

*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 •

<b>Lead Principal Investigator</b>	Robert Clauer
<b>Institute</b>	University of Michigan, Department of Atmospheric, Oceanic & Space Science
<b>Project Title / Grant #</b>	CEDAR: Interhemispheric High Latitude Ionospheric Electrodynamics Using a Coordinated Analysis of AMISR, Sondrestrom, SuperDARN and Other Data Sets (0535381)
<b>NSF Program and Manager</b>	NSF/GEO/ATM, Dr. Robert Robinson
<b>VPR Project Manager</b>	Robin Abbott

• Logistics Summary •

With this project, the researcher plans to use the SuperDARN HF radar data for both hemispheres, augmented by incoherent scatter radar ionospheric drift measurements, DMSP polar satellite ionospheric drift data, and measurements from arrays of high latitude magnetometers to better understand differences between the electromagnetic signals in the ionosphere at high northern and high southern latitudes. Radar data from sites near Kangerlussuaq, Greenland; Poker Flat, Alaska; and Resolute, Canada; will help the PI clarify the northern signal in particular.

The grant funds four years of research. In 2006, the PI expects to send a graduate student to Kellyville, near Kangerlussuaq, for training. During 2007, the student will visit the Poker Flat facility and potentially revisit the Kangerlussuaq site. During the last two field seasons of the grant, the PI expects to build on measurements made in the first two years, and site visits to Kangerlussuaq, Poker Flat, and/or Resolute may again be requested.

In addition to this work, the PI has been funded with a supplemental grant (0622626) to run a pilot, one-week summer field camp in Greenland for atmospheric and space science undergraduates. The course, to be held in late May, 2006, will consist of up to 10 students and 2 faculty. Most of the fieldwork will be conducted at Kellyville, with an overnight to Summit to make atmospheric measurements and to meet with other researchers to discuss their work. Support requirements for the undergraduate class will be combined with those of the primary grant.

For the main grant, VPR will provide ANG coordination of as-required trips to Kangerlussuaq. For the field course supplement, VPR will arrange ANG transport of the field class to/from Greenland, Kangerlussuaq/Summit user days, and as-needed cold weather and camping gear. VPR will also arrange for a vehicle rental.

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=0535381](http://www.vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0535381)

## • Outstanding Issues •

Issue	Responsibility
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
Contact the GEOSummit Science Coordination Office (SCO) <a href="mailto:sco@geosummit.org">mailto:sco@geosummit.org</a> regarding your project's plans for the season	PI
<b>Please note this important information for your field team:</b> Bring 2 different forms of picture ID. Passports are now mandatory for entry into Greenland. Be sure to pack them!	Field Team Members

## • Allocations & Services •

### Allocations from Inventory

Quant/Unit	Item
Misc	Boots and Parkas for Summit Station visit. Other clothing as requested.
12 ea	Sleep kits will be provided to each member of the field team to use at Summit or when camping near Kangerlussuaq.
Misc	Coleman 2-burner stoves, cookware, fuel and dehydrated food will be provided to the field team if they decide to camp after deploying their instrument up the ice cap road. The decision on whether they will camp will be made after their arrival in Kangerlussuaq.
1 ea	Iridium satellite phone to use for safety when traveling away from Kangerlussuaq.

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
User days for field team to stay at KISS or the Musk Ox Inn while in Kanger	
Accommodations for field team's overnight at Summit 5/23 – 5/24.	The field class will stay in a heated weatherport while at Summit.
Arranging 3 rental trucks for use to get to/from Kellyville	They are booked from 21-26 May.
Three snowmobiles and sleds at Summit will be arranged to transport the field team to the University of Michigan magnetometer site.	Due to the high demand on the snowmobiles/sleds, this activity will most likely take place in the evening.

## • 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.
- ✓ 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.

## Cargo List

Items	Weight/Cube
No cargo – only hand-carry luggage	

## • Support Schedule •

Date	Location	Activity
21 May	NY > Kanger	Arrive via 109 <sup>th</sup> C-130 Aircraft
22 May	Kanger > Kellyville	Radar experiment at Kellyville
23 May	Kanger > Summit	Flight to Summit Station for an overnight
24 May	Summit > Kanger	Depart Summit, arrive back in Kanger, drive to the ice cap via the road to set up radiometer, stay camped out overnight (TBD).
25 May	Kanger	Return to KISS, go to Kellyville in the afternoon
26 May	Kanger > NY	Depart Kanger back to the USA

## • Field Team Information

Name	Role
Robert Clauer	PI
Perry Samson	Field coordinator
Shaneen Braswell	Field team member
Brad Charboreau	Field team member
Mary Mello	Field team member
Catalina Oaida	Field team member
Illissa Ocko	Field team member
Jessica Parker	Field team member
Whitney Plumb	Field team member
Karis Samson	Field team member
Colin Triplett	Field team member
Brie Van Dam	Field team member

## • Project Contact Information •

### Research Team

Unless otherwise noted, all team members are undergraduate students

Role	Name	Email	Phone / Fax
Principal Investigator	Robert Clauer	<a href="mailto:rclauer@umich.edu">rclauer@umich.edu</a>	734 763-6248 / 734 763-0437
Co-Investigator	A.J.Ridley		
Project coordinator	Perry Samson	<a href="mailto:samson@umich.edu">samson@umich.edu</a>	

### VPR Team Members

Contact for	Name	Email	Primary Phone(s)
Greenland operations	Robin Abbott	<a href="mailto:robin@polarfield.com">robin@polarfield.com</a>	Denver: 303.748.8507 Greenland: 011.299.524218
Greenland operations	Mark Begnaud	<a href="mailto:mark@polarfield.com">mark@polarfield.com</a>	Denver: 720.320.6160 Greenland: 011.299.524281
Summit operations	Sandy Starkweather	<a href="mailto:sandy@polarfield.com">sandy@polarfield.com</a>	Denver: 303.518.8714
Denver operations	Jill Ferris	<a href="mailto:jill@polarfield.com">jill@polarfield.com</a>	Denver: 720.320.6155
Scotia Operations & Customs	Earl Vaughn	<a href="mailto:earl.vaughn@nyscot.ang.af.mil">earl.vaughn@nyscot.ang.af.mil</a> <a href="mailto:earl.vaughn@gmail.com">earl.vaughn@gmail.com</a>	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 <sup>th</sup> 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	<a href="http://www.geosummit.org">http://www.geosummit.org</a> <a href="mailto:sco@geosummit.org">sco@geosummit.org</a>	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.

- 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
Availability of transport for 12 people and gear between Kellyville, KISS, and ice cap (rental trucks)
Availability of Summit lodging (tents, sleeping bags, weatherport...) for one night.
Lodging at KISS for 12 people during the week.

- 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.