

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	Steven Oberbauer
PI for work described in this plan	Jeff Welker
Institute	Florida International University : Department of Biological Sciences and University of Alaska, Anchorage
Project Title / Grant #	IPY: Collaborative Research: Study of arctic ecosystem changes in the IPY using the International Tundra Experiment (0632277)
NSF Program and Manager	NSF\OD\OPP\ARC\ARCSS\AON, Dr. Martin Jeffries
PFS Project Manager	Susan Zager

Note: This season plan documents plans for work in Greenland during 2009. CPS will document Alaska support elsewhere.

LOGISTICS SUMMARY

This collaborative project is composed of the following: 0632277 (Oberbauer, Florida International University, LEAD), 0632184 (Welker, UAA), 0632144 (Klein, CSU) and 0632263 (Hollister, GVSU). The research represents the US contribution to an international effort to remeasure sites in the International Tundra Experiment (ITEX) during IPY. The researchers will revisit ITEX sites at Toolik Lake, Barrow, and Atqasuk, Alaska; Thule, Greenland; Niwot Ridge, Colorado; and the Tibetan Plateau, China.

For the Welker component of the collaboration, from 2007-2009 a team of 3 will spend mid-May to mid-September at Toolik Field Station. For the Welker Greenland work, teams will visit sites established at Thule, Greenland, twice annually during 2007 and 2008, and then remain on-site from late May to late September in 2009.

For 2008, in addition to the work at Thule, the PI fielded a team based from Kangerlussuaq for collaborative studies with Eric Post related to ITEX. In addition, a researcher reestablished a warming experiment funded under the PI's former BE grant, 0221606, at Thule toward the end of the season.

For 2009, teams will work at Thule and Kangerlussuaq during parallel seasons stretching from late May to mid/late August.

For this project,

--At Toolik, CPS will provide user days and vehicle rentals. At Thule, CPS will arrange and pay for airfare (AMC or other available flights if AMC is booked), lodging, lab space, truck rentals and safety/communications gear. The PI will arrange/pay for the researchers' transportation to Thule from Kangerlussuaq (if any). For the Kangerlussuaq-based work, CPS will provide ANG flights for pax/cargo between Scotia and Kangerlussuaq, some camping and safety gear, and arrange for lodging/lab space in KISS. This support is provided on a not-to-interfere basis, and the PI will pay for associated costs directly.

--BASC will provide access to infrastructure and services in Barrow and Atqasuk (user days are estimated at 153 in Barrow and 82 in Atqasuk for 2007 and 2008).

--IAB will provide access to infrastructure and services at Toolik.

All other support will be arranged by the researchers and funded from the grants.

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=0632277

1. Thule, Greenland, Deployment Plan

Thule OUTSTANDING ACTIONS AND NOTES

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	Entire field team	
Obtain Danish Ministry permissions	CPS	
Obtain USAF permissions	CPS	
Make AMC flight reservations	CPS	23 Apr 09
Keep TSAR (Bldg. 353) orderly and clean	PI	Note
Remove project-specific items from Building 353 and store in Building 628 at the end of season	PI	
Provide information for clearances	PI	20 Apr 09
Complete Critical Success Factors	PI	Completed

THULE ALLOCATIONS AND OTHER SERVICES

Allocations from Inventory

Quant/Unit	Item
1	Sat phone

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 Truck	Rented from GC; 28 May to 21 Aug
Cargo via 109 th	If needed
AMC tickets	
Lodging at TSAR (Bldg. 353)	28 May to 21 Aug
Clearances, USAF & Danish	
Internet access	In TSAR Bldg. 353; 28 May to 21 Aug
Storage, Bldg. 628	
Base Supply	Misc. field materials
Possible cargo on 757 from Kanger as needed	Subject to AirGreenland availability and timing

CARGO AND CUSTOMS

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

Cargo List

Items	Weight/Cube
No cargo to ship ahead; researcher will hand carry	0

THULE SUPPORT SCHEDULE

Approx Date	Location	Activity
01 May 09	NY	Cargo (if any) arrives at Stratton
19 May 09	SFJ > THU	Cargo (if any) via the 109 th to Thule
28 May 09	BWI > THU	Welker + 3 via AMC to Thule
12 Jun 09	THU > BWI	Welker departs THU via AMC
12 Jun – 20 Aug 09	THU	Field team conducts daily sampling trips to No. Mtn.
21 Aug 09	THU > BWI	Field team departs THU via AMC

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).

