

McMurdo Area User Committee  
(*MAUC*)  
Annual Meeting  
28 July 2008  
Raytheon Polar Services Company  
Centennial, Colorado

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## McMurdo Area User Committee (MAUC) Meeting

28 July 2008

### Committee Recommendations

***Recommendation #1: Staging space*** (recommendation noted both in this meeting and in Adhoc MAUC meeting)

Staging space continues to be an issue that requires a permanent solution. The MAUC sees this as the top priority. Open space to assemble and test equipment shipped in pieces or from various locations is difficult to find. Needs are simple: shelter, hard floor, power, heat.

***Recommendation #2: Setting realistic computer security rules*** (recommendation noted both in this meeting and in Adhoc MAUC meeting)

Setting realistic computer security rules are the second priority. Rules are changed frequently and it is not clear that they are directly related to actual security issues. McMurdo is a special case and concerns that are appropriate elsewhere are not real here. The MAUC particularly requests that Skype-type phone connections be allowed. NSF approves use of Skype in the rest of the organization and realistic (with no agenda) assessments indicate that the available bandwidth could easily support it and security is not an issue in the most recent version.

***Recommendation #3: Addressing the negative impacts of support reduction on science*** (recommendation noted both in this meeting and in Adhoc MAUC meeting)

Reduction in support is negatively impacting science. Though better than last year in some departments, for example BFC where staffing levels were restored, in others (MEC) preparation was very delayed and in some cases it was over a month before RSP listed items were ready. Carps are over tasked to the point that they are unable to adequately support science and one suggestion is that responsibility for field camp support be shifted to a different workgroup that can provide the needed resources. The planned lack of (or delay in) WinFly 2009 will be directly detrimental to science, and one suggestion to mitigate this is to plan an early "SciFly" with a very small crew of scientists and critical project specific support folk.

***Recommendation #4: Implement energy efficiency measures*** (recommendation noted both in this meeting and in Adhoc MAUC meeting)

The MAUC strongly supports energy efficiency measures in every form. Those with a 3-5 year return on investment appear particularly beneficial to the program. We encourage increased use of wind and solar sources, and exploration of the potential for using ocean sources (tidal and current). Also, an investment in better insulating existing structures, putting in proper digital thermostats in dorm rooms, etc. could potentially save the program a lot of money. As it is now, people still open windows to cool overheated rooms.

***Recommendation #5: Addressing concerns in regard to planned self-service paradigm***

The MAUC is skeptical that the planned self-service paradigm can succeed when at the same time the size of science groups/travel support for science is being decreased and science use of available underutilized personnel resources (firefighters who work 24 on 24 off, Polies waiting for transport) and off work hour volunteers is discouraged or prohibited.

***Recommendation #6: Provide data supporting the efficacy of required flu shots*** (recommendation noted both in this meeting and in Adhoc MAUC meeting)

There was a uniform and strong objection to the new requirement for flu shots. MAUC would be interested in data supporting the efficacy of this requirement in reducing lost work time at McMurdo.

***Recommendation #7: Fine tune the changes in ECW gear***

The changes in ECW gear are in general not causing any real problems. Suggestions to fine tune issue include increasing the regulation number of socks issued back up to 6, and continuing to offer field pants as an option OR allowing grantees to be issued Carhartt pants

**McMurdo Area User Committee (MAUC) Meeting  
28 July 2008  
South Pole Auditorium/Teleconference**

<b>8:00 - 8:15</b>	Welcome and Introductions	Steve Kottmeier
<b>8:15 - 8:30</b>	Last year's recommendations and NSF responses <ul style="list-style-type: none"> <li>• Staging space</li> <li>• Wireless in Building 155</li> <li>• USGS mirror site in McMurdo</li> <li>• Impact of "just-in-time" on science</li> <li>• Changes to the "meet-and-greet" in Christchurch</li> <li>• Radioisotopes in Crary Lab</li> <li>• The contractor's role in proposal reviews</li> <li>• SuperDARN and EMI issues</li> </ul>	Peter Doran, Steve Kottmeier, Subject Matter Experts
<b>8:30 - 9:15</b>	State of the USAP <ul style="list-style-type: none"> <li>• NSF</li> <li>• RPSC</li> </ul>	Scott Borg/Alex Isern Sam Feola
<b>9:15 - 9:45</b>	BREAK	
<b>9:45 - 10:45</b>	Changes for the coming season <ul style="list-style-type: none"> <li>• Season schedule</li> <li>• Field Support (FSTP, BFC, helo, fixed-wing, science construction)</li> <li>• IT security/grantee computers/laptop computer issue</li> <li>• ECW gear changes</li> <li>• Meteorology observer training</li> <li>• New policies: <ul style="list-style-type: none"> <li>○ Storage at McMurdo: project storage space during field deployments and winter over</li> <li>○ Helmet usage</li> </ul> </li> </ul>	RPSC panel, Steve Kottmeier Tom Ellis  Brian Johnson Ed Fuller/ Karen Joyce/Holly Troy Brian Johnson Mike Carmody/Steve Kottmeier  Brian Johnson/Paulene Roberts Brian Johnson/Randy Sliester
<b>10:45 - 11:30</b>	Laboratory subjects <ul style="list-style-type: none"> <li>• Arrival Heights temperatures</li> <li>• Dry Valley laboratory upgrades</li> <li>• Staging space</li> <li>• Crary Lab facility subjects</li> </ul>	Paulene Roberts Paulene Roberts Paulene Roberts Dave Zybowski
<b>11:30 - 11:45</b>	Antarctic Geospacial Information Center (AGIC)	Paul Morin

