# **Research Support Plan**

## I-477-M, Dr. Kendrick Taylor

Project Title: Investigation of Climate, Ice Dynamics, and Biology, Using a Deep Ice Core from the West Antarctic Ice Sheet Ice Divide

Award Number: 0440817

2007-2008 Field Season Compiled By: Mike McClanahan 04 October 2007

**McMurdo Station Based Project** 

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## **Terms and Acronyms**

Term	Definition
ACA	Antarctic Conservation Act.
BFC	Berg Field Center. The facility at McMurdo that houses and distributes field party equipment such as camping gear, waste disposal supplies and sleds.
CHC	Christchurch, New Zealand. The departure point for groups deploying to the Antarctic continental research stations.
CONUS	Continental United States.
DSG	Deployment Specialist Group. The organization within RPSC that makes participant travel arrangements.
ECW	Extreme Cold Weather. The clothing and personal gear loaned to participants during their Antarctic deployments.
MAF	New Zealand Ministry of Agriculture & Forestry.
MCM	McMurdo Station.
MEC	Mechanical Equipment Center. The facility at McMurdo that houses and distributes mechanical equipment, such as generators, vehicles and solar power units.
PI	Principal Investigator.
POC	Point of Contact. The person assigned to your project for planning the logistical support that will be provided to you by RPSC during your fieldwork. Your on-ice POC may be different from the one assigned during the planning phase of your logistical support.
PQ	Physical qualification.
PSM	Planning Support Manager.
RPSC	Raytheon Polar Services Company. The support contractor providing logistical support to grantees in Antarctica.
RSP	Research Support Plan. This document which describes the support to be provided to field parties.
SIP	Support Information Package. An online form that describes support logistics, equipment and supplies requested by science groups.
ASPA	Antarctic Specially Protected Area.
TRW	Travel Request Worksheet.
USAP	United States Antarctic Program.

#### **General Project Information**

Raytheon Polar Services Company is committed to providing a safe and healthy workplace for all United States Antarctic Program participants. At your science inbrief you will receive a letter and the Laboratory Code of Conduct clarifying the roles and responsibilities of researchers and RPSC personnel in ensuring a safe working environment in all laboratories. Please review this information with your team members. After arriving on station and before going into the field, your field team members will be required to attend field safety training appropriate to your research requirements. While deployed to Antarctica your entire research team will be expected to maintain a high awareness of safe conduct and comply with safety and health related guidance from the NSF and RPSC management.

Shortly after you arrive at McMurdo, a general orientation will be provided to the field team. Additionally, basic support and laboratory briefings on site will review the details of support for the project's field season. Field team leadership throughout the season should be identified at these meetings, including close-out responsibilities at the end of the season. There may be additional briefings and training, according to the needs of your project.

The PI will ensure that all applicable permits and environmental documentation has been completed prior to deployment. Contact RPSC's Environmental Manager, Nate Biletnikoff (telephone 1-800-688-8606 ext. 32225, e-mail <u>nathan.biletnikoff@usap.gov</u>) for more information.

#### **Participant Information**

It is the PIs responsibility to ensure that all dental, medical and travel processing requirements are addressed in a timely manner. **Participants' medical and dental exam results should already be submitted to RPSC** to ensure that physically qualified (PQ) status is obtained in time for ticketing. You should also turn in your travel request worksheet as early as possible. In order for reservations to be made and tickets to be issued, PQ status must be granted, and by NSF requirement, RPSC cannot initiate ticketing less than two weeks prior to a scheduled departure. In such situations, your alternatives are to 1) contact your program manager and request a waiver, 2) change your travel dates, or 3) purchase your own ticket with no reimbursement from the USAP.

Each participant who purchases their airline tickets without the assistance of RPSC must provide their itinerary to <u>deployment@usap.gov</u> or via fax at 303-799-6647. This information ensures that the participant will have hotel accommodations and be issued a date and time to obtain cold weather clothing (ECW).

