

PROJECT INFORMATION

Lead Principal Investigator	Ross Virginia
Institute	Dartmouth College, Institute of Arctic Studies
Project Title / Grant #	IGERT: Polar Environmental Change (0801490)
NSF Program and Manager	US\Federal\NSF\EHR\IDGE\IGERT, Dr. Carol Van Hartesveld
PFS Project Manager	Sandra Starkweather

LOGISTICS SUMMARY

This grant supports a graduate program with a field course designed to offer students hands-on research opportunities. Beginning in 2010, up to 12 students and instructors will travel to Greenland each year for coursework.

Students will complete core introductory courses during the 2009-10 academic year before taking the Greenland field course. A group of six team members will travel to Greenland at the end of July, 2009, for a 10-day reconnaissance and planning visit, and to work on curriculum development with Greenlandic colleagues. After arriving in Kangerlussuaq via the ANG logistics chain, the PI and one other will travel on to Nuuk to meet with faculty at the University of Greenland and with researchers at the Inuit Circumpolar Council. The remaining four will work around Kangerlussuaq, splitting their time between camping near the ice edge for several days of sampling and staying at the KISS, where they will process their samples.

In 2010-2012, the ~4 week course will have two distinct parts: a two-week field-study effort; and a two-week exploration of policy issues--specifically the human dimensions of climate change--based from Nuuk, Greenland's capitol. For the research component, students will be grouped into two disciplines: one will focus on terrestrial studies--soil-plant-animal interactions in tundra ecosystems--based from Kangerlussuaq and in collaboration with Eric Post; the other will focus on firn/ice studies based from Summit Station.

For each year of field work, CPS will provide Air National Guard (ANG) flight arrangements to and from Kangerlussuaq, user days and classroom space at the KISS facility, Kangerlussuaq vehicle rentals, commercial airline tickets to and from Nuuk, ANG arrangements to and from Summit, Summit user days, and cold weather clothing for the group traveling to Summit Station. The ANG flights are scheduled in advance, therefore, if the timing of flights does not work, the PI will be responsible for commercial airline tickets. The research team will make all other arrangements and pay for them via the grant.

For the complete CPS online project record for this grant, including science objectives, go to:
http://www.polar.ch2m.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0801490

For up-to-date information on the project's schedule, please view the online Greenland calendar (<http://www.polar.ch2m.com/> > Greenland > Calendars/Schedules).

OUTSTANDING ACTIONS AND NOTES

Issue	Responsibility	Date Completed
Review support plan for accuracy and distribute to all field team members	PI	June 22, 2009 for draft and ongoing for final
Obtain all necessary permits for fieldwork	PI	Initiated by PI, responding to ongoing requests from GHR
Visit all hyperlinks and review all documents referred to in the support plan	Entire field team	June 22, 2009
Note: Passports are required for Air National Guard and international travel. It is a good idea to bring two IDs and to pack a copy of your passport in case the original is lost.	Entire field team	Meredith Kelly working on final clearance info. Will send 6/23/2009

Complete Critical Success Factors	PI	June 22, 2009
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ALLOCATIONS AND SERVICES

Allocations from Inventory

Quant/Unit	Item
1-3	Tents for 4-5 people (3 small tents or 1 large & 1 small to accommodate 4 women + 1 man)
4-5	1 ea. sleep pads for 4-5 people
1	Kitchen Box for 4-5 people
1	First Aid Kit for 4-5 people
1	Iridium for camping nights
4-5	Walkie Talkies for local comms while camping and near the glacier
1	Personal Locator Beacon (PLB) for camping nights
4-5	Mosquito head nets, as required

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

Other Services

Project Allocations	Comments
1 Rental Truck	Truck is large enough for 5 persons plus gear. It is reserved for the Kanger-based group for the length of their stay.
KISS user days	50 KISS user days
KISS Building, Refrigerator space for samples	1 standard sized residential refrigerator
KISS Building, Drying ovens or bench space for drying samples	6'-9' linear feet of bench space to spread out samples, sort, repackaging
Sample Retro	Investigators will provide cooler & eutectics for packing

LOCATION INFORMATION

Please visit <http://www.polar.ch2m.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*, 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.polar.ch2m.com/> and navigate to Greenland > Calendars/Schedules.

If you need **technical support** with the Cargo Tracking System, contact [Mike Dover](#) .

Customs instructions are available on our Web site at <http://www.polar.ch2m.com/> (go to Greenland > Customs). More information is available via the *Greenland Guide*, under Greenland on the CPS site.

