

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), formerly VECO Polar Resources, and your group, documenting the logistics support you will receive.

SECTION ONE: PROJECT INFORMATION

Lead Principal Investigator	Winfried Hanka
Institute	GeoForschungsZentrum Potsdam, GEOFON Program
Project Title / Grant #	GEOFON (GEOFOorschungsNetz - Geo Research Network) (DESeismic)
NSF Program and Manager	Intl - GFZ Potsdam, Ms. Renee Crain
PFS Project Manager	Sandra Starkweather

Logistics Summary

This project conducts broadband seismological recording of global earthquakes at Summit, Greenland. Formerly a part of the temporary GLATIS network, it has now been turned over to GFZ Potsdam and became a member of that institute's GEOFON network.

The PI will visit Summit Station annually to service and maintain the project's seismological station. In 2002, in addition to the scheduled maintenance, the team members installed an upgraded datalogger for the seismological station and a "Seiscomp" box that connects the station to the Summit LAN for Internet real-time data transmission when the station's LAN is running. In 2004, another major station upgrade was carried out to overcome technical problems and to minimize required local support. In 2007, two technicians visited Summit to raise and relocate the seismometer bunker. The power and communications connections for this bunker were routed out of the Temporary Atmospheric Watch Observatory (TAWO).

In 2008, a technician will return to Summit as needed to conduct minor maintenance on the seismometer. Station staff will assist the technician as needed with excavation of the bunker and maintenance activities. Year-round, science technical staff will re-level the instrument and provide as-needed assistance.

CPS will provide infrastructure and science technician support at Summit Station for the year-round experiment. All other logistics will be provided by the PI.

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

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

SECTION TWO: SEASON FIELD PLANS

Outstanding Actions and Notes

Issue	Responsibility	Date Completed
Review support plan for accuracy and distribute to all field team members	PI	3/31/2008
Obtain all necessary permits for fieldwork	PI	Included with Summit Permit
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	3/31/2008

Contact the GEOSummit Science Coordination Office (SCO) mailto:sco@summitcamp.org regarding your project's plans for the season	PI	4/10/2008
Medical Clearance completed 6-8 weeks before desired deployment date	Field Team Members	This team is only in the field for 2 days, no PQ required.
Passports are required for ANG and international travel. It's a good idea to bring two IDs and to pack a copy of your passport in case the original is lost.	Field Team Members	
Complete Critical Success Factors	PI	3/31/2008

Allocations and Services

Allocations from Inventory

Quant/Unit	Item
1/ ea	Arctic Oven Sleep Tents
2/ ea	Thermal Sleeping Pads
2	Shovels for excavation

Other Services

Project Allocations	Comments
Excavation of the Seismo-bunker	Prior to the team's arrival on site (or shortly after their arrival), the camp staff will excavate the seismo-bunker
Periodic re-leveling of seismometer	As requested by the PI.
Working Location	This group will be given space to spread out and work on the workbench in TAWO during their 3 days on station. They should coordinate with the science techs so there are not conflicts between this group and regular science activities.

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.

If you are a new user requiring access to the Cargo Tracking System, contact Jason Buenning (jason@polarfield.com).

Customs instructions are available on our website at <http://www.vecopolar.com> (go to Greenland > Customs)

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

Cargo List

Items	Weight/Cube
1x Box (via KISS Manager, Kangerlussuaq)	17.6kg / 36x36x32cm ³
See Appendix for more information	

Support Schedule

Approx Date	Location	Activity
04/21/08	Kangerlussuaq	Field team arrives in Kangerlussuaq via Comm. Air from CPH
4/22/2008	Summit	Field team arrives at Summit
4/22/2008 – 4/25/2008	CAZ (Clean Air Zone)	The camp staff will have excavated the seismometer bunker and one field assistant will be available on an as-needed basis
4/25/2008	Summit	Field team leaves Summit
04/28/08	Kangerlussuaq	Field team leaves Kangerlussuaq

For the most up-to-date information on the project's schedule, please view the online [Greenland calendar](#) (www.vecopolar.com > Greenland > Calendars/Schedules).

Field Team Information

Name	Location	Date In	Date Out	Email
Juergen Schuette	Kangerlussuaq (via CPH)	4/21/2008	4/28/2008	schue@gfz-potsdam.de
Juergen Schuette	Summit	4/22/2008	4/25/2008	schue@gfz-potsdam.de

Project Contact Information

Research Team

Role	Name	Email	Phone / Fax
Co-PI	Trine Dahl-Jensen	tdj@geus.dk	45 814-2519 / 45 814-2050
Principal Investigator	Winfried Hanka	hanka@gfz-potsdam.de	331.288.1213 /

SECTION THREE: CPS CONTACT INFORMATION

CPS Team Members

Contact for	Name	Email	Primary Phone(s)
Summit operations	Sandy Starkweather	sandy@polarfield.com	Denver: 303.518.8714
Greenland operations (project support)	Jason Buenning	jason@polarfield.com	Denver: 303.638.6669 Greenland: 011.299.524218
Greenland operations (On-island support)	Mark Begnaud	mark@polarfield.com	Denver: 720.320.6160 Greenland: 011.299.524281
Greenland operations (project support)	Robin Abbott	robin@polarfield.com	Denver: 303.748.8507
Denver operations	Jill Ferris	jill@polarfield.com	Denver: 720.320.6155
Scotia operations & customs	Earl Vaughn	earl.vaughn@gmail.com vprscotia@hughes.net	Scotia: 518.331.3103

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: 518.331.3103 Fax: 518.334.2537

Summit Station

Summer
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: 518.331.3103 Fax: 518.334.2537

Other

Organization	Internet	Phone
Summit Science Coordination Office	http://www.geosummit.org sco@summitcamp.org	John Burkhart 209.658.7142

SECTION FOUR: SAFETY, ENVIRONMENT, HEALTH and PERMITS

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
Preparation of the bunker excavation or assistance during excavation
Arrival of cargo on station
Consistent power & comms throughout year
Regular re-leveling of seismometer by science techs

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

Cargo list



SUMMIT
 SUMMIT SCIENCE TECHS
 c/o KISS Manager
 Post-Box 109
 DK-3910 Kangerlussuaq/ GREENLAND
 DENMARK
jason@polarfield.com

GeoForschungsZentrum
 Dept. 2.4/ JUERGEN SCHUETTE

 Telegrafenberg E257
 14473 Potsdam
 GERMANY
schue@gfz-potsdam.de
 Tel. +49-331-2881217
 Fax. +49-331-2881277

March 28, 2007
 sumg10.sxw/schue

Proforma Invoice

The content of this shipment consists of the following item(s):

No.	Qty.	Dimension [cm ³]	Weight [kg]	Content [unit]	Value [€]	Made in
1	1	36x36x32	17,6	2x modas ESC, S/N: 706875, S/N: 706876, <u>Accessories:</u> 2x Gold PC Card, 2x Pigtail	320,00 . .	Germany . .
				2x Charger mascot, Model 2140, 100-240VAC/ 14,7VDC - 4A	140,00 .	Norway .
				2x Gel-Battery A512/16 G5, Part Number: NGA5120016HS0BA, 12V/16Ah	160,00	Germany
				<u>Accessories:</u> 2x AC Adapter 12V/300mA, 2x Serial Cable, 2x Power Cables Set		

Total: **Number = 1 piece; Weight = 17,6 kg; Value = 620,00 €**

We confirm that the value of this shipment is for customs clearance only. The instrument (s) will be installed in the seismological station SUMG Summit/ Greenland.

Signature:

J. Schütte