

**APPROVED MINUTES¹
OPEN SESSION
395TH MEETING
NATIONAL SCIENCE BOARD**

National Science Foundation
Arlington, Virginia
November 29-30, 2006

Members Present:

Steven C. Beering, Chairman
Mark R. Abbott
Dan E. Arvizu
Barry C. Barish
Camilla P. Benbow
Ray M. Bowen
G. Wayne Clough
Kelvin K. Droegemeier
Kenneth M. Ford
Patricia D. Galloway
José-Marie Griffiths
Daniel E. Hastings
Elizabeth Hoffman
Louis J. Lanzerotti
Arthur K. Reilly
Jon C. Strauss
Thomas N. Taylor
Richard F. Thompson
Jo Anne Vasquez

Arden L. Bement, Jr., *ex officio*

Members Absent:

Kathryn D. Sullivan, Vice Chairman
John T. Bruer
Karl Hess
Alan I. Leshner
Douglas D. Randall

¹ The minutes of the 395th meeting were approved by the Board at the February 2007 meeting.

The National Science Board (Board) convened in Open Session at 1:45 p.m. on Thursday, November 30, 2006 with Dr. Steven Beering, Chairman, presiding (Agenda NSB-06-116, Board Book Tab 13). In accordance with the Government in the Sunshine Act, this portion of the meeting was open to the public.

AGENDA ITEM 5: Approval of Open Session Minutes, September 2006

The Board unanimously APPROVED the Open Session minutes of the September 2006 Board meeting (NSB-06-112, Board Book Tab 13E).

AGENDA ITEM 6: Closed Session Items for February 2007

The Board unanimously APPROVED the Closed Session items for the February 7-8, 2007 meeting (NSB-06-113, Board Book Tab 13F).

AGENDA ITEM 7: Chairman's Report

Dr. Beering, Board Chairman, reported on several issues.

a. 2007 Board Retreat, Visit, and Meeting

The annual retreat, visit, and meeting will take place at Oregon State University, Corvallis, Oregon, on February 7-8, 2007. Board Member, Dr. Mark Abbott, Dean and Professor at Oregon State University (OSU) will be the local host. Dr. Beering asked Board Members for specific topics for consideration during the retreat.

Dr. Michael Crosby, Board Executive Officer and Board Office Director, reported that he had been working with Dr. Abbott and Dr. Edward Ray, OSU President, and visited with them and others at OSU. Dr. Crosby summarized the planned activities.

- February 6: Travel day; optional tours at the Linus Pauling Collection, OSU and the Hatfield Marine Science Center, Newport.
- February 7: Briefings from OSU on their diverse science and engineering research and education endeavors; tour of the Tsunami Wave Basin, one of the nodes of Network for Earthquake Engineering Simulation (NEES) node facility; and Board retreat.
- February 8: Breakfast hosted by Dr. Ray with a student research poster session; committee meetings; Plenary sessions; and a seminar lecture by Dr. Jane Lubchenco, OSU Professor and former Board Member.

b. *ad hoc* Committee for the Vannevar Bush Award

Dr. Beering established the *ad hoc* Committee for the Vannevar Bush Award at the Board meeting in September 2006, and announced the members of the committee who agreed to serve: Dr. Kathryn Sullivan, chairman, and Drs. Kelvin Droegemeier, Patricia Galloway, José-Marie

Griffiths, and Thomas Taylor as members. The committee will select the recipient of the 2007 Vannevar Bush Award for “outstanding contributions toward the welfare of mankind and the Nation through public service activities in science and technology.”

c. Task Force on Hurricane Science and Engineering

The Chairman discharged the Task Force on Hurricane Science and Engineering, which had completed its work with approval of the report, *Hurricane Warning: The Critical Need for a National Hurricane Research Initiative*. Special thanks went to co-chairmen, Drs. Kelvin Droegemeier and Kenneth Ford, and the task force members Drs. Daniel Hastings, Elizabeth Hoffman, and Alan Leshner. Dr. Beering thanked the co-chairmen for their scintillating presentations at the public release of the Board report on September 29, 2006.

d. National Science Board Members 2006

The pamphlet, *National Science Board Members 2006*, also known as the Board “Photobook,” was published in October 2006 and includes the newest Board Members.

e. Recognition of Board Members

Dr. Sullivan was named as the first Director of the new Battelle Center for Mathematics and Science Education Policy at The Ohio State University’s John Glenn School of Public Affairs. Also, Dr. Jo Anne Vasquez accepted the position as Director of Policy and Outreach at the Center for Research on Education in Science, Mathematics, Engineering, and Technology at Arizona State University. In addition, Dr. Hoffman was named Executive Vice President and Provost at Iowa State University.

f. Board Commission on 21st Century Education in STEM

Dr. Beering invited Dr. Vasquez, a Board Member and Commission Vice Chairman, to report on the Commission on 21st Century Education in Science, Technology, Engineering and Mathematics (STEM). She reported that the full Commission met for the second time, November 20-21, 2006, in Chicago at the Museum of Science and Industry where all seven working groups reported to the full Commission. Dr. Beering gave opening remarks to the Commission and Dr. Sullivan also participated in the meeting.

