

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

• Project Information •

Lead Principal Investigator	Jeffrey Welker
Institute	University of Alaska, Anchorage, Environment and Natural Resources Institute
Project Title / Grant #	BE/CBC: Coupling of Carbon and Water Cycles in a Cold, Dry Ecosystem: Integrative Physical, Chemical and Biological Processes and their Controls on CO ₂ Exchange (0221606)
NSF Program and Manager	NSF/OPP ARCSS, Dr. Neil Swanberg
VPR Project Manager	Susan Zager

• Logistics Summary •

For this project, field team members will conduct weekly experiments on carbon and water cycles in the arctic environment from Thule Air Base in Greenland and Toolik Field Station in Alaska. As for the latter, this grant supports field research through 2006. (Note: Because the Toolik work requires little VPR support, this plan will largely focus on the work to be done in Greenland.)

Field teams ranging in size from three to 25 will travel to Thule, Greenland each summer throughout the life of the grant (2002-2007), though the project expects a continuous presence between May and late August each year. In 2004 and 2005, two team members will conduct comparative studies between their ITEX snow fence experiment at Toolik Lake and at Thule.

Also in 2005, three team members will conduct comparative studies at lakes around the Kangerlussuaq area, and the PI will host a three-week High Arctic field course at Thule. Project researchers will instruct the group of 12 (mostly) undergraduate students in basic arctic research skills. Fieldwork will base at the project's experimental sites at Thule Air Base, but will also include 8-10 days of camping at several locations in Green Valley, approximately 20 minutes away from Thule via helicopter. In addition, with UNAVCO assistance, they will install about 20 GPS monuments. A TREC participant Greenlandic teacher will also participate.

For 2006 at Thule, the researchers anticipate a spring trip for one week (2 people) a summer trip for 6-8 people, and a fall visit. The team will conduct trench work and ecological and soil studies along with hydrological and microclimate monitoring. They will visit Green Valley for several days once or twice during the field season to collect data and various samples, and to monitor their experiments. They also will receive UNAVCO assistance to re-measure the 20 GPS monuments installed in 2005 to determine the annual downslope movement.

In 2007, work at Thule will be similar to the 2006 effort, with a spring trip for one week (3 people) in April. UNAVCO will again provide support to maintain the GPS array.

In Alaska and Greenland, VPR will provide user and truck days. In addition, for Thule visits, VPR will provide AMC clearances/ticketing for personnel and cargo, helicopter support, field gear, construction support, power, and lab/work space at the Peregrine Fund research center.

For the complete VPR online project record for this grant, including science objectives, go to: http://www.vecopolar.com/arlss_reports/ARLSS_ProjectsDetail.aspx?cbPropNum=0221606

• Outstanding Issues •

Issue	Responsibility	Date Completed
Review support plan for accuracy and distribute to all field team members	PI	
Obtain DPC permit for fieldwork	PI	
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	
Provide field dates, vehicle and helo use dates	PI	13 Apr 07
Secure Bldg. 452 for use for season: 2 labs, 2 offices	VPR	31 Jan 07
Contract AirGreenland helicopter for one flight period in April and one in early July	VPR	01 Mar 07
Secure lodging in North Star Inn for field team	VPR	31 Jan 07
Secure AMC reservations for field team	VPR	01 Apr 07
Secure vehicles for field team	VPR	01 Apr 07
Contract Greenland Contractors to backfill So. Mtn. Trench	VPR	
Provide ongoing power to No. Mtn.	VPR	
Provide ongoing high-speed internet at Bldg. 452	VPR	
Maintain Base Supply account for researchers	VPR	
Make arrangements for project closeout, including disassembling North Mountain site, and labeling/palletizing all retrograde cargo or properly disposing of unwanted materials	PI	
Continue working office/lab space issue, keeping PI informed if a move is required during the field season	VPR	
Return satphones to US upon final trip to Thule	PI	
Complete Critical Success Factors	PI	Completed

• Allocations & Services •

Allocations from Inventory - Greenland

Quant/Unit	Item
2	Satphones; PIs to use units from 2006 field season which are in their possession
2	Helicopter survival bags
4	REI Dome 3 tents
1	Coleman stove
8	Ground pads
1	1kW generator
Note:	All supplies except for satphones will remain in Thule at close of project.

For more information on satellite phones, radios, manuals and other field communications support, please visit the VPR communications website at <http://vpr.sri.com>.