The status of your field team's PQ processing (as of the date of this report) is available in the POLAR ICE program. Weekly updates are provided to the PI or Co-PI via e-mail. If you are not receiving these status reports, please contact RPSC Medical at <u>medical@usap.gov</u>.

The table below shows the approved deployment plan for your group. The Principal Investigator, RPSC and the NSF have set these dates. Changes must be coordinated with your RPSC POC no later than four weeks before scheduled deployment. Please note that RPSC is not authorized to ticket participants for any other dates than indicated below without approval from your RPSC Science Support Point of Contact. Also note that even if you have approved excess baggage southbound, before redeployment all northbound excess baggage requests require approval from the McMurdo Station NSF Representative on site.

Name	CONUS-CHC	CHC-MCM	MCM-CHC	Self-Ticket
Anderson, Rebecca	11/19/07	11/23/07	1/29/08	Ν
Dreyfus, Gabrielle	12/3/07	12/7/07	1/25/08	Ν
Englund, Sylvia	12/3/07	12/7/07	1/25/08	Ν
Ferris, David	11/19/07	11/23/07	1/29/08	Ν
Mischler, John	12/3/07	12/7/07	1/25/08	Ν
Orsi, Anais	12/3/07	12/7/07	1/25/08	Ν
Popp, Trevor	11/19/07	11/23/07	2/1/08	Ν
Rick, Ursula	11/19/07	11/23/07	1/29/08	Ν
Schilla, Annalisa	12/3/07	12/7/07	1/25/08	Ν

Seierstad, Inger	11/19/07	11/23/07	1/25/08	Ν		
Smith, David (Zach)	12/3/07	12/7/07	1/25/08	Ν		
Souney Jr., Joseph	12/31/07	1/4/08	2/1/08	Ν		
Taylor, Kendrick	12/3/07	12/7/07	1/13/08	Ν		
(Dates are current as of 09/19/2007)						

All dates are subject to change. The table below explains each column.

Column	Description
CONUS-CHC	Dates participant is scheduled to leave the U.S.
CHC-MCM	Date participant is scheduled to depart Christchurch for McMurdo.
MCM-CHC	Date participant is scheduled to redeploy from McMurdo to Christchurch.
Self-Ticket	"Yes," indicates the participant will purchase airline tickets without the assistance of RPSC. Self-ticketers must provide their itinerary ( <u>deployment@usap.gov</u> or fax. 303-799-6647). RPSC will arrange self-ticketers' hotel accommodations in Christchurch, meet them at the airport, schedule a date and time to obtain cold weather clothing and make sure they get a seat on the flight to Antarctica.

#### **McMurdo Housing**

You should have received NSF housing guidelines and a housing request worksheet with your deployment packet. If you have not already done so, please submit the housing request worksheet as soon as possible. The worksheet is also available at <a href="http://www.polar.org/deploymentPacket/granteeTeventPacket.htm">http://www.polar.org/deploymentPacket/granteeTeventPacket.htm</a>.

#### Permits

Please note: It is the responsibility of the Principal Investigator to obtain any required permits before deployment.

Ministry of Agriculture and Forestry (MAF) permits are required to transship and import samples through and into New Zealand. Due to the large volume of permit requests and processing limitations, MAF permits should be in place prior to deployment. <u>All permits must be presented to MAF upon transit through New Zealand</u> <u>with samples.</u> On-ice applications will be limited to emergency situations. For MAF application procedures and forms, please contact Hope Roger at Raytheon Polar Services (NZ) Limited, <u>CHC-MAFPermits@usap.gov</u>.

Antarctic Conservation Act (ACA) permits are required to enter Antarctic Specially Protected Areas (ASPA). For ACA application procedures and forms, please contact Nadene Kennedy at NSF, <u>nkennedy@nsf.gov</u>. ACA permits require three months processing time.

The United States Department of Agriculture (USDA) <u>http://www.aphis.usda.gov/</u> regulates importation of samples into the US. It is the responsibility of the PI to determine if a USDA permit is required. Permits can take up to 16 weeks for clearance.

