

6 December 2004

Dr. Karl Erb  
Director, Office of Polar Programs  
National Science Foundation  
4201 Wilson Boulevard  
Arlington, VA 22230

Dear Dr. Erb:

The Office of Polar Programs Advisory Committee would like to make several recommendations to you regarding a variety of issues we discussed at our meeting on November 15/16 2004.

**1. International Polar Year:**

Regarding US participation in the International Polar Year (IPY) set for 2007/2008. We consider this a very important event in Polar Science, and it is critical that it be a success, both in terms of the science that will be done and in the education and outreach opportunities it will offer to us. We also consider it critical that the US play an effective leadership role in international IPY activities despite the lack of new funding. Given (1) the difficult budget times, (2) NSF's need to respond to research proposals from the community, and (3) the nature of international scientific programs, it seems important that OPP, and NSF more generally, consider several issues.

*1a. Staffing:*

The international coordination necessary to make the US contributions to IPY as effective as possible is going to demand a lot of time and commitment from OPP staff. The activities associated with IPY will range from helping the ICSU process of coordinating individual projects, to the overall level of arranging logistics for major endeavors such as coordinated multi-ship oceanographic studies, to developing and facilitating education and outreach programs. We hope that NSF will be able to provide the staffing necessary to ensure these activities are successful.

*1b. International leadership:*

Providing international leadership while working within the normal NSF proposal process is an important concern for the AC. We believe it is important that OPP identify several broad targets for major initiatives that will form natural centerpieces of a US IPY effort. OPP should start planning and take a lead role in developing these, even before it has specific proposals in hand. We discussed several initiatives at our November meeting that seem appropriate and almost certain to go forward in some fashion. These initiatives include SEARCH, a Glacial Stability program (focused on the West Antarctic Ice Sheet), and something dealing with biology/biodiversity. SEARCH is central because it addresses the key issue of the magnitude and rapidity of change in the Arctic region, including changes in the oceans, on land, and in the human communities that use these areas. With the exception of a paleoclimate component, this initiative is well developed conceptually and we are in a position to use IPY to make a major launch. The West Antarctic ice sheet initiative is also well placed to advance polar science, is

ready to move forward as an initiative, and OPP is well placed to be the international lead. A biology initiative is less clearly developed at this time, and can develop as specific proposals come forward.

*1c. Announcements of Opportunity:*

We support the idea of having a primary International Polar Year announcement of opportunity (AO) next summer some time, with either a follow up AO the next summer and/or opportunities through the normal program AOs for additional projects that might fit into the bigger initiatives.

**2. U.S. Icebreakers:**

The second issue we discussed at length is the state of the US icebreaker fleet and its implications for Polar research. The major point emerging from our discussions was that we believe support of Polar science must be a central element of the overall study and assessment currently under development within the National Academy. Coast Guard icebreakers currently support polar research, both through their direct use as research platforms, and through support of the McMurdo resupply mission. These missions are essential to both U.S. and international efforts in Polar research, and in fact, account for a large portion of the efforts of the Coast Guard icebreakers. Any study evaluating U.S. icebreaking requirements must also consider the scientific mission. Moreover, some mechanism must be put in place to provide a mandate to protect scientific needs for ice breaking in both polar regions in the long term.

**3. PRSS COV Report:**

The Polar Research Support Services COV report. As mentioned in a separate letter, the AC endorsed the report and encourages OPP to explore creative ways to address the issues that report raises.

**4. Program funding rates:**

The last issue we discussed at length had to do with how funding rates vary among OPP programs and community perceptions of those rates. In times of limited resources, the research community is naturally very sensitive to funding rates and how they vary across different programs within NSF and particularly (for the Polar research community) within OPP. We believe that it is quite possible, perhaps likely, that the concerns that led this issue to be brought forward reflects information and perception gaps between the community and OPP, suggesting a political/diplomatic issue for OPP, rather than a real problem with the allocation of funds between programs. Thus, these concerns may represent a diplomatic challenge requiring some education of the community with clear statements explaining real, or apparent, discrepancies across programs. Given that the last COV in 2003 evaluated the science sections of OPP and made specific recommendations about possible restructuring or reapportionment, we encourage OPP to now do a full and robust assessment of how funding rates vary across programs and how each program is able/unable to meet the scientific demands placed upon it (including proposal pressure, national research needs, developing new areas of research, etc.). Such an assessment will play a role in addressing the concerns and suggestions from the last COV and should provide OPP with the material it needs to maintain effective working relationships with the various groups that it supports.

In fact, we suggest that such a half-way assessment become a standard procedure- i.e. that OPP do an internal assessment and report back to the COV 1.5 years after a COV report. This would provide both a mechanism to help update the AC but also to help OPP assess its performance with adequate time to make additional adjustments, if appropriate, before the next COV is scheduled.

We sincerely hope that these suggestions, and the discussions at the advisory committee meeting that led to them is useful to you.

Sincerely,

Josh Schimel  
Chair, OPP Advisory Committee