

**MCMURDO AREA USERS'
COMMITTEE
(MAUC)
MEETING**

**25-26 MAY 2000
ARLINGTON, VIRGINIA**

MCMURDO AREA USERS' COMMITTEE MEETING

Distribution List

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1. Raytheon Flow Charts
2. OPP FY 2001 Budget Request
3. Basler Turbo BT 67
4. USP Electronic Support Planner
5. Recommendations May 17-18, 1999
6. Year-Round Access to the McMurdo Region: Opportunities for Science & Education
7. FY99 USAP Research Support Facilities Survey Report
8. McMurdo Area Users' Committee Capital Equipment List
9. 2000 – 2001 On-Continent LC-130 Tempo by Science Project
10. USAP Fleet Management Plan
11. USAP Light Snow Vehicle Overview
12. Alternative Methods for Making Remote Dive Holes in McMurdo Sound
13. McMurdo-Based Research Support Prospectus on the Web
14. McMurdo Area WAN Functional Requirements
15. USAP Field Site Wireless Communications Briefing
16. McMurdo Local E-Mail Access
17. USAP IT Security Measures for 00/01 Season
18. USAP McMurdo Network Upgrade Briefing
19. USAP 99/00 Season After-Action Report on Iridium Mobile SAT COM Utilization
20. USAP Station Weather Data
21. Science Support Complex
22. SPSE/SM Construction Plan
23. USAP Dry Valleys Upgrades
24. McMurdo Area Users' Committee Members List

Executive Summary

Another successful and informational McMurdo Area Users' Committee meeting was achieved on 25-26 May 2000. This meeting, and the attached proceedings, provide pertinent information concerning support for all science projects based from McMurdo Station. The Committee membership composition is established to provide discipline-specific user representation for all science projects utilizing the McMurdo support infrastructure for their research.

The topics covered at this meeting were broad in scope and a final, comprehensive plan for improvement is often complicated. Through the McMurdo Area Users' Committee meetings, RPS attempts to acquire investigator's views and comments on suggested refinements. These comments and suggestions are then reviewed with the NSF/OPP for further direction.

A review of the minutes and associated appendices will reveal the scope of the meeting. Associated action items were developed to address specific topics discussed. Major areas of focus during the May 2000 meeting were 1) upgrades and replacement of vehicle fleet; 2) advanced telecommunications for a 200-mile McMurdo radius; 3) deep field air support provided by the Air Guard; 4) proposed research projects in remote areas during the winter; 5) alternatives to Iridium satellite communications; and 6) meteorological data.

The two priority action items selected by the Committee to be addressed by RPS are:

1. Complete and allow the committee to review and comment on a McMurdo area (200 mile radius) communications feasibility study, and
2. Assess the need for and plan the replacement of Tucker-like vehicles.

AGENDA

McMurdo Area Users' Committee

25 – 26 May 2000

National Science Foundation

Arlington VA 22230

24 MAY 2000 EXECUTIVE COMMITTEE SESSION

DAY ONE, 25 MAY 2000

8:00-8:30	COFFEE AND BAGELS	
8:30-10:15	OPENING Welcome and Introductions State of NSF/OPP RPSC welcome and informal remarks • Introductions of RPSC organization ESP Project status and demonstration	Anandakrishnan, Score Erb Atwood Kish
10:15-10:30	BREAK	
10:30-10:50	REVIEW OF PAST MEETINGS Review/approval of May 1999 Minutes Review/approval of Ad Hoc meeting Minutes Status of Recommendation	Anandakrishnan Score Score
10:50-11:30	GENERAL ISSUES Review of Workshop for Winter Research Status of Extended season for 2000-01 season	Priscu Chiang
11:30-1:00	LUNCH	
1:00-1:30	GENERAL ISSUES (CON'T) FY99 GPRA Results Grantee Specified Capital Equipment	Kottmeier Score
1:30-2:45	FIELD SPECIFIC ISSUES Plans for replacement of Vehicles • Tucker/Snocat • Sprytes • Alpine I/Skandic • Use of tracked ATV's in Deep Field Safety and Mechanical Issues for Vehicles • Survival bags, 100-foot ropes, etc. Remote Dive Holes Construction Down Hole Gamma Device and New Drill	Anandakrishnan Haals Haals S. Dunbar, N. Dunbar S. Dunbar, N. Dunbar S. Dunbar S. Dunbar S. Dunbar Anandakrishnan