**11:45 - 12:45** BREAK

**12:45 - 1:15** Data management from a McMurdo area wireless network

Thomas Nylene

**1:15 - 1:45** SSC construction plans  
McMurdo gravity station status  
SuperDARN project status  
Equipment & instrument support:  
(on-ice vs. grant proposal)  
Wheeled runway at Pole (status)

John Meyers  
Steve Kottmeier  
Dave Nelson

Alex Isern  
Dave Scheuerman

**1:45 - 3:00** Misc. community raised topics for discussion and possible recommendation

- Old Aquarium future
- Weather data from Crary Lab/McMurdo Weather
- Wind and solar power at McMurdo and Pole
- LC-130 flight schedule
- Sea ice condition data
- Science cargo topics (retrograde cargo, samples, etc.)

RPSC/MAUC Members, Peter Doran-moderator

John Meyers  
Mike Carmody  
George Blaisdell  
Julie Grundberg  
Brian Johnson  
Michael Davis

**3:01** Meeting concludes

**McMurdo Area User Committee (MAUC) Meeting**

**28 July 2008**

**Attendees**

**NSF**

George Blaisdell

Scott Borg

Kelly Falkner

Alex Isern

Jim Karcher

Roberta Marinelli

Vladimir Papitashvili

Mike Scheuermann

Tom Wagner

**Science Community**

Steve Barwick

Peter Doran

Stacy Kim

Bruce Marsh

Tom Neuman

Ted Scambos

Mark Twickler

**AGIC**

Paul Morin

**UNAVCO**

Thomas Nylen

**RPSC**

Julie Bonneau

Mike Carmody

Brian Connell

Jessie Crain

Michael Davis

Tom Ellis

Sam Feola

Cara Ferrier

Ed Fuller

Julie Grundberg

John "Woody" Haywood

Patricia Jackson

Brian Johnson

Samina Khan

Steve Kottmeier

Dave Leger

Martin Lewis

John Meyers

Dave Nelson

Ron Nugent

Peter Rejek

Melissa Rider

Paulene Roberts

Randy Sliester

Holly Troy

Dave Zybowski

**McMurdo Area User Committee (MAUC) Meeting**  
**28 July 2008**  
**Meeting Minutes**

State of USAP

State of the USAP reviewed by Scott Borg and Alex Isern. The MAUC was briefed on the severe FY09 budget issues facing NSF/OPP, the impacts are being felt on the Antarctic Science side of NSF/OPP. OPP can expect a flat budget for first half of FY09 (same as FY07 and FY08), and a continuing resolution for all of FY09. The gap between FY09 flat budget and estimated increases is approximately \$40M. The biggest cost increases in the FY09 budget are fuel (estimated by DoD to be 64% higher in Dec 08 vs. 07) and salaries for DoD staff.

All parts of the USAP will be impacted by FY09 budget constraints/reductions. Diversification of logistics and support activities (e.g. procurement of some traverse equipment and increased fuel storage at McMurdo Station) are being deferred. There will be fewer science starts in FY09. Several projects are being deferred: Palmer Pier and McMurdo fuel tank. Research cruises are being combined. In the deep field fixed wing support is being curtailed, deferred, and plans changed in order to reduce operational cost of support. The new paradigm number of LC-130 flights may be 305 (vs. 411 requirements based). Smaller aircraft (e.g. Twin Otters and Basler) will substitute for LC-130s when it makes sense. NSF has decided not to top off the fuel tanks at South Pole in FY09, but to deliver enough fuel to open the station in FY10. NSF has decided to keep WAIS Divide drilling on schedule.

