

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

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	NSFEHR\DRL, Mr. David Campbell
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. 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, and/or airplane, to Native communities to establish the experiments and/or to download data. During 2009, the PI will make various trips. The first, a one-month snowmachine traverse, begins in Bethel, hub of villages along the Yukon-Kuskokwim Delta, and ends in Fairbanks. The PI will be accompanied by one field team member on this traverse, an assignment shared by three colleagues (including Ned Rozell, UAF science writer) who rotate through. Next, in late April, the PI will travel via chartered flight to Nome, stopping at several villages en route he will also visit Diomedede Island before returning to Fairbanks at the end of the first week in May. Mid-summer and fall trips to Alaska and Canada finish the year. In all, the PI intends to visit almost 50 communities in 2009, either to maintain existing experiments or to install new instruments and teach local students to tend them.

In 2010, the PI will revisit sites, traveling via fixed-wing plane and truck as needed. In spring, the team will make trips in mid-April and June/July to remote sites. In September, a team will travel by truck to Yukon sites, and the PI will work with Vladimir Romanovsky at Kaktovik, Barrow, and Wainwright.

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 phone, 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.polar.ch2m.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0731739

OUTSTANDING ACTIONS AND NOTES

Issue	Responsibility	Due Date	Date Completed / Comment
Obtain all necessary permits for fieldwork	PI		
As the shipper of hazardous substances, you are legally responsible for declaring, documenting, and packaging hazardous	PI		

materials in accordance with all applicable state and federal laws.			
Keep all receipts. For reimbursement, turn them in to your project manager as soon as your fieldwork is complete.	PI		
Do TW for remote travel.	Marin		

ALLOCATIONS AND SERVICES

Allocations from Inventory & Other

Quant/Unit	Item	ID Number
1	Satellite phone, as needed	
QTY	Freight support	
QTY	Remote fuel	

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

Accommodations

Quant/Unit	Item	Notes
54 days	Remote per diem @ \$150 per night	Via reimbursement

Air Support

Type	Location	Date	Comment
Charter	AK villages	TBD	Wright Air charter via 206 and Navajo
Fuel	AK villages	TBD	Provide receipts for summer flying

Truck Support

You are responsible for your own fuel. The vehicle we provide you should 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.

Pick Up	Drop Off	# Days	Comment
TBD		15	

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 purposes only and is subject to the terms, exclusions, and conditions of the policy.)

SUPPORT SCHEDULE

Approx. Date	Location	Activity
April	Remote villages	Dates TBD – Charters with Wright Air to villages throughout northern Alaska.

June-July	Remote villages	Private pilot to work download sites.
September	Canada	Road trip to sites in the Yukon
Sept 7-8	Kaktovik	Trip for two nights, with Vladimir Romanovsky (under Thermal State of Permafrost grant)
Sept 14-15	Barrow	Trip for two nights, with Vladimir Romanovsky (under Thermal State of Permafrost grant)
Sept 16-17	Wainwright	Trip for two nights, with Vladimir Romanovsky (under Thermal State of Permafrost grant)

FIELD TEAM INFORMATION

Name	Location	Date In	Date Out	Email
Harada, Koichiro	Many			hirada@miyanou.ac.jp
Yoshikawa, Kenji	Many			kyoshikawa@alaska.edu

Research Team

Role	Name	Email	Phone / Fax
Co-PI	Vladimir Romanovsky	veromanovsky@alaska.edu	907.474.7459 / 907.474.7290
Principal Investigator	Kenji Yoshikawa	kyoshikawa@alaska.edu	907.474.6090 / 907.474.7979

PROJECT CONTACT INFORMATION

CPS Team Members

Contact for	Name	Email	Primary Phone
Alaska operations	Marin Kuizenga	Marin@polarfield.com	Fairbanks: 907.590.0755
Alaska operations	Matt Irinaga	Matt@polarfield.com	Fairbanks: 907.978.0564
Satellite phones & communications	Roy Stehle	Roy.Stehle@sri.com	Menlo Park: 650.859.2552

CPS Offices

Denver	Fairbanks
Polar Field Services 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

Other

Organization	Internet	Phone
Wright Air		907.474.0502

SAFETY, ENVIRONMENT, HEALTH and 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.

RISK ASSESSMENT

See Appendix for Risk Factors and Mitigation.

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
Provide high quality air vendor – “Well experienced Arctic bush pilot, well organized air plane company”
Provide remote community communications (satellite phone)

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

RISK FACTORS and MITIGATION

Factor	Mitigation and Control
Bears	<ul style="list-style-type: none"> -Hire Native guides (Provide clear expectations/procedure) -Install bear fence. Designate a fence monitor to check daily. -Carry radios to alert others to bear in area. -Develop a plan for bear in or near camp -Keep a clean camp -Participate in bear safety training -Carry bear spray -Use bear containers
Truck Travel	<ul style="list-style-type: none"> -Participate in truck training -Do not ride in the bed of the truck -Insure the truck has spare tire and jack for extended trips -Carry survival gear and warm clothes for extended trips -Carry a radio for extended trips
Communications	<ul style="list-style-type: none"> -Carry the appropriate communications system (satellite phone) -Assure your phone and/or radio is fully charged before going out and carry a spare battery.
Fixed Wing Travel	<ul style="list-style-type: none"> -SAR plan in place -Attend a pilot briefing -Carry survival bags on the aircraft if doing day trips, or if multiple put in flights insure people travel with survival items from camp supplies
Cold Related Injuries-weather	<ul style="list-style-type: none"> -Team members participate in a cold weather injury training course such as Wilderness First Aid or Wilderness First Responder -Wear proper clothing -Appropriate camping gear, insure sleeping bags are adequately rated -Check the forecast before going out of camp/town -Watch the weather while out -Be mindful of hydration, carry sufficient food -Develop and share your travel plans -Have and share an emergency plan for bad weather
Emergency Plan	<ul style="list-style-type: none"> -Compile a list of emergency contacts for your field team and share it with critical participants including your home institution and CPS. -Share your satellite phone number as a means for others to contact you.