Other Services

Project Allocations	Comments
40 one-way AMC tickets	
~112 days office & lab space Peregrine Fund	With Internet access. Use of Bldg. 452 terminates 09/01/2007; alternative arrangements may require a move during the field season.
Qty Greenland Contractors Support	Backfill of trench
Qty miscellaneous supplies, up to \$2000	Via account at Base Supply
12 months power	North Mountain experiment sites
Storage	Bldg. 628 and 561

Accommodations

Qty/Unit	Location	Comments
700 User Days	North Star Inn Thule	

Air Support

Type	Comment
Helicopter, Air GL Bell212	1 hour March, 1 hour July. See Greenland Thule calendar for up to date information. http://www.trumba.com/calendars/thule_complete

Truck Support

Pick Up	Drop Off	Comment
05/26/2007	08/24/2007	2 ea 4wd truck – seats 6 from GC
06/14/2007	07/20/2007	1 ea 4wd truck pickup from GC
09/13/2007	09/21/2007	1 ea 4wd truck pickup from GC

• 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*.

• Cargo and Customs •

Cargo

Items	Weight/Cube
Science cargo to return to US from Greenland	~1,000

• Support Schedule •

Up-to-date schedules are listed at http://www.trumba.com/calendars/thule_complete.

Date	Location	Activity
05 Apr 07	Thule	UCSB group conducts a one-week early season visit, including helo trip to Polar Desert.
24 May 07	Thule	Researchers arrive to begin 2007 field season.
mid-July	Thule – Green Valley	Trip to Green Valley via helicopter (1 hour)
mid-July	Thule – So. Mtn.	GC backfill of trench.
late August	Thule – No. Mtn., 452, 561	Retrograde of science experiment pending notification of funding. Note: Researchers may have to move from Bldg 452 due to ownership change.
15 Sep	Thule	Last field team members depart Thule.

• Field Team Information •

Cahoon, Sean
Carroll, Ian
Holland, Keri
Kristenson, Heidi
Kristensen, Hanne
Layns, Aaron
Otto, Jans
Czimczik, Claudia
Rogers, Matt
Sletten, Ron
Johns, Bjorn
Pettit, Joe
Welker, Jeff
Welker, Mary

• Project Contact Information •

Research Team

Role	Name	Email	Phone / Fax
Co-PI	Jace Fahnestock	jfahnestock@northwind-inc.com	208 557-7887 /
Co-PI	Bernard Hallet	hallet@u.washington.edu	206 685-2409 / 206 543-3836
Co-PI	Joshua Schimel	schimel@lifesci.lscf.ucsb.edu	805 893-7688 / 805 893-4724
Co-PI	Ronald Sletten	sletten@u.washington.edu	206 543-0571 / 206 543-3836
Principal Investigator	Jeffrey Welker	afjmw1@uaa.alaska.edu	907 257-2701 / 907 257-2707

VPR Team Members

Contact for	Name	Email	Primary Phone(s)
Greenland operations	Jason Buenning	jason@polarfield.com	Denver: 303-638-6669 Greenland: 011.299.524218
Greenland operations	Mark Begnaud	mark@polarfield.com	Denver: 720.320.6160 Greenland: 011.299.524281
Sat phones & comms	Roy Stehle	roy.stehle@sri.com	Menlo Park: 650.859.2552
Thule operations	Susan Zager	susan@polarfield.com	Denver: 720.320.6159
Denver operations	Jill Ferris	jill@polarfield.com	Denver: 720.320.6155
Alaska operations	Marin Kuizenga	marin@polarfield.com	Fairbanks: 907.590.0755
Alaska operations	Naomi Whitty	naomi@polarfield.com	Fairbanks: 907.590.3954
Alaska operations	Matt Irinaga	matt@polarfield.com	Fairbanks: 907.978.0564

VPR Offices

Denver	Kangerlussuaq	Fairbanks
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 Mark Begnaud Postboks 1015 DK-3910 Kangerlussuaq, Greenland Tel: 011.299.841598 Fax: 011.299.841599	VECO Polar Resources Alaska Office 2325 King Road Fairbanks, AK 99709 Tel: 907.455.4214 Fax: 907.455.4126

• Safety, Environment, Health, and Permitting •

Permits

All science teams planning to conduct research in Greenland must complete an **annual application** in order to obtain approval from the Danish Polar Center (DPC). The application forms are available from the DPC at <http://www.dpc.dk>. Applications are submitted directly through the DPC, rather than through the U.S. State Department. For assistance with the application process, contact:

Poul Henrik Sorensen

E-mail: phs@dpc.dk

Telephone: +45 3288 0100

• **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
Successful air transportation of research members to Thule
Obtaining trucks for Thule
Maintaining power at N Mtn
Providing helo time during summer
Securing office and lab space at Thule
Maintaining storage locations

• 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.