

Please review all of the following information, including the gear allocations and field team members, to ensure accuracy. This plan is an agreement between VPR and your group, documenting the logistics support you will receive.

• Project Information •

Principal Investigator Chief Scientist	Dr. Charles Bentley Dr. Kendrick Taylor
Institution	University of Wisconsin - Madison University of Nevada Desert Research Institute
Project Title / Contract # / Grant #	Ice Coring and Drilling Services (OPP-0003289) and Preparation for a Deep Ice Coring Project in West Antarctica (0230396)
NSF Program and Manager	NSF/OPP AG and NSF/OPP PRSS, Dr. Julie Palais
VPR Project Manager ICDS Project Manger	Mark Begnaud Dr. Alexander Shturmakov

• Logistics Summary •

The main goal of the Greenland DISC Drill Test is to determine if the DISC Drill system is capable of meeting the science requirements. This includes not only evaluating the performance of the drill as designed, but also experimentation and field modification of the drill with the goal of having a drill system capable of meeting the science requirements prior to the use at WAIS Divide.

VPR will support the project by providing a majority of infrastructure for the drill test. VPR staff and ICDS personnel will prepare the drill site in 2005. In 2006, VPR will coordinate airlift and infrastructure support for the 24-hour drilling program. VPR will provide living/sleeping space and meals for up to 15 ICDS personnel at the station for the duration of the DISC test.

At the DISC test site, VPR will provide power, an enclosure to house the drill system, a separate heated work/break structure to support drilling operations, an outhouse, a wireless communications link for Internet access, as well as radios and satellite telephones for voice communications.

Once the drill site set-up is complete in 2006, VPR will maintain continuous power for the project (maintenance and fueling of the generators), provide heavy equipment operations support to the site as needed, food and shelter for the drill team, emergency medical support, and any other support as needed/requested.

For the complete VPR online project record for this grant, including science objectives, go to:
http://www.vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0230396

For details of the construction support aspects of this projects, go to
<http://www.vecopolar.com/Files/PDFs/SummitDISC2006Plan.pdf>

• Outstanding Issues •

Issue	Responsibility	Date Completed
Review support plan for accuracy and distribute to all field team members	PI	04/03/06
Obtain all necessary permits for fieldwork	PI	04/16/06
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	04/06/06
Contact the GEOSummit Science Coordination Office (SCO) mailto:sco@geosummit.org regarding your project's plans for the season	PI	01/27/06
Medical Clearance completed 8-6 weeks before desired deployment date	Augustin, Thielman, Hargreaves, Bencivengo	8-6 weeks before desired deployment date
Please note this important information for your field team: Bring 2 different forms of picture ID. Passports are now mandatory for entry into Greenland. Be sure to pack them!	Field Team Members	04/06/06
Complete Critical Success Factors	PI	Done

• Allocations & Services •

Allocations from Inventory

Quant/Unit	Item
1 ea	Arctic Oven tents 8' x 8' for sleeping
2 ea	Thermarests or pads for sleeping in the tents
1 ea	Issue Gear (NICL only)
1 ea	Sleep Kits (NICL only)
1 ea	Wireless network access cards
1 ea	Radio, base station
4 ea	Radios, hand-helds with headsets
4 ea	Tables (2 DISC break tent, 2 NICL tent)
10 ea	Chairs (6 DISC break tent, 4 NICL tent)
1 ea	Coffee maker and grinder (DISC break tent)
1 ea	Microwave (DISC break tent)
1 ea	Refrigerator (DISC break tent)

The procurements for this team were captured in the operational project plan. For these details, please refer to: <http://www.vecopolar.com/Files/PDFs/SummitDISC2006Plan.pdf>

