

MEMORANDUM TO MEMBERS AND CONSULTANTS OF THE NATIONAL SCIENCE BOARD

SUBJECT: Preliminary Report of the March 12, 13, 2003 Meeting

The major actions of the Board at its 373rd meeting on March 12, 13, 2003 are summarized for the information of those members and consultants absent and as a reminder to those present.

1. Board Actions

- a. The Board approved the minutes of the February 2003 meeting.
- b. The Board approved recipients of honorary awards for 2003: the Alan T. Waterman Award, the Public Service Award, and the Vannevar Bush Award. The awards will be announced when the Director and the Chairman have notified the recipients.
- c. Tuesday, August 12 was selected as the date for a workshop on Broadening Participation sponsored by the Committee on EHR. Members were reminded to add this date to their schedules for the August 13-14 NSB meeting.

2. Committee Reports

(Committee summaries are provided by executive secretaries.)

a. Executive Committee (EC)

Dr. Colwell called for, and received approval of the minutes from the February meeting of the Executive Committee.

She then called on Dr. Washington for his report. He discussed his recent visit with congressional staff and reported on the status of the search for the position of Executive Officer, NSB. He noted that the visit with congressional staff was very well received. Among the topics of interest to them were issues associated with student visas in light of current national security concerns. They also expressed an interest in learning more about the Foundation's request for support for NEON.

Dr. Colwell noted that the Science Committee has expressed very positive support for the Foundation, and that it is achieving greater prominence on the hill.

The open session adjourned at approximately 1:15 PM. The committee then convened in closed session to discuss specific personnel matters and future budgets. The closed session adjourned at approximately 1:45.

b. Audit & Oversight (A&O)

Dr. Boesz and her staff discussed the OIG Performance Plan, the results of audit peer review and the OIG FY03 and FY04 budgets. Mr. Cooley discussed the FY03 appropriation with emphasis on administration and management costs. He also discussed status of Large Facilities management and oversight at NSF. Ms. Feldman provided an update on implementation of the NSB's cost sharing policy revisions. Dr. Strawn provided an update on CIO matters, with a special emphasis on Security concerns. Mr. Burt and Mr. Sieverts gave a review of contract activities examining NSF business and management practices

c. Education and Human Resources (EHR)

Gerard Glaser, Acting Executive Officer, NSB, discussed planning for a NSB Workshop on Broadening Participation in Science and Engineering Research and Education set for August 12, 2003. At the February meeting three Board members agreed to initiate a study of education issues. At this meeting they discussed a process to enhance information flow to the committee.

The committee heard a report from Dr. Robert Richardson, Chairman, Subcommittee on Science and Engineering Indicators, who outlined steps to bring the Indicators Report to the full Board in August. The second talk in the Focus on the Future Series was given by Dr. Deborah Loewenberg Ball of the University of Michigan. She emphasized that academic mathematics preparation is unaligned with the professional demands of teaching. Next, the committee heard from Joan Ferrini-Mundy, Associate Dean for Science and Mathematics Education at Michigan State University, and Janice Earle, NSF Staff Liaison. The speakers described a process for a Thematic Portfolio Review of Mathematics Education.

Dr. Joseph Miller, Chairman, Task Force on National Workforce Policies, reviewed progress toward completion of the task force report. Dr. Karolyn Eisenstein presented an Information Item describing an NSF Partnership to support the REU Program with the Department of Defense known as *ASSURE* (Awards to Stimulate and Support Undergraduate Research Experiences).

d. Science and Engineering Indicators (SEI)

SRS staff reported on the status of preparations for the 2004 Indicators volume. Rolf Lehming distributed a list of external reviewers proposed for each chapter, and solicited additional suggestions.

John Gawalt presented a live prototype of a web site for the chapter on State S&E. In response to questions he confirmed that users will be able to use data in the web site to recreate charts or tables, because the application tables are all in Excel. He also answered questions about the search facility and indexing methods being developed for the site, including topical lists of chapters and sections to serve as pre-formed queries.

