

## The University of Georgia

Franklin College of Arts and Sciences School of Marine Programs Department of Marine Sciences

27 November, 2007

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

Dear Dr. Erb,

## RE: Letter of Transmittal, Committees of Visitors Reports

Please find enclosed the reports of the Committees of Visitors for the Antarctic and Arctic Sciences Divisions in the Office of Polar Programs. These reports were presented at the regularly scheduled Advisory Committee meeting held on 8 and 9 November, 2007. The Chairs of these Committees are to be commended for leading their groups to produce such thorough and thought-provoking reports.

The Antarctic and Arctic Sciences Divisions were found to be "well managed" and "effective and efficient," and likewise both committees noted that the portfolios were of high quality. In the Antarctic, "The resulting portfolios contain scientifically high quality proposals and awards that meet the mission of the Office of Polar Programs and of NSF. The investments in Antarctic research are sound, highly productive, and at the cutting edge of research in the sciences." Arctic investments were also found to be of high quality and the Division was commended for "allowing logistics to be led by science."

The reports were thoroughly discussed by the Advisory Committee and approved as written by unanimous vote of the members present on 8 November, 2007. The reports provide a critical review of each division as well as of some NSF-wide processes. The reports also provide recommendations to improve the highly-rated processes and results demonstrated by the divisions. The Advisory Committee would like to draw explicit emphasis to two areas.

The first is specific to the Antarctic Sciences Division and reflects the COV's view that scientific review and logistics review should be more tightly coordinated. The COV report notes that excellent science drives the funding priorities, and that many other factors influence the final outcomes. For example, which awards are actually funded is constrained by the ranking of proposals, the available logistical support, and the budget. To improve information regarding the availability of logistics support, the Advisory Committee urges OPP to explore development of a scheduling system, perhaps similar to that used for ship scheduling at NSF, and to make this tool available to proposers to inform their planning. The Advisory Committee also suggested that OPP explore the use of a system similar to that currently used within the Arctic division, in which

proposers are encouraged to discuss their plans with the logistics provider, and to receive a letter of support from that provider, prior to the submission of a proposal. Informed proposers will also help OPP identify future opportunities and directions for logistics, and so as with any effective tool, the system needs to be flexible enough so that effective responses to emerging ideas and opportunities can be implemented.

The second area concerns program organization and program balance in the Arctic Sciences Division. There was much discussion over whether the broader research community has an accurate perception of current program organization and balance, and a sense that there may be a need for greater community education about the function and coordination of the different components of the Arctic Sciences Division and the actual balance between them. In the event that there are lingering concerns, the Advisory Committee also urges OPP to work with the Arctic science community to evaluate whether or not the existing program organization and balance are optimum for Arctic science goals.

A final area of concern, which affected both of these COVs, and arguably affects all NSF COVs, is the apparent mismatch between the information available in the NSF database and the kinds of data needed to address the questions asked of COVs. It may be necessary to collect more data or, better yet, tailor the questions to those that may be addressed with the available data. COVs cannot be expected to answer questions for which they have no data, or to provide quantitative responses and analyses where no data or only anecdotal and/or qualitative data are available.

A related concern is that the data as collected in the official NSF database, while useful for accounting purposes, may not accurately represent research emphases, success rates, and possibly balance between programs. For example, depending on how a particular program sets up awards, each year of a multi-year project may be counted by the database as a "new award", making it difficult to assess actual success rates. The Advisory Committee urges program managers to make their own data available to help fill in gaps, and suggests that a thorough review of NSF database structures and procedures might be warranted for the Foundation as a whole. Committee members would like to work with program managers to develop a set of data that program managers, management and the committee agree on, and guidelines regarding purposes for which the data can be used.

Finally, the committee members wanted me to urge NSF to make research results available to the public in the form of publicly available final project reports. Public interest in polar research is high, evidenced by attendance at our recent meeting by members of the public. Significant benefits are sure to follow from a more transparent process and a more informed public.

Sincerely Arme 7. Hollibaugh

James T. Hollibaugh Chair, OPP OAC