VECO, ICDS, NICL Integrated Services

Service	Comments
Disposal of ISOPAR-K soaked core	The ISOPAR-K soaked core and chips will be disposed of on-site according to the guidance of the SCO. ICDS and NICL personnel will be responsible for processing or air-drying of the core. Once dried, the core should be staged by ICDS-NICL personnel for final disposal either in the slot after operations have been completed or in a separate pit area designated by the SCO.
Shipping frozen samples	VPR will provide shipping and cold storage of retrograde core (est. 4 to 6 boxes) between Summit and Scotia. From here, NICL will arrange shipment of core back from Scotia with Earl Vaughn.
Operations schedule	During the construction and preparation phase of the season, VPR Summit staff will support the DISC project as they work one, 10-

	hour shift per day. During the operations phase, the DISC crew will work two, 10-hour shifts per day. As agreed upon, they will make an effort to consolidate their requests for the VPR Summit staff to the daytime operation shift.
Food services	During the operations phase, the DISC crew will work two, ten-hour shifts per day. The night shift crew meals will be accommodated by the Summit cooks by preparing and setting aside reheat-able meals.
Gases	VPR will provide the following gases to ICDS: 2@Ar, compressed, 2.2, UN1006 5@N ₂ , compressed, 2.2, UN1066
Chemicals	VPR will provide 15 gallons of ethylene glycol as per ICDS request. ICDS will need to provide their own ethanol (25-30 gallons).

• Location Information •

Please visit <http://www.vecopolar.com> and navigate to the Greenland menu for en route and location-specific Greenland information. Prior to deployment, your entire field team should be familiar with the content of the *Greenland Guide* and, if traveling to Summit, with the guidelines provided in the *Summit Users' Guide*. Both are available electronically via our web site's Greenland menu.

• Cargo and Customs •

All cargo required for your project should arrive in Scotia, NY no later than 2 weeks prior to the desired northbound Air National Guard (ANG) flight, must be entered into our online Cargo Tracking System, and must be properly registered with customs.

- ✓ For the most current ANG flight schedule go to <http://www.vecopolar.com> and navigate to Greenland > Calendars/Schedules.
- ✓ If you are a new user requiring access to the Cargo Tracking System, contact Robin Abbott (robin@polarfield.com).
- ✓ Customs instructions are available on our website at <http://www.vecopolar.com> (go to Greenland > Customs)
- ✓ For Customs requirements please refer to the *Greenland Guide*, also available at <http://www.vecopolar.com> under Greenland.

Detailed cargo manifests are found in the Appendix I of this document. Broader cargo requirements for this team were captured in the operational project plan. For these details, please refer to: <http://www.vecopolar.com/Files/PDFs/SummitDISC2006Plan.pdf>

• Support Schedule •

The support schedule for this team was captured in the operational project plan. For these details, please refer to: <http://www.vecopolar.com/Files/PDFs/SummitDISC2006Plan.pdf>

• Field Team Information •

Name	Location	Date In	Date Out	Email
Jay Johnson	Kangerlussuaq	04/19/06	07/29/06	jay.johnson@ssec.wisc.edu
Jay Johnson	Summit	04/21/06	07/27/06	
Michael Jayred	Kangerlussuaq	04/19/06	08/19/06	mjayred@hotmail.com
Michael Jayred	Summit	04/21/06	08/18/06	
Kristina Dahnert	Kangerlussuaq	04/19/06	08/19/06	kristina.dahnert@ssec.wisc.edu