#### **Environmental Documentation**

To comply with the Antarctic Conservation Act you are required to track and report disturbances to the environment as a result of your research, planned or accidental. An environmental end of season report template will be provided to you when you arrive in Antarctica. Please become familiar with it so you can fill it out at the end of your field work and submit it at your outbrief meeting before leaving.

If you are going to the McMurdo Dry Valleys, you will be required to comply with the Dry Valley Antarctic Specially Managed Area plan. Please be prepared to track and report geographic locations of the following disturbances in the Dry Valleys that result from your project: Tent camps, helo landing sites, sampling sites. This information must be submitted electronically to RPS's Environmental Department before your outbrief meeting. An electronic template will be provided.

### **Fuel and Liquid Waste Containment**

All containment and spill materials will be provided by the WAIS Divide camp.

#### Cargo

Please note that any unplanned northbound COMAIR cargo (not listed below) will require approval from the McMurdo Station NSF Representative on site.

Southbound Cargo							
<u>Lbs</u>	ROS	Remarks					
2025	17 Nov	(7321)					
35	22 Dec	(7356)					
<b>COMAIR Ret</b>	rograde						
Lbs	ROS	Remarks					
300	23 Feb	(8054)					
Vessel Retrograde							
<u>Lbs</u>	<u>ROS</u>	<u>Remarks</u>					

10 Apr

#### Notes:

590

• Baggage and hand-carried items are not "cargo" and are not listed.

(8100)

- Items purchased and shipped by RPSC for grantees are also not listed here.
- ROS (Required On Site) is the Saturday at the end of the week that cargo will be delivered at the research station (MCM or SP).
- Unplanned northbound COMAIR cargo will require approval from the NSF representative on station.

#### **Science Construction**

Science Construction will provide the following:

One heated 10-section Jamesway at WAIS Divide, with shelving, coat hooks and cubby-holes Plywood, lumber and blue-board insulation as requested Construction of a covered snow trench built to grantees' specifications

**Note:** Alarm/PA system will be installed in the arch facility by a fire technician as part of the arch facility construction effort.

#### Computers

The Crary Lab will provide the following support:

- Your group's grantee-supplied laptops will be connected to the LAN.
- RPSC technical video support for your outreach programs from WAIS will be supportable.
- Two printers (one color inkjet, one printer-copier) and a projector will be allocated to your group.
- 50 read/write CDs
- 50 DVDs

**Note:** Wireless communication issues at WAIS Divide camp will be covered in the Communications section of this SIP.

#### McMurdo E-Mail

Locally-generated (McMurdo) e-mail messages will be sent to the e-mail address indicated on your SIP for all team members. If your group has team members who were not identified on the SIP (i.e., "TBDs"), the Help Desk in the Crary Lab will add them to the McMurdo grantee list upon their arrival.

If any member of your group would like to have a McMurdo local account, or your group would like a group account to facilitate the sharing of data and information while in McMurdo, these can be created upon your arrival in McMurdo either by informing the Help Desk or the Crary Lab Computer Coordinator.

#### **Security Requirements**

Due to NSF information security requirements, all computers must be inspected by station IT staff before connecting to the network. A scan will be run to identify security vulnerabilities, and anti-virus signature updates will be installed if the system is not current. In order to meet USAP minimum security requirements, please ensure that all systems that will be connected to the USAP infrastructure are running the most recent operating systems service packs with the most recent security patches. To gain access to the Crary wireless network, all NICs (network interface cards) must be registered with the IT staff. <u>Please have an administrative user ID and password for all computers that you bring to Antarctica</u>. You should also consider bringing your laptop's original OS installation disks and software registration numbers to assist the Crary computer staff in repairing them, in the unlikely event that they experience hardware or software failures either in transit or while on the Ice.

#### **Communications**

Please see table at the end of this document for the field party communications equipment allocation.