2:45-3:00	BREAK	
3:00-5:00	COMMUNICATIONS	
	Prospectus on the Web	Moyher
	Advanced Wireless Communication for McMurdo Area (Within a 200-mile Radius)	Priscu, Lowenstein, Leger
	Remote Data Acquisition	Leger
	McMurdo Internet Access	Joyce
	Local McMurdo Email Accounts	Joyce
	IT Security	Leger
	McMurdo LAN Upgrade	Leger
	Alternatives to Iridium Satellite Communications	Leger
5:00	ADJOURN FOR THE DAY	

DAY TWO, 26 MAY 2000

8:00-8:30	COFFEE AND BAGELS	
8:30-9:00	DATA COLLECTION AND PROCESSING	
	Meteorological Data	Moyher
	<ul style="list-style-type: none"> • Procedure for Requesting • Achieving 	
9:00-9:30	UNAVCO	
	Impact of the recent improvement in GPS	Anandakrishnan
	<ul style="list-style-type: none"> • www.igeb.gov 	
	Feedback on how to improve UNAVCO ops	Anandakrishnan
9:30-10:15	CONSTRUCTION REVIEW	
	Status of Science Support Center	Brier
	Status of SPSM	Brier
	Status of Gravity Base Station Move	Moyher
	Dry Valley Camp Upgrades	S. Dunbar
10:15-10:45	SELECTION OF NEW MEMBERS	
	Matrix of Committee Members to Reflect Current Scientific Mission	Anandakrishnan
10:45-11:00	BREAK	
11:00-Noon	OPEN FORUM	All
Noon	MEETING ADJOURNS	

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Action Items from McMurdo Area Users' Committee

MAY 25-26, 2000

ACTION ITEM 1: THE COMMITTEE MEMBERS WILL REVIEW AND PRIORITIZE ADDITIONS TO THE CAPITAL EQUIPMENT WISH LIST. MEMBERS WILL CANVAS THEIR COMMUNITY AND REPORT TO SRIDHAR ANANDAKRISHNAN BY THE END OF JUNE. SRIDHAR WILL FORWARD THE PRIORITIZED LIST TO ROBBIE SCORE (RPS) BY THE END OF JULY.

ACTION ITEM 2: DENEK KARENTZ (OR HUNTER LENIHAN) WILL CANVAS THE COMMUNITY FOR REQUIREMENTS FOR THE NEW SPRYTE-REPLACEMENT FLEET IN MCMURDO AND REPORT TO BILL HAALS (RPS).

ACTION ITEM 3: STEVE DUNBAR (RPS) WILL CANVAS THE SCIENTIFIC COMMUNITY ON FUTURE NEED FOR TUCKER-LIKE VEHICLES AND REPORT TO THE AD HOC MEETING IN MCMURDO.

ACTION ITEM 4: DRS. BOB LOWENSTEIN AND JOHN PRISCU WILL PRIORITIZE FUNCTIONAL REQUIREMENTS FOR THE MCMURDO WIDE AREA NETWORK (WAN) AND REPORT THEIR FINDINGS TO BOB JUNGK (RPS ENGINEERING MANAGER – INFORMATION TECHNOLOGY), AND PAT SMITH (NSF/OPP TECHNOLOGY DEVELOPMENT MANAGER). THIS WILL ALLOW INTEGRATION OF THE PLANNED WIRELESS COMMUNICATIONS WITH THE CURRENT SYSTEM. DRS. LOWENSTEIN AND PRISCU WILL CANVAS THE COMMUNITY TO DETERMINE WHAT SCIENCE CAN BE DONE REMOTELY, HOW THE SCIENCE WILL BE ENHANCED, AND MOST IMPORTANTLY, AT WHAT COST IMPLICATIONS. THESE REQUIREMENTS SHOULD INCLUDE WHICH INSTRUMENTS WILL BE CONNECTED TO THE WAN AND THE TIMEFRAMES THE INSTRUMENTS WILL BE BROUGHT ON LINE. ROBBIE SCORE (RPS) WILL ADD THIS ITEM TO THE NOVEMBER AD HOC MEETING AGENDA.