Kristina Dahnert	Summit	04/21/06	08/18/06	
Brent Folmer	Kangerlussuaq	04/19/06	06/10/06	brent480@peoplepc.com
Brent Folmer	Summit	04/21/06	06/08/06	
Ed Alexander	Kangerlussuaq	04/19/06	06/10/06	
Ed Alexander	Summit	04/21/06	06/08/06	
Bill Mason	Kangerlussuaq	05/07/06	07/29/06	bill.mason@ssec.wisc.edu
Bill Mason	Summit	05/08/06	07/27/06	
Laurent Augustin	Kangerlussuaq	05/07/06	06/17/06	laurent.augustin@ssec.wisc.edu
Laurent Augustin	Summit	05/08/06	06/15/06	
Paul Sendelbach	Kangerlussuaq	05/07/06	07/29/06	paul.sendelbach@ssec.wisc.edu
Paul Sendelbach	Summit	05/08/06	07/27/06	
John Robinson	Kangerlussuaq	05/07/06	06/17/06	john@engr.wisc.edu
John Robinson	Summit	05/08/06	06/15/06	
Nicolai Mortensen	Kangerlussuaq	05/07/06	06/17/06	nicolai.mortensen@ssec.wisc.edu
Nicolai Mortensen	Summit	05/08/06	06/15/06	
Scott Haman	Kangerlussuaq	05/21/06	08/19/06	scott.haman@ssec.wisc.edu
Scott Haman	Summit	05/22/06	08/18/06	
Don Thielman	Kangerlussuaq	06/05/06	07/29/06	don.thielman@ssec.wisc.edu
Don Thielman	Summit	06/06/06	07/27/06	
John Fowler	Kangerlussuaq	06/13/06	08/19/06	john.m.fowler@gmail.com
John Fowler	Summit	06/15/06	08/18/06	
Jim Koehler	Kangerlussuaq	07/09/06	08/19/06	koehler@charter.net
Jim Koehler	Summit	07/10/06	08/18/06	
NICL				
Geoff Hargreaves	Kangerlussuaq	06/13/06	07/29/06	ghargreaves@usgs.gov
Geoff Hargreaves	Summit	06/15/06	07/23/06	
Brian Bencivengo	Kangerlussuaq	06/13/06	07/29/06	bbencivengo@usgs.gov
Brian Bencivengo	Summit	06/15/06	07/23/06	
VISITORS				
Ken Taylor	Kangerlussuaq	07/09/06	07/29/06	Kendrick@dri.edu
Ken Taylor	Summit	07/10/06	07/27/06	
Alex Shturmakov	Kangerlussuaq	07/09/06	07/15/06	alex.shturmakov@ssec.wisc.edu
Alex Shturmakov	Summit	07/10/06	07/13/06	
Don Lebar	Kangerlussuaq	07/09/06	07/15/06	don.lebar@ssec.wisc.edu
Don Lebar	Summit	07/10/06	07/13/06	
Charlie Bentley	Kangerlussuaq	07/09/06	07/15/06	bentley@geology.wisc.edu
Charlie Bentley	Summit	07/10/06	07/13/06	
Tony Wendricks	Kangerlussuaq	07/09/06	07/15/06	tonyw@ssec.wisc.edu
Tony Wendricks	Summit	07/10/06	07/13/06	
Brian Stone	Kangerlussuaq	07/09/06	07/15/06	bstone@nsf.gov
Brian Stone	Summit	07/10/06	07/13/06	
Julie Palais	Kangerlussuaq	07/09/06	07/15/06	jpalais@nsf.gov
Julie Palais	Summit	07/10/06	07/13/06	
Matt Kippenhahn	Kangerlussuaq	07/09/06	07/15/06	
Matt Kippenhahn	Summit	07/10/06	07/13/06	
Raytheon Safety	Kangerlussuaq	07/09/06	07/15/06	
Raytheon Safety	Summit	07/10/06	07/13/06	
Steffen Bo Hansen	Kangerlussuaq	TBA	TBA	sbh@gfy.ku.dk
Steffen Bo Hansen	Summit	TBA	TBA	
Sigfus J. Johnsen	Kangerlussuaq	TBA	TBA	sigfus@gfy.ku.dk
Sigfus J. Johnsen	Summit	TBA	TBA	

For the on-line calendar version of the field team deployment schedule, please refer to:
http://www.trumba.com/calendars/summit_schedule?date=20060401&mix=104

