

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

<b>Lead Principal Investigator</b>	Konrad Steffen
<b>Institute</b>	U of Colorado, Boulder, Cooperative Institute for Research in Environmental Sciences
<b>Project Title / Grant #</b>	BSRN-compatible irradiance measurements and the stable boundary layer (CHAntennaKS)
<b>NSF Program and Manager</b>	CH\Federal\NSF, Ms. Renee Crain
<b>PFS Project Manager</b>	Sandra Starkweather

## LOGISTICS SUMMARY

This work involves ongoing studies of the Earth's boundary layer at Summit, Greenland, and continues work begun under grant "CHAntenna" (Ohmura). See that grant in this database for a historical record of this project.

After PI Ohmura retired, Konrad Steffen (University of Colorado) agreed to take over operation of the experiment. This record is for the work continued under Steffen.

In 2008, three personnel visited Summit Station in late July to conduct maintenance on the experiment. In addition, they installed an all-sky camera on the TAWO roof, added additional instruments to the Swiss Tower, and tested a radiometer for potential future use. Three personnel, including the PI, spent about a week on station.

A team of 2 will return in May 2009 to complete an AWS extension and upgrade (new satellite transmitter, new instruments), and to extend the radiation tower and conduct minor work on the instruments. They will also complete a major upgrade of the GC-Net tower and instruments and a minor maintenance of the radiation and 50 m tower instruments.

CPS will coordinate the team's travel to Summit, and provide accommodations at Kangerlussuaq and Summit. CPS will also provide a dedicated weatherport for the team, provide assistance to the researchers as needed while they are on-station, and science technical staff will monitor the experiment year-round.

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=CHAntennaKS](http://www.polar.ch2m.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=CHAntennaKS)

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

<b>Issue</b>	<b>Responsibility</b>	<b>Date Completed</b>
Review support plan for accuracy and distribute to all field team members	PI	May 15, 2009
Obtain all necessary permits for fieldwork	PI	Covered under comprehensive Summit permit

Visit all hyperlinks and review all documents referred to in the support plan	Entire field team	May 15, 2009
Contact the GEOSummit Science Coordination Office (SCO) <a href="http://sco.at.summitcamp.org">sco at summitcamp.org</a> regarding your project's plans for the season	PI	Feb 2009
Complete medical clearance process 6-8 weeks before desired deployment date	Karl Schroff Koni Steffen	
<b>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.</b>	Entire field team	
Complete Critical Success Factors	PI	May 15, 2009

## ALLOCATIONS AND SERVICES

### Allocations from Inventory

Quant/Unit	Item
3 ea	Tables in Igloo
3 ea	Chairs in Igloo
2 ea	Beds set up in Igloo

### Other Services

User days, KISS and Summit	
Project Allocations	Comments
Project work space	Red igloos facility set up near old Swiss port location
Sky Camera support	Ongoing data downloads and as-required maintenance provided by the science techs. PI's are responsible to work with the techs on developing a maintenance protocol.

## 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
Cargo is already in Kanger, shipped prior with GC-Net equipment	

**SUPPORT SCHEDULE**

Approx Date	Location	Activity
18-30 May	Igloo near the Swiss Tower	Ongoing maintenance of CU/ETH instrumentation

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
Schroff, Karl	Kangerlussuaq (from CPH)	05/15/09	06/01/09	<a href="mailto:karl.schroff@env.ethz.ch">karl.schroff at env.ethz.ch</a>
Schroff, Karl	Summit	05/17/09	05/31/09	
Steffen, Konrad	Kangerlussuaq (from Swiss Camp)	05/14/09	06/01/09	<a href="mailto:konrad.steffen@colorado.edu">konrad.steffen at colorado.edu</a>
Steffen, Konrad	Summit	05/17/09	05/29/09	

**PROJECT CONTACT INFORMATION**
**Research Team**

Role	Name	Email	Phone / Fax
Field Coordinator	Karl Schroff	<a href="mailto:karl.schroff@env.ethz.ch">karl.schroff at env.ethz.ch</a>	41 44 632 82 68/41 44 632 13 11
Principal Investigator	Konrad Steffen	<a href="mailto:konrad.steffen@colorado.edu">konrad.steffen at colorado.edu</a>	303.492.4524 /303.492.1149

**CPS Team Members**

Contact for	Name	Email	Primary Phone(s)
Summit operations	Sandy Starkweather	<a href="mailto:Sandy@polarfield.com">Sandy at polarfield.com</a>	Denver: 303.518.8714
Greenland on-island support	Mark Begnaud	<a href="mailto:Mark@polarfield.com">Mark at polarfield.com</a>	Denver: 720.320.6160 Greenland: 011.299.524218
Greenland on-island support, Cargo	Ed Stockard	<a href="mailto:Ed@polarfield.com">Ed at polarfield.com</a>	Greenland: 011.299.524281
Scotia operations & customs	Earl Vaughn	<a href="mailto:Earl.Vaughn@gmail.com">Earl Vaughn at gmail.com</a>	Scotia: 518.331.3103
Denver operations	Jill Ferris	<a href="mailto:Jill@polarfield.com">Jill at polarfield.com</a>	Denver: 720.320.6155
Purchase orders	Steve Heiman	<a href="mailto:Steve.Heiman@ch2m.com">Steve Heiman at ch2m.com</a>	Tel: 720.286.2277 Fax: 720.286.9287

**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 <sup>th</sup> 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 <sup>th</sup> 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)	<a href="http://www.geosummit.org">http://www.geosummit.org</a> <a href="http://sco.at.summitcamp.org">sco.at.summitcamp.org</a>	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@dpcc.dk](mailto:phs@dpcc.dk)  
Telephone: +45 3288 0100

**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.

Factors
Logistics support in Kangerlussuaq prior to Summit deployment
Logistics support in Summit during field maintenance trip
Support of daily instrument maintenance throughout the year at Summit

## 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.