National Academy of Sciences
Polar Research Board
U.S. National Committee for Antarctic Research

Report on United States Antarctic Research to the Scientific Committee on Antarctic Research (SCAR)

Number 42: 2001-2002

Washington, D.C. 2002

International Council of Scientific Unions
Scientific Committee on Antarctic Research
Annual Report on
National Antarctic Scientific Activities
1 July 2001 - 30 June 2002

Member Country: United States of America

National SCAR Committee:

Polar Research Board
Commission on Geosciences, Environment and Resources
National Research Council
2101 Constitution Avenue NW, HA 454
Washington DC 20418
Phone: (202) 334-3479
Fax: (202) 334-1477
E-mail: **celfring@nas.edu**
Homepage: **http://www.nationalacademies.org/prb**

Chairman:

Donal Manahan
Dean of Research
College of Letters, Arts, and Sciences
Administration 304
University of Southern California
Los Angeles, CA 90089-4012
Phone: (213) 740-5793
Fax: (213) 740-8887
E-mail: **Manahan@usc.edu**

Representatives:

to SCAR

Permanent Delegate:

Robert H. Rutford
Professor of Geosciences
University of Texas at Dallas
P.O. Box 830688; MS:F021
Richardson, TX 75083-0688
Phone: (972) 883-6470
Fax: (972) 883-2482
E-mail: **rutford@utdallas.edu**

Alternate Delegate:

Mahlon C. Kennicutt II
Geochemical and Environmental Research Group
Texas A&M University
833 Graham Road
College Station, TX 77845
Phone: (409) 862-2323, ext. 111
Fax: (409) 862-2361
E-mail: **mck2@gerg.tamu.edu**

to SCAR Working Groups:

Biology:

John Priscu
Department of Biology
Montana State University
Bozeman, MT 59717

Phone: (406) 994-3250
Fax: (406) 994-5863
E-mail: **ubijp@montana.edu**

Geodesy and Geographic Information:
Jerry Mullins
Manager for Polar Programs
U.S. Geological Survey
521 National Center
12201 Sunrise Valley Drive
Reston, VA 22092
Phone: (703) 648-5144
Fax: (703) 648-4165
E-mail: **jmullins@.usgs.gov**

Geology:
Ross D. Powell
Research Professor
Department of Geology
Northern Illinois University
DeKalb, IL 60115
Phone: (815) 753-7952
Fax: (815) 753-1945
E-mail: **ross@geol.niu.edu**

Glaciology:
Joan J. Fitzpatrick
Staff Asst., Office of the Central Regional Director
Technical Director, U.S. National Ice Core Laboratory
U.S. Geological Survey
MS-975
Box 25046, DFC
Denver, CO 80225
Phone: (303) 202-4746
Fax: (303) 202-4742
E-mail: **jfitz@usgs.gov**

Human Biology and Medicine:
Lawrence A. Palinkas
Division of Family Medicine (0807)
Department of Family and Preventive Medicine
9500 Gilmore Drive
University of California, San Diego
La Jolla, CA 92093-0807
Phone: (619) 543-5493
Fax: (619) 543-5996
E-mail: **LPalinkas@ucsd.edu**

Physics and Chemistry of the Atmosphere:
Andrew Carleton
Department of Geography
The Pennsylvania State University
302 Walker Building
University Park, PA 16802
Phone: (814) 865-6522
Fax: (814) 865-7943
E-mail: **carleton@essc.psu.edu**

Solar Terrestrial and Astrophysical Research:
Umran S. Inan
Professor
STAR Laboratory
Stanford University
Stanford, CA 94305-9515
Phone: (650) 723-4994
Fax: (650) 723-9251
E-mail: **inan@star.stanford.edu**

Solid Earth Geophysics:
Robin E. Bell
Research Scientist
Lamont-Doherty Earth Observatory
Columbia University
Route 9 West
Palisades, NY 10964
Phone: (914) 365-8827
Fax: (914) 365-8179
E-mail: **robinb@ldgo.columbia.edu**

National Operating Agency:
National Science Foundation
Office of Polar Programs
4201 Wilson Boulevard, Suite 755
Arlington, VA 22230
Phone: (703) 306-1031
Fax: (703) 306-0139
Homepage: **http://www.nsf.gov/home/polar/start.htm**
Director: Karl Erb

COMNAP Representative:
Karl Erb
Director, Office of Polar Programs
National Science Foundation
4201 Wilson Boulevard Suite 755
Arlington, VA 22230
Phone: (703) 292-8030
Fax: (703) 292-9081
Email: **kerb@nsf.gov**

SCALOP Representative:
Erick Chiang
Office of Polar Programs
National Science Foundation
4201 Wilson Blvd. - Suite 755
Arlington, VA 22230
Phone: (703) 306-1032
Fax: (703) 306-0139
Email: **echiang@nsf.gov**

Year-Round Stations:
McMurdo Station, Ross Island, 77º55'S, 166º49'E
Amundsen-Scott South Pole Station, South Pole, 90ºS
Palmer Station, Anvers Island, 64º46'S, 64º05'W

Summer-only Stations:
Siple Dome Camp, 81º39'S, 149º04'W

Downstream Bravo Camp, 84º01'S, 155º00'W
Ford Range Camp, 77º16'S, 142º27'W
Cape Roberts Camp, 77.02ºS, 163.12ºE

Automatic Recording Stations/Observatories:
McMurdo, 166.40º E, 77.51º S, Parameter Recorded: UV radiation
Palmer, 64.03º W, 64.46º S, Parameter Recorded: UV radiation
South Pole, 90.00º S, Parameter Recorded: UV radiation

Automated Geophysical Observatories:
Parameter Devices at each station: Rapid and Slow Magnamomers, Radio Receivers, All- Sky Cameras/Imagers, Riometers, Meteorology Equipment, Snow Accumulation
AGO 1, 83.86º S, 129.61º E, Altitude 2865m
AGO 2, 85.67º S, 133.62º W, Altitude 1860m
AGO 3, 82.76º S, 28.58º E, Altitude2912m
AGO 4, 82.01º S, 96.76º E, Altitude 3565m
AGO 5, 77.23º S, 123.52º E, Altitude 3084m
AGO 6, 69.51º S, 130.0º E, Altitude 2560m

Automatic Weather Stations

Adelie Coast

Site	*ARGOS ID*	*Latitude (deg)*	*Longitude (deg.)*	*Altitude (m).*	*Date Start*	*WMO*
D-10	8919	66.71ºS	139.83ºE	243	Feb 80	89832
D-47	8986	67.397ºS	138.726ºE	1560	Jan 83	89834
D-57	21360	68.199ºS	137.538ºE	2105	Jan 96	
D-80	8916	70.040ºS	134.878ºE	2500	Nov 84	89836
Dome C II	8989	75.121ºS	123.374ºE	3250	Dec 95	89828
Port Martin	8930	66.82ºS	141.40ºE	39	Jan 90	
Cape Denison	8907	67.009ºS	142.664ºE	31	Jan 90	
Penguin Point	8929	67.617ºS	146.180ºE	30	Dec 93	89847
Sutton	8939	67.08ºS	141.37ºE	871	Dec 94	
Cape Webb	8933	67.934ºS	146.824ºE	37	Dec 94	