#### **Laboratory Space**

The following Crary Laboratory space has been allocated: Office 235 Nov  $22^{nd}$  to Dec  $11^{th}$ 

Because of the dynamic nature of the laboratory and increased demand for space, your allocation may change from that listed above. Please note that due to limited space availability, the dates above <u>may not be the</u> <u>exact dates you entered in your SIP</u>. Please review this carefully as space will not be available before or after these dates, regardless of arrival and departure dates. Dedicated space is in short supply, so we respectfully request that you be prepared to make your space useable to other groups during all field deployments. Labs and offices are for research only; field equipment should be stored in BFC or field party cages at all time.

#### Laboratory Instruments and Equipment

No support requested.

#### Laboratory Chemicals, Gases, Cryogens, Dry Ice, Blue Ice

Liquid nitrogen will be available during the austral summer. If an unanticipated need arises, please contact the Crary Lab Staff for assistance in getting proper equipment and training to support your requirements. Please contact your POC if your requirements change and increased usage is expected.

Dry ice and blue ice are available on a continuous basis during the austral summer only. Dry ice and blue ice are located in the Phase Two South Loading Dock freezers and are self-serve. Please contact the lab staff for assistance if your requirements change significantly.

#### Laboratory Materials and Supplies

A list of laboratory materials and supplies procured for your project is at the end of this document. Please note that the list is current as of the date on the report. Updated reports will be sent to you as purchase orders are issued.

#### **Radioactive Materials**

No support requested.

#### Diving

No support requested.

#### **Analytical Support**

RPSC no longer manages analytical services at the Crary Lab. Analytical instrumentation and some technical support is managed through the McMurdo LTER, B-428-M. Requests for support should be coordinated with Dr. John C. Priscu, Montana State University (jpriscu@montana.edu).

#### **Research Associate Services**

No support requested.

#### Spatial Analysis, Remote Sensing, and GIS Support

A decision on GIS support for the FY08 season is pending. Once the decision is made, you will be informed via a revised RSP GIS support section.

#### **Global Positioning System (GPS)**

UNAVCO will work with grantees to provide support as requested within the guidelines of the NSF/Unavco agreement. Please contact UNAVCO with any support related questions:

Joe Pettit UNAVCO Antarctic Support Project Manager e-mail: pettit@unavco.org phone: 303 381-7615

Bjorn Johns UNAVCO Polar Services Manager e-mail: bjorn@unavco.org (303) 381-7470

#### **Ultraviolet Data Services**

No support requested.

#### Ice Core Drilling Services (ICDS)

ICDS will work with grantees to provide support as requested within the guidelines of the NSF. Please contact ICDS with any support related questions:

Tony Wendricks ICDS Project Coordinator e-mail: tonyw@ssec.wisc.edu phone: (608) 263-6755 http://www.ssec.wisc.edu/a3ri/icds/

#### Berg Field Center (BFC) Field Equipment

Please see table at the end of this document for the BFC allocation.

#### **Field Safety**

All new USAP personnel who may require overnight stays away from McMurdo Station (or the Williams Field Complex) will be required to complete Snowcraft I prior to going to the field. This is a two-day overnight course. All participants traveling via helicopter will be required to complete a helicopter safety course.

Personnel embarking on day trips on the sea ice will be required to complete a sea ice course. All returning USAP personnel going into the field and with prior attendance of a Snowcraft I and/or a sea ice course may attend a refresher-training course. This course is approximately 5-6 hours and includes the helicopter safety course. Personnel returning to the Antarctic after a break of five or more years do not qualify for refresher training and must attend full courses again. For parties traveling in crevassed areas, Snowcraft II or a demonstration of crevasse rescue skills will be required.

Emergency Response Training will be provided at the WAIS Divide camp drill arch facility. Training will be provided by the WAIS Divide camp medical staff and will be scheduled by the WAIS Divide camp supervisor.

Back Safety Training will be provided for WAIS Divide camp participants by the physical therapist at McMurdo Station on the following dates and times.