There was discussion of the impact of budget issues on the June 08 call for proposals. The NSF needs to know the USAP capacity, while having the capability to consider "hot" research. Meanwhile the FY09 planning is being finalized. NSF is trying to gain efficiencies in funding and supporting the research.

Alternative fuel opportunities were discussed. George Blaisdell is leading discussions with NREL regarding increased fuel efficiencies. DOE completed a study for OPP, which defined three tiers of energy savings based on short to long term. Small photovoltaics are being considered at South Pole.

NSF stated that industry interviews have started with the draft RFP for the USAP support contract.

Ms. Jessie Crain was announced as the new OPP/AIL Research Support Manager, starting 18 Aug 08. A new ANT position opening, a program officer, was announced (application due by late Aug 08) and the url for the announcement will be provided to the MAUC through RPSC.

The RPSC situation was reviewed by Sam Feola and Tom Ellis. The hallmark for FY09 and beyond is change and a new way of doing business. RPSC has been recommending budget reductions and new paradigms to the NSF for months, while remaining focused on the science mission. There will be a more self-service USAP operation. Among the new paradigms are reduced barber service, no sale of bottled spirits in the stores, closure of some clubs and energy inefficient buildings including dorms. There has also been a focus on reducing the population footprint and in turn the cost of energy to support the footprint.

There was a discussion of what is the proper scale for McMurdo. While the NSF hasn't capped the population at McMurdo yet, RPSC is planning on 35-50 fewer contract staff and reduced full-time deployments. There may be season opening delays and closings earlier. There will not be a traditional Winfly in FY08, starting in early September instead of late August. RPSC has been informed by NSF to not plan on Winfly in FY09, but to address how to support science at Winfly in FY09 and ramp up to support science at Mainbody in FY10. The science community input is solicited on how to accomplish this.

Dan Mazzeo is the new energy czar for the USAP.

Expected changes for coming season

RPSC panel, Steve Kottmeier-moderator. Tom Ellis summarized the 2008-09 continental season schedule:

SpringFly – Begins 4 Sep 08

Mainbody – Begins 30 Sep 08

3 C-17 flights from Christchurch to McMurdo per week until early Dec 08

No C-17 flights for most of Dec 08 into Jan 09 (LC-130s replace C-17s and there may be some restrictions for samples during this period)

South Pole opening flight – 23 Oct 08

LC-130 arrival – First week of Nov 08

The South Pole Traverse (SPT) will be executed again this season. The SPT departs McMurdo Station 20 Oct 08 and after reaching South Pole will divert to AGAP South to deliver fuel and some cargo. The SPT returns to South Pole and ends at McMurdo Station in early 2009.

There will be mandatory vaccination of all USAP participants for the flu this season. This was recommendation made to the USAP Medical Review Board. USAP participants can request vaccination during their PQ exams. For those missing the vaccination until deployment, vaccination will be provided in Christchurch and McMurdo clinics. The USAP website will provide information on the vaccination program, including FAQs and links to CDC information.

SpringFly will be shorter than the traditional Winfly, focused on two priorities: South Pole Traverse and science support. There will be Dining Attendant and Housemouse responsibilities of all USAP participants similar to the Extended Season and 2008 Winter, which will be coordinated through POCs and science planners.

#### Field Support. Discussion led by Brian Johnson

Brian Johnson and one FSTP employee deploy at SpringFly to begin FSTP training and to survey routes on the sea ice. More staff were provided to BFC during 2008 winter (back to three) and for SpringFly (increased by 50% over previous Winflies) to make gear ready for issue and to pull gear so that it will be ready when the Mainbody grantees arrive. MEC – Randy Sliester and three staff deploy at SpringFly to make gear ready for issue and to pull gear so that it will be ready when the Mainbody grantees arrive. Helos and Fixed Wing – Should be ready to support Mainbody grantees.

#### IT security and computer issue. Discussion led by Ed Fuller/Holly Troy

The IT staff briefed the MAUC on the issues. Laptop screening will continue in Christchurch and laptops will be touched on-ice for printer access. Laptops (1.7 GHz) are being issued only for USAP instruments. Grantee computers discovered to be non-compliant on the USAP network will be cited and there is a 30 day remediation period. The wireless environment will be unchanged at McMurdo this season; most dropouts have been resolved.

#### ECW gear changes. Discussion led by Brian Johnson

There has been a reduction in some items from past issues, which are now the responsibility (and easily provided) of the participants: sunglasses, water bottle, long underwear (1 pr provided), socks (2 pr provided). Participants are being informed via the deployment medical packet. Those working in the field can request more of the clothing items if needed. Some items are being phased out of the CDC inventory (e.g. cargo pants, flannel shirts).