West Antarctica

Site	*ARGOS ID*	*Latitude (deg)*	*Longitude (deg.)*	*Altitude (m).*	*Date Start*	*WMO*
Byrd Station	8903	80.007ºS	119.404ºW	1530	Feb 80	89324
Brianna	21362	83.887ºS	134.145ºW	549	Nov 94	
Elizabeth	21361	82.606ºS	137.082ºW	549	Nov 94	89332
J.C.	21357	85.070ºS	135.516ºW	549	Nov 94	
Erin	21363	84.901ºS	128.810ºW	1006	Nov 94	
Harry	21355	83.003ºS	121.393ºW	945	Nov 94	
Theresa	21358	84.599ºS	115.811ºW	1463	Nov 94	89314
Doug	21359	82.315ºS	113.240ºW	1433	Nov 94	
Mount Siple	8981	73.198ºS	127.052ºW	230	Feb 92	89327

Ross Island Region

Site	*ARGOS ID*	*Latitude (deg)*	*Longitude (deg.)*	*Altitude (m).*	*Date Start*	*WMO*
Marble Point	8906	77.439ºS	163.687ºE	84	Feb 80	89866
Ferrell	8934	77.928ºS	170.820ºE	45	Dec 80	89872
Pegasus North	8927	77.952ºS	166.505ºE	10	Jan 90	89667
Pegasus South	8937	77.990ºS	166.576ºE	10	Jan 91	
Minna Bluff	8988	78.554ºS	166.656ºE	920	Jan 91	89768
Linda	8909	78.480ºS	168.375ºE	50	Jan 91	89769
Willie Field	8901	77.865ºS	167.017ºE	40	Jan 92	

Ocean Islands

Site	ARGOS ID	Latitude (deg)	Longitude (deg.)	Altitude (m).	Date Start	WMO
Whitlock	8921	76.144ºS	168.392ºE	274	Jan 82	89865
Scott Island	8983	67.37ºS	179.97ºW	30	Dec 87	89371
Young Island	8980	66.229ºS	162.275ºE	30	Dec 90	89660
Possession Isl	8984	71.891ºS	171.210ºE	30	Dec 92	89879

Ross Ice Shelf

Site	ARGOS ID	Latitude (deg)	Longitude (deg.)	Altitude (m).	Date Start	WMO
Marilyn	8931	79.954ºS	165.130ºE	75	Jan 84	89869
Schwerdtfeger	8913	79.904ºS	169.973ºE	60	Jan 85	89868
Gill	8911	79.985ºS	178.611ºW	55	Jan 85	89376
Elaine	8900	83.134ºS	174.169ºE	60	Jan 86	89873
Lettau	8908	82.518ºS	174.452ºW	55	Jan 86	89377

Reeves Glacier

Site	ARGOS ID	Latitude (deg)	Longitude (deg.)	Altitude (m).	Date Start	WMO
Manuela	8905	74.946ºS	163.687ºE	80	Feb 84	89864
Lynn	8935	74.207ºS	160.409ºE	1772	Jan 88	89860

Antarctic Peninsula

Site	ARGOS ID	Latitude (deg)	Longitude (deg.)	Altitude (m).	Date Start	WMO
Larsen Ice	8926	66.949ºS	60.914ºW	17	Oct 85	89262
Butler Island	8902	72.207ºS	60.171ºW	91	Mar 86	89266
Uranus	8920	71.43ºS	68.93ºW	780	Mar 86	89264
Limbert	8925	75.422ºS	59.948ºW	40	Dec 95	
Racer Rock	8947	64.067ºS	61.613ºW	17	Nov 89	89261
Bonaparte Pt.	8912	64.778ºS	64.067ºW	8	Nov 91	89269
AGO-A84	8932	84.36ºS	23.86ºW	2103	Jan 96	
Ski-Hi	8917	74.975ºS	70.766ºW	1395	Feb 94	
Santa Claus I	8910	64.964ºS	65.670ºW	25	Dec 94	

High Polar Plateau

Site	ARGOS ID	Latitude (deg)	Longitude (deg.)	Altitude (m).	Date Start	WMO
Clean Air	8987	90.00ºS		2835	Jan 86	89208
Henry	8985	89.011ºS	1.025ºW	2755	Jan 93	89108
Nico	8924	89.000ºS	89.669ºE	2935	Jan 93	89799
Relay Station	8918	74.017ºS	43.062ºE	3353	Feb 95	89744
Dome Fuji	8982	77.31ºS	39.70ºE	3810	Feb 95	89734

List of Projects and Contact Information:

Antarctic Aeronomy and Astrophysics Program

Subject	***Investigation***	***Locality***	***Duration***	***Principal Investigator(s)***
Antarctic ice sheet as high-energy detector	Antarctic muon and neutrinto detector array (AMANDA)	Martin A. Pomerantz Observatory (MAPO) in the Dark Sector of the South Pole, and in the back of the Science Building under the dome	October 2001 to mid-February 2002 AND throughout the 2002 austral winter	Robert M. Morse University of Wisconsin Department of Physics 1150 University Avenue Madison, WI 53706-1390 ph 608-262-3989 fax 608-263-0800 **morse@alizarin.physics.wisc.edu** **http://amanda.berkeley.edu/amanda/amanda.html**
High-altitude balloons carrying scientific payloads into the stratosphere	Long Duration Balloon Program	Long Duration Balloon (LDB) Site at Williams Field (McMurdo); Payload recovery site to be determined	mid-October 2001 to mid- February 2002	Steven Peterzen National Scientific Balloon Facility FM 3224 Palestine, TX 77565 ph 903-723-8058 fax 903-723-8056 **steven@master.nsbf.nasa.gov** **http://master.nsbf.nasa.gov/**
Measurements of ultra-heavy galactic cosmic rays	Trans-Iron Galactic Element Recorder (TIGER)	Long Duration Balloon (LDB) Site at Williams Field (McMurdo); Payload recovery site to be determined	early November 2002 to Late January 2002	Walter Binns Washington University Physics Department CB1105 1 Brookings Drive St. Louis, MO 63130 **wrb@howdy.wustl.edu**
Balloon-borne experiments to measure the cosmic microwave background radiation (CMBR) anistropy	TopHat 2002-2002 Antarctic Campaign	Long-Duration Balloon (LDB) Site at Williams Field (McMurdo); Payload recovery site to be determined	late October 2001 to mid-February 2002	Dr. Stephan Meyer University of Chicago Room LASR 209 5640 S. Ellis Avenue Chicago, IL 60637 ph 773-702-0097 fax 773-838-9852 **meyer@oddjob.uchicago.edu** **http://topweb.gsfc.nasa.gov/**
Investigation of composition and energy spectra of galactic cosmic rays	Advanced Thin Ionization Calorimeter (ATIC) Scientific Balloon Payload	Long-Duration Balloon (LDB) Site at Williams Field (McMurdo); Payload recovery site to be determined	late October 2001 to mid-January 2002	Dr. John Wefel Louisiana State University Department of Physics and Astronomy Room 272, Nicholson Hall Baton Rouge, LA 70803-4001 ph 225-388-8696 fax 225-388-1222 **wefel@phunds.phys.lsu.edu**
Administration	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-	Dr. John Carlstrom University of Chicago Department of Astronomy 933 East 56th Street Chicago, IL 60637