- Tuesday 11/27/2007 at 8:00am
- Tuesday 12/11/2007 at 8:00am
- Tuesday 1/8/2008 at 8:00am

Fire Extinguisher Training will be provided for WAIS Divide camp participants by the McMurdo Fire Department at McMurdo Station on the following dates and times.

- Week of 11/26/2007
- Week of 12/10/2007
- Week of 01/07/2008

#### **Fixed-Wing Aircraft**

Week ending 08 December: LC-130 will transport science equipment, five passengers, and gear from McMurdo Station to WAIS Divide.

Week ending 15 December: LC-130 will transport eight passengers and gear from McMurdo Station to WAIS Divide.

Week ending 05 January: LC-130 will transport one passenger and gear from McMurdo Station to WAIS Divide.

Week ending 19 January: LC-130 will transport one passenger and gear from WAIS Divide to McMurdo Station.

Week ending 26 January: LC-130 will transport thirteen passengers and gear from WAIS Divide to McMurdo Station.

- These dates are approximate and are subject to change due to weather, aircraft availability, logistical constraints, NSF priorities, etc. You will be notified of any changes and/or updates to your fixed-wing support.
- Fixed Wing planning is based on a six-day flight week beginning on Monday and ending on Saturday of each week.

### Airborne Research

No support requested.

#### Helicopter

No support requested.

#### Icebreaker

No support requested.

#### Mechanical Equipment Center (MEC)

Equipment	Quantity	Dedicated/Pool	Comment	Dates
<u>Snowmobiles</u>				
* Snowmobile, Heavy Duty, 2	1	D	Location: WAIS Divide	12/1 - 2/1

The items indicated with an asterisk have been identified as critical equipment to be tracked by RPSC for our performance measures. This does not mean that other items are not important to your project; RPSC will provide all equipment listed above.

#### Heavy Equipment and Explosives

No support requested.

#### **Closeout Procedures**

Principal Investigators' responsibilities:

- At least two weeks before departure ensure that the field team has submitted redeployment forms to the Chalet staff. The preferred approach is to submit the forms upon arrival and update it later.
- At least two weeks before departure, please confirm with the Crary Lab Staff that all individuals handcarrying and shipping samples via New Zealand have the appropriate MAF permits. This does not pertain to samples traveling on the vessel.
- Ensure that all wastes are packaged and labeled according to USAP procedures.
- Appoint a field team member to complete a final checkout for the group. RPSC will provide a checklist that ensures all procedures are understood and followed, including equipment return to the Berg Field Center, the Mechanical Equipment Center and the Crary Laboratory.
- Ensure that all original customs forms authorizing handcarry of technical equipment through New Zealand are returned to RPSC's Travel Supervisor after returning to the United States.

#### **Attached Information and Tables**

Grantee Arrival Checklist Field Party Communications Equipment Allocation Sheet Berg Field Center Allocation Report Reports for Laboratory Materials and Supplies; Procurement, Inventory Items, Basic Stocked Supplies

