



Ice Drilling Program Office

Mary Albert

www.icedrill.org



Vision

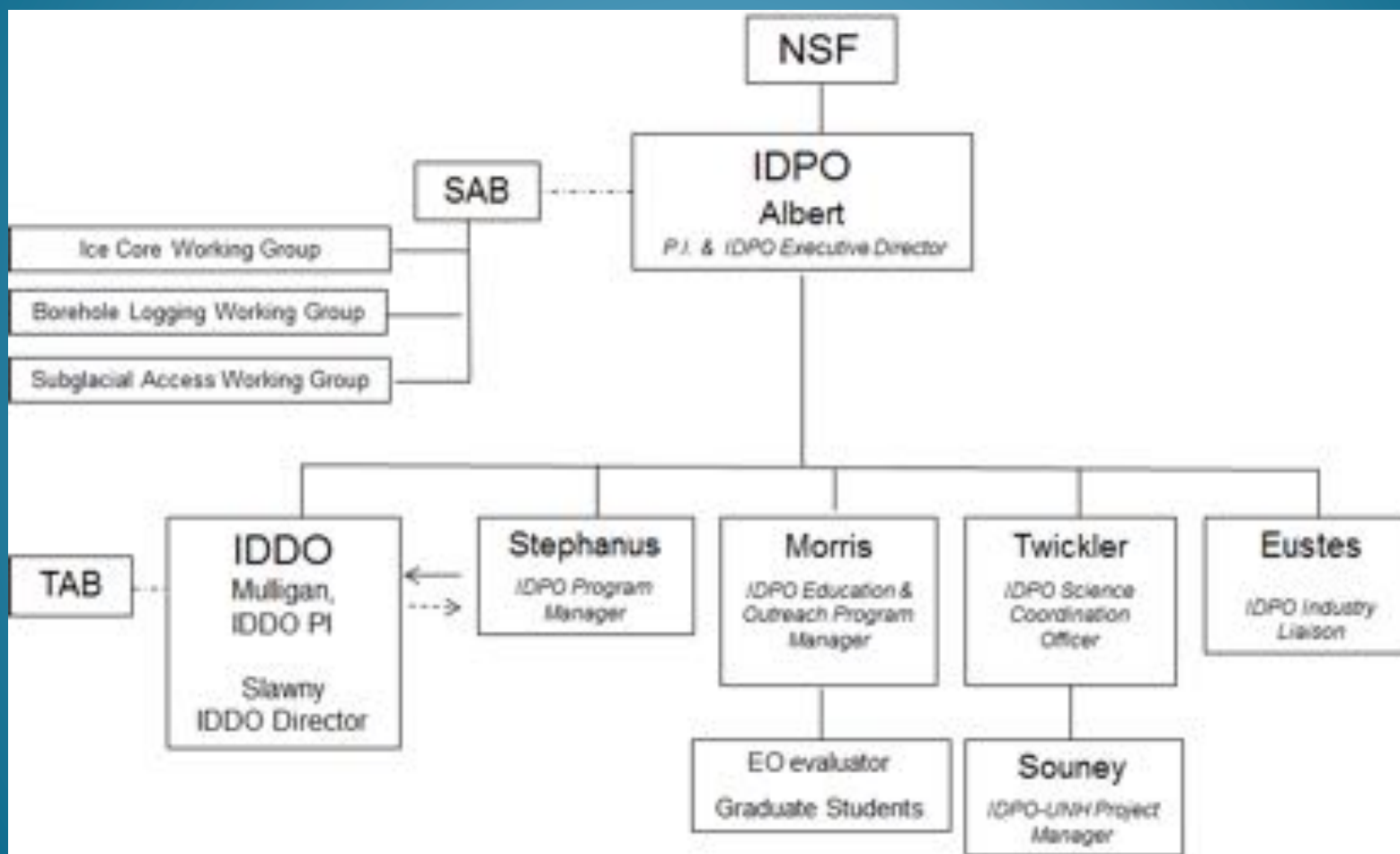
- To enable scientific discoveries about changes in environment and climate, using evidence from glaciers and ice sheets, to inform environmental policy.

Mission

- To conduct integrated planning for the ice drilling science and technology communities and to provide drilling technology and operational support that will enable the community to advance the frontiers of science.