The Commission heard from Congressman Daniel Lipinski (D-IL), who expressed his view that improvement in science and math education is necessary to an educated workforce that is the foundation of economic strength. He pointed out that there were 11 congressmen who have degrees in engineering and that he was pleased to be among that number. The Commission also heard from Mr. Arnie Duncan, Chief Executive Officer, Chicago Public Schools, who spoke on the challenges and opportunities of running a large urban school district.

The next meeting of the Commission will be in January 2007 in Arizona where the Commission will have the opportunity to interact with Governor Janet Napolitano, Chairman of the National Governors Association. The Commission will prepare an initial draft report with recommendations to submit to the Board for its review at the February 2007 meeting.

AGENDA ITEM 8: Director's Report

Dr. Arden Bement, Jr., NSF Director, reported on the following items.

a. NSF Staff Announcements: Introductions

As announced at the last meeting, Dr. Cora Marrett will join NSF in February 2007 as Assistant Director for Education and Human Resources. Dr. Marrett currently serves as Senior Vice President for Academic Affairs University of Wisconsin system, and attended the Board meeting.

Dr. Haym Hirsh began serving as Director, Division of Information and Intelligent Systems, Directorate for Computer and Information Science and Engineering (CISE) in October 2006. Dr. Hirsh came to NSF from Rutgers University where he served as Chairman of the Computer Science Department. He received his Ph.D. in Computer Science in 1989 from Stanford University.

Dr. Linda Slakey joined NSF as Director, Division of Undergraduate Education, Directorate for Education and Human Resources (EHR) on November 27, 2006. Dr. Slakey came to NSF from the University of Massachusetts where she served as Professor of Biochemistry and Dean of the Commonwealth College. She received her Ph.D. in Biochemistry in 1967 from the University of Michigan.

Ms. Karen Tiplady began her career Senior Executive Service appointment as Director, Division of Grants and Agreements (DGA); Office of Budget, Finance, and Award Management (BFA) on October 1, 2006. Ms. Tiplady has been with NSF for 5 years and prior to her appointment as Director, DGA, she served as the Chief, Cost Analysis and Audit Resolution Branch in the Division of Institution and Award Support. She received her B.A. in Accounting in 1985 from the University of Maryland.

Ms. Teresa Davies joined NSF as Senior Advisor for Legislative Affairs, Office of Legislative and Public Affairs (OLPA) on October 16, 2006. Prior to joining NSF, Ms. Davies served as Deputy Director, Office of Congressional and Legislative Affairs, Department of the Interior. She received her B.A. in Public Administration from the University of San Francisco.

Also, Mr. George Lennon joined the staff as Senior Advisor for Public Affairs, OLPA on October 29, 2006. Prior to joining NSF, Mr. Lennon served as National Director, Office of Communication, U.S. Department of Agriculture Forest Service. He received his M.A. in Public Administration in 1991 from Central Michigan University.

b. NSF Staff Announcements: Departures

Dr. Peter Freeman, Assistant Director, CISE since 2002, will be joining the Washington Advisory Group in January 2007. Before working at NSF, Dr. Freeman was the Dean of Computing at the Georgia Institute of Technology, where he continues as Professor Emeritus.

Mr. Charles Brown, NSF's Senior Ethics Official, will retire after 35 years of Government service, including 15 years with NSF, in January 2007. His incredible efforts on behalf of NSF, both within the agency and elsewhere, helped create one of the best and most highly regarded ethics programs in all of Government. He is known within the ethics community as its elder statesman, and even the Office of Government Ethics and the Department of Justice have come to him for advice. Even in retirement, Mr. Brown's talents will be relied upon to help establish and direct the first national program to provide *pro bono* legal services for the blind. Dr. Bement thanked Mr. Brown for his many years of sage advice and good counsel.

c. 2006 Presidential Rank Awards and Other Award

Dr. Bement announced the NSF recipients of the 2006 Presidential Rank Awards, which recognize and celebrate career Senior Executive Service members who are strong leaders and consistently demonstrate strength, integrity, industry, and a relentless commitment to public service. The President selects award recipients after a rigorous review process coordinated by the U.S. Office of Personnel Management (OPM). The five NSF recipients of these awards are: Dr. Karl Erb, Director of the Office of Polar Programs (OPP), and Dr. Wanda Ward, Deputy Assistant Director for SBE, received the Distinguished Executive Presidential Rank Award. Dr. Deborah Crawford, Deputy Assistant Director for CISE; Dr. Thomas Cross, Deputy Inspector General, Office of the Inspector General (OIG); and Dr. Thomas Weber, Director of the Office of International Science and Engineering (OISE), received the Meritorious Executive Presidential Rank Award.

Dr. Bement also announced that the National Council of University Research Administrators awarded Mr. Thomas Cooley, NSF Chief Financial Officer, the Joe Carrabino