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
			February 2002, and four project members will remain at the South Pole throughout the 2002 austral-winter months.	ph 773-834-0269 fax 773-834-1891 **jc@oddjob.uchicago.edu**
Polar Operations	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-February 2002, and four project members will remain at the South Pole throughout the 2002 austral-winter months.	Mr. Robert Pernic Yerkes Observatory 373 West Geneva Street Williams Bay, WI 53191 ph 262-245-5555 fax 262-245-9805 **pernic@hale.yerkes.uchicago.edu** **http://astro.uchicago.edu/cara/**
Astronomical Submillimeter Telescope/Remote Observatory (AST/RO)	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-February 2002, and four project members will remain at the South Pole throughout the 2002 austral-winter months.	Dr. Antony A. Stark Smithsonian Astrophysical Observatory 60 Garden Street, MS-78 Cambridge, MA 02138 ph 617-496-7648 fax 617-496-7554 **aas@cfa.harvard.edu** **http://cfa-www.harvard.edu/~adair/ASTRO/**
Automated Astrophysical site Testing Observatory (AASTO)	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-February 2002, and four project members will remain at the South Pole throughout the 2002 austral-winter months.	Dr. John Storey University of South Wales School of Physics Sydney, NSW 2052 Australia ph 001 612-938-5456 x6 **jwvs@newt.phys.unsw.edu.au** **http://bat.phys.unsw.edu.au/~aasto**
Degree Angular Scale Interferometer (DASI)	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-February 2002, and four project members will remain at the South Pole throughout the 2002 austral-winter months.	Dr. John Carlstrom University of Chicago, Astronomy 5640 South Ellis Avenue Chicago, IL 60637 ph 773-834-0269 fax 773-834-1891 **jc@oddjob.uchicago.edu** **http://astro.uchicago.edu/dasi**
South Pole Infrared Explorer (SPIREX)	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-February 2002, and four	Dr. James Jackson Boston University Astronomy Department 725 Commonwealth Avenue Boston, MA 02215 ph 617-353-6499

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
			project members will remain at the South Pole throughout the 2002 austral-winter months.	fax 617-353-5704 **jackson@fish.bu.edu**
Viper – Cosmic Microwave Background Radiation Telescope	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-February 2002, and four project members will remain at the South Pole throughout the 2002 austral-winter months.	Dr. Jeffrey Peterson Carnegie-Mellon University Department of Physics Pittsburgh, PA 15213 ph 412-268-2785 fax 412-681-0648 **jpb@fire.phys.cmu.edu**
Submillimeter Polarimeter for Antarctic Remote Observations (SPARO) Instrument	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-February 2002, and four project members will remain at the South Pole throughout the 2002 austral-winter months.	Dr. Giles Novac Northwestern University Department of Physics and Astronomy Technical Institute 2145 Sheridan Road Evanston, IL 60208-3112 ph 847-491-8645 fax 847-491-3135 **g-novak@nwu.edu** **http://belmont.astro.nwu.edu**
Arcminute Cosmology Bolometer Array Receiver (ACBAR) Instrument	Center for Astrophysical Research in Antarctica (CARA)	Dark Sector at the South Pole	The CARA project components will have various durations of deployment from early November 2001 to mid-February 2002, and four project members will remain at the South Pole throughout the 2002 austral-winter months.	Dr. John Ruhl University of California, Santa Barbara Department of Physics Broida Hall Santa Barbara, CA 93106 ph 805-893-8860 fax 805-893-8597 **ruhl@physics.ucsb.edu**
Data acquisition	Continuation of Magnetometer Data Acquisition at McMurdo and South Pole Stations	McMurdo Station (Arrival Heights); South Pole Station (Cusp Lab in Skylab Building)	No deploying team members	Dr. Louis Lanzerotti Lucent Technologies Bell Laboratories, Room 1E-439 700 Mountain Avenue Murray Hill, NJ 07974 ph 908-582-2279 fax 908-582-3972 **ljl@lucent.com**
Earth's magnetic field and the solar wind	Conjugate and High Time Resolution Studies of ULF Waves and Magnetospheric Dynamic Using Ground Based Induction Magnetometers at Four High	South Pole Station (Quiet Sector); McMurdo Station (Arrival Heights)	No deploying team members	Dr. Mark Engebretson Augsburg College Department of Physics 2211 Riverside Avenue Minneapolis, MN 55454 ph 612-330-1067 fax 612-330-1649 **engebret@augsburg.edu** **http://www.augsburg.edu/physics/antindex.htm**

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
	Latitude Manned Sites			
Studies of the magnetosphere	Antarctic Auroral Imaging	Aurora Lab in the Skylab Building	No deploying team members	Dr. Steven Mende University of California, Berkeley Space Sciences Laboratory Berkeley, CA 94720-7450 ph 510-642-0876 fax 510-643-2624 **mende@ssl.berkeley.edu**
Dynamic storm tracking	Global Thunderstorm Activity and its Effects on the Radiation Belts and the Lower Ionosphere	Palmer Station	late February 2002 to early April 2002	Dr. Umran Inan Stanford University STARLab 324 Durand Building MC 9515 Stanford, CA 94305-9515 ph 650-723-4994 fax 650-723-3789 **inan@nova.stanford.edu** **http://www-star.stanford.edu/~palmer/**
Remote observations of the magnetosphere	ELF/VLF Waves at the South Pole	CUSP Lab in Skylab Building	early to mid-December 2001	Dr. Umran Inan Stanford University STARLab 324 Durand Building MC 9515 Stanford, CA 94305-9515 ph 650-723-4994 fax 650-723-9251 **inan@nova.stanford.edu** **http://www-star.stanford.edu/~palmer/**
Ozone depletion	Study of Polar Stratospheric Clouds by LIDAR	Crary Science and Engineering Center (CSEC)	late August 2001 to early October 2001 and late January 2002 to early February 2002	Dr. Alberto Adriani Instituto Fisica Atmosfera Consiglio Nazionale delle Ricerche Via Fosso del Cavaliere, 100 Roma, 00133 Italy ph 039 (649) 934-348 fax 039 (649) 934-291 **adriani@atmos.ifa.rm.cnr.it**
Solar effects on mesosphere and ionosphere	VLF Beacon Transmitter at South Pole	CUSP Lab in Skylab Building	mid-December 2001	Dr. Umran Inan Stanford University Department of Electrical Engineering David Packard Building, Room #355 350 Serra Mall Street Stanford, CA 94305-9515 ph 650-723-4994 fax 650-723-3789 **inan@nova.stanford.edu** **http://www-star.stanford.edu/~vlf/**
Ultra-high-energy	South Pole Air	Dark Sector at	mid-November 2001 to	Dr. Thomas K. Gaisser