ACTION ITEM 5: NELIA DUNBAR WILL SUBMIT TO BOB JUNGK (RPS) COMMUNICATION REQUIREMENTS, INCLUDING ACCEPTABLE LAG TIMES, FOR DEEP FIELD PARTIES AND MOBILE CAMPS.

ACTION ITEM 6: TED SCAMBOS WILL CONTACT ATS (GEORGE HOWARD AND RICK CRUZ) TO FIND OUT WHAT METEOROLOGICAL DATA IS AVAILABLE FROM REMOTE FIELD CAMPS. HE WILL ALSO CANVAS THE COMMUNITY TO SEE WHAT DATA THE COMMUNITY WOULD LIKE TO HAVE AVAILABLE. THIS INFORMATION WILL BE SUBMITTED TO MARIAN MOYHER (RPS).

ACTION ITEM 7: STEVE DUNBAR (RPS) WILL CONTACT NELIA DUNBAR AND BJORN JOHNS (UNAVCO) BEFORE PURCHASING GPS UNITS FOR THE BFC STOCK TO ENSURE THE UNITS WILL MEET GRANTEE REQUIREMENTS.

ACTION ITEM 8: SRIDHAR ANANDAKRISHNAN WILL WORK WITH THE GEOLOGICAL COMMUNITY TO DEVELOP A SCHEDULE THAT WILL ENSURE THE GRAVITY TIE BETWEEN THE NEW AND OLD GRAVITY BASE STATION IS COMPLETED IN THE AVAILABLE TIME FRAME. HIS RPS CONTACT FOR THIS EFFORT WILL BE ROBBIE SCORE. THE SCHEDULE WILL BE PRESENTED TO SCOTT BORG (NSF/OPP GEOLOGY AND GEOPHYSICS PROGRAM MANAGER) FOR REVIEW.

ACTION ITEM 9: DON ATWOOD (RPS) WILL WORK WITH NELIA DUNBAR TO RE-ASSESS THE MAUC CHARTER.

ACTION ITEM 10: ROBBIE SCORE (RPS) WILL DETERMINE THE DATE FOR THE AD HOC MEETING OF THE MAUC IN MCMURDO BY LOOKING AT THE SIP-REQUESTED DATES, SCHEDULING THE MEETING TO MAXIMIZE ATTENDANCE. THE DATE WILL BE COORDINATED WITH SRIDHAR ANANDAKRISHNAN, NELIA DUNBAR, AND JULIE PALAIS (NSF/OPP).

OPENING

Status of Raytheon Polar Services (RPS)

Don Atwood, RPS Director, Science Support, stated that ninety-two percent of the ASA staff was successfully recruited and are now part of the RPS team. RPS is committed to continuing with the McMurdo, Palmer, South Pole, and Vessel Users' Committees. Raytheon is a large company well integrated across the board with a strong Information Technology background. Appendix 1 shows 1) the overall Raytheon organization, 2) how RPS fits into the larger picture, and 3) the RPS McMurdo Science Support staff. Raytheon's business culture allows resources to be easily borrowed from the various business units to support projects and unexpected difficulties that may arise.

Status of NSF/OPP

Karl Erb, Director, NSF/OPP, gave a status report of the NSF/OPP. Initiatives that the OPP are pursuing include 1) enhancing weather forecasting; 2) improving landing systems; 3) extending the McMurdo Area field season; and 4) investigating new methods of transporting material to the South Pole Station. The OPP has sponsored two workshops – one on weather forecasting and a second on transportation – to propose improvements designed to enhance operations should funds become available. Appendix 2 includes the specifics of the NSF/OPP budget request for FY01. The White House has proposed a request for a \$32.1 million increase over FY00 for a total of \$284.40 million for FY01. The NSF/OPP continues to develop concepts for the NSF upper

management consideration to justify budget increases for OPP. These include a polar genome project, climate change studies, and Lake Vostok studies.

Appendix 3 summarizes the report by Erick Chiang, Deputy Director, NSF/OPP. The NSF/OPP is developing an alternative plan for managing the USAP by bringing in other types of wheeled aircraft to the Antarctic (Basler Turbo BT-67), doing overland traverses to re-supply South Pole, commercializing the NSF-owned LC-130 fleet, reducing fuel consumption, and using alternative energy sources (solar, wind).