THULE FIELD TEAM INFORMATION

Name	Location	Date In	Date Out	Email
Welker, Jeff	THU	28 May 09	12 Jun 09	afjmw1 at uaa.alaska.edu
Sharp, Beth	THU	28 May 09	21 Aug 09	
Frazer, Brett	THU	28 May 09	21 Aug 09	
McDonald, Shane	THU	28 May 09	21 Aug 09	

2. Kangerlussuaq, Greenland, Deployment Plan

KANGERLUSSUAQ OUTSTANDING ACTIONS AND NOTES

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	Entire field team	
Arrange KISS reservations, direct bill	PI	Pending
Arrange USAF C-130 flight	CPS	30 Apr 09
Return all field equipment	PI	
Provide field food	PI	
Provide information for clearances	PI	Completed
Complete Critical Success Factors	PI	Completed

KANGERLUSSUAQ ALLOCATIONS AND SERVICES

Note: CPS will provide the following gear from inventory on an as-available basis (not to interfere with researchers funded by NSF to work in Kangerlussuaq in 2009).

Allocations from Inventory

Quant/Unit	Item
1	Med kit
1	Satellite phone
3	Personal tents
3	Thermarest
1	Mess kit
1	Coleman stove

1	Camp table (2' x 4')
3	Camp chairs
1	Camp tent; Arctic Oven or equivalent (12'x12'); No floor if possible
1	Large Gatorade water jug
1	Large volume water filter
1	Camp shovel

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

Note: CPS arranged the following services as a courtesy to the PI. The PI will pay the service provider directly for any costs associated with the support.

Other Services

Project Allocations	Comments
Clearances on ANG flights Scotia><Kanger	Space available flights
KISS user days	
Internet access, KISS building	
Laboratory space KISS building	

KANGERLUSSUAQ 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.

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
3 Bikes	50 lbs
5 Large Action Packers – camp food	60
1 black brief case – light intercept meter	15
2 cases – Gas analyzers	25

KANGERLUSSUAQ SUPPORT SCHEDULE

Approx Date	Location	Activity
11 May 09	NY	Cargo arrives Stratton
27 May 09	NY > SFJ	Cahoon, Spaulding, Sullivan, Prohl via C-130
06 Jun 09	SFJ > NY	Sullivan via C-130
06 Aug 09	SFJ > NY	Prohl via C-130
27 Jul 09	NY > SFJ	Johnson via C-130
06 Aug 09	SFJ> NY	Johnson via C-130
24 Aug 09	SFJ> NY	Cahoon, Spaulding via C-130

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).

KANGERLUSSUAQ FIELD TEAM INFORMATION

Name	Location	Date In	Date Out	Email
Cahoon, Sean	SFJ	27 May 09	24 Aug 09	Sean.cahoon at gmail.com
Spaulding, Stuart	SFJ	27 May 09	24 Aug 09	tyscellardoor at yahoo.com
Sullivan, Paddy	SFJ	27 May 09	06 Jun 09	anpfs at uaa.alaska.edu
Prohl, Eian	SFJ	27 May 09	06 Aug 09	eb2143 at yahoo.com
Johnson, Joanna	SFJ	27 Jul 09	06 Aug 09	Joannaleejohn at gmail.com

PROJECT CONTACT INFORMATION
Research Team

Role	Name	Email	Phone / Fax
Co-PI	William Gould	wgould at fs.fed.us	787.766.5335 /787.766.6302
Collaborator	Robert Hollister	hollistr at gvsu.edu	616.331.8582 /
Collaborator	Julia Klein	jklein at nrel.colostate.edu	970.491.7715 /
Co-PI	Caroline Lewis	calewis at fairchildgarden.org	305.667.1651 /
Principal Investigator	Steven Oberbauer	oberbaue at fiu.edu	305.348.2580 /305.348.1986
Collaborator	Jeffrey Welker	afjmw1 at uaa.alaska.edu	907.257.2701 /907.257.2707

CPS Team Members

Contact for	Name	Email	Primary Phone(s)
Greenland & Thule Support	Susan Zager	Susan at polarfield.com	Denver: 720.320.6159
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
RMI	Kyli Olson	Kyli at polarfield.com	Denver: 303.489.2151
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 8110 Shaffer Parkway Suite 150 Littleton, CO 80127 Tel: 303.984.1450/1439 Fax: 303.984.1445	CH2M HILL Polar Services 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@dpcc.dk
 Telephone: +45 3288 0100

Remote Medical International (RMI) Support

If you need medical advice/assistance, don't hesitate to contact Remote Medical International (RMI) 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 RMI service in the field. For further information on RMI, please visit our Web site <http://www.polar.ch2m.com/> and navigate to Medical>Remote Medical Services/Kits.

RMI 24/7 Telemed Service

Primary: 206.734.3430
 Alternate: 360.754.9805
 Member ID: CH2M HILL Polar Services

CRITICAL SUCCESS FACTORS

THULE Factors
Travel from BWI to Thule
Use of 352 for lodging and lab space
Internet access in 352
Use of truck

KANGERLUSSUAQ Factors <i>Because the NSF supports the Kangerlussuaq work on a not-to-interfere basis; support for this project is subject to resource shortages in equipment and travel.</i>
Travel from Scotia to Kanger
KISS nights and internet access
Use of lab space in KISS
Use of camp gear
Shipment of gear to and from Kanger to Scotia
Overall helpfulness and smiling faces!

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.