GRANTEE ARRIVAL CHECKLIST	
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TEAM REQUIREMENTS	PLANNING SUBJECT	ACTIVITY DESCRIPTION	ESTIMATED TIME	DEPARTMENT CONTACT	EXT	COMPLETED
Х	Accept Cargo	Locate and unpack the cargo that your team sent to McMurdo from your home institution. Grantee cargo and lab allocated equipment can be retrieved through the Crary Lab Stockroom.	Variable as to cargo requirements.	Sally Moore Crary Lab Materials Senior	4192	
Х	Science Construction Materials	Meet with Science Construction Coordinator to discuss construction needs.	15 min - 1 hour	Science Construction Coordinator.	2236	
Х	Computer Equipment	Finalize computer support needs. Check laptops for current virus signatures.	15 min to 1 hour	Karen Joyce Computer Services Crary Laboratory	4177	
Х	Pre-Field Communications Briefing	Before receiving communications equipment (radios and/or Iridium units) meet with Mac Ops Coordinator to receive communications briefing, establish check-in schedule, and review radio protocol.	30 –45 min— MacOps	Mary Rubarsky MacOps Coordinator	2821	
Х	Communications Equipment Issue	After meeting with Mac Ops Coordinator (see above) make an appointment for the issue of communications equipment for the IT Communications Shop.	30 min – 1 hour	Bill Nesbit IT Communications Supervisor	2796	
Х	Lab Space Allocation & Permits	Meet with the Crary Lab Staff to locate your allocated lab and office space and lab orientation. Confirm with Crary Lab Staff that MAF permits are on file for every individual transporting samples through or into New Zealand. Check permit accuracy and inclusion of all sample types.	25 min.	Cara Sucher Crary Lab Manager	4169	
	Meet with Diving Supervisor	Meet to discuss procedures and emergency response. Conduct check-out dive.	1/2 day	Rob Robbins Scientific Diving Supervisor, Dive Services	2354	
Х	Accept Field Equipment	Visit the BFC and locate cage space. Look over equipment to ensure it will be functional for field needs.	1/2 - 2 days	Rachel Murray Supervisor, Berg Field Center	2348	
	Organize Field Food	Make an appointment at the BFC Food Room to discuss the process of menu planning, become familiar with the inventory and the barcode scanner, and make arrangements to pull and pack food for your stay in the field.	Pre food pull: 15 min. Food Pull: 1/2 -1 day	Peggy Malloy Assistant Supervisor, Food Room	2461	
Х	Collect Mechanical Equipment	Pick up and get basic instruction on mechanical equipment required. This will not include snowmachines.	1 hour	Randy Sliester Supervisor, Mechanical Equipment Center	2352	
Х	Prepare Equipment for Transport	Any cargo that will be transported into the field via aircraft will need to be prepared for travel. The alternate transportation styles will have different requirements. Seek the assistance of the Department Contacts. <b>REMEMBER:</b> ALL HAZARDOUS CARGO NEEDS TO BE SPECIALLY PACKAGED!! AND CERTIFIED 2-3	1/2-2 days to pack 3 days prior to travel 1/2-2 days to pack 2 days prior to travel	Julie Grundberg Supervisor Fixed Wing Keith DePew USAP Cargo Supervisor Liz Kauffman	2529 2546 2277	
Х	Minite with Fire d	DAYS BEFORE TRAVEL.	20 minutes	Supervisor, Helicopter Ops		
^	Visit with Fixed Wing Coordinator	Meet with Coordinator to finalize and verify field plans.	30 minutes	Julie Grundberg Supervisor Fixed Wing	2529	
	Visit with Helicopter Coordinator	Meet with Coordinator to finalize and verify field plans.	30 minutes	Liz Kauffman Supervisor, Helicopter Ops	2277	
х	Training Course Depending upon prior experience and study area, some of the following courses must be taken. Refer to RSP for	Field Safety Training Courses: Snowcraft I: Snowcraft Refresher: Sea Ice: Sea Ice Refresher: GPS: Altitude Training: Helicopter Training: Helicopter Training:	2 days, 1 overnight 1/2 day 1 day 1/2 day 3 hours 1 hour 1 hour	Pam Hill Field Support Coordinator	2356	
	assignments.	Mechanical Equipment Courses: Antarctic Driver's License	30 minutes	Julie Bonneau	2352	
		Pisten Bully Driving Snowmobile Driving and Repair	1-2 hours 1-2 hours	Asst. Supervisor, MEC Supervisor MEC	2962	+
		Weather Observation Course:	2-3 hours	Meteorology Manager Mac Weather	2523	
Х	Waste Management	Learn how to sort your trash while in town and in the field. Required for all USAP personnel every season.	1 hour	Mark Furnish Waste Operations Manager	2041	

#### Field Party Communications Equipment Allocation Sheet

Event: I-477-M PI Name: Taylor, Kendrick Location: WAIS Field Dates: 22 Nov 2007 to 01 Feb 2008