Improvement of communications at the various stations is a priority. Future improvements and options include a T-3 link for McMurdo, use of the Marisat Satellite for South Pole, and a possible fiber optics link from South Pole to Dome C.

Status of Electronic Support Planner (ESP)

Katie Kish, RPS ESP Project Lead, presented the committee with the status of the ESP project (Appendix 4). All science events will be required to submit their SIPs for the 2001-2002 electronically by April 1, 2001. Committee members were asked to help test the system. Once the program is operational, the program will be locked in for several years so the users will not have a learning curve each year. Drs. John Priscu and Bob Loewenstein volunteered to assist testing the system.

REVIEW OF PAST MEETINGS

The minutes of both the May 1999 meeting and 1999 Ad Hoc meeting were approved. Robbie Score, RPS Crary Supervisor, Laboratory Operations, reviewed the status of the Recommendation/Action Items from both meetings (Appendix 5). The Committee agreed that further action will not be taken to resurrect the Orientation Meeting since there was little support from the other users' committees. The action item was removed from the list.

GENERAL ISSUES

Status of extending the research season in the McMurdo Region

John Priscu, Montana State University, presented a summary of the workshop he chaired last fall titled "Year-Round Access to the McMurdo Region: Opportunities for Science and Education" (Appendix 6). The final report including overwhelming scientific justification will be soon be submitted to the NSF/OPP by Priscu. The timeline suggested by the workshop is shown in Appendix 6.

Mr. Chiang officially announced that the extended season will not happen during the 2000-2001 season. Many things need to occur before McMurdo Station can support remote field science in the winter, including upgrades to the current aviation support. The NSF/OPP is looking for proposals from scientists requesting winter science. Once the needs of the groups are submitted, Mr. Chiang will allocate funds to develop a logistical plan for a future extended season.

FY99 GPRA Results

Steve Kottmeier, RPS Director, Performance and Quality Assurance, presented results of the FY 1999 USAP Research Support Facilities Survey for the McMurdo area, as required by the Government Performance and Results Act (GPRA) (Appendix 7). The complete report is on the RPS web page - <http://www.polar.org/usapserv.htm>. Suggestions for improving the survey included: improving the instructions, better defining of the terms, keeping the survey form easy to complete and meaningful, and allowing more space for comments. Posting the survey on the web site has not increased the rate of return, which is currently at 38% for FY 2000. USAP uses the GRPA data collected along with management tools to improve our processes.

Grantee-Specified Capital Equipment

Appendix 8 lists the four pieces of capital equipment that the Committee has requested RPS purchase to augment the Crary Laboratory equipment stock. Equipment requested to be ordered on this list should be general-use items of utility to multiple groups that will enable the Crary Laboratory to be a cutting-edge, University class research facility for Antarctic science.

ACTION ITEM 1: THE COMMITTEE MEMBERS WILL REVIEW AND PRIORITIZE ADDITIONS TO THE CAPITAL EQUIPMENT WISH LIST. MEMBERS WILL CANVAS THEIR COMMUNITY AND REPORT TO SRIDHAR ANANDAKRISHNAN BY

THE END OF JUNE. SRIDHAR WILL FORWARD THE PRIORITIZED LIST

TO ROBBIE SCORE (RPS) BY THE END OF JULY.

FIELD SPECIFIC ISSUES

Air Operations and the New York Air National Guard

The Committee is concerned that the Air National Guard's (ANG) requirements for landing at deep field sites are more stringent than the Navy's and that these requirements cause loss of field time. Although the situation is likely to improve, the Committee discussed what they could do to help facilitate increasing the ANG's comfort level when making open field landings. Dave Breshnahan, NSF/OPP Systems Manager, reiterated that the relationship between the ANG and the USAP is new and evolving. The ANG prefers a more static and structured approach, but the support of the USAP science can be much more unstructured. Efforts to reconcile these different approaches are underway. It is incumbent on the USAP to select sites so that the ANG may obtain satellite data in advance of landing at those sites. The exchange of knowledge will be the first steps taken to investigate sites. Scientists providing information regarding site selection will greatly assist the effort. There is no intention to assign liability to personnel who provide such information. All attempts to exchange knowledge will be the first steps taken to investigate sites. A site may never be declared safe, only the hazards may be identified.