SRS raised the issue of displaying State data in percentiles or groups rather than quartiles, pointing out that missing data and tied scores complicated the strict definition of quartiles. After

discussion, the subcommittee members decided that the advantages of understanding conveyed by quartiles outweighed the disadvantages, and recommended using quartiles, annotated as necessary, to display data in this chapter.

Mr. Lehming described the schedule for review and discussion of each chapter. The goal of the review schedule is to distribute the Orange Book in time for preliminary approval during the August Board meeting. Dr. Carlson asked members to confirm that the color scheme developed to ensure readability of map displays should also be used in designing the publication cover, and members agreed.

Dr. Richardson will notify NSB members who will be serving as lead reviewers for each chapter.

e. EHR Task Force on National Policies for the S&E Workforce (NWP)

The meeting of the task force on National Workforce Policies for Science and Engineering was a working session focussing on the recommendations to be offered in the task force report. The recommendations are in five areas: federal support for undergraduate education; alignment of advanced S&E education with workforce needs and opportunities; pre-college teaching workforce for mathematics and science; US engagement in the international S&E workforce; and the knowledge base on the S&E workforce. The task force plans to complete the report within the next month and forward it to the EHR Committee of the Board.

f. Programs and Plans (CPP)

The committee heard a report on “High Performance Computing and Computing Infrastructure” that included consideration of the recommendations of the Atkins Report, future plans for the Enhanced Terascale Facility, and governance structures for an integrated network.

A dissemination plan for the final report of the CPP Infrastructure Task Force (approved at the February NSB meeting) was considered. The Web-based version of the report will be posted by April 9; a printed version will be distributed by July 1, 2003.

The committee heard a report on the “Status of Support of U.S. Participation in the Integrated Ocean Drilling Program.” Due to budget limitations, plans for funding the conversion of a drill vessel are not to commence until FY 2005. To minimize the hiatus in scientific research, a modified strategy for deploying a drill vessel was discussed.

The committee also heard reports on the public comments received in response to development of a “Facilities Management and Oversight Guide”, and a report on the release of the decadal report on “Complex Environmental Systems,” a 10-year outlook for the NSF.

The committee recommended establishment of an ad hoc group for further study of the proposal for a CPP Task Force on Long-lived Data Collections. The ad hoc group would coordinate workshops on this topic. Finally, the committee recommended one NSB meeting a year at a field site, in conjunction with a retreat.

g. CPP Task Force on S&E Infrastructure (INF)

The task force discussed the latest draft of its report, *Science and Engineering Infrastructure for the 21st Century*. It approved a schedule for the production of the final report that calls for the distribution of the report on the NSF/NSB website by April 9, 2003 and the distribution of the printed version of the report by July 1, 2003. The task force reviewed and approved an action plan for disseminating and marketing the final report. The plan encourages NSB members and NSF staff members to be proactive in discussing the report with the S&E community, including making presentations at professional society meetings, other scientific meetings and conferences, and NSF advisory committee meetings.

h. Committee on Strategy and Budget (CSB)

The committee reviewed a draft of the NSF GPRA Strategic Plan for FY 2003 – 2008 with Dr. Bordogna, NSF Deputy Director. Following interactions with the Office on Management and Budget and further discussion with CSB, the Plan will be placed on the NSF website in late April for public comment. In response to the committee's request, Dr. Bordogna summarized the history and impacts of funds designated for Director's initiatives. The committee began planning to prepare a report to Congress in response to Section 22 of the NSF Authorization Act of 2002.

In closed session, Dr. Colwell discussed preparation of NSF's FY 2005 budget.

i. Vannevar Bush 2003

The Vannevar Bush Award committee selected a candidate for the 2003 Award to recommend to the National Science Board during Closed Session on Thursday, March 13.

Gerard Glaser
Acting Executive Officer