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

Cargo List

Items	Weight/Cube
Items to ship to Kanger:	
a. Personal gear (1 large duffel/backpack per person) for six people	(~50 lbs each) 300 lbs
b. 1 large duffel rock/sediment sampling gear (drill, batteries, spikes, sample bags, lake corer)	~80-90 lbs
c. 1 large duffel soil/plant sampling gear (auger, work tools, sampling bags)	10 lbs
d. 4-5 empty home depot buckets for shipping return rock samples	80-90 lbs
e. 4-5 empty insulated coolers for shipping return soil/plant samples	10 lbs
Items to ship (return) to NY	
f. Items (a-c) listed above	~480 lbs
g. Item d will be full with rocks	Estimated wt. 100 lbs
h. Item e will be full with samples	Estimated wt. 100 lbs
i. 1 large duffel with lake cores (PCV tubes)	Estimated wt. 100 lbs

SUPPORT SCHEDULE

Approx Date	Location	Activity
7/27-8/6	Kangerlussuaq	Day trips to the ice edge with 1-2 nights camping near the ice edge.
7/28-8/5	Nuuk	Independent work in Nuuk conducted by Lenore Grenoble.
8/3-8/5	Nuuk	Independent work in Nuuk conducted by Ross Virginia

For the most up-to-date information on the project's schedule, please view the online Greenland calendar (<http://www.polar.ch2m.com/> > Greenland > Calendars/Schedules).

FIELD TEAM INFORMATION

Name	Location	Date In	Date Out	Email
Ross Virginia	Kangerlussuaq	7/27/2009	8/6/2009	Ross.A.Virginia at dartmouth.edu
	Nuuk	8/3/2009	8/5/2009	
Xiahong Feng	Kangerlussuaq	7/27/2009	8/6/2009	Xiahong.Feng at dartmouth.edu
Meredith Kelly	Kangerlussuaq	7/27/2009	8/6/2009	Meredith.A.Kelly at dartmouth.edu
Lenore Grenoble	Kangerlussuaq	7/27/2009	8/6/2009	grenoble at uchicago.edu
	Nuuk	7/28/2009	8/5/2009	
Simone Whitecloud	Kangerlussuaq	7/27/2009	8/6/2009	simone at whiteclouds.us
Laura Levy	Kangerlussuaq	7/27/2009	8/6/2009	laura_b_levy at hotmail.com

PROJECT CONTACT INFORMATION
Research Team

Role	Name	Email	Phone / Fax
Principal Investigator	Ross Virginia	Ross.A.Virginia at Dartmouth.edu	603.646.0192/ 603.646.1682
Co-PI	Mary Albert	mary.r.albert at erdc.usace.army.mil	603.646.4422/ 603.646.4278
Co-PI	Ian Baker	ian.baker at dartmouth.edu	603.646.2184
Co-PI	Xiahong Feng	xiahong.feng at dartmouth.edu	603.646.1712
Co-PI	Darren Ranco	Darren.J.Ranco at Dartmouth.EDU	603.646.0578

CPS Team Members

Contact for	Name	Email	Primary Phone(s)
Summit operations	Sandy Starkweather	Sandy at polarfield.com	Denver: 303.518.8714
Greenland planning and project support	Robin Abbott	Robin at polarfield.com	Denver: 303.748.8507
Greenland on-island support	Mark Begnaud	Mark at polarfield.com	Denver: 720.320.6160 Greenland: 011.299.524218
Greenland on-island support, Cargo	Ed Stockard	Ed at polarfield.com	Greenland: 011.299.524281
Scotia operations & customs	Earl Vaughn	Earl Vaughn at gmail.com	Scotia: 518.331.3103
Sat phones & comms	Roy Stehle	Roy.Stehle at sri.com	Menlo Park: 650.859.2552
Denver operations	Jill Ferris	Jill at polarfield.com	Denver: 720.320.6155

CPS Offices

Denver	Kangerlussuaq	Scotia
CH2M HILL Polar Services Western Office 8110 Shaffer Parkway Suite 150 Littleton, CO 80127 Tel: 303.984.1450/1439 Fax: 303.984.1445	CH2M HILL Polar Services 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 Tel: 518.344.2635 Cell: 518.331.3103 Fax: 518.344.2537

SAFETY, ENVIRONMENT, HEALTH and 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. For assistance with the application process, contact:

Poul Henrik Sorensen
E-mail: [phs at dpc.dk](mailto:phs_at_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 CPS' support. Examples might be the availability of the helicopter or camp gear.

Factors
Access to a variety of locations between Kanger and the ice sheet margin for planning of graduate field seminar course. Possibility to camp overnight near ice margin or other location. Supported by well functioning rental truck and camping gear.
Minimal storage space for gear/samples collected.
Communication with KISS for safety purposes.

GOVERNMENT AND PERFORMANCE 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 CPS' performance is a "facility-performance metric" which counts the number of productive days your project has in the field while relying on CPS facilities or support. Please keep track of any "lost days" and report these to us at the end of the season.