

Please review all of the following information, including the gear allocations and field team members, to ensure accuracy. This plan is an agreement between VPR and your group, documenting the logistics support you will receive.

• Project Information •

Lead Principal Investigator	Christophe Ferrari
Institution	Universite Joseph Fourier, Laboratoire de Glaciologie et Géophysique de l'Environnement (LGGE)
Project Title / Grant #	Mercury transfer processes between the lower atmosphere, snow, firn and ice of the last 150 000 years at Summit, Greenland (FRMercury)
NSF Program and Manager	Intl - Fourier, Mr. Simon Stephenson
VPR Project Manager	Sandra Starkweather

• Logistics Summary •

<p>For this study of mercury transfer functions, researchers will travel to Summit, Greenland, for several weeks in May/June/July of 2005 and 2006. At Summit, researchers will collect snow samples and analyze them for snow/air gaseous mercury. They will also collect frozen samples from 2-meter pits in the snow for further mercury studies at their home institute. During the 2006 field visit, the researcher will sample air from the surface to the firn close-off (at a depth of ~ 100m) for gaseous mercury analysis. Because both projects are studying different compounds and sampling firn air profiles, this project's researcher is working closing with Mary Albert's team (0520445) while at Summit Station.</p> <p>VPR will support the project via ANG coordination and access to Summit Station infrastructure.</p>

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

• Outstanding Issues •

Issue	Responsibility	Date Completed
Review support plan for accuracy and distribute to all field team members	PI	4/20/2006
Obtain all necessary permits for fieldwork	PI	Submitted 1/15/06 (Albert)
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	4/20/2006
Contact the GEOSummit Science Coordination Office (SCO) mailto:sco@geosummit.org regarding your project's plans for the season	PI	3/30/06 (Albert)
Medical Clearance completed 8-6 weeks before desired deployment date	Field Team Members	4/1/2006
Please note this important information for your field team: Bring 2 different forms of picture ID. Passports are now mandatory for entry into Greenland. Be sure to pack them!	Field Team Members	
Complete Critical Success Factors	PI	04/20/2006
<ul style="list-style-type: none"> - Provide cost estimate for billable support - Develop a Purchase Order with VPR prior to start of field work - Provide bill for actual support 	VPR PI VPR	5/4/2006

• Allocations & Services •

Allocations from Inventory

Quant/Unit	Item
1 ea	8x8 Arctic Oven sleep tents
2 ea	Thermal sleeping pads
1 ea	Sleeping bag
2 ea	Argon, 150 bar (MG 5.5 Research MESSER)
1 ea	Argon regulator (left by Fain in 2005, courtesy of Steve Brooks)
1 ea	2 kW Honda generator

Other Services

Project Allocations	Comments
Access to Albert Firn Drilling Site	This project will share the boreholes, 10x10 Arctic Oven, skidoos, sleds, radios and safety equipment allocated to the Albert group for access to the firn core site.
Flagged route to site	VPR will flag a route and attempt to limit traffic to the research site. Researchers should also monitor their own traffic to ensure the site remains "pristine."
Survival gear for overnight camping at firn sampling site	Field team members will be permitted to camp overnight at the site provided they take a survival bag or equivalent survival gear, a VHF radio, and a GPS. There must be two field team members at the drill site after 10:00 pm and before 6:00 am. Field team members should discuss their plans each day with the camp manager and review the weather forecasts.
Access to the MilliQ system	500 ml every 2 days
Frozen samples.	VECO will store 1 (70 x 68 x 67 cm) cooler box of ice samples in Kanger that Fain will hand carry with him to his home institution on comm. air.

This support will be provided by VPR on a direct-billable basis. Please see Appendix I for an estimated cost.

• 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 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 Robin Abbott (robin@polarfield.com).
- ✓ Customs instructions are available on our website at <http://www.vecopolar.com> (go to Greenland > Customs)

- ✓ For Customs requirements please refer to the *Greenland Guide*, also available at <http://www.vecopolar.com> under Greenland.

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

Cargo List

Items	Weight/Cube
Box SUMMIT06-1 Mercury Analyzer Tekran 2537	35 kg $0.75 \times 0.60 \times 0.40 = 0.18 \text{ m}^3$
Box SUMMIT06-2 Snow probes	12 kg $2,20 \times 0.1 \times 0.15 = 0.049 \text{ m}^3$
Box SUMMIT06-3 Air sampling equipment	60 kg $0.77 \times 0.50 \times 0.60 = 0.23 \text{ m}^3$
Box SUMMIT06-4 Air sampling equipment	45 kg $0.77 \times 0.58 \times 0.62 = 0.24 \text{ m}^3$
Box SUMMIT06-5 Sample box	19 / 55 kg * $0.70 \times 0.68 \times 0.67 = 0.32 \text{ m}^3$
Box SUMMIT06-6 Mercury Analyzer Tekran 2537	35 kg $0.75 \times 0.60 \times 0.40 = 0.18 \text{ m}^3$
Box SUMMIT06-7 Air sampling equipment	38 kg $0.67 \times 0.85 \times 0.4 = 0.23 \text{ m}^3$