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
cosmic rays	Shower Experiment 2 (SPASE-2)	South Pole Station and Science Building under the Dome	late January 2002	University of Delaware Bartol Research Institute Newark, DE 19716 ph 302-831-8113 fax 302-831-1843 **gaisser@bartol.udel.edu** **http://www.bartol.udel.edu/spase/**
Dynamic motion of the atmosphere	High-Latitude Antarctic Mesospheric and Thermospheric Dynamics and Thermodynamics	South Pole (Aurora Lab in Skylab Building); McMurdo Station (Arrival Heights)	South Pole: late January 2002 to early February 2002; McMurdo: late January 2002 to early February 2002	Dr. Gonzalo Hernandez University of Washington Graduate Program in Geophysics Box 351650 202 Atmospheric Sciences Building Seattle, WA 98195-1650 ph 206-543-9055 fax 206-685-3815 **hernandez@u.washington.edu**
Upper atmospheric processes	Riometry in Antarctica and Conjugate Regions	South Pole Station (CUSP Lab in Skylab); McMurdo Station (Arrival Heights)	South Pole: mid-January 2002; McMurdo: mid-January 2002 to late January 2002.	Dr. Theodore Rosenberg University of Maryland at College Park Institute for Physical Science and Technology Computer and Space Sciences Building College Park, MD 20742-2431 ph 301-405-4895 fax 301-314-9363 **rosenberg@uarc.umd.edu** **http://www.polar.umd.edu/**
Data acquisition from automatic geophysical observations (AGOs)	Polar Experiment Network for Geophysical Upper-Atmospheric Investigations (PENGUIn)	AGO Sites 1-6	No deploying team members	Dr. Theodore Rosenberg University of Maryland at College Park Institute for Physical Science and Technology Computer and Space Sciences Building College Park, MD 20742-2431 ph 301-405-4895 fax 301-314-9363 **rosenberg@uarc.umd.edu** **http://www.polar.umd.edu/ago.html**
Auroral observations	All-Sky Imager	Aurora Lab in Skylab Building	early November 2002 for approximately one week	Dr. Masaki Ejiri National Institute of Polar Research 1-9-10 Kaga, Itabashi-ku Japan ph (+81) 3-3963-4791 fax (+81) 3-3962-4862 **ejiri@nipr.ac.jp**
Antarctic cosmic ray observations	Solar and Heliospheric	CosRay Laboratory in Skylab Building	CosRay Laboratory - late December 2001 to	Dr. John W. Bieber University of Delaware

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
	Studies with Antarctic Cosmic Ray Observations	(South Pole); CosRay Facility (McMurdo)	early January 2002; CosRay Facility - mid-January 2002 to late January 2002	Bartol Research Institute 217 Sharp Laboratory Newark, DE 19716 ph 302-831-2240 fax 302-831-1843 **john@bartol.udel.edu** **http://www.bartol.udel.edu/~neutronm/**
Ionosphere currents, planetary waves, atmospheric tides	Effects of Solar Disturbances During the 2000-2002 Solar-Max Period on the Antarctic Mesosphere-Lower-Thermosphere (MLT) and F Regions	Aurora Lab in the Skylab Facility; Atmospheric Research Observatory (ARO)	Late December 2001 to early January 2002	Dr. Gulamabas Sivjee Emry-Riddle Aeronautical University Space Physics Research Laboratory 600 S. Clyde Morris Blvd. Daytona Beach, FL 32114-3900 ph 386-226-6711 fax 386-226-6713 **sivjee@db.erau.edu** **www.sprl.db.erau.edu**
Ozone depletion in the Antarctic stratosphere	In Situ Measurements of Polar Stratospheric Clouds Spanning the Austral Winter, and of Ozone from Late Winter to Early Spring	Ross Ice Shelf, Crary Science and Engineering Center (CSEC)	late August 2001 to early November 2001 AND early February 2002 to mid-February 2002	Dr. Terry Deshler University of Wyoming Department of Atmospheric Sciences Laramie, WY 82071-3038 ph 307-766-2006 fax 307-766-2635 **deshler@uwyo.edu**
Mesosphere and lower thermosphere dynamics	Dynamics of the MLT Region using Ground-Based Radar and TIMED Instruments	downwind of the South Pole Station	late November 2001 to early December 2001 and early January 2002 to late January 2002	Dr. Susan Avery University of Colorado CIRES Campus Box 216 Boulder, CO 80309-0216 ph 303-492-8773 fax 303-492-1149 **susan.avery@colorado.edu**

Biology and Medicine

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
Administration	McMurdo Dry Valleys: A Cold Desert Ecosystem Long-term Ecological Research (LTER)	McMurdo Dry Valleys, Crary Science and Engineering Center (CSEC)	early October 2001 to mid-February 2002	Dr. W. Berry Lyons The Ohio State University Byrd Polar Research Center 1090 Carmack Road, 108 Scott Hall Columbus, OH 43210-1002 ph 614-688-3241 fax 614-292-4697 **lyons.142@osu.edu** **http://huey.colorado.edu/LTER**
Paleoclimatology, paleoecology, and meteorological data collection	McMurdo Dry Valleys: A Cold Desert Ecosystem Long-term Ecological Research (LTER)	McMurdo Dry Valleys, Crary Science and Engineering Center (CSEC)	early October 2001 to mid-February 2002	Dr. Peter Doran University of Illinois at ChicagoDepartment of Earth and Environmental Sciences 845 W. Taylor Street, MC 186 Chicago, IL 60607-7059 ph 312-413-7275 fax 312-413-2279 **pdoran@uic.edu** **http://huey.colorado.edu/LTER**
Glacier mass balance, melt, and energy balance	McMurdo Dry Valleys: A Cold Desert Ecosystem Long-term Ecological Research (LTER)	McMurdo Dry Valleys, Crary Science and Engineering Center (CSEC)	early October 2001 to mid-February 2002	Dr. Andrew Fountain Portland State University Department of Geology Portland, OR 97207 ph 503-725-3386 fax 503-725-3025 **fountaina@pdx.edu** **http://huey.colorado.edu**
Chemistry of streams, lakes, and glaciers	McMurdo Dry Valleys: A Cold Desert Ecosystem Long-term Ecological Research (LTER)	McMurdo Dry Valleys, Crary Science and Engineering Center (CSEC)	early October 2001 to mid-February 2002	Dr. W. Berry Lyons (Project Manager) The Ohio State University Byrd Polar Research Center 1090 Carmack Road, 108 Scott Hall Columbus, OH 43210-1002 ph 614-688-3241 fax 614-292-4697 **lyons.142@osu.edu** **http://huey.colorado.edu/**
Flow, sediment transport, and productivity of streams	McMurdo Dry Valleys: A Cold Desert Ecosystem Long-term Ecological Research (LTER)	McMurdo Dry Valleys, Crary Science and Engineering Center (CSEC)	early October 2001 to mid-February 2002	Dr. Diane McKnight University of Colorado, INSTAAR 1560 30th Street Boulder, CO 80209 ph 303-492-4687 fax 303-492-6388 **diane.mcknight@colorado.edu** **http://huey.colorado.edu**
Lake pelagic and benthic productivity and microbial food webs	McMurdo Dry Valleys: A Cold Desert Ecosystem Long-term Ecological Research (LTER)	McMurdo Dry Valleys, Crary Science and Engineering Center (CSEC)	early October 2001 to mid-February 2002	Dr. John Priscu Montana State University Department of Biology 310 Lewis Hall Bozeman, MT 59717 ph 406-994-3250 fax 406-994-5863 **ubijp@montana.edu** **http://huey.colorado.edu/LTER**
Soil productivity	McMurdo Dry Valleys: A Cold	McMurdo Dry Valleys, Crary	early October 2001 to mid-February 2002	Dr. Ross A. Virginia Dartmouth College

Environmental Monitoring

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
Tracking pollution	Spatial and Temporal Scales of Human Disturbance	Cape Bird, Pegasis ice runway, Black Island, Strand Moraines, Marble Point, McMurdo Station, Winter Quarters Bay, Hut Point, sewage outfall, Crary Science and Engineering Center (CSEC)	mid-November 2001 to mid- December 2001	Dr. Mahlon C. Kennicutt, II Texas A&M University Geochemical and Environmental Research Group 833 Graham Road College Station, TX 77845 ph 409-862-2323, x111 fax 409-862-2361 **mck2@gerg.tamu.edu** **http://www.gerg.tamu.edu**