LC-130 Missions Requested for 2000- 2001 Season

The number of LC-130 missions requested for the upcoming season exceeds the maximum number of missions the New York Air Guard can fly

by 43 missions. This is based on using an 85% estimated success rate (Appendix 9), and solutions to the problem are being sought.

Fleet Management Plan

Bill Haals, RPS Operations Manager, presented the USAP Fleet Management Plan. Appendix 10 provides a complete summary of the discussion. Haals asked the Committee to provide the field requirements for a vehicle to replace the Spryte, which is no longer being manufactured. The USAP has two to three years of spare parts on hand.

ACTION ITEM 2: DENEK KARENTZ (OR HUNTER LENIHAN) WILL CANVAS THE COMMUNITY FOR REQUIREMENTS FOR THE NEW SPRYTE-REPLACEMENT FLEET IN MCMURDO AND REPORT TO BILL HAALS (RPS).

Light Snow Vehicle Overview

Steve Dunbar, RPS Field Science Support Manager, presented a review of the light snow vehicle (Appendix 11). RPS wants the replacement of the Alpine I to be proactive not reactive. Issues that remain to be solved for a comparable replace machine are: cleats for traveling on the blue ice, ability to carry cargo such as survival bags and gerry cans, and ability to fit in a Twin Otter. MAUC recommended that RPS purchase ten Skandic per year for the next seven years.

ACTION ITEM 3: STEVE DUNBAR (RPS) WILL CANVAS THE SCIENTIFIC COMMUNITY ON FUTURE NEED FOR TUCKER-LIKE VEHICLES AND REPORT TO THE AD HOC MEETING IN MCMURDO.

Safety and Mechanical Issues

How should survival bags and safety equipment be allocated, per vehicle or per group? The recommendation was that survival bags and GPS units should be issued to each group and it is their responsibility to place it in/on the vehicle. Ropes will be supplied with each vehicle.

Remote Dive Hole Construction

In an e-mail message to the Committee, Sam Bowser, NY State Department of Health, requested that MAUC explore suitable alternatives to blasting for generating dive holes at remote locations (Appendix 12). This season, MEC will investigate different systems such as a hot finger, open loop system to see if their use is acceptable. If not, then RPS will pursue a commercial system.

COMMUNICATIONS

Prospectus on the Web

Marian Moyher, RPS Laboratory Science Manager, asked the Committee if they knew of the existence of the McMurdo Prospectus (Appendix 13). Only one member had heard of the Prospectus despite a mass mailing done earlier. A discussion about how to use the prospectus as a planning tool for Twin Otter, LC-130, or helo scheduling led to no consensus. Committee members suggested that the RSP provide software that would allow easy time and distance calculations for flight support and that this planning software could be linked from the Prospectus.

Advanced Wireless Communication for McMurdo

Appendix 14 lists the Committee's requirements. Bob Loewenstein, Yerkes Observatory, displayed a diagram demonstrating how data

systems could be integrated into a wireless network. It showed data sensors entering a central processor and the processor communicating over the network. It also showed multiple video sources for monitoring. The grantees requested that after the design for the long-term wireless communications requirements has been determined they have a chance to review the design. Appendix 15 presents RPS's summary of the requirements. Dave Leger, RPS Manager of Science Support Information Technology, says that implementation of the proposed plan is at least two years away.

ACTION ITEM 4: DRS. BOB LOEWENSTEIN AND JOHN PRISCU WILL PRIORITIZE FUNCTIONAL REQUIREMENTS FOR THE MCMURDO WIDE AREA NETWORK (WAN) AND REPORT THEIR FINDINGS TO BOB JUNGK (RPS ENGINEERING MANAGER – INFORMATION TECHNOLOGY) AND PAT SMITH (NSF/OPP TECHNOLOGY DEVELOPMENT MANAGER). THIS WILL ALLOW INTEGRATION OF THE PLANNED WIRELESS COMMUNICATIONS WITH THE CURRENT SYSTEM. DRS. LOEWENSTEIN AND PRISCU WILL CANVAS THE COMMUNITY TO DETERMINE WHAT SCIENCE CAN BE DONE REMOTELY, HOW THE SCIENCE WILL BE ENHANCED, AND MOST IMPORTANTLY, AT WHAT COST IMPLICATIONS. THESE REQUIREMENTS SHOULD INCLUDE WHICH INSTRUMENTS WILL BE CONNECTED TO THE WAN AND THE TIMEFRAMES THE INSTRUMENTS WILL BE BROUGHT ON LINE. ROBBIE SCORE (RPS) WILL ADD

THIS ITEM TO THE NOVEMBER AD HOC MEETING AGENDA.