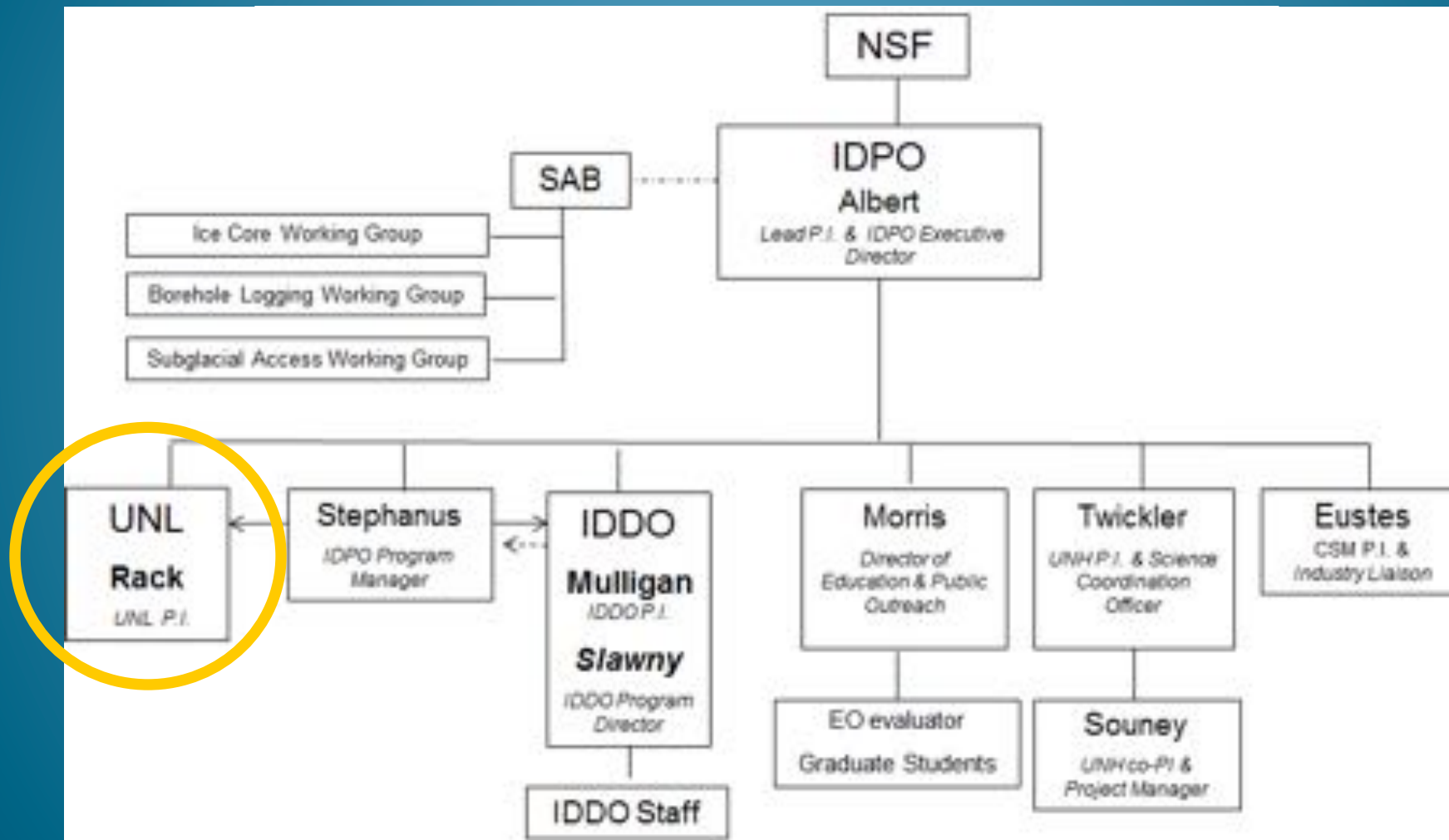
Ice Drilling Program Office NSF Cooperative Agreement



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Ice Drilling Program Office Potential UNL subaward





Ice Drilling Program Office Science Advisory Board



Ed Brook, Chair
Sridhar Anandakrishnan
Ryan Bay
Ed Brook
Dorthe Dahl-Jensen
Karl Kreutz
Jill Mikucki
Ross Powell
Jim White

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IDPO-IDDO



Integrated Science & Technology Planning



We support ANY
NSF science that
requires ice cores or
holes; not just GEO-
PLR!

Science planning drives drill tech planning, development, and use.

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Ice Drilling Program Office LRSP useful for NRC study



Climate Change

Ice Dynamics and
Glacial History

Subglacial Geology,
Sediments &
Ecosystems

Ice as a Scientific
Observatory



**Development of a
Strategic Vision and
Implementation Plan for
the U.S. Antarctic
Program at the National
Science Foundation**

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Ice Drilling Program Office Community involvement in planning



IDPO Town Hall:

Scientific Drilling in the Polar Regions

Participation:

IPICS, IDPO, NICL, RAID, WISSARD, NSF

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Ice Drilling Program Office



Community involvement in planning

IDPO Community Workshop on Subglacial Access

- coming soon -

Targeted Outcome: Community identification of next decade of subglacial access projects for IDPO Long Range Science Plan.