Geology and Geophysics

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
Crustal uplift	GPS Measurement of Isostatic Rebound and Tectonic Deformation in Marie Byrd Land, West Antarctica	Rockefeller, Phillips, and Clark Mountains	early November 2001 to late November 2001 and late December 2001 to mid-January 2002	Dr. Bruce P. Luyendyk University of California, Santa Barbara Department of Geological Sciences 1006 Webb Hall Santa Barbara, CA 93106-9630 ph 805-893-2827 fax 805-893-2314 **luyendyk@geology.ucsb.edu** **http://geodynamics.jpl.nasa.gov/antarctica**
Topographic studies: Use of LandSat to map McMurdo region; collaboration with NASA Airborne Topographic Mapper Program and ICESat to collect and calibrate high-elevation data in McMurdo region; annual determination of geographic South Pole	2000-2001 Geodesy, Remote Sensing, and Mapping Program	Transantarctic Mountains; South Victoria Land; Ross Island; McMurdo Dry Valleys; Cape Roberts; Royal Society Range; Ross Island; Williams Field; Crary Science and Engineering Center; GSP Observatory in Skylab Building; Palmer Station and Local Islands	McMurdo: early November 2001 to mid-January 2002 South Pole: mid-December 2001 to late-December 2001 Palmer Station: No deploying project personnel	Dr. Jerry Mullins U.S. Geological Survey 521 National Center Reston, VA 20192 ph 703-648-5144 fax 703-648-4165 **jmullins@usgs.gov** TAMDEF: **http://www.bprc.mps.ohio-state.edu/GDG/tamdef.htm** Permanent GPS Observatory: **http://www.scar-ggi.org.au/geodesy/perm_ob/gps/gps.htm** Permanent Tide Guage Observatory: **http://www.scar-ggi.org.au/geodesy/perm_ob/tide/tide.htm** U.S. Antarctic Resource Center: **http://usarc.usgs.gov/** Antarctic Atlas: **http://usarc.usgs.gov/antarctic_atlas/**

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
Geologic indicators of past climate	Stability of land surfaces in the Dry Valleys: Insights Based on the Dynamics of Sub-Surface Ice and Sand-Wedge Polygons	Cape Evans, Beacon Valley, Wright Valley, Taylor Valley, Victoria Valley, Cape Hobbs, Crary Science and Engineering Center (CSEC)	late November 2001 to mid-January 2002	Dr. Bernard Hallet University of Washington Quaternary Research Center Box 351360, 19 Johnson Hall Seattle, WA 98195 ph 206-543-1166 fax 206-543-3836 **hallet@u.washington.edu** **http://depts.washington.edu/qrc/research/research.html**
Recovery of meteorites from Transantarctic Mountains	The Antarctic Search for Meteorites ANSMET	Meteorite Hills and Finger Ridge, above the Hillary Coast	mid- November 2001 to late January 2002	Dr. Ralph Harvey Case Western Reserve University Geology Department 112 A. W. Smith 10900 Euclid Ave. Cleveland, OH 44106-7216 ph 216-368-0198 fax 216-368-3691 **rph@po.cwru.edu** **http://www.cwru.edu/affil/ansmet**
Thermochronology, uplift and denudation	Tracking the West Antarctic Rift Flank	Reedy Glacier area	late November 2001 to early January 2002	Dr. Paul Fitzgerald Syracuse University Department of Earth Sciences 204 Heroy Geology Laboratory Syracuse, NY 13244-1070 ph 315-443-2619 fax 315-443-3363 **pgfitzge@syr.edu**
Vertebrate paleontology	Evolution and Biogeography of Late Cretaceous Vertebrates from the James Ross Basin, Antarctic Peninsula	Antarcti Peninsula Region: Cape Lamb and False Island Point on Vega Island	mid-January 2002 to mid-February 2002	Dr. Judd Case St. Mary's College of California Department of Biology 1928 St. Mary's Road, P.O. Box 4507 Moraga, CA 94575 ph 925-631-4412 fax 925-376-4027 **jcase@stmarys-ca.edu**
Gastropod and bivalve fossils	Global Climate Change and the Evolutionary Ecology of Antarctic Mollusks in the Late Eocene	Seymour Island	early December 2001 to early January 2002	Dr. Richard Aronson Dauphin Island Sea Lab 101 Bienville Boulevard Dauphin Island, AL 36528 ph 334-861-7567 fax 334-861-7540 **raronson@jaguar1.usouthal.edu**
Low noise seismic data	Dry Valleys Seismic Project	Dry Valleys, McMurdo Station, Scott Base	mid-October 2001 to late January 2002	Dr. Martin Dougherty Science Applications International Corporation 1227 South Patrick Drive, Suite 110 Satellite Beach, FL 32937 ph 321-779-6055

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
				med@satb.saic.com
Magma conduit convection	Mount Erebus Volcano Observatory: Gas emissions and seismic studies	Mount Erebus, Seismic Stations on Erebus, Fang Glacier, South Pole; Crary Science and Engineering Center (CSEC)	mid-November 2001 to late December 2001	Dr. Philip R. Kyle New Mexico Institute of Mining and Technology Department of Earth & Environmental Science 801 Leroy Place Socorro, NM 87801-4796 ph 505-835-5995 fax 505-835-6436 **kyle@nmt.edu** **http://www.ees.nmt.edu/geop/mevomm/mevomm.html**
Geology of the continental shelves	Late Pleistocene to Holocene Glacial History of West Antarctica	Drake Passage to Weddell Sea (Antarctic Peninsula Region)	Cruise NBP02-01 Departs: Punta Arenas, Chile, 18 January 2002 Arrives: Punta Arenas, Chile, 04 March 2002.	Dr. John Anderson Rice University Earth Science Department MS-126, 6100 S. Main Houston, TX 77251-1892 ph (713) 348-4884 fax (713) 348-5214 **johna@geophysics.rice.edu**
Tectonic and ice-induced bedrock movement	A GPS Network to Determine Crustal motions in the Bedrock of the West Antarctic Ice Sheet: Phase I - Installation	South Pole Station, Dufek Massif, Mount Howe, Pecora Escarpment, Whichaway Nunataks	early January 2002 to early February 2002	Dr. Ian Dalziel University of Texas, Austin Institute for Geophysics 4412 Spicewood Springs Road, Building 600 Austin, TX 78759-8500 ph (512) 471-0431 fax (512 475-6338 **ian@ig.utexas.edu**
Transantarctic Mountains seismography	A Broadband Seismic Experiment to Investigate Deep Continental Structure Across the East-West Antarctic Boundary	Ross Island, McMurdo Dry Valleys, Transantarctic Mountains, East Antarctic Polar Plateau	late October 2001 to late December 2001 AND early January 2002 to early February 2002	Dr. Douglas Weins Washington University Earth and Planetary Sciences Wilson Hall, Room 108 St. Louis, MO 63130-4899 ph 314-935-6517 fax 314-935-7361 **doug@kermadec.wustl.edu** **http://epsc.wustl.edu/seismology/TAMSEIS/**
Data acquisition	Global Seismograph Station at Palmer Station, Antarctica	Palmer Station	early November 2001 to mid-December 2001 and early January 2002 to early February 2002	Dr. Rhett Butler Incorporated Research Institutions for Seismology 1200 New York Avenue, Suite 800 Washington, DC 20015 ph 202-682-2220 fax 202-682-2444 **rhett@iris.edu**
Seismographic data	Global Seismograph Network at Palmer and South Pole Stations	Palmer Station, Quiet Sector at South Pole	early November 2001 to mid-December 2001 and early January 2002 to early February 2002	Dr. Rhett Butler Incorporated Research Institutions for Seismology 1200 New York Avenue, Suite 800 Washington, DC 20005