• Project Contact Information •

Research Team

Role	Name	Email	Phone / Fax
DISC Drill Project Manager, ICDS	Alexander Shturmakov	alex.shturmakov@ssec.wisc.edu	608 265-0038
Program Manager, ICDS	Donald Lebar	don.lebar@ssec.wisc.edu	608 263-4843
Principal Investigator, ICDS	Charles Bentley	bentley@geology.wisc.edu	608 238-8873
Chief Scientist, DRI	Kendrick Taylor	Kendrick@dri.edu	702 673-7375
NICL POC	TBD	nicl@usgs.gov	303-202-4830

VPR Team Members

Contact for	Name	Email	Primary Phone(s)
Greenland operations	Robin Abbott	robin@polarfield.com	Denver: 303.748.8507 Greenland: 011.299.524218
Greenland operations	Mark Begnaud	mark@polarfield.com	Denver: 720.320.6160 Greenland: 011.299.524281
Summit operations	Sandy Starkweather	sandy@polarfield.com	Denver: 303.518.8714
Sat phones & comms	Roy Stehle	roy.stehle@sri.com	Menlo Park: 650.859.2552
Medical & MAS	Jason Buenning	jason@polarfield.com	Denver: 303.638.6669
Denver operations	Jill Ferris	jill@polarfield.com	Denver: 720.320.6155
Scotia Operations & Customs	Earl Vaughn	earl.vaughn@nyscot.af.mil vprscotia@direcway.com	Scotia: 518.331.3103

VPR Offices

Denver	Kangerlussuaq	Scotia	Summit
VECO Polar Resources Western Office 8110 Shaffer Parkway Suite 150 Littleton, CO 80127 Tel: 303.984.1450/1439 Fax: 303.984.1445	VECO Polar Resources Attn: Name of Employee/Researcher Postboks 1015 DK-3910 Kangerlussuaq, Greenland Tel: 011.299.841598 Fax: 011.299.841599	Earl Vaughn C/O 109 th Aerial Port Bldg. 20 Stratton Air Base Scotia, NY 12302- 9752 Fax: 518.884.2904	VECO Polar Resources Attn: Name of Employee/Researcher Postboks 1015 DK-3910 Tel: 321.953.9650 Fax: 321.953.9651

Other

Organization	Internet	Phone
Summit Science Coordination Office	http://www.geosummit.org sco@geosummit.org	John Burkhart 209.658.7142

• Safety, Environment, Health, and Permitting •

Permits

Please refer to VPR's *Greenland Guide*, available at <http://www.vecopolar.com> under Greenland, for information about permits required to conduct fieldwork in Greenland.

Medical Clearance

Arctic Program participants traveling into the Greenland field are generally required to pass a National Science Foundation (NSF) mandated physical exam. All field team members should plan to complete their medical clearance process 8-6 weeks prior to their travel to Greenland. For more information refer to VPR's *Greenland Guide*, available at <http://www.vecopolar.com> under Greenland.

Risk Assessment

The risk assessment for this team was captured in the operational project plan. For these details, please refer to: <http://www.vecopolar.com/Files/PDFs/SummitDISC2006Plan.pdf>

• Critical Success Factors •

Please list the factors that are most important for the success of your science. We track these factors in order to measure the success of VPR's support. Examples might be the availability of the helicopter or camp gear.

Factors
Maintain access to the building
Maintain consistent power
Provide adequate room & board
Provide adequate air lift and cargo handling

• Government Performance and Reporting Act of 1993 (GPRA) •

NSF/OPP requires your help in complying with the Government Performance and Reporting Act of 1993 (GPRA). One measure of VPR's performance is a "facility-performance metric" which counts the number of productive days your project has in the field while relying on VPR facilities or support. Please keep track of any "lost days" and report these to us at the end of the season.

• Appendix I •

Cargo Packing List

P12 C13-C16

University of Wisconsin-Madison
Ice Coring & Drilling Services
1225 West Dayton Street
Madison, WI 53706
Attn: Kristina Dahnert
608-235-6309

PACKING LIST

Value: \$7,327.00

WEIGHT OF P12: 4,320 lbs.

