations. Rooms have been held at several hotels close to the Pyle Center. The rooms are available on a first-come, first-served basis. For more information visit:

<http://icedrill.org/7th-international-workshop-on-ice-drilling-technology/accommodation.shtml>

## **RECEPTION**

There will be an evening icebreaker reception held on the rooftop terrace of the Lowell Center on Monday, 9 September. Light refreshments will be served while we enjoy the spectacular views of Lake Mendota.

## **MID-WEEK FIELD TRIP**

Wisconsin is home to the Ice Age National Scenic Trail and on Wednesday (11 September) afternoon we will have a guided tour of short segments of the trail led by Emeritus Prof. Dave Mickelson, co-author of *Geology of the Ice Age National Scenic Trail*. We will see the terminal moraine, pro-glacial lake beds, ice-marginal drainage, a sub-marginal chute, tunnel channel, drumlins and the unglaciated Driftless Area--all in a few hours and perhaps ending with a Glacial Trail Ale! There is no extra charge to participate in the field trip, and lunch and transportation will be provided.

## **BANQUET**

The banquet will be held on Thursday evening in the Tripp Commons room of the Memorial Union (UW-Madison campus) from 6-9 PM.

## **ANNALS OF GLACIOLOGY**

The Council of the International Glaciological Society (IGS) has decided to publish a thematic issue of the *Annals of Glaciology* on topics consistent with the workshop themes. The issue will be part of volume 55 and the issue number will be 68. Submissions to this issue will not be contingent on presentation at the workshop, and material presented at the workshop is not necessarily affirmed as being suitable for consideration for this issue of the *Annals*. Participants are encouraged, however, to submit manuscripts for this *Annals* volume. The deadline for receiving *Annals* papers is 30 April 2014. Papers will be available online as soon as they have completed the IGS review and editing process, thus early submission is encouraged after 1 March 2013. Full page charges will apply to finance the production of the volume.

## **FURTHER INFORMATION**

This circular and the latest workshop information is posted at:

<http://icedrill.org/7th-international-workshop-on-ice-drilling-technology/>

## **LOCAL ORGANIZING COMMITTEE**

Mary Albert (Co-Chair), Charlie Bentley (Co-Chair), Frank Wilhelms (Co-Chair), Tony Wendricks, Mark Twickler, Joseph Souney

## **PROGRAM COMMITTEE**

Frank Wilhelms (Alfred-Wegener Institute, Bremerhaven, Chair of Program Committee); Olivier Alemany (Laboratoire de Glaciologie et Géophysique de l'Environnement, France); Pavel Talalay (Jilin University, China); Steffen Bo Hansen (University of Copenhagen, Denmark); Jay Johnson (University of Wisconsin, USA); Jakob Schwander (University of Bern, Switzerland); Nobuhiko Azuma (Nagaoka University of Technology, Japan); Alex Pyne (Victoria University Wellington, New Zealand); Victor Zagorodnov (Ohio State University, USA); Jørgen Peder Steffensen (University of Copenhagen, Denmark); Vin Morgan (Antarctic Climate and Ecosystems CRC, Australia)

## **ANNALS OF GLACIOLOGY EDITORIAL COMMITTEE**

Frank Wilhelms (Alfred-Wegener Institute, Bremerhaven, Chief Editor); Charlie Bentley (University of Wisconsin, USA); Joan Fitzpatrick (US Geological Survey, USA); Nobuhiko Azuma (Nagaoka University of Technology, Japan); Pavel Talalay (Jilin University, China); Jakob Schwander (University of Bern, Switzerland); Alex Pyne (Victoria University Wellington, New Zealand); Rob Mulvaney (British Antarctic

Survey, UK); Alan Elcheikh (Australian Antarctic Division, Australia); Trevor Popp (University of Copenhagen, Denmark)

**IMPORTANT DATES**

Abstract submission deadline: 30 June 2013

Registration deadline: 30 June 2013

Icebreaker: 9 September 2013 (in the evening)

Conference begins: 10 September 2013

*Annals of Glaciology* paper submission deadline: 30 April 2014