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
				ph 202-682-2220 fax 202-682-2444 **rhett@iris.edu**
Reliability of photonic dating	Development of a Luminescence Dating Capability for Antarctic Glaciomarine Sediments: Tests of Signal Zeroing at the Antarctic Peninsula	Brialmont Cove, Andvord Bay, Lallemand Fjord, Admiralty Bay	Cruise NBP01-07 Departs: Punta Arenas Chile, 5 December 2001 Arrives: Punta Arenas, Chile, 13 January 2002	Dr. Glenn Berger Desert Research Institute Earth and Ecosystem Sciences 2215 Raggio Parkway Reno, NV 89512-1095 ph (775) 673-7354 fax (775) 674-7557 **gwberger@dri.edu**
Gondwanaland deposition	Permian-Triassic Basin History of Southern Victoria Land and the Darwin Mountains	Transantarctic Mountains, Southern Victoria Land	early November 2001 to early January 2002	Dr. John Isbell University of Wisconsin, Milwaukee Department of Geosciences P.O. Box 413 Lapham Hall, Room 366 3209 N. Maryland Avenue Milwaukee, WI 53201 ph 414-229-2877 fax 414-229-5452 **jisbell@uwm.edu** **http://www.uwm.edu/~jisbell/Darwin/Darwin.html**
Seismotectonics	Study of the Tectonics and Structure of the Antarctic Peninsula and Scotia Plate	Chilean Bases in the Antarctic Peninsula region: Frie Base, King George Island; Prat Base, Greenwich Island; O'Higgins Base, Antarctic Peninsula	Mid-November 2001 to early December 2001	Dr. Douglas Wiens Washington University Department of Earth and Planetary Sciences Wilson Hall, Room 108 St. Louis, MO 63130 ph 314-935-5617 fax 314-935-7361 **doug@kermadec.wustl.edu** **http://epsc.wustl.edu/seismology/Sepa/sepa.html**
Crust buoyancy and plate boundary forces	Antarctic Stress Map Project Phase 1: Neogene-Quaternary Volcanic Alignments in the Transantarctic Mountains/Ross Sea Region	Ross Island, Southern Victoria Land, Central Victoria Land	late November 2001 to late December 2001	Dr. Terry Wilson University of Wisconsin Oshkosh Department of Geology 800 Algoma Blvd. Oshkosh, WI 54901 ph 920-424-7002 fax 920-424-0240 **paulsen@uwosh.edu**
Fluctuations of ice sheets	Relative Frequency and Phase of Extreme Expansions of the Antarctic Ice Sheets During the Late	outer Antarctic continental shelf region	Cruise NBP02-01 Departs: Punta Arenas, Chile, 18 January 2002 Arrives: Punta Arenas, Chile, 04 March 2002	Dr. Philip Bart Lousiana State University Baton Rouge Department of Geology and Geophysics Howe Russell Geoscience Complex E235 Baton Rouge, LA 70803

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
	Neogene			ph 225-578-3109 fax 225-578-2302 **pbart@geol.lsu.edu**
Glaciology	Advanced Technology for Radar Sounding of Polar Ice (ATRS)	Williams Field, Onset D Camp, South Pole Station	late October 2001 to mid-January 2002	Dr. David Morse University of Texas, Austin Institute of Geophysics 4412 Spicewood Springs Road Building 600 Austin, TX 78759-8500 **morse@ig.utexas.edu**
Marine records of environmental change	A Target for High-Resolution Quaternary and Older Environmental Change Records: Site Survey for Drilling Mackay Sea Valley, Western Ross Sea	Granite Harbor	early February 2002 to late February 2002	Dr. Ross Powell Northern Illinois University Department of Geology & Environmental Geosciences 312 David Hall, Normal Rd. DeKalb, IL 60115 ph 815-753-7952 fax 815-753-1945 **ross@geol.niu.edu**
Seismology	Antarctic Network of Unattended Broadband Integrated Seismometers (ANUBIS)	Byrd Surface Camp, Siple Dome Camp, Central West Antarctica, Marie Byrd Land, Ice Stream D	late October 2001 to mid-December 2001	Dr. Sridhar Anandakirshnan University of Alabama Geology Box 870338 Tuscaloosa, AL 35487-0338 ph 205-348-9097 fax 205-348-0818 **sak@geo.ua.edu** **http://ice.geo.ua.edu/~sak/Anubis**
Sediment transport by wind	Aeolian Processes in the McMurdo Dry Valleys, Antarctica	McMurdo Dry Valleys	late December 2001 to early February 2002	Dr. Nicholas Lancaster Desert Research Institute Earth & Ecosystem Sciences 2215 Raggio Parkway Reno, NV 89512 ph 775-673-7304 fax 775-674-7557 **nick@dri.edu**
Mesozoic break-up of Gondwanaland	Ferrar Basaltic Tuff-Breccias Formed by Direct Eruption: Evaluating a Hypothesis	Mount Dearborn, Allan Hills, Carapace Nunatak	early November 2001 to mid-December 2001	Dr. David Elliot Ohio State University Geological Sciences 125 S. Oval Columbus, OH 43210 **elliot.1@osu.edu**
Year-round support	University NAVSTAR Consortium (UNAVCO) GPS Survey Support	Various field locations; Crary Science and Engineering Center (CSEC)	mid-October 2001 to late January 2002	Mr. Bjorn Johns UNAVCO 3340 Mitchell Lane Boulder, CO 80301 ph 303-497-8034 fax 303-497-8028 **bjorn@unavco.ucar.edu**

Glaciology

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
Ice flow models	History and Evolution of the Siple Coast Ice Stream System as Recorded by Shear Margin Scars	Upstream C Camp, Downstream Ridge B/C, Siple Dome	late December 2001 to early February 2002	Dr. Charles Raymond University of Washington Geophysics Program Box 351650 Seattle, WA 98195-1650 ph 206-543-4914 fax 206-543-0489 **charlie@geophys.washington.edu**
Temperature profiling, vertical strain rates, digital thermometer testing	High-precision Borehole Temperature Measurements at Siple Dome, Antarctica, for Paleoclimate Reconstruction and Ice-Dynamics Studies	Siple Dome region	early December 2001 to mid-January 2001	Dr. Edwin Waddington University of Washingotn Geophysics Program Box 351650 Seattle, WA 98195-1650 ph 206-543-4585 fax 206-543-0489 **edw@geophys.washington.edu**
Optical device to detect bacteria in liquid veins	Construction and Operation of a Biospectrologger in a Borehole in Polar Ice	Siple Dome region	late December 2001 to mid-January 2002	Dr. Buford Price University of California, Berkeley Physics Department Berkeley, CA 94720-7300 ph (510) 642-4982 fax (510) 643-8497 **bprice@uclink4.berkeley.edu**
Vertical ice flow dynamics	Ice Dynamics, the Flow Law, and Vertical Strain at Siple Dome	Siple Dome field camp area	late December 2001 to mid-January 2002	Dr. William Harrison University of Alaska, Fairbanks Geophysics Institute 9030 Koyukyk Drive P.O. Box 757320 Fairbanks, AK 99775-7320 ph 907-474-7706 fax 907-474-7290 **harrison@gi.alaska.edu**
Tracking a recently calved large iceberg	Iceberg Drift in the Near-Shelf Environment: Ross Ice Shelf, Antarctica	Icebergs B-15a and C16 on the Ross Sea	early December 2001 to early February 2002	Dr. Douglas MacAyeal University of Chicago Department of Geophysical Sciences 5734 S. Ellis Avenue Chicago, IL 60637 ph 773-702-8027 fax 773-702-9505 **drm7@midway.uchicago.edu** **http://uwamrc.ssec.wisc.edu/amrc/iceberg.html**
Stability of the marine West Antarctic Ice Sheet	Deglacial Chronology of the Northern Scott Coast from Relative Sea-	Scott Coast, Southern Borchgrevnik Coast (Terra Nova Bay region)	late December 2001 to mid-February 2002	Dr. Brenda Hall University of Maine Institute for Quarternary/Climate Studies and Department of Geological Sciences