		Qty	Qty	
-	Requested Item	Requested	Provided	Notes
VHF Radios	VHF Base Station			
	VHF Vehicle Radio			
	VHF Base Station Antenna			
	Motorola HT750	2	2	
	Sabre			
	Lapel Mic			
	Headset			
	Solar Charger			
	AC Charger	2	2	
	Bank Charger			
	Chest Harness			
HF Radios	PRC1099 Field Kit "Orange Box"			
	PRC1099 Field Kit "Backpack"			
	External Speaker (PRC1099 only)			
	Direct to battery solar charger cable			
	Solar cable extension			
	RT7000 HF Base Station			
	AC Power Supply			
	Battery/Solar Power Supply			
	HF Dipole Antenna			
Aircraft				
Radios	iCOM Handheld Aircraft Radio			
	iCOM Base Station Aircraft Radio			
	Headset			
	Lapel Mic			
	Iridium Field Kit (incl. handset, external			A base station will be installed in arch for use by NICL,
Iridium	antenna, AC charger, 12V Vehicle charger, spare battery)			ICDS, and Taylor. Acess to camp Iridium is TBD by camp manager.
	Iridium Base Station			
	Iridium Solar Panel			
	Iridium Data Kit			
	Iridum SIM Card Only			
	Iridium large diameter external antenna			
	Iridium pole mount antenna			
	Iridium high capacity battery (only for use			
	with 9500 model Handset)			
UPS	1000 kVA	2	2	
	1500 kVA			
Misc.	Comms Technician support (hours)			
	Antenna Rigger Support (hours)			
	Advisor II/Advisor Gold Pager			
	Cabling (feet)			
	Triangle Solar Panel			
	Omnidirectional Antenna			
	Yagi Antenna			
	Tower installation			
	12 V Battery			
	Radiotelephone			
	Wireless Internet connectivity to MCM			
Other	Wireless connectivity	1	1	Connectivity in drilling arch and surrounding bldgs.

## **BFC Field Equipment Allocation 2007-08**

Item Name	Availability	1477 UOI		Total Weight T (Ibs.)	otal Cube (cu.)
Ensolite Pad, thin, 3/8"x28"x84" (includes Ridge Rest)	# @	5	ea	20.00	5.00
Fire Extinguisher, 20-30 LB*		1	ea	35.00	4.00
Thermometer, Min/Max DIGITAL		3	ea	0.00	0.00
Thermometer, MIN/MAX		2	ea	0.30	0.10
Tent, S.D. Sphere Expedition		12	ea	96.00	24.00
Ensolite Pad, 1/2"x28"x84"	# @	14	ea	70.00	14.00
Pile Liner	@	14	ea	56.00	14.00
Pillow, Camp	@	14	ea	7.00	4.20
Thermarest	# @	14	ea	70.00	14.00
Cargo/Duffle Bag		14	ea	42.00	4.20
Sleep bag, Arctic Storm, Standard, 30x90, - 50F		8	ea	80.00	32.00
Sleep bag, Arctic Storm, Long, 45x 95, -50F		6	ea	72.00	24.00
Microwave Oven	# @	2	ea	76.00	4.00
Thermos, 1 QT Nissan	#	14	ea	35.00	4.20
Water Bottle, 1 QT, Nalgene	#	14	ea	4.20	2.80
Water Bottle Warmer	#	14	ea	4.20	4.20
Broom, Kitchen	# @	2	ea	4.60	4.00
Broom, Whisk	# @	1	ea	0.50	0.30
Dustpan	# @	2	ea	2.00	0.60
Garbage Can, Plastic, 32 gal.		2	ea	30.00	10.00
Soap, H20 less, Purrell		15	ea	1.50	1.50
Paper Towel, per package		12	pkg	2.40	2.40
Ear plugs		500	pr	50.00	50.00
Fire Extinguisher, 2.5 LB*		2	ea	10.00	2.00
Heat pack, Hand, by the pair		1000	pr	100.00	0.00
Urine bottle, 32 oz.	# @	14	ea	4.20	2.80