Local McMurdo Email Accounts

Karen Joyce, RPS Project Lead Science Support Information Technology, proposed that no local e-mail accounts be created for grantees unless requested (Appendix 16). All local messages will be forwarded to the home institution e-mail address listed on the SIP. Users will be able to Telnet or use POP mail to access their home account. The Committee embraced this proposal whole-heartedly.

Information Technology Security Measures

Mr. Leger reported that 4500 staff-hours were expended program wide due to unauthorized intrusions into the computer system. Network devices will be updated with security patches and operation system upgrades, and anti-virus software installed on all machines connected to the McMurdo system. If a user is connected to Telnet, a secure shell will be installed. Appendix 17 lists the complete plan.

McMurdo LAN Upgrade

The upgrade of the Local Area Network (LAN) should be transparent to all users. The upgrade will be completed during WINFLY 2000 and full LAN conductivity will be available throughout the wired portions of Crary Laboratory. See Appendix 18 for more details.

Alternatives to Iridium Satellite Communications

Mr. Leger reported the loss of service by Iridium will impact the USAP as the quality of service was good and the total cost last season relatively inexpensive. Alternatives include the return to HF

communication (Appendix 19). There is a possibility that Iridium may be purchased and available for service in the near future, and RPS will monitor the status of this satellite constellation.

ACTION ITEM 5: NELIA DUNBAR WILL SUBMIT TO BOB JUNGK (RPS) COMMUNICATION REQUIREMENTS, INCLUDING ACCEPTABLE LAG TIMES, FOR DEEP FIELD PARTIES AND MOBILE CAMPS.

DATA COLLECTION AND PROCESSING

Meteorological Data

Ms. Moyher presented a list of currently available USAP Antarctic Station meteorological data (Appendix 20). RPS is purchasing Antarctic meteorological data from the National Climatic Data Center (NCDC) but RPS is not a data processing or archiving center. Instead, data from the NCDC are available free of charge to the community via the RPS FTP server. The USAP does not have available a complete, quality controlled data set for its Antarctic stations.

The main concern for the MAUC is good weather forecasts which would allow the USAP to accomplish planned work. The NSF/OPP recently sponsored a workshop at the Byrd Polar Research Center addressing how best to enhance forecasting through better communication between the operations and science meteorology communities. Finally, RPS has requested that a full-time meteorology position be added to the contractor staff for providing value-added support to the scientific community.

ACTION ITEM 6: TED SCAMBOS WILL CONTACT ATS (GEORGE HOWARD AND RICK CRUZ) TO FIND OUT WHAT METEOROLOGICAL DATA ARE AVAILABLE FROM REMOTE FIELD CAMPS. HE WILL ALSO CANVAS THE COMMUNITY TO SEE WHAT DATA THE COMMUNITY WOULD LIKE TO HAVE AVAILABLE. THIS INFORMATION WILL BE SUBMITTED TO MARIAN MOYHER (RPS).

UNAVCO

The web page for UNAVCO is www.unavco.ucar.edu. Sridhar Anandakrishnan, University of Alabama, reported that the positioning by hand-held GPS units has increased in accuracy since Selective Availability has been turned off by the U.S. Government. This has decreased the need for using differential GPS. By averaging over a 10-minute period, the accuracy can be as good as three meters. Requests from the field groups for individual units are likely to increase exponentially. Bjorn Johns would appreciate feedback regarding the support his team provides the community.

ACTION ITEM 7: STEVE DUNBAR (RPS) WILL CONTACT NELIA DUNBAR AND BJORN JOHNS (UNAVCO) BEFORE PURCHASING GPS UNITS FOR THE BFC STOCK TO ENSURE THE UNITS WILL MEET GRANTEE REQUIREMENTS.

RE-BID OF THE CONTRACT FOR HELICOPTER SUPPORT

Brian Stone, NSF/OPP Research Support Manager, reported that the

Request for Proposal (RFP) for helicopter support in McMurdo is an international competition. If the current contract is not continued, the largest impact on the season will be the turnover. The PHI helicopters will be returned to the states via the M/V GREENWAVE thus shortening the season for helo-supported field groups.

