

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 •

Lead Principal Investigator	Jeff Welker
Co-PIs	Ronald Sletten, Jace Fahnestock, Joshua Schimel & Bernard Hallet
Institute	University of Alaska, Anchorage
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 CO2 Exchange (02-21606)
NSF Program and Manager	ARCSS, Dr. Neil Swanberg
VPR Project Manager	Susan Zager – Greenland, Naomi Whitty - Alaska

• Logistics Summary •

<p>For this project field team members will conduct weekly experiments on carbon and water cycle in the Arctic environment from Thule Air Base in Greenland.</p> <p>Field teams ranging in size from three to 25 will travel to Thule each summer throughout the life of the grant (2002-2007), though the project expects a continuous presence between May and late August.</p> <p>In 2004 and 2005, two team members will conduct comparative studies between their ITEX snow fence experiment at Toolik Lake and at Thule. In 2005, three team members will conduct comparative studies at lakes around the Kangerlussuaq area.</p> <p>In July of 2005 the project will host a three-week High Arctic field course at Thule. Project researchers will instruct the group of 12 (mostly) undergraduate students in basic skills in arctic research. Participants will then complete small group projects. 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 approximately 20 minutes away from Thule via helicopter. Also participating in the field course will be a participant from the TREC program.</p> <p>VPR support will cover AMC clearances/ticketing for personnel and cargo as well as user days (at both Thule and Toolik), construction support, power, lab/work space, and trucks at Thule. In addition VPR will provide helicopter support for the team's sampling trips around the Thule area (and to Kangerlussuaq lakes) and field transportation and camp support for the 2005 field course.</p>
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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=0221606

• Outstanding Issues •

Issue	Responsibility	Date Completed
Review support plan for accuracy and distribute to all field team members	PI	
Obtain all necessary permits for fieldwork	PI	
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	
Provide all personal information for clearances	PI	
Contract Air Greenland helo for March visit	VPR	15 Feb 05
Make reservations at North Star Inn for all field team personnel	VPR	01 May 05
Make & distribute clearances for all field team personnel	VPR	Ongoing
Make vehicle reservations	VPR	Ongoing
Make radio reservations	VPR	Ongoing

Sub-contract GC for extension and then backfill of trench	VPR	20 Mar 05
Contract with Peregrine Fund for office & lab space	VPR	01 May 05
Ensure that Peregrine Fund rooms are adequately furnished	VPR	20 Mar 05
Contract TeleGreenland to install internet connection in office	VPR	01 May 05
Set up account for researchers at Base Supply	VPR	20 Mar 05
Purchase & ship materials necessary for camp, including food, tents, stoves, generator, and toilet	VPR	Pending
Ship all personal gear required for field camp, including sleeping bags and clothing to Stratton Air Base by 30 Jun 05	PI	
Sub-contract Air Greenland Bell212 for field camp transport	VPR	Pending
Hire one camp staff for duration of field course (and one week prior)	VPR	23 May 05
Purchase & ship 6 cans bear spray	VPR	01 May 05
Finalize plans for Kangerlussuaq work	Sletten	
Contract helo for Kangerlussuaq lake sampling	VPR	
Finalize plans for Toolik work	Welker	
Please note this important information for your field team: Bring 2 different forms of picture ID. Passports are mandatory for entry into Greenland.	Field Team Members	

• Allocations & Services Thule•

Allocations from Inventory

Quant/Unit	Item
1 ea	1kW generator (already in Thule)
TBD***	REI GeoMountain 3 tents
TBD***	Sleeping pads
TBD***	Stoves
TBD***	Fuel
150 days	Camp food
1 ea	Field toilet
***	(above field course items provided in quantities TBD by camp manager & researchers)
6 cans	Bear spray
1 ea	Iridium phone 15 Mar 05 through 28 Mar 05
2 ea	Iridium phones 26 May through 30 Sep 05
3 ea	Radios (from Air Force inventory) 26 May to 30 Sep
1 ea	Medical Advisory Services kit and service 11 Jul 05 through 30 Jul 05

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
41 one-way AMC tickets	
Qty 109th ANG flights	For field course, via Kangerlussuaq
1 ea Air Greenland one way ticket	Kangerlussuaq – Qaanaaq for Heuser
5 weeks camp manager	For field course
6 hours helicopter support	1 hour March, 5 hours July field course
990 user days North Star Inn	
120 days office & lab space Peregrine Fund	With internet access starting May 26th

Qty Greenland Contractors Support	Extension & backfill of trench
Qty miscellaneous supplies, up to \$2000	Via account at Base Supply
12 months power	North Mountain experiment sites
1 ea 4wd – seats 6	26 May to 30 Sept from USAF
1 ea 2wd pickup	26 May to 30 Sept from USAF
1 ea 2wd pickup	30 Jun to 01 Sept from USAF or Peregrine Fund
Storage	26 May to 30 Sept Bldg 628 year-round bldg 561
Workspace	26 Mat to 30 Sept Bldg 551