#### Meteorology observer training. Discussion led by Mike Carmody/Steve Kottmeier

The meteorology observer training will continue this year with a limited number of scientists being trained with RPSC staff for observations at field sites with fixed wing support. The lessons learned from the first year of the training are being incorporated into the program this year, including new instruments (e.g. ceilometer, enhanced PPMK).

#### Storage at McMurdo: project storage space during field deployments and winter over. Discussion led by Brian Johnson/Paulene Roberts

A USAP policy on storage at McMurdo was implemented last season. There is storage in the BFC cages for field projects, but no storage space in the Crary Lab. The NASA Lunar Habitat may be an option for storage/staging space, depending upon whether it is relocated to the field. Science Cargo will provide secure milvan space across the street from Science Cargo for personal storage. Grantees should send Michael Davis an e-mail message detailing their requirements and then borrow a key to open the milvan. Peter Doran stated that there may be an issue of outside storage space for multi-year projects.



Helmet usage. Discussion led by Brian Johnson/Randy Sliester

There is a new USAP policy requiring the wearing of a helmet during the operation of snowmobiles and ATVs. Various styles and sizes of helmets will be provided; the MEC doesn't envision a shortage of helmets for the FY09 season.

Laboratory subjects

Arrival Heights temperatures Discussion led by Paulene Roberts

Relocation of experiments from Cosray is not finalized. A Cosray project has been funded to be installed in Cosray, but the detector must be insulated to operate an unheated Cosray. If the detector can not be insulated, then the experiment will be moved to Arrival Heights and operated out of three milvans with computers located within the Arrival Heights Laboratory.

Dry Valley laboratory upgrades Discussion led by Paulene Roberts

RPSC plans to improve the laboratory and fire safety in the Dry Valley laboratories. A new temporary radioisotope lab will be completed (shell completed in FY08) and the old lab demolished at Lake Bonney in FY09. The new temporary lab is a stop gap measure until the replacement Lake Bonney field camp is approved and constructed. The lake level is within 4 feet (6 inches vertical) of the old radioisotope lab. Peter Doran commented that the worse case scenario is a 1 ½ meter rise in the lake level in one year.

Staging space. Discussion led by Paulene Roberts

The NASA Lunar Habitat was discussed as potential staging space, however NASA is interested in testing the 16' X 24 ' structure in other Antarctic habitats. The MAUC stated that other staging space solutions were needed, perhaps using the SSC pad space available after the Lunar Habitat is relocated into the field. Peter Doran requested that staging space be kept on the long-term agenda list similar to bandwidth, until a permanent solution is found.

Crary Lab facility subjects. Discussion led by Dave Zybowski

Several Crary Lab facility subjects were briefed to the MAUC. A voltage regulator in Phase 1 is failing and it is planned to be replaced during SpringFly. The automatic transfer switch (ATS) failed during the 2008 winter. The ATS is operational now, but can't be used for load testing. Plans are underway to replace the ATS. Three of ten boilers failed in Phase 2, due in part to the ATS. Replacement parts will be flown in so that the failed boilers can be rebuilt.

Antarctic Geospacial Information Center (AGIC). Discussion led by Paul Morin

The MAUC was briefed on the AGIC capability in its second season of operation and how grantees can request support. Georeferenced maps will be posted on the AGIC website for SpringFly. The AGIC team deploys first in Dec 08 and again in Jan 09. This is a fantastic resource for the USAP.

Data management from a McMurdo area wireless network. Discussion led by Thomas Nylen

The MAUC was briefed on UNAVCO plans to write an MRI proposal to manage data from a McMurdo area wireless network, based on Mt. Fleming. The data to be managed originates from data loggers in the McMurdo field area. There should be significant helicopter time saved by this network. UNAVCO requested MAUC support and it was suggested that UNAVCO request Antarctic research community support using the ANT list server.

SSC construction plans. Discussion led by John Meyers

Construction of Phase 2 of the SSC is several years out. It was noted that once Phase 2 of the SSC is completed, then the BFC might serve as staging space.

McMurdo gravity station status. Discussion led by Steve Kottmeier

A redundant fuel tank project has modified the landscape and accessibility to the McMurdo gravity station. An existing Bally building has been identified as a replacement structure for the long-term. In the short-term, RPSC is working with Sridhar to improve access to the station for FY09, while investigating a permanent long-term location for a new station.

