

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	Thomas McGovern
Institute	City University of New York, Hunter College, Department of Anthropology
Project Title / Grant #	IPY: Long Term Human Ecodynamics in the Norse North Atlantic: cases of sustainability, survival, and collapse (0732327)
NSF Program and Manager	NSF\OD\OPP\ARC\ASSP, Dr. Anna Kerttula
PFS Project Manager	Robin Abbott

Logistics Summary

As part of an international cooperative effort to conduct multi-site, regional-scale archaeology, the PI will continue excavations in Greenland, Iceland, and the Faroe Islands begun under his previous NSF grant, 0352596. The researchers will explore regional-scale questions of differential climate impact, origins and spread of commercial fisheries, and the role of inter-regional trade and exchange. The particular effort will involve coordinating midden excavations, conducting zooarchaeological analysis, and providing student training through the North Atlantic Biocultural Organization, or NABO.

In the summers of 2007-2009, a large international group will carry out major excavations and survey work on Sandoy in the Faroe Islands, in the northwest and Lake Myvatn areas of Iceland, and at sites near Qaqortoq and Qassiarsuk, in southern Greenland.

For 2008, a team of about 12 will travel to Narsarsuaq via commercial air in mid-to-late July, coming from Reykjavik, Iceland, after completing field work there. Project gear will be waiting for them in Narsarsuaq, having been shipped earlier to Kangerlussuaq via the Air National Guard logistics chain and then onward via Air Greenland. The team will camp in the field for a month to six weeks, and will then depart for their home institutions via commercial air. Before departing, the team will arrange to have archaeological material retrograded via ship.

This grant contributes to "Maritime Adaptations & Resource Exploitation in the North Atlantic," or MARENA, European IPY project #387, itself part of the larger IPY cross-disciplinary effort "Northern High Latitude Climate Variability During the Past 2000 Years: Implications for Human Settlement" #129, (NORCLIM).

For the work in Greenland, CPS (formerly VPR) will provide coordination of cargo movement and field gear through the ANG logistics chain. CPS also will provide communications/safety equipment for field work in both Greenland and Iceland. All other logistics will be handled by the investigators from the grant or via arrangements with local collaborators.

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=0732327

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	
Obtain all necessary permits for fieldwork	PI	
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	
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	
Explore options and determine best method for storage/retrograde of CPS-issued gear	PI/CPS	

Allocations and Services
Allocations from Inventory

Quant/Unit	Item
15 ea	REI GEO-Mountain 3-person dome tents (wt = 11 lbs ea)
Qty	Rebar or long plastic stakes (from Arctic Oven tents) - to use as tent stakes for REI GEO Dome tents
15 ea	Thermarests, expedition weight, thick and long. (wt = 4 lbs ea)
6 ea	Camp sized thermos (Air-pot 2.2 liters) for coffee and tea (wt = ~4 lbs ea)
4 ea	Coleman Stoves – Model 424 – two burner, dual fuel (wt = 10 lbs ea)
2 ea	Small Generators – EU1000i - 1000 watt peak output, 900 watt continuous output 120 AC voltage @ 60 Hz; DC charger output: 12 volt @ 8 amp; Weight: 29 lbs/13.1 kg PI will supply international plug adaptors.
2 sets	Cookware for 8 person camp – sent in 2 large Action Packers type boxes Contents below split into two camp cook sets: 30ea - insulated 12oz mugs 32ea – forks (32), dinner knives (32), cereal spoons (32), soup spoons (30), 30ea – plates 10"; bowls 8" 1 ea - 14qt stock pot (1), 10qt stock pot (1) 4qt pot (1); 12" fry pan (1) 3 ea -10" fry pan 12" fry pan (1) 4ea - cutting board- Large 8ea - rectangular plastic food containers; 4 ea- Tupperware type food containers: Medium square plastic; Medium round plastic; Small round plastic Qty – various spatulas (6), serving spoons (6), ladles (2) etc.
2 ea	Remote medical kits
4 ea	Small back-pack size first-aid kits
3 ea	Iridium Phone – one will be sent by SRI to T. McGovern prior to deploying. The other two will be sent via shipment to Narsarsuaq.

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

The PI will provide the following:

Quant/Unit	Item
3 ea	Battery back up units to recharge cameras/computers so not to have to use the generator. The PI will bring adaptors.
1 ea	Gas powered pump (Northstar/Honda 11.100 GPGH trash pump, with hoses)
4 ea	Electric lanterns (rechargeable)

	Gas powered water pump to provide water for wet-sieving. They will be large enough to handle sea-water and do a vertical lift of 50 m. It will take a hose ca 100 m.
3 ea	Tool kits for archaeology and repairs
Qty	Adapter plugs (DK-US electrical outlet conversions)
15 ea	Sleeping bags and liners

Other Services

Project Allocations	Comments
Shipment of gear via 109 th to Kangerlussuaq and then Air freight via Air Greenland to Narsarsuaq	Cargo needs to be in Narsarsuaq by 14 July, and should be shipped to: Jacky Simoud Blue Ice Box 58 3923 Narsarsuaq Greenland Email: info@blueice.gl

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 the online Cargo Tracking System as well as properly registered with Customs.

Note: The McGovern goods represent expendable field supplies for a joint US-Danish-Greenlandic archaeological project in Greenland from June – August 2008. These goods will be depleted in the field and will not return to the US. No Customs Registration Form 4455 will be necessary since no plans for re-import is intended.

For the most current ANG flight schedule go to <http://www.polar.ch2m.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).

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

Cargo List

The following cargo items will be driven by Tom McGovern to Scotia during the last week of May. They will then be flown to Kangerlussuaq via the ANG logistics chain. CPS will then ship the cargo on to Narsarsuaq in time for the field work beginning in mid-July.