• Allocations & Services Kangerlussuaq •

Project Allocations	Comments
3 hours helicopter support	Sletten
42 user days	For Sletten team of 3
54 user days	For field course

• Allocations & Services Toolik •

Project Allocations	Comments
90 user days	http://www.uaf.edu/toolik

Truck Support

You are responsible for your own fuel. Like all rental agencies, the vehicle we provide you needs to be returned clean, with a full tank of gas. Let us know if your vehicle will be dropped off late, or at a location other than where you picked it up. For more information regarding your vehicle contact:

VECO Prudhoe Bay

Pick Up	Drop Off	# Days	Comment
5 June	9 June	5 days	

For the duration of your VPR-provided truck rental, you are covered by VPR automobile insurance. Please carry a copy of the following information with you. **If you are involved in an accident, please take photos and contact the Alaska Logistics Manager.**

Name Insured:

VECO Corporation
6411 A Street
Anchorage, AK 99518
Employers Insurance of Wausau #2322-00-065645
(907) 562-2266

Producer:

Willis of Alaska, Inc.
4220 B Street Company
Anchorage, AK 99503

This statement is issued for information purpose only and subject to terms, exclusions, and conditions of such policy.

• Location Information Greenland •

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 Greenland •

All project cargo shipping to Greenland via the 109th ANG 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 got 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 (<mailto:robin@polarfield.com>).
- For Customs requirements refer to the *Greenland Guide*, available at <http://www.vecopolar.com> under Greenland.

The following is our current understanding of your overall cargo requirements:

Cargo List

Items	Weight/Cube
One pallet of science cargo from CSU – via AMC	300/36
Two pallets of science cargo from Uni. Of Washington – via AMC	500/72
Field course cargo to be sent to Stratton Air Base, Scotia NY – via 109th	TBD

• Support Schedule Greenland •

Date	Location	Activity
17 Mar 05	Thule	Pre-season trip w/ Hagedorn, Sletten, Zager
20 Mar 05	Thule	Relocate office/labs from hospital & Bldg. 216
26 May 05	Thule	First wave of researchers in field for season
11 Jul 05	Kangerlussuaq	Field course participants arrive in Greenland
12-28 Jul 05	Kangerlussuaq/ Thule	Field course & Thule-based activities for students
30 Jul 05	Kangerlussuaq	Field course participants return home
30 Jul 05	Kangerlussuaq	Hagedorn, Sletten, Heuser conduct area lake sampling
13 Aug 05	Kangerlussuaq	Hagedorn, Sletten & Heuser depart for US/Thule
28 Sep 05	Thule	Last researchers leave Thule

• Field Team Information Greenland •

Project	Role	Name	Site	Arrive	Via	Depart	Via
Welker	Researcher	Arens, Seth	Thule	6/2/05	AMC	8/26/05	AMC
Schimel	Researcher	Asao, Shinichi	Thule	8/18/05	AMC	8/26/05	AMC
Field course	Student	Bendixen, Quintin	Kangerlussuaq	7/11/05	109 th	7/30/05	109 th
			Thule	7/12/05		7/28/05	
Welker	Researcher	Cahoon, Sean	Thule	5/26/05	AMC	8/26/05	AMC
Sletten	Researcher	Garnas, Derek	Thule	6/16/05	AMC	8/19/05	AMC
Field course	Student	Goehring, Lucas	Kangerlussuaq	7/11/05	109 th	7/30/05	109 th
			Thule	7/12/05		7/28/05	
U of AK	Researcher	Hagedorn, Birgit	Thule	3/17/05	AMC	3/25/05	AMC
			Thule	5/26/05	AMC	7/28/05	109 th
			Kangerlussuaq	7/28/05	109 th	8/13/05	109 th
			Thule	9/1/05	AMC	9/23/05	AMC
Sletten	Researcher	Heuser, Heather	Thule	6/30/05	AMC	9/2/05	AMC
Schimel	Researcher	Holland, Keri	Kangerlussuaq	7/28/05	109 th	8/11/05	AirGL
			Thule	6/16/05	AMC	7/1/05	AMC
Sletten	Researcher	Horwath, Jennifer	Thule	8/18/05		8/26/05	
			Thule	6/23/05	AMC	8/12/05	AMC
Field course	Student	Humber, Jessica	Kangerlussuaq	7/11/05	109 th	7/30/05	109 th
			Thule	7/12/05		7/28/05	