7th International Workshop on Ice Drilling Technology



Special volume of Annals of Glaciology is published.

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



Ice Drilling Program Office



Science Requirements for New Drills

Ice Drilling Program Office
Continuity - University of Iowa, Nanisivik

DOCUMENT IDENTIFICATION	
Title	SCIENCE REQUIREMENTS: AGILE SUB-ICE GEOLOGICAL DRILL
Date: 1-13-2014	Revised: 1-13

DOCUMENT APPROVAL	
Science Community	Oliver, Pauline, Stuart
IDPO	Albert, Tashiro

Background
The IDPO Long Range Science Plan 2013 identified science goals for ice drilling that spanned a wide range of science targets. Rapid changes in speed of fast-flowing tide-water glaciers, outlet glaciers and ice streams observed over the past decade create urgency to understand their dynamics. Properties of the ice-bed interface exert strong control on the flow of glaciers and ice sheets. Scalable hot water access drills that are portable and capable of drilling to the bed of glaciers and ice sheets in much less than one season are needed to make basic measurements, including temperature, heat flux, and pressure. From virtual discussions organized by IDPO in December 2013, and follow-up teleconferences and discussions with the research community and with IDPO staff, the following are the science requirements for the drill:

Scientific Requirements

1. Produce access holes through ice depths between approximately 50 – 1000 m.
2. The drill should be modular, with built-in redundancy, so that one of the modules is used for shallow depths and small diameter holes, and other replicate modules are added for deeper access holes or

Science requirements completed:

- Agile Sub-Ice Geologic Drill

Science requirements in prep for:

- Agile lake ice drill
- DISC – Herc Dome / EAIS

Science requirements upcoming:

- Backpack/Portable 2" drill
- ~900 m coring drill

<http://www.icedrill.org/equipment/development.shtml>



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Annual Program Plan

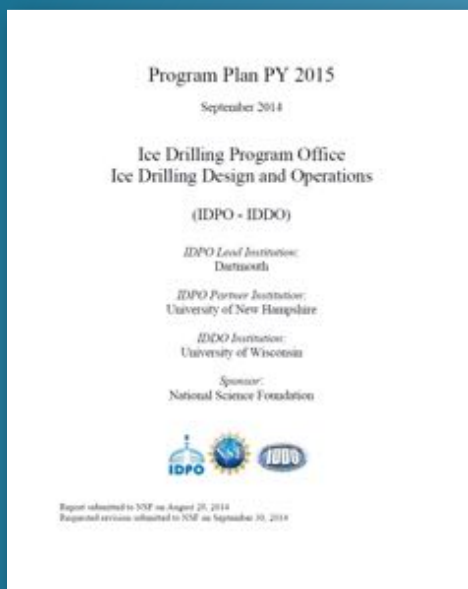


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Communications



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Requesting Ice Drilling Support for NSF Arctic Research (NSF 14-584) Proposals

**** September 9 Deadline ****

[\(Read More\)](#)

Sep 9 Deadline: Requesting Ice Drilling Support - NSF Arctic Proposals

MORE » 1 2 3 4 5

News and Announcements RSS Feed

08 September 2014
[Summer 2014 Ice Bits Newsletter Now Available](#)
The SUMMER 2014 quarterly update of IDPO and IDDO activities is now available.

27 August 2014
[Draft report on GEO Priorities and Frontiers, 2015-2030: An Invitation for Public Comment](#)

Requesting Field Support

If you are preparing a proposal that includes any kind of support from the IDPO-IDDO, you must contact IDPO (IceDrill@Dartmouth.edu) at least six weeks before you submit your proposal to obtain a Letter of Support and a Scope of Work/Cost Estimate, both of which must be included in your proposal.

[\[MORE INFORMATION\]](#)

For Scientists

Information and resources for the ice drilling science and technology communities.

- [Field Support for NSF Proposals](#)
- [Field Support for non-NSF Proposals](#)
- [Field Project Support Requirements Form](#)
- [End-of-Season Project Support Eval Form](#)
- [Long Range Science Plan](#)



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Education & Outreach



climate-expeditions.org



Key dates for the Long Range Science Plan



- Updated draft#1 LRSP on the Icedrill site by 30 April.
- IDPO invites community comment/input on 1 May (community input deadline 16 May).
- Mary sends draft#2 to SAB for comment & approval by 20 May.
- SAB gives Mary ok on content by 27 May.
- Mary sends final, formatted LRSP to NSF by June 30.