

Please review all of the following information, including the gear allocations and field team information, to ensure accuracy. This plan is an agreement between CH2M HILL Polar Services (CPS) and your group, documenting the logistics support you will receive.

PROJECT INFORMATION

Lead Principal Investigator	Joshua Schimel
Institute	University of California, Santa Barbara, Dept. Ecology, Evolution & Marine Biology and Envir. Studies
Project Title / Grant #	IPY: Microbial winter survival physiology: a driver on microbial community composition and carbon cycling (0733074)
NSF Program and Manager	NSF\OD\OPP\ARC\ARCSS, Dr. Neil Swanberg
PFS Project Manager	Kim Derry

LOGISTICS SUMMARY

Researchers on this project will study microbial dynamics in the low Arctic of northern Alaska and the high Arctic of northern Greenland during consecutive seasons beginning in 2007 and ending in 2010. To make the observations required of parallel transects over dry, moist, and wet tundra, teams will visit the research sites throughout the year during the course of the investigation.

In 2007, a research team of 3 worked at Thule, Greenland, in mid-October; and at Toolik Field Station, Alaska, in mid-November. In 2008, a research team of 2-3 people focused on Alaska work, visiting Toolik 4 times in the year. In 2009, a team of two visited Toolik, Alaska, in May. A team visited Thule, Greenland, in August and again in October.

In 2010, two teams will return to Thule, two people for a week late in May, and two people for a week in late June. Teams will take soil samples and collect litter (leaves, etc.) during each of these trips for later analysis at the home institutions. This project will be integrated with other studies on pan-Arctic microbial population dynamics by collaboration with the ICSU MERGE network.

IAB will provide access to infrastructure and services at Toolik Field Station.

CPS will provide clearances, lodging, office space, Internet access, truck rental, and cold weather gear (as needed) for work at Thule. For work at Toolik, CPS will pay for user days, truck rentals and cold weather gear (as needed).

(For the 2007 season at Thule, CPS would have provided helicopter support to install the experiments if needed. In the end, the helicopter was not needed to access the sites. CPS will work with the PI (and NSF if needed) to determine the best support based on whether the road to the sites is open at the time of installation.)

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=0733074

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 Due	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	Entire Field Team		
Note: Passports are required for Air National Guard and international travel. Also, please bring TWO copies of your passport to Greenland with you.	Entire field team		

Obtain Danish Ministry permissions	CPS		4/24/2010
Obtain USAF permissions	CPS		4/24/2010
Make AMC flight reservations	CPS		4/26/2010
Keep TSAR (Bldg. 353) orderly and clean	PI		
Remove project-specific items from Building 353 and store in Building 628 at the end of season	PI		
Provide information for clearances	PI		
Complete Critical Success Factors	PI		

ALLOCATIONS AND SERVICES

Other Services

Service	Comments
Truck Rental from GC	20 May – 2 July
AMC tickets	4 round-trip
Lodging at TSAR (Bldg. 353)	4 people (researchers pay for meals)
Clearances, USAF & Danish	
Internet access in TSAR Bldg. 353	
Storage, Bldg. 628	
Access to wet lab in TSAR Bldg. 353	

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* 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.polar.ch2m.com/> and navigate to Greenland > Calendars/Schedules.

If you are a **new user** requiring access to the Cargo Tracking System, contact [Jason Buenning](#).

(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
Assorted cargo and haz mat	

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
Ernakovich, Jessica	Thule	06/24/2010	07/02/2010	jagilman@nrel.colostate.edu
Andrew Ernakovich	Thule	06/24/2010	07/02/2010	
Schaeffer, Sean	Thule	05/20/2010	05/28/2010	
Erin Hanan	Thule	05/20/2010	05/28/2010	

PROJECT CONTACT INFORMATION

Research Team

Role	Name	Email	Phone / Fax
Co-PI	Kenneth Reardon	reardon@engr.colostate.edu	970.491.6505/970.491.7369
Principal Investigator	Joshua Schimel	schimel@lifesci.ucsb.edu	805.893.7688/805.893.4724
Co-PI	Matthew Wallenstein	mawallen@nrel.colostate.edu	970.556.2591
Co-PI	Mike Weintraub	michael.weintraub@utoledo.edu	419.530.2585

CPS Team Members

Contact for	Name	Email	Primary Phone
Greenland science planning & support	Susan Zager	Susan@polarfield.com	Denver: 720.320.6159
Thule science planning & support	Kim Derry	Kim@polarfield.com	Denver: 303.349.6382
Scotia (Stratton Air Base) operations & customs	Earl Vaughn	EarlVaughn@gmail.com	Scotia cell: 518.605.0979
Sat phones & comms	Roy Stehle	Roy.Stehle@sri.com	Menlo Park: 650.859.2552
Remote Medical (kits & service) and Medical/Dental Clearance (PQ)	Robbie Score	Robbie@polarfield.com	Denver: 303.906.0093

CPS Offices

Denver	Kangerlussuaq	Scotia
Polar Field Services 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: 518.605.0979 Fax: 518.344.2537

Other

Organization	Internet	Phone
Medical Advisory Service (MAS) (see below for Remote Telemed #)	http://www.medaire.com/corp_medlink.html	Office: 480.333.3771

SAFETY, ENVIRONMENT, HEALTH and PERMITS

Effective January 1, 2010 the Government of Greenland assumed responsibility for the permitting process for research in Greenland. All science teams planning to conduct research in Greenland must complete an **annual application** in order to obtain approval from the Government of Greenland. The application forms are available from the Department of Domestic Affairs, Nature and Environment at <http://www.nanog.gl/expeditions> or by

sending an email to ekspeditioner@gh.gl. Applications are submitted directly through the Department of Domestic Affairs, Nature and Environment. Be advised that a new fee of 4000 DKK has been put in place for permits. For assistance with the application process, contact:

Martin Schiøtz
Head of Section
Section of Nature
Department of Domestic Affairs, Nature and Environment P.O. Box 1614
3900 Nuuk
Greenland
e-mail: ekspeditioner@gh.gl

Medical Clearance

Arctic Program participants traveling into the Greenland field generally must pass a National Science Foundation-mandated physical and dental exam. All field team members should plan to complete their Physical Qualification (medical and dental clearance) process 6-8 weeks prior to travelling to Greenland. For more information, refer to CPS' *Greenland Guide*, available at <http://www.polar.ch2m.com/> under Greenland.

Medical Advisory Service (MAS) Support

If you need medical advice/assistance, do not hesitate to contact Medical Advisory Service (MAS) using the card included with the medical kit or the information below. Be sure that each team member knows where the kit is located and understands how to use the MAS service in the field. For further information on MAS, please visit our Web site <http://www.polar.ch2m.com/> and navigate to Medical>Remote Medical Services/Kits.

MAS 24/7 Telemed Service

Worldwide Phone: 1.480.333.3876
Fax: 1.480.333.3821
Member ID: CH2M HILL Polar Services

RISK ASSESSMENT

See Appendix for Risk Factors and Mitigation.

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
Getting to field sites—if we can get to the sites, we can get the samples we need.

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.

APPENDIX

Risk Assessment

RISK FACTORS and MITIGATION

Factor	Mitigation and Control
Structure Fire	-Fire extinguishers available in all buildings
Cold Weather	-Proper clothing -Check forecast before going out of camp/town.
Foot travel	-Communication plan in place (carry a radio)