	Researcher	Junge, Karen	Thule	6/30/05	AMC	7/8/05	AMC
Field course	Student	Larsen, Darren	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Field course	Student	Lichtendorf, Trina	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Field course	Student	Magens, Diana	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Field course	Student	Muth, Arley	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Welker	Researcher	Ohms, Haley	Thule	5/26/05	AMC	8/26/05	AMC
Welker	Researcher	Sullivan, Paddy	Thule	5/26/05	AMC	8/26/05	AMC
Field course	Student	Peacock, Cynthia	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Field course	Student	Rearick, Jolene	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
U of WA	Researcher	Sletten, Ron	Thule Thule Kangerlussuaq Thule	3/17/05 6/30/05 7/28/05 9/8/05	AMC AMC 109 th AMC	3/25/05 7/28/05 8/13/05 9/23/05	AMC 109 th 109 th AMC
Field course	TREC Teacher	Sode, John	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Field Course	Camp Manager	Sturges, Sarah	Thule	7/7/05	AMC	7/29/05	AMC
Field course	Student	Tape, Ken	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Field course	UNAVCO	TBD	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Schimel	Researcher	Wallenstein, Matthew	Thule	6/16/05	AMC	6/24/05	AMC
U of AK	Researcher	Welker, Jeff	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Welker	Other	Welker, Mary	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th
Sletten	Researcher	Whorton, Erin	Thule	5/26/05	AMC	9/8/05	AMC
Field course	Student	Wright, Patrick	Kangerlussuaq Thule	7/11/05 7/12/05	109 th	7/30/05 7/28/05	109 th

• **Field Team Information Alaska** •

Welker	Researcher	Welker, Jeff	Toolik	6/5/05	Truck	6/9/05	Truck
Welker	Researcher	Huber, David	Toolik	6/5/05	Truck	8/25/05	Taxi

• **Project Contact Information** •

Research Team

Role	Name	Email	Phone / Fax
Principal Investigator	Jeffrey Welker	afjmw1@uaa.alaska.edu	Ph: 907 257-2701 Fax: 907 257-2707
Co-PI	Ronald Sletten	sletten@u.washington.edu	Ph: 206 543-0571 Fax: 206 543-3836
Co-PI	Jace Fahnestock	Jace@nrel.colostate.edu	Ph: 970 491-5262 Fax:
Co-PI	Bernard Hallet	hallet@u.washington.edu	Ph: 206 685-2409 Fax: 206 543-3836
Co-PI	Joshua Schimel	schimel@lifesci.lscf.ucsb.edu	Ph: 805 893-7688 Fax: 805 893-4724

Greenland Gear Shipping Address

Ron Sletten University of Washington Atmospheric Sciences / Geophysics Building Room 408 Seattle, WA 98195-1640
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VPR Team Members

Contact for	Name	Email	Primary Phone(s)
Greenland operations	Robin Abbott	mailto:robin@polarfield.com	Denver: 303.748.8507 Greenland: 011.299.524218
Greenland operations	Mark Begnaud	mailto:mark@polarfield.com	Denver: 720.320.6160 Greenland : 011.299.524281
Sat phones & comms	Roy Stehle	mailto:roy.stehle@sri.com	Menlo Park: 650.859.2552
MAS	Jason Buenning	mailto:jason@polarfield.com	Denver: 303.638.6669
Thule operations	Susan Zager	mailto:susan@polarfield.com	Denver: 720.320.6159
Denver operations	Jill Ferris	mailto:jill@polarfield.com	Denver: 720.320.6155
Scotia Operations & Customs	Earl Vaughn	mailto:earl.vaughn@nyscot.ang.af.mil mailto:vprscotia@direcway.com	Scotia: 518.331.3103
Alaska operations	Marin Kuizenga	mailto:marin@polarfield.com	Fairbanks: 907.590.0755
Alaska operations	Naomi Whitty	mailto:naomi@polarfield.com	Fairbanks: 907.590.3954

VPR Offices

Denver	Kangerlussuaq	Scotia	Fairbanks
VECO Polar Resources 8392 S. Continental Divide Rd. #104 Littleton, CO 80127-4268 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 Alaska Office 3535 College Road, Ste. 201 Fairbanks, AK 99709 Tel: 907.455.4214 Fax: 907.455.4126

Other

Organization	Internet	Phone
Medical Advisory Services	http://www.mas1.com	410.257.9504 410.257.9505 410.257.9506
Prudhoe VECO Light Duty (Truck rentals)	VecoBaseFordWarrantyAdministrator@veco.com	907.659.3345 907.659.2696

• 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 Advisory Systems (MAS)

If you find yourself with a need for medical advice/assistance do not hesitate to contact Medical Advisory Systems. When first arriving to your field location please follow MAS' check in procedure to activate the MAS service. A MAS representative will provide detailed instructions for how to use the MAS service in future emergencies. It is crucial that each field team member understand how to use the MAS service in the field. For further information on MAS please visit our website <http://www.vecopolar.com/> and navigate to Medical>Remote Medical Services/Kits.

MAS Check-In Procedure

Call 410.257.9504/9505/9506 and be ready to provide the following information:

Your Name

Your contact PI information

Camp information (indicate that you are VECO Polar Resources-supported researchers conducting and the location in which you are conducting remote work)

• 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
Securing office and lab space at Thule
Securing trucks for use at Thule
Securing travel to and from Thule for scientists and students participating in field course
Providing camp manager for field course
Transporting supplies and samples to and from Thule
Arranging transportation to and from Kanger
Arranging truck use in AK and lodging at Toolik
Arranging lodging at Thule
Securing power at N. Mtn-Thule

• 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.