

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	Germar Bernhard
Institute	Biospherical Instruments, Inc.,
Project Title / Grant #	NSF Office of Polar Programs UV Spectral Irradiance Monitoring Network (UVSIMN) (0907819)
NSF Program and Manager	NSF\OD\OPP\ARC\ASSP\AON, Dr. Martin Jeffries
PFS Project Manager	Sandra Starkweather

LOGISTICS SUMMARY

Biospherical Instruments Inc. (BSI) operates the NSF OPP's Ultraviolet Spectral Irradiance Monitoring Network (UVSIMN). One of the UVSIMN's systems is located at Summit, Greenland.

In 2009 BSI personnel will visit Summit, Greenland twice due to the relocation of the Green House building at Summit, to which the BSI instruments are mounted. During the first of these visits in mid June, one person will perform system characterizations, followed by removal of the UVSIMN from the Green House for its relocation. The second visit in early August (exact dates TBD) will involve two personnel conducting system reinstallation in the Green House, system service, engineering upgrades, and system characterization. On-site personnel will assist BSI – principally in the areas of system removal/storage/reinstallation, system characterization, IT support/communications, and cargo logistics.

CPS will provide ANG clearances for personnel and cargo, KISS and Summit user days, and access to services and infrastructure at Summit. The PI/ PM will arrange/pay for all other logistics through 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=0907819

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	Project Manager	05/18/09
Obtain all necessary permits for fieldwork	Project Manager	Not applicable.
Visit all hyperlinks and review all documents referred to in the support plan	Entire field team	05/18/09
Contact the GEOSummit Science Coordination Office (SCO) sco at summitcamp.org regarding your project's plans for the season	Project Manager	05/19/09: This document is said contact.
Complete medical clearance process 6-8 weeks before desired deployment date	Project Manager	Documents sent to NSF
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.	05/19/09 for First Visit personnel.

Complete Critical Success Factors	Project Manager	5/19/2009
Develop support details for second field visit, including science tech services required	PM/CPS	

ALLOCATIONS AND SERVICES

Allocations from Inventory

Quant/Unit	Item
1/ea	Arctic oven sleep tent (First Visit)
2/ea	Sleep pads (First Visit)
2/ea	Arctic oven sleep tents (Second Visit)
4/ea	Sleep pads (Second Visit)

Other Services

Project Allocations	Comments
Science Tech Assistance (First Summit Visit)	Estimated at up to 24 hours (total) during first visit to Summit.
Warm Storage for entire UVSIMN System during GH relocation.	The group will use the mobile weatherport for warm storage. It will be located such that it will not need to be moved during the storage interval. The PI will be responsible for overseeing the shuttling of equipment back/forth from the weatherport to the Green House prior to and after the Green House move.
Temporary cover for roof hatch hole	Removing the SUV will leave a nominally 15" diameter opening in the roof of the GH. The PI will work with a member of the construction crew on-site to develop a temporary cover for the hole.
Science Tech Assistance (Second Summit Visit)	(TBD)
ANG clearances for personnel and cargo	3 personnel total over two trips
KISS user days	1 person x 3 days + 2p x 9d = 21 days total
Summit User days	1p x 4d + 2p x 14d = 32 days

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 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 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
NTE 8 Cases (Lewis, gray with red lids) for site visit test equipment, calibration standards, spares/consumables, tools, and cold-weather gear. All are DNF, Keep Dry, Fragile, and Electronic.	NTE 600 Lbs. Total (8) 24"L x 21"W x 14"H

SUPPORT SCHEDULE

Approx Date	Location	Activity
June 19-23	Green House	Characterization, removal and warm storage of UVSIMN System, for Green House dig out and relocation.
Early Aug	Green House	Re-installation and Characterization of UVSIMN System following Green House relocation.

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
Jim Ehramjian	Kangerlussuaq	6/18/2009	6/25/2009	Kangerlussuaq
	Summit	6/19/2009	6/23/2009	Summit
	Kangerlussuaq	8/1/2009	8/24/2009	Kangerlussuaq
	Summit	8/4/2009	8/18/2009	Summit
TBD	Kangerlussuaq	8/1/2009	8/24/2009	Kangerlussuaq
	Summit	8/4/2009	8/18/2009	Summit

PROJECT CONTACT INFORMATION
Research Team

Role	Name	Email	Phone / Fax
Principal Investigator	Germar Bernhard	bernhard@biospherical.com	619.686.1888
Project Manager	James Ehramjian	jime@biospherical.com	619.686.1888 /619.686.1887

CPS Team Members

Contact for	Name	Email	Primary Phone(s)
Summit operations	Sandy Starkweather	Sandy@polarfield.com	Denver: 303.518.8714
Greenland planning and project support	Robin Abbott	Robin@polarfield.com	Denver: 303.748.8507
Greenland on-island support	Mark Begnaud	Mark@polarfield.com	Denver: 720.320.6160 Greenland: 011.299.524218
Greenland on-island support, Cargo	Ed Stockard	Ed@polarfield.com	Greenland: 011.299.524281
Scotia operations & customs	Earl Vaughn	EarlVaughn@gmail.com	Scotia: 518.331.3103

RMI	Kyli Olson	Kyli at polarfield.com	Denver: 303.489.2151
Medical	Jason Buenning	Jason at polarfield.com	Denver: 303.638.6669
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

Summit Station

Winter	Summer
CH2M HILL Polar Services Western Office Attn: Name of Employee/Researcher 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 - Summit Station C/O Earl Vaughn 109 th Aerial Port Bldg. 20 Stratton Air Base Scotia, NY 12302-9752 Tel: 518.344.2635 Fax: 518.344.2537

Other

Organization	Internet	Phone
Summit Science Coordination Office (SCO)	http://www.geosummit.org sco at summitcamp.org	John Burkhart +47 96 82 5011

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

Medical Clearance

Arctic Program participants traveling into the Greenland field generally must pass a National Science Foundation-mandated physical exam. All field team members should plan to complete their medical 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.

[Examinations have been completed, and Medical Clearance documentation has submitted to the NSF \(for first visit to Summit\).](#)

Remote Medical International (RMI) Support

If you need medical advice/assistance, do not 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

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.

The principal factor for the UVSIMN is data yield – not just quantity of data obtained, but how much is of research quality. This is determined statistically – following annual final-data QA/QC - by taking the ratio of “usable” solar data scans obtained, to the maximum possible (a finite number). Many factors play a role in our success from system “up” time, to **how systematically the Science Technicians perform their tasks.** Downtime for facility relocation is not included in these determinations, as they are not a metric of program performance.

Manpower and logistics are also a key factor: whether or not objectives/visits are completed in timely manner. This is inclusive of support personnel; e.g. did personnel and cargo arrive/depart on-station as-planned; were on-station Science Technicians performing assigned tasks and were they responsive to issues in a timely manner; did IT Support/Power/Carpentry/Electrical respond to service issues in manner that didn't result in either data loss and/or hardware casualty; etc.

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.