CONSTRUCTION REVIEW

Status of Construction

Frank Brier, NSF/OPP Facilities Engineer Project Manager, discussed the status of McMurdo's construction projects.

- The Galley remodel project is on schedule and should be completed by WINFLY this year.
- The helo pad is being upgraded with concrete pads and permanent fuel lines.
- Flush toilets are being installed in the Gym.
- The Play House is being demolished and will be replaced with a new state of the art building that will house the McMurdo Ground Station (TO-308-O) and Information Technology Services.

Mr. Brier handed out time-lines and floor plans for the Science Support Center which will house the MEC, BFC, Science Cargo, and Field Safety Training (Appendix 21). South Pole Construction is on schedule and going well. Appendix 22 is a drawing of the new Science Building at the South Pole.

Status of the Gravity Base Station

The new base station (Bldg. 146) is scheduled for completion during Winter 2000. The new base station and the old

base station (Bldg. 57) should be up and running simultaneously for at least one year.

ACTION ITEM 8: SRIDHAR ANANDAKRISHNAN WILL WORK WITH THE GEOLOGICAL COMMUNITY TO DEVELOP A SCHEDULE THAT WILL ENSURE THE GRAVITY TIE BETWEEN THE NEW AND OLD GRAVITY BASE STATION IS COMPLETED IN THE AVAILABLE TIME FRAME. HIS RPS CONTACT FOR THIS EFFORT WILL BE ROBBIE SCORE. THE SCHEDULE WILL BE PRESENTED TO SCOTT BORG (NSF/OPP GEOLOGY AND GEOPHYSICS PROGRAM MANAGER) FOR REVIEW.

Dry Valley Camp Upgrades

Appendix 23 outlines the short-term and long-term goals for upgrading each of the Taylor Valley camps.

MAUC ISSUES

This Committee's concerns over the course of its inception have gone from Crary Laboratory specific issues and Dry Valley camps to Cape Roberts Project and deep field issues. The current concerns on which the committee is concentrating are communication issues, remote winter research logistics, and deep field fleet management. All agreed that eight to nine members who can represent one or more of these issues are optimal. A motion was presented, seconded, and unanimously approved for Dr. Anandakrishnan to remain on the committee for one more year despite the fact that he was scheduled to rotate off the committee after this meeting. Dr. Anandakrishnan will resign as Chair on

01 October 2000. As of that date, Dr. Nelia Dunbar, New Mexico Institute of Mining & Technology, will become the new Chair. Except for the change in the position of Chair, the Committee for the 2001 meeting will remain the same. Appendix 24 contains the name and address of all MAUC members.

ACTION ITEM 9: DON ATWOOD (RPS) WILL WORK WITH NELIA DUNBAR TO REASSESS THE MAUC CHARTER.

ACTION ITEM 10: ROBBIE SCORE (RPS) WILL DETERMINE THE DATE FOR THE AD HOC MEETING OF THE MAUC IN MCMURDO BY LOOKING AT THE SIP-REQUESTED DATES, SCHEDULING THE MEETING TO MAXIMIZE ATTENDANCE. THE DATE WILL BE COORDINATED WITH SRIDHAR ANANDAKRISHNAN, NELIA DUNBAR, AND JULIE PALAIS (NSF/OPP).

A motion was made, seconded and approved to send Deneb Karentz, University of California, San Francisco to the Palmer Area Users' Committee as the MAUC representative.

The Committee selected the following two action items as top priority for RPS's consideration:

1. Complete and allow the committee to review and comment on a McMurdo area (200 mile radius) communications feasibility study, and
2. Assess the need for and plan the replacement of Tucker-like vehicles.

OPEN FORUM

Topics for discussion at the 2001 meeting of MAUC will include revisiting the snowmobile issue and reviewing the status of the Jamesway stock and plans for replacement.

A discussion about the difficulties RPS is having with the planning process because of the lateness in the return of the SIPs from the Principal Investigators resulted in the following recommendation by the Committee. The SIP deadline is April 1. If no acceptable communication between RPS and the PI has occurred after one week's time, RPS will communicate with the NSF/OPP Program Manager who should contact the PI directly.