Sled, Banana		2	ea	72.00	6.00
Sled, Nansen, w/ Rigid Towbar*		2	ea	244.00	80.00
Carabiner, Sledge, for sled use*	#	3	ea	1.50	0.30
First aid kit, Comprehensive Group*		1	ea	2.50	0.50
Bungee Cord	# @	5	ea	1.50	0.50
Strap, Cam, webbing, any length		6	ea	6.00	0.60
Paracord, aka P-cord, standard		400	ft	40.00	0.00
Rope, Nylon, 1/4" (100'/spool)		200	ft	20.00	60.00
Rope, Nylon, 1/2", (600'/spool)		50	ft	15.00	15.00
Tool Kit (standard)		1	kit	18.00	1.50
Clamp - C, Lg 5"+	# @	4	ea	9.20	1.20
Clamp - C, Med 4-5"	# @	4	ea	9.20	1.20
Clamp - C, Small (-3")	# @	4	ea	4.00	0.40
Drill, Cordless, 9.6V		1	ea	5.00	0.30
Saw, Hand	# @	1	ea	1.50	0.50
Shovel, Grain	#	2	ea	10.00	6.00
Shovel, Short Square	#	4	ea	20.00	8.00
Tape, Duct		4	ea	7.20	0.40
Tape, Electrical		4	ea	0.40	0.40
Tape, Strapping		60	ea	60.00	6.00
Extension Cord, 25 ft		6	ea	18.00	3.00
Extension Cord, 50 ft		6	ea	30.00	6.00
Power Strip		8	ea	40.00	8.00
Extension Cord, 100 ft		2	ea	24.00	2.00
Chair, metal folding	# @	14	ea	70.00	28.00
Lamp, desk	# @	4	ea	20.00	4.00
Table, Allulite, 29"x72"	# @	6	ea	216.00	36.00
Garbage Bag, 32 gal., heavy duty, 100/bx		3	box	15.00	1.50
Garbage Bag, 32gal., clear, 125/bx		3	box	15.00	1.50
GPS, Garmin, 12 XL		1	ea	0.80	0.30

Survey Tape, FG, 100 M/300	'# @	1	ea	2.80	0.50
First aid kit, Mountain Medic*		1	ea	9.00	2.00
Bamboo, 12'w/Green Flag		100	ea	300.00	10.00
Coffee Maker, 30 Cup(Alum./S.Steel)		1	ea	0.00	0.00
Bowl, Soup		25	ea	7.50	2.50
Mug, Insulated		25	ea	7.50	5.00
Spoon, Serving, Sm	# @	25	ea	2.50	2.50
APPROXIMATE TOTAL SUM OF WEIGHT AND CUBE FOR 1477				2,198.00 lbs.	529.90 cu.

Items not listed in this document will not be available for the 2007-08 season.

\*

= Not Applicable
= "As-Available" – Quantities limited and some items may not have been inspected
= "As-Is" – Has not been inspected

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### Issued from Inventory Report

Stock #	Keyword	Description	QTY	UOM
0088881	COOLER	50 QT PLASTIC COOLER/ ICE CHEST/ RED OR BLUE	3	EA
0056358	TAPE/ ADHESIVE	1" W X 60 YD L/ FILAMENT STRAPPING TAPE/ 300-LB STRENGTH/ TRANSPARENT HIGH PERFO ** Also listed under BFC section **	70	ROL

#### **Basic Stocked Materials**

Stock #	Category Name	Product Name	Total Qty	Unit
D1234	Lab Markers	Black, extra fine	10	EA
D1305	Lab Markers	Black, fine	10	EA

Purchasing Report				
Description	Qty	Unit	Notes	
Sleeping cots	4	EA	WAIS Divide project pro-card purchase. To be shipped with NICL cargo.	
Coat hanger	25	EA	WAIS Divide project pro-card purchase. To be shipped with NICL cargo.	
Hot liquid urn	2	EA	WAIS Divide project pro-card purchase. To be shipped with NICL cargo.	
Heating pads	4	EA	WAIS Divide project pro-card purchase. To be shipped with NICL cargo.	