

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	Kenji Yoshikawa
Institute	University of Alaska, Fairbanks; Water and Environmental Research Center
Project Title / Grant #	IPY: Current climate changes over Eastern Siberia and Interior Alaska and their impact on permafrost landscapes, ecosystem dynamics, and hydrological regime (0731739)
NSF Program and Manager	US\Federal\NSF\EHR\DRL, Sharon M. Locke
PFS Project Manager	Marin Kuizenga

Logistics Summary

This research builds on the NSF Alaska EPSCoR outreach project, "Permafrost Health" (0346770), and supports the establishment of long-term permafrost/active layer monitoring sites adjacent to about 100 Alaskan schools. Over the course of two years beginning in spring 2008, the PI will travel to villages in the research area to establish boreholes instrumented with micro dataloggers with temperature sensors to measure air and permafrost temperatures hourly. These permafrost observatories will be located near schools. The researchers will train the local school communities--both teachers and students--to download and analyze the data. Data from these observatories will be made public via the PI's institutional Web site.

During 2008 and 2009, a team of two to three will make several trips, requiring travel via snowmachine, truck, boat, and/or airplane, to Native communities to establish the experiments. For 2008, these include a March snowmachine trip along Alaska's northwestern coast from Emmonak to Kotzebue, and an April trip based out of Kotzebue with travel via snowmachine to area communities. Later spring, summer, and fall work includes trips long the Yukon River and the Bering Sea coast; two road trips to Old Crow, Yukon Territory, Canada (using fixed-wing support for visits to area communities inaccessible by ground); a visit to St. Lawrence and Little Diomed islands (with fixed-wing support), and a visit to Healy, AK. Two 10-day trips, one in May and one in the fall, will require fixed-wing close support as the researchers "hop" from community to community to deliver their permafrost experiment to the area schools.

This work contributes to the IPY Thermal State of Permafrost (TSP) effort.

CPS will provide air charters, vehicle rentals, boat (by reimbursement), remote lodging/subsistence, camp gear, sat phones, snowmachines, and fuel. All other logistical support will be paid for 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.aspx?cbPropNum=0731739

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	
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	

Obtain all necessary permits for fieldwork	PI	
Complete Critical Success Factors	PI	Completed
As the shipper of hazardous substances, you are legally responsible for declaring, documenting, and packaging hazardous materials in accordance with all applicable state and federal laws.	PI	
Submit expense reports with receipts for all reimbursable support (see below) in a timely fashion	PI	

Allocations and Services

Allocations from CH2M HILL Polar Services Inventory

Quant/Unit	Item	ID Number
3 ea	Snowmachine	1700, 5430,5431
3 ea	Siglin sleds, one with cover	
QTY	Spare parts	
1 ea	Satellite phone, 9505 + 1 battery and 12v charger	1685
QTY	Snowmachine fuel	By reimbursement
1 ea	Arctic Oven tent 8 x 8	
1 ea	Honda 2 KW generator	5415
1 ea	Subsistence 2 each F.M. cards @ \$100	For March/April trip

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

Other Services

Quant/Unit	Item	Notes
QTY	Freight for CPS gear including snowmachines	By reimbursement NTE \$15,000

Accommodations

Quant/Unit	Item	Notes
14	Remote user days for March trip along northwestern coast	\$20/person/day x 2 weeks = \$560. Gave Kenji 2 x \$100 Fred Meyer cards, balance by reimbursement
6 ea	Nome user days (March trip)	
2 ea	Kotzebue user days (March trip)	
TBD	User days	For visits to remote communities after March, details pending

Air Support

Type	Location	Date	Comment
Fixed wing	Multiple villages	May and fall	2 trips closed support NTE 10 days each for visits to villages inaccessible by ground
Fixed wing	Diomedes, St. Lawrence Island, Old Crow and sites TBD	TBD	NTE \$3500- reimbursement for air travel to/from St. Lawrence Island, Diomedes and Old Crow.