The field team plans to ship the collections back to the US via vessel in the trunks sent at the beginning of the season, so no 109th support is required for the August return.

Description	Contents	Weight (lbs.)
Wooden box (1)	Sieves, poly rope, waterproof notebooks, Oakfield soil corer, bungee cord, wire flags, dustpans, brushes, photo scale, plastic bags, plastic sheeting	
Wooden box (2)	Sieves, poly rope, waterproof notebooks, Oakfield soil corer, dustpans, brushes, plastic bags, extension cord	
Plastic box (3)	Battery lights, water sprayer, work gloves, datum pegs, ring pins, monopod, solar shower, sandbags, marking pins, strapping tape, nylon rope	
Plastic box (4)	Battery back up, tool box with hand tools & sieve hardware	

Plastic box (5)	Battery back up, battery lights, solar shower, hand sprayer, plastic bags	
Plastic box (6)	Archaeological tool kit box, plastic bags	
Plastic box (7)	Archaeological tool kit box, plastic bags	
Metal box (8)	Honda gas powered water pump with hardware	
Cardboard box (9)	Hose for water pump	
		TOTAL WEIGHT: 397 lbs.

Support Schedule

Approx Date	Location	Activity
22 May	Scotia, NY	PI delivers cargo to Stratton Air Base
No later than 2 June	NY > Kanger	Cargo arrives Greenland via 109 th C-130 from NY
14 July	Narsarsuaq	All cargo must be in Narsarsuaq by this date
15 July	Narsarsuaq	Team begins arriving from Iceland; Greenland field work begins
26 Aug	Narsarsuaq	Departure for most team members

For the most up-to-date information on the project's schedule, please view the online [Greenland calendar](http://www.polar.ch2m.com) (<http://www.polar.ch2m.com> > Greenland > Calendars/Schedules).

Field Team Information

Name	Location	Date In	Date Out	Email	Affiliation
Feeley, Frank	Igaliku Kujalleq, Narsaq	7/15	8/26		
Kendall, Aaron	Igaliku Kujalleq, Narsaq	7/15	8/26	akendall1@nyc.rr.com	
Smiarowski, Konrad	Igaliku Kujalleq, Narsaq	7/15	8/26	zaglobax@yahoo.com	
Arneborg, Jette	Igaliku Kujalleq, Narsaq	7/26	8/26	Jette.Arneborg@natmus.dk	National Museum Denmark
Appelt, Martin		7/26	8/26	martin.appelt@natmus.dk	National Museum Denmark
Paulsen, Caroline	Igaliku Kujalleq, Narsaq	7/15	8/12	carolinanguaq@gmail.com	National Museum Denmark
Madsen, Christian	Igaliku Kujalleq, Narsaq	7/15	8/26	ckmadsen@gmail.com	National Museum Denmark
Hebsgaard, Martin	Igaliku Kujalleq, Narsaq	7/19	8/9	mbhebsgaard@bio.ku.dk	Ancient DNA and Evolution Group Department of Biology University of Copenhagen
Cathrine Jessen	Igaliku Kujalleq, Narsaq			ct@geus.dk	Geological Survey of Denmark and Greenland - GEUS
Nyegaard, Georg	Igaliku Kujalleq, Narsaq	7/26	8/26	georg.nyegaard@natmus.gl	National Museum Greenland
TBD 1,					
TBD 1,					

Project Contact Information
Research Team

Role	Name	Email	Phone / Fax
Principal Investigator	Thomas McGovern	tmcgover@hunter.cuny.edu	212.772.5654 /212.772.5423

Gear Shipping Address (for SRI shipment of 1 Iridium phone)

Tom McGovern 5307 Wismer Rd Pipersville PA 18947 Home phone 215 297 0373

SECTION THREE: CPS CONTACT INFORMATION
CPS Team Members

Contact for	Name	Email	Primary Phone(s)
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
Sat phones & comms	Roy Stehle	roy.stehle@sri.com	Menlo Park: 650.859.2552
Medical & RMI	Kyli Olson	kyl@polarfield.com	Denver: 303.489.2151
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

Other

Organization	Internet	Phone
Remote Medical International (RMI)	http://www.remotemedical.com/	206.734.3430

SECTION FOUR: SAFETY, ENVIRONMENT, HEALTH and PERMITS

Permits

All science teams planning to conduct research in Greenland must complete an **annual application** in order to obtain approval from the Greenland Home Rule and the Danish Polar Center (DPC). If you have any questions about your permit, please contact:

Poul Henrik Sorensen

E-mail: phs@dpc.dk

Telephone: +45 3288 0100

Medical

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 website <http://www.polar.ch2m.com> and navigate to Medical>Remote Medical Services/Kits.

RMI contact information:

Phone: 206.734.3430

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.

Factors for CPS:

- All cargo is delivered to Greenland via LC-130 and then forwarded on to Narsarsuaq via Air Greenland cargo system. Deadline for all cargo arriving in Narsarsuaq is 14 July 2008.
- All field gear provided by CH2M Hill Polar Services should be in good condition and in proper working order.

The PI's Critical Success Factors from the midden/zooarchaeology end:

- Provide the Greenland National Museum with overall site management information within study area for future site protection work.
- Collect samples for ancient DNA, geo- and bioarchaeological studies.
- Locate middens in the Vatnahverfi Project study area with bone preservation for investigation 2008-10.
- Provide Greenland National Museum with site management information on midden location and preservation conditions within the study area.
- Begin excavation one or more of these middens, attempting to recover a quantifiable collection of animal bones from datable contexts.
- Collaborate with colleagues from Greenland and Denmark in site survey and excavation of structures and churchyards.
- Collaborate on public outreach and preliminary report preparation.
- Bring everyone home safe.

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.