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
	Level Curves			311 Bryand Global Science Center Orono, ME 04469-5790 ph 207-581-2191 fax 207-581-1203 **brendah@maine.edu**
Streams that drain the West Antarctic Ice Sheet	Characterizing the Onset of Ice Stream Flow: A Ground Geophysical Field Program	Onset D Camp, Ice Stream D, Marie Byrd Land	late October 2001 to late January 2002	Dr. Sridhar Anandakrishnan University of Alabama, Tuscaloosa Geology Box 870338 Tuscaloosa, AL 35487-0338 ph 205-348-9097 fax 205-348-0818 **sak@geo.ua.edu**
Configuration and activity of the West Antarctic Ice Sheet drainage system	Glacial History of Ridge AB	Ridge A/B, Siple Coast	late November 2001 to early February 2002	Dr. Howard B. Conway University of Washington Department of Geophysics Box 351650 Seattle, WA 98195-1650 **conway@geophys.washington.edu**
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Science Management for the United States Component of ITASE	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Paul Mayewski Climate Studies Center Institute for Quaternary and Climate Studies Bryand Global Sciences Center University of Maine Orono, ME 04469-5790 ph 207-581-3019 fax 207-581-1203 **paul.mayewski@maine.edu**
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Radar Studies of Internal Stratigraphy and Bedrock Topography along the U.S. ITASE Traverse	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Dr. Robert Jacobel St. Olaf College 1520 St. Olaf Ave. Northfield, MN 55057 ph 507-646-3142 fax 507-646-3968 **jacobel@stolaf.edu** **http://www/stolaf.edu/other/cegsic/itase**
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Glaciochemistry	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Paul Mayewski Climate Studies Center Institute for Quaternary and Climate Studies Bryand Global Sciences Center University of Maine Orono, ME 04469-5790 ph 207-581-3019 fax 207-581-1203 **paul.mayewski@maine.edu**
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Snow and Firn Microstructure and Transport Properties	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Dr. Mary Albert Cold Regions Research and Engineering Laboratory Geophysical Sciences Division 72 Lyme Road

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
				Hanover, NH 03755-1290 ph 603-646-4422 fax 603-646-4278 **malbert@crrel.usace.army.mil**
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Hydrogen Peroxide, Formaldehyde, and Sub-annual Snow Accumulation in West Antarctica: Participation in West Antarctic Traverse	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Dr. Roger Bales University of Arizona Department of Hydrology and Water Resources P.O. Box 21011 Tucson, AZ 85721-0011 ph 520-621-7113 fax 520-621-1422 **roger@hwr.arizona.edu** **http://www.hwr.arizona.edu/roger/**
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Mass Balance and Accumulation Rate Along U.S. ITASE Routes	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Dr. Gordon Hamilton University of Maine Climate Studies Center 303 Global Sciences Orono, ME 04469-5790 ph 207-581-3446 **gordon.hamilton@maine.edu**

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Stable Isotope Studies at West Antarctic Sites	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Dr. Eric Steig University of Washington Department of Earth and Space Sciences Box 351310, 63 Johnson Hall Seattle, WA 98195-1310 ph 206-685-3715 fax 206-543-3836 **esteig@sas.upenn.edu** **http://depts.washington.edu/~isolab/** Dr. James White University of Colorado - Boulder Institute of Arctic and Alpine Research Campus Box 450 Boulder, CO 80309 ph 303-492-5494 fax 303-492-6388 **jwhite@spot.colorado.edu** Dr. Christopher Shuman University of Maryland Earth System Science Interdisciplinary Center 2104 Computer and Space Sciences Building College Park, MD 20742-2465 ph 301-405-8291 fax 301-405-8468
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Physical Properties of the U.S. ITASE Ice Cores	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Dr. Debra Meese Cold Regions Research and Engineering Lab (CRREL) 72 Lyme Road Hanover, NH 03755-1290 ph 603-646-4594 fax 603-646-4644 **dmeese@crrel.usace.army.mil**
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	Deposition of the HFC Degradation Product Trifluoroacetate in Antarctic Snow and Ice	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Dr. Joseph McConnell Desert Research Institute Division of Hydrologic Sciences 2215 Raggio Parkway Reno, NV 89512-1095 ph 775-673-7348 fax 775-673-7363 **sarcone@crl02.crrel.usace.army.mil** **http://www.usitase.sr.unh.edu**
U.S. International Trans-Antarctic Scientific Expedition (ITASE)	High Resolution Radar Profiling of the Snow and Ice Stratigraphy beneath the ITASE Traverses, West	Byrd Surface Camp (BSC), Marie Byrd Land	late October 2001 to mid-January 2002	Dr. Stephen Arcone Cold Regions Research and Engineering Lab (CRREL) 72 Lyme Road Hanover, NH 03755-1290 ph 603-646-4368 fax 603-646-4644

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
	Antarctic Ice Sheet			**sarcone@crl02.crrel.usace.army.mil** **http://www.usitase.sr.unh.edu**

