

# THE NATIONAL ACADEMIES

*Advisers to the Nation on Science, Engineering, and Medicine*

**Polar Research Board  
US National Committee to IPY**

3 December 2003

Dr. Christopher Rapley, Chair  
ICSU International Polar Year Planning Group  
International Council for Science  
51 BD de Montmorency  
75016 Paris France

Dear ICSU IPY Planning Group:

The US Polar Research Board, as the adhering body from the US National Academy of Sciences to the International Council for Science on matters relating to polar regions, wishes to commend ICSU for its leadership in promoting the International Polar Year 2007-2008. We fully support the efforts of the ICSU International Planning Group and will do our best to pursue active participation of the United States science community.

In this letter we respond to the four questions posed in your letter of September 2003, seeking a statement of intent and input from all nations wishing to participate in IPY 2007-2008.

1. Statement of intent and description of communications with the international IPY initiative.

The scientists and agencies of the U.S. intend to participate in IPY 2007-2008 and see this as an exciting opportunity to advance science, exploration, and education related to the polar regions. As its main IPY planning body, the Polar Research Board of the National Academies has formed the US National Committee to the International Polar Year (USNC for IPY). The USNC concurs with the general principles outlined to date, that IPY 2007-2008 should address compelling science issues, that it be truly international and involve science in both polar regions, that it give special effort to attracting and developing the next generation of scientists, engineers, and scientific leaders, and that it include significant components to involve and educate the public. In the past six months we have seen an increasing enthusiasm for and endorsement of IPY as a concept. The U.S. National Committee for the International Polar Year will work hard to strengthen this community consensus and encourage scientists to propose appropriate activities.

The U.S. National Committee is chaired by Dr. Mary Albert, Cold Regions Research and Engineering Laboratory. Dr. Robin Bell, chair of the Polar Research Board and member of the ICSU IPY Planning Group, serves as a liaison between the ICSU Planning Group and the USNC for IPY. A roster of members of the USNC for IPY is attached. The administrative home of the USNC for IPY is the Polar Research Board of the National Academy of Sciences. Because most correspondence is likely to be distributed by email, we request that all relevant information be sent to the following four addresses to be sure that it receives prompt and appropriate attention:

Mary Albert, USNC IPY chair  
Robin Bell, USNC IPY liaison  
Sheldon Drobot, PRB Program Officer

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The appropriate mailing addresses and phone numbers are:

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## 2. Comments on the three proposed overarching themes.

The USNC to IPY has been very active in efforts to communicate the proposed themes to the US science community and synthesizing ideas for scientific contributions that can help the US plan its national efforts as well as help the ICSU Planning Group guide the international planning. We find that two themes, in particular, seem to serve as a useful umbrella for the wide array of science articulated by our research communities:

- Exploring New Frontiers
- Understanding Change in the Polar Regions

Both themes inherently involve aspects of understanding “processes”, and at our meeting we had difficulty attaching a meaningful thrust to the third possible theme, “decoding polar processes.” We would therefore recommend that the two themes above be adopted as the foundation goals for IPY 2007-2008.

The USNC to IPY is preparing a report, based upon community input that will summarize the US vision for its participation in IPY 2007-2008. We expect this report to be available early in the spring of 2004. We will of course share the report with the ICSU IPY Planning Group once it has the approval of our committee. In addition, we very much wish to stay involved in the international discussion as these themes evolve and, over time, are refined. The U.S. participation in the IPY will only succeed with an open and inclusive planning process. Internal and international consensus is key to the success of the IPY, both from the points of view of our research communities and of the U.S. funding agencies. The evolution of the IPY themes and

continued science planning should occur in partnership between the international science community, the science funding agencies for every nation, and the national and international IPY committees. Thus we urge the international planning group to let the process evolve over the coming six months to year; do not rush or be overly preoccupied with selection of particular projects, but carefully consider and nurture the process that is now occurring.

#### 3-4. Descriptions of proposed concepts for research activities and cross-cutting activities.

The United States science community is large and diverse. Already there are many ideas about what might be done under the auspices of IPY 2007-2008, and more are arriving daily. The USNC IPY is not positioned to endorse particular ideas at this time because our science community is in active discussion about what IPY might accomplish and ideas are still coming in. In addition, we should be clear that, in time, the actual selection of research ideas for funding by US institutions will occur through our regular funding mechanisms, which means that detailed project proposals responding to appropriate solicitations will need to be submitted to appropriate funding agencies. Whether or not specific projects are funded will depend upon the rigorous review process, the availability of funds, and logistics availability. Obviously, on-going discussion between the greater research community, the agencies, and their international counterparts is very important. That said, we will convey to the ICSU Planning Group brief summaries of ideas that have been submitted to us to date (see attached summary document) and in the future may convey other ideas or opinions on which ideas we feel are most appropriate.

Clearly, the idea of an IPY has captured the imagination of many scientists. Even with massive increases in funding, the U.S. would not be able to fund all of the research that has been suggested to date, and the scientific discussions are still evolving. We request that the list of projects attached not be used for any decision process, since it is not possible to forecast now which of these ideas or new ones may eventually be funded, and it is likely not a complete list of valid ideas. We propose that the international planning group facilitate international discussion between decision makers from the funding agencies of each of the nations, and urge those figures to also maintain an open and continuing dialog with their own scientific communities. As the coherent, achievable international programs emerge, the USNC IPY will help to nurture the process, promote the IPY, and help identify US scientists who might be invited to serve on appropriate steering or program committees.

In the U.S., we envision the IPY as the threshold of a new era of polar science. The IPY initiates an era of internationally-coordinated polar science with heightened public awareness and involvement. While we envision it to begin with an intense campaign, we do not see the IPY simply as a one or two year spike in activity.

It is important that the message of the IPY be presented in a uniform fashion. We have made some subtle changes to the wording for the criteria for IPY science projects, and we would like to recommend that the international planning group adopt the following wording for criterion for IPY projects:

- Address compelling science issues in both polar regions
- Involve multi-national and interdisciplinary interactions
- Attract and develop the next generation of scientists, engineers, and leaders
- Engage the public

We welcome continued discussion with the International Planning Group to help define the process by which projects will be identified as elements of the IPY. What level of coordination among the various elements would be most beneficial, and how can that coordination best be achieved? How can the IPY planning best nurture inclusive, international involvement? These

are among the many questions that we know the ICSU IPY Planning Group must wrestle with in the coming months. We will work with you to help achieve our common goals.

Sincerely,

Mary R. Albert, Chair  
US National Committee to the International Polar Year

Robin Bell, Chair  
Polar Research Board

cc: C. Elfring, National Academy of Sciences, US Polar Research Board, Director  
S. Drobot, National Academy of Sciences, US Polar Research Board, Program Officer  
W. White, The National Academies Board for International Scientific Organizations  
Members, US National Committee for the International Polar Year