- Sample box: 19 kg from Kangerlussuaq to Summit, 55 kg from Summit to Kangerlussuaq

• Support Schedule •

Date	Location	Activity
5/22	Kangerlussuaq	Fain arrives in Kangerlussuaq
5/23	Summit	Fain arrives at Summit
5/23 to 6/6	Summit	Firn core site established, bore holes completed
5/23 to 6/6	Summit	Firn core sampling
6/6 to 6/8	Summit	Firn core site, disassembly and cargo prep
6/8	Summit	Fain departs Summit
6/9	Kangerlussuaq	Fain departs Kangerlussuaq

• Field Team Information •

Name	Location	Date In	Date Out	Email
Fain, Xavier	Kangerlussuaq	05/22/06	06/9/06	fain@lgge.obs.ujf-grenoble.fr
Fain, Xavier	Summit	05/23/06	06/08/06	fain@lgge.obs.ujf-grenoble.fr

• Project Contact Information •

Research Team

Role	Name	Email	Phone / Fax
Field Coordinator	Xavier Fain	fain@lgge.obs.ujf-grenoble.fr	(+33) 476 82-4259 / (+33) 476 82-4201
Principal Investigator	Christophe Ferrari	ferrari@lgge.obs.ujf-grenoble.fr	(+33) 476 82-4239 / (+33) 476 82-4201

VPR Team Members

Contact for	Name	Email	Primary Phone(s)
Greenland operations	Robin Abbott	robin@polarfield.com	Denver: 303.748.8507 Greenland: 011.299.524218
Greenland operations	Mark Begnaud	mark@polarfield.com	Denver: 720.320.6160 Greenland: 011.299.524281
Summit operations	Sandy Starkweather	sandy@polarfield.com	Denver: 303.518.8714
Denver operations	Jill Ferris	jill@polarfield.com	Denver: 720.320.6155
Scotia Operations & Customs	Earl Vaughn	earl.vaughn@nyscot.af.mil vprscotia@hughes.net	Scotia: 518.331.3103

VPR Offices

Denver	Kangerlussuaq	Scotia	Summit
VECO Polar Resources Western Office 8110 Shaffer Parkway Suite 150 Littleton, CO 80127 Tel: 303.984.1450/1439 Fax: 303.984.1445	VECO Polar Resources 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 Fax: 518.884.2904	VECO Polar Resources Attn: Name of Employee/Researcher Postboks 1015 DK-3910 Tel: 321.953.9650 Fax: 321.953.9651

Other

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

- Safety, Environment, Health, and Permitting •

Permits

Please refer to VPR's *Greenland Guide*, available at <http://www.vecopolar.com> under Greenland, for information about permits required to conduct fieldwork in Greenland.

- Critical Success Factors •

Factors
Argon available in the field
Possibility to stay at night at the sampling site
Ability to transport back frozen samples, and to store them in Scotia waiting for the French transporter
Define a working area (20 m ²) outside in the vicinity of 10x10 Arctic Oven. This working area will be used for surface snow air sampling as it was done last summer. Depth of 40 cm, 1 m, 2 m, 3 m and 4 m could be investigated using special snow probes. This area should be closed for people and skidoo crossing.

- Government Performance and 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 VPR's performance is a "facility-performance metric" which counts the number of productive days your project has in the field while relying on VPR facilities or support. Please keep track of any "lost days" and report these to us at the end of the season.

- Appendices •

Appendix I: Project Packing List

Fain Xavier - CARGO

All this equipment can be move directly on the drilling location
Marks pumps are in boxes 3 and 4.

Name	Length	Width	height	weight	Arrive at Kanger
SUMMIT06-1	75.00	60.00	40.00	42.00	10/05/2006
SUMMIT06-2	220.00	15.00	15.00	12.00	10/05/2006
SUMMIT06-3	57.00	40.00	40.00	32.00	10/05/2006
SUMMIT06-4	77.00	58.00	62.00	66.00	10/05/2006
SUMMIT06-5	70.00	68.00	67.00	19.00	10/05/2006
SUMMIT06-6	70.00	68.00	67.00	19.00	10/05/2006
SUMMIT06-7	91.00	73.00	44.00	64.00	10/05/2006
ENVITEC/SUM 06	75.00	60.00	40.00	42.00	15/05/2006