

Recommendations of the South Pole User's Committee 1998

This memorandum summarizes the recommendations of the South Pole User's Committee (SPUC) for 1998. The topics on which these recommendations are based were discussed at the annual meeting on 11 and 12 May 1998; the minutes for that meeting are available as a separate document from Antarctic Support Associates (ASA). The present memorandum was begun in executive session on 12 May and refined by committee members through email correspondence; it will be distributed in both email and paper form.

(1) South Pole Science Support during South Pole Station Modernization (SPSM) and South Pole Safety and Environmental modifications (SPSE)--- SPSE and SPSM are simultaneously the hope for the future and the greatest hindrance to South Pole science over the next five years. Construction of the new station is important, and finishing the construction in a timely and economical manner is a high priority. The requirements of construction must be balanced, however, with the conflicting priority to support and maintain the basis for a viable scientific program. Logistical support for science has already been reduced, and the South Pole scientific community has dramatically scaled back plans for new science over the construction period. Further reduction in logistical support for science will disrupt long-term monitoring programs and time-critical scientific projects such as the Degree Angular Scale Interferometer (DASI). Delays to the scientific programs are fundamentally different from delays in construction, in the sense that scientific losses may not be recouped through expenditure of time and effort at a later date; lost scientific opportunities cannot be regained. Investment over decades has built a viable scientific community centered on Polar research. That investment should not be sacrificed in the name of timely construction management. The committee recommends that the costs of lost scientific data and lost scientific opportunity be weighed carefully against the costs of possible delays in construction at times when these priorities are in conflict. The committee recommends that an adjudication mechanism be put in place to resolve conflicts between the needs of construction and the needs of science which includes representation by South Pole scientists. Maintenance of a viable program during the SPSM period is by far the most serious challenge affecting science at the Pole, and overwhelms all other considerations.

(2) Power at South Pole--- The committee is concerned about the possibility of electrical power shortages at Pole in the year prior to the completion of the new power station. There were clearly several significant errors in the power usage numbers presented at the committee meeting. The committee has resolved to create a Power Subcommittee, whose members currently include Mark Boland, Mark Dragovan and Robert Pernic. This Subcommittee will assist ASA in estimating science power requirements and in power monitoring efforts.

(3) Internet Communication capability at South Pole--- The committee applauds the recent cooperative efforts with NASA leading to installation of new satellite ground facilities. These have dramatically improved communications to the Pole. The present level of Internet connectivity has become a new minimum standard upon which many scientific groups now depend. Maintenance of the current communications capability is essential, but the equipment which embodies this capability has been designed and constructed as ad hoc prototypes and could be turned off by NASA at any time. The committee therefore recommends that the maintenance for ground station equipment be managed as professionally as other critical systems at Pole, that this activity be budgeted at a level sufficient to maintain current communications capability, and that existing agreements with NASA be strengthened to assure continued cooperation between the two

agencies.

(4) Local Time at South Pole Station during the winter--- The time maintained at South Pole station is the same as New Zealand. During the summer, when there is constant traffic and communications between the Pole and McMurdo and New Zealand, this policy is sensible and should be maintained. During the winter-over period from mid-February through late October, however, there is no reason to maintain New Zealand time. Many scientific and logistical operations would benefit from South Pole Station time being similar to time in the United States. The committee recommends that after station closing the clocks at South Pole station be set to the same time as those of the ASA offices in Denver. Just before station opening they will be set back to New Zealand time.

Respectfully submitted for the committee,

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