Ocean Sciences and Climate Systems

Subject	***Investigation***	***Locality***	***Duration***	***Principal Investigator(s)***
Deep water and climate change	CORC-Arches	Weddell Sea	Cruise NBP01-06 Departs: Punta Arenas, Chile, on 9 November 2001 Arrives: Punta Arenas, Chile, on 1 December 2001	Dr. Martin Visbeck Columbia University Lamont-Doherty Earth Observatory 61 Rt. 9W Palisades, NY 10964-8000 ph 845-365-8531 **visbeck@ideo.columbia.edu**
infared radiation processes at the South Pole	Longwave Radiation Processes on the Antarctic Plateau	Boundary of the Clean Air Sector, Atmospheric Research Observatory (ARO)	late October 2001 to mid-November 2001 (*Note:* Two team members have been on site during the 2001 austral winter season)	Dr. Stephen Warren University of Washington Department of Atmospheric Sciences Box 351640 Seattle, WA 98195-1640 ph 206-543-7230 fax 206-543-0308 **sgw@atmos.washington.edu**
Operational synoptic forecasting	Antarctic Meteorological Research Center (AMRC)	Crary Science and Engineering Center (CSEC); Mac Weather	late December 2001 to late January 2002	Dr. Charles Stearns University of Wisconsin, Madison Space Science and Engineering Center/AMRC 901 Atmospheric, Oceanic and Space Science Building 1225 West Dayton Street Madison, WI 53706 ph 608-262-0780 fax 608-263-6738 **chucks@ssec.wisc.edu** **http://uwamrc.ssec.wisc.edu**
Concentration of oxygen and carbon dioxide in air	A Study of Atmospheric Oxygen Variability in Relation to Annual to Decadal Variations in Terrestrial and Marine Ecosystems	Palmer Station	No deploying team members	Dr. Ralph Keeling University of California, San Diego Scripps Institution of Oceanography 9500 Gilman Drive La Jolla, CA 92093-0244 ph 858-534-7582 fax 858-534-2997 **rkeeling@ucsd.edu**
Dissolved and total carbon dioxide measurements	Mesoscale, Seasonal, and Inter-annual Variability of Surface-Water Carbon Dioxide in the Drake Passage	Measurements will be taken on both USAP research vessels	2001-2002 season	Dr. Taro Takahashi Columbia University Lamont-Doherty Earth Observatory 210 Geoscience, Route 9W Palisades, NY 10964-8000 ph 914-365-8537 fax 914-365-2312 **taka@ideo.columbia.edu**
Hydrogen budget	Isotopic Measurements of Atmospheric H_2	Cruise track of the USCG Icebreaker *Polar Star*, starting at Seattle, Washington, going to Hobart, Australia, and then to	early November 2001 to late December 2001	Dr. Paul Quay University of Washington School of Oceanography Box 355351 Seattle, WA 98195-5351 ph 206-685-8061 fax 206-685-3351

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
		McMurdo Station, Antarctica		**pdquay@u.washington.edu**
Clouds, condensation particles, and climatology	Measurements of Size, Shape, Scattering Phase Function, and Extinction Coefficient of Ice Crystals at South Pole Station	Atmospheric Research Observatory (ARO) and edge of Clean Air Boundary	mid-January 2002 to early February 2002	Dr. Paul Lawson SPEC, Inc. 5401 Western Avenue Suite B Boulder, CO 80301 ph 303-449-1105 fax 303-449-0132 **plawson@specinc.com**
Concentrations of atmospheric constituents	South Pole Monitoring for Climatic Change - U.S. Department of Commerce NOAA Climate Monitoring and Diagnostic Laboratory	Atmospheric Research Observatory (ARO), Balloon Inflation Facility (BIF)	late October 2001 to late January 2002 and the 2002 austral-winter season	Dr. Dave Hofmann National Oceanic and Atmospheric Administration (NOAA) Climate Monitoring and Diagnostics Laboratory (CMDL) 325 Broadway R/CMDL Boulder, CO 80303-3328 ph 303-497-6966 fax 303-497-6675 **dhofmann@cmdl.noaa.gov** **http://www.cmdl.noaa.gov**
Fluctuations in the Antarctic circumpolar current	Drake Passage XBT Program	XBT sampling is planned on selected R/V *Laurence M. Gould* cruises within the Drake Passage	2001-2002 season	Dr. Janet Sprintall University of California, San Diego Scripps Institution of Oceanography 9500 Gilman Drive La Jolla, CA 92093-0230 ph 858-534-1872 fax 858-534-0704 **jsprintall@ucsd.edu**
Long-term measurements of trace atmospheric constituents that influence climate and the ozone layer	Collection of Atmospheric Air for the NOAA/CMDL Worldwide Flask Sampling Network	Palmer Station	No deploying team members	Dr. Dave Hofmann National Oceanic and Atmospheric Administration (NOAA) Climate Monitoring and Diagnostics Laboratory (CMDL) 325 Broadway R/CMDL Boulder, CO 80303-3328 ph 303-497-6966 fax 303-497-6975 **dhofmann@cmdl.noaa.gov** **http://www.cmdl.noaa.gov**
Anthropogenic atmospheric radionuclides	University of Miami/Department of Energy-Environmental Measurements Laboratory Remote Atmospheric Measurements Program (RAMP)	Palmer Station	No deploying project personnel	Dr. Colin Sanderson U.S. Department of Energy Environmental Measurements Laboratory 20 Varick Street, 5th Floor New York, NY 10014-4811 ph 212-620-3642 fax 212-620-3600 **colin.sanderson@eml.doe.gov**
Maintenance and augmentation of	Antarctic Automatic Weather Station	McMurdo: Automatic Weather Stations in	McMurdo: late December 2001 to	Dr. Charles Stearns University of Wisconsin, Madison

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
weather stations	(AMS)	the McMurdo, Ross Sea, and Ross Ice Shelf regions. South Pole: Henry and Nico AWS Sites Palmer: AWSs in the Palmer Station vicinity (Bonaparte Point, Hugo Island, and Racer Rock)	early February 2002 South Pole: early January 2002 to late January 2002 Palmer: No deploying project personnel	Space Science and Engineering Center/AMRC 901 Atmospheric, Oceanic and Space Science Building 1225 West Dayton Street Madison, WI 53706 ph 608-262-0780 fax 608-263-6738 **chucks@ssec.wisc.edu** **http://uwamrc.ssec.wisc.edu/aws**
Phytoplankton carbon uptake in response to iron leading	Does Iron Fertilization Lead to Enhanced Carbon Sequestration?	USCG Icebreaker *Polar Star*	early February 2002 to mid-February 2002	Dr. Ken Buessler Woods Hole Oceanographic Institution Marine Chemistry and Geochemistry Clark 4, MS 25 266 Woods Hole Rd. Woods Hole, MA 02543
Human impact on Antarctic environment	Measurement of Combustion Effluent Carbonaceous Aerosols in the McMurdo Dry Valleys	Lake Hoare and Lake Bonny in Taylor Valley	mid- November 2001 to early December 2001	Dr. Anthony Hansen Magee Scientific Co. 1829 Francisco Street Berkeley, CA 94703-1312 ph 510-845-2801 fax 510-845-7137 **tonyhansen@mageesci.com** **http://www.mageesci.com/researchreports**
Upper ocean currents in the Drake Passage	Shipboard Acoustic Doppler Current Profiling (ADCP) on R/V *Nathaniel B. Palmer* and R/V *Laurence M. Gould*	Measurements will be taken on all cruise tracks of both USAP research vessels	2001-2002 season	Dr. Theresa Chereskin University of California, San Diego Scripps Institution of Oceanography 9500 Gilman Drive, Mail Stop 0230 La Jolla, CA 92093-0230 ph 858-534-6368 **tchereskin@ucsd.edu**
Effect of wind, ocean waves, and temperature on sea ice cover	Field Experiments and Modeling of the Breakup of Antarctic Sea Ice	McMurdo Sound sea ice, Crary Science and Engineering Center (CSEC)	mid-October 2001 to early December 2001	Dr. John Dempsey Clarkson University Department of Civil and Environmental Engineering 204B Rowley Laboratories, P.O. Box 5710 8 Clarkson Avenue Potsdam, NY 13699-5710 ph 315-268-6517 fax 315-268-7636 **john@clarkson.edu**
Hydrogen peroxide, formaldehyde, and nitric acid concentrations	Record of Atmospheric Photochemistry in Firn at the South Pole	Clean Air Sector	No deploying project personnel	Dr. Joseph McConnell Desert Research Institute 2215 Raggio Parkway Reno, NV 89512-1095 ph 775-673-7348 fax 775-673-7363

Subject	*Investigation*	*Locality*	*Duration*	*Principal Investigator(s)*
				jmcconn@dri.edu