CPS will develop a flight plan for you and your pilot, with more details on your air support.

Truck Support

You are responsible for your own fuel. Like all rental agencies, the vehicle we provide you needs to be returned clean, with a full tank of gas. Let us know if your vehicle will be dropped off late, or at a location other than where you picked it up. For more information regarding your vehicle contact: Matt Irinaga at matt@polarfield.com

Location	# Days	Comment
Fairbanks	30	
Nome	5	

For the duration of your CPS-provided truck rental, you are covered by CPS automobile insurance. Please carry a copy of the following information with you. **If you are involved in an accident, please take photos and contact the Alaska Logistics Manager.**

Name Insured: CH2M HILL Polar Services 9191 South Jamaica Street Englewood, CO 80112-5946 303.771.0900	Producer: Marsh USA Inc. 1031 West 4 th Street Anchorage, AK 99501 907.276.5617 Policy - #BAP534531802
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This statement is issued for information purpose only and is subject to terms, exclusions, and conditions of such policy.

Support Schedule

Date	Location	Activity
3/16-3/31	Emmonak – Kotzebue via Nome	Snowmachine traverse to Alaskan villages
4/10-4/17	Kotzebue- area villages	Snowmachine traverse to Alaskan villages
Spring trip	Multiple villages	Village visits via fixed wing closed support
Summer trip	Villages along the Yukon and Bering Sea coast	Village visits
Fall trip	Multiple villages	Village visits via fixed wing closed support
TBD	Multiple villages and Old Crow	2 ea driving trips to Canada and Old Crow + fixed wing support
TBD	Diomedes and St. Lawrence Island, AK	Village visits via fixed wing
TBD	Healy, AK	

Field Team Information

Name	Location	Date In	Date Out	Email/Comment
Kenji Yoshikawa	Emmonak	3-16-08	3-31-08	ffky@uaf.edu
Torhu Saito	Emmonak	3-16-08	3-31-08	
Ned Rozell	Emmonak	3-16-08	3-31-08	
Kenji Yoshikawa	Kotzebue	4-10-08	4-17-08	Dates tentative
Torhu Saito	Kotzebue	4-10-08	4-17-08	

Research Team

Role	Name	Email	Phone / Fax
Principal Investigator	Kenji Yoshikawa	ffky@uaf.edu	907-474-6090
Co-PI	Vladimir Romanovsky	ffver@uaf.edu	907-474-7459

Gear Shipping Address

Fairbanks office

SECTION THREE: CPS CONTACT INFORMATION

CPS Team Members

Contact for	Name	Email	Primary Phone(s)
Alaska operations	Marin Kuizenga	marin@polarfield.com	Fairbanks: 907.590.0755
Alaska operations	Naomi Whitty	naomi@polarfield.com	Fairbanks: 907.590.3954
Alaska operations	Matt Irinaga	matt@polarfield.com	Fairbanks: 907.978.0564
Sat phones & comms	Roy Stehle	roy.stehle@sri.com	Menlo Park: 650.859.2552
Denver operations	Jill Ferris	jill@polarfield.com	Denver: 720.320.6155

CPS Offices

Denver	Fairbanks
CH2M HILL Polar Services Western Office 8110 Shaffer Parkway, Suite150 Littleton, CO 80127 Tel: 303.984.1450/1439 Fax: 303.984.1445	CH2M HILL Polar Services Alaska Office 2325 King Road Fairbanks, AK 99709 Tel: 907.455.4214 Fax: 907.455.4126

SECTION FOUR: SAFETY, ENVIRONMENT, HEALTH and PERMITS

Permits

Researchers are responsible for all permits required to conduct fieldwork. Please visit <http://www.polar.ch2m.com/> and navigate to Alaska > Permits for more information regarding this topic.

Critical Success Factors

Please list the support 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 – please review
Snow machine condition
Gas availability in remote villages
Cargo schedule

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 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.