SuperDARN project status. Discussion led by Dave Nelson

The SuperDARN project has been relocated from South Pole to McMurdo because Pole is overloaded with projects for three years. The Hut Point Ridge is the likely site for the project, subject to completion of EMI study. The reuse of the AASTO facility at Pole is being considered to keep facility construction costs down. Given the current financial situation, the project has been placed on hold. Vladimir Papitashvilli will keep MAUC informed of the project status.

Equipment & instrument support (on-ice vs. grant proposal). Discussion led by Alex Isern

NSF/OPP has requested that equipment and instruments be included in the proposal overall cost, similar to the rest of the NSF. This may limit on-ice issue of equipment and instruments and define for each project at a higher level. The cost of equipment and instruments is an internal accounting issue at NSF/OPP. NSF/OPP plans to see how this change works with the current crop of proposals. NSF is trying to understand the cost of proposals (reviewers of proposals in particular) and place more authority and control for equipment and instruments in the hands of the PIs. MAUC was encouraged to have their constituency speak directly with program directors in ANT and AIL regarding this change.

Wheeled runway at Pole (status). Discussion led by Martin Lewis

There is a proposal to test a skyway for wheeled aircraft at South Pole in parallel with operating the existing runway for ski-equipped aircraft. In the long-term this is a two year process and nothing is planned for the FY09/FY10. Given the current financial constraints in FY09, lead times to purchase and ship equipment required for compaction precludes probably FY10. There is much work remaining to be done: need to address offload of a C-17 at South Pole and location of the runway grid south to alleviate impacts to the station.

Old Aquarium future. Discussion led by John Meyers

There are no plans to demolish or remodel the Old Aquarium based on science driven requirements. The Old Aquarium will be cold this season. RPSC will communicate this to Dr. Art DeVries and the aquarium user community.

Weather data from Crary Lab/McMurdo Weather. Discussion led by Mike Carmody

Matt Lazzara has fielded this request from one science project only.

Wind and solar power at McMurdo and Pole. Discussion led by George Blaisdell

NSF has entered into agreement with Antarctica New Zealand for a wind turbine project in the McMurdo area. The proof of concept wind turbine project is largely funded by the New Zealand government. The first phase consists of installing three wind turbine towers in the T-site area and link the power generated into the McMurdo new power

plant with a power line to Scott Base. Excess power (10-20%) will be fed into the McMurdo power grid. Site preparation and delivery of equipment is planned for FY09, with construction in FY10. Once the data from the proof of concept phase is analyzed, then the next phase for McMurdo will be planned.

Power is being monitored at South Pole station. Solar/wind power is conceptually planned for use in Summer Camp, which requires proper design and engineering. Small wind turbines (5-20 KW) are being considered.

Other sources/applications of alternative energy were discussed including heat extraction from the ocean, geothermal (technology exists, but there are political challenges with developing this resource in Antarctica), and specification of small electric trucks for use at McMurdo Station only.

Other energy savings were discussed including: closure of poorly insulated buildings (esp. in winter), rigorous monitoring of heat trace, replacement of 86 urinals with low volume flush urinals at McMurdo (at 4 cents per gallon water, 3 year return on investment), and temperature control of showers in Building 155 at McMurdo.

There was discussion of different models (IBM was offered) for investment in energy savings and the return on the investment (1 ½ - 10 years typically). An incentive programs for energy savings ideas from USAP participants was also discussed.

#### LC-130 flight schedule. Discussion led by Julie Grundberg

The schedule was summarized as follows:

23 Oct – Open Pole with the Basler (also Siple Dome and WAIS Divide field camps)

3 Nov - LC-130 arrival McMurdo

5 Nov - LC-130 flight checks complete, ready for intra-continental missions

5 LC-130 lines daily: 3 turn/2 – allows for some surge capacity

Approximately 300 LC-130 missions planned (43 WAIS, 5 Siple Dome, 5 AGAP South, remainder to Pole)

#### Sea ice condition data. Discussion led by Brian Johnson

There was discussion of how AGIC could ingest sea ice data (incl. AVHRR imagery and FSTP data). Readable files are required for AGIC use. Ted Scambos could serve as the MAUC liaison for this project. RPSC will send a message to the requestor.

#### Science cargo topics (retrograde cargo, samples, etc.). Discussion led by Michael Davis

The MAUC was briefed again on the constraints to ship samples during Dec 08/early Jan 09 when there is no C-17 airlift. The LAX customs crew changed out. Specificity in describing science samples is required so that there are no seizures/delays. The MAUC was reminded to refer to the USAP Packing and Shipping instructions for the general details of the documentation requirement. Michael Davis will determine the whether U.S. Customs has defined the specific language and terminology to be used sample documentation.