1	2	3	4	5	6				ELECTRICAL CRATES - C13, C14, C15, C16
PALLET	CRATE	LOOSE	CASE	BOX	BAG				WEIGHT (of P12): 4,320 lbs.
									DIMENSIONS (of each crate): 84" x 104" x 76"
									CUBIC FEET (of P12): 384
						Quantity	Unit		Description
P12	C13								Equipment Wiring:
P12	C13								Feeder Cable from Gantry to Warehouse Hookup
P12	C13								Fluid Handling Power & Control Cable
P12	C13								Gray Tower Hoist Control Power Cable
P12	C13								Black Tower Hoist Control Power Cable
P12	C13								Feed to Centrifuge Basket
P12	C13								Spare Sealtite with (4) #8 Conductors
P12	C13								Tower Hoist Feeder Cable
P12	C13								Tower Hoist Portable Control with Cord
P12	C13								Tower Hoist Radio Control & Battery with Charger
P12	C13								Branch Feed to Centrifuge
P12	C13								Feeder for Gantry & A-Frame Cranes
P12	C13								Cable for Fees to Each Separate Cranes
P12	C13					4	100'		Extension Cords
P12	C13					500	ft		2 Conductor #16 Fire Alarm Cable
P12	C14								Winch Wiring
P12	C14					2	ea		Tower Pivot Junction Boxes
P12	C14					1	ea		W21 Cable
P12	C14					1	ea		W13 Cable
P12	C14					1	group		W17, W24, W25 Cables
P12	C14					1	ea		W11 Cable
P12	C14					1	ea		W9 Cable

P12	C14					1	ea	W40 Cable
P12	C14					1	ea	W6 Cable
P12	C14					1	ea	W14 Cable
P12	C14					1	group	W16, W22, W23 Cables
P12	C14					1	ea	W15 Cable
P12	C14					1	ea	W2 Cable
P12	C14					1	ea	W4 Cable
P12	C14					1	ea	W21 Cable
P12	C14					1	ea	W3 Cable
P12	C14					1	ea	W5 Cable
P12	C14					1	ea	W1B Cable
P12	C14					1	ea	W41 Cable
P12	C14					1	ea	W43 Cable
P12	C14					1	ea	W27 Cable
P12	C14					1	ea	W7 Cable
P12	C14					1	ea	W10 Cable
P12	C14					1	ea	W18 Cable
P12	C14					1	ea	200 Amp Shunt Trip Breaker
P12	C14					1	box	Shunting Amp Connectors
P12	C14					1	roll	Prremade 10-strand Fiber Optic Cable
P12	C14					1	ea	Westphal & Co. Brady Labeler
P12	C14					1	ea	Westphal & Co. Fish Tape
P12	C15							Miscellaneous Wires
P12	C15							Miscellaneous Wire of All Sizes and Lengths
P12	C15					10	rolls	#16 AWG Wire (different colors)
P12	C15					1	ea	Partial Box of #18/2 Shielded Cable
P12	C15					1	ea	Full Box of Yellow Cat 5 Cable
P12	C15							Small Rolls of #22 AWG Wire & Coax
P12	C15					1	box	Cable Grips (different sizes)
P12	C15							Equipment Grounding Flat Wire
P12	C15					1	ea	Spare Junction Box, 8" x 10" x 4"
P12	C16							Spare Electrical Supplies
P12	C16					1	box	Amphenol Fittings
P12	C16					1	box	Rubber Straps & Velcro
P12	C16					1	box	Shrink Tube
P12	C16					2	boxes	Spare Electronic Parts
P12	C16					1	box	Electrical Junction Boxes, Nipples, No-Lox, PVC Glue
P12	C16					1	box	Plastic Split Tubing
P12	C16					1	box	Containing:
P12	C16							Electrical Connectors
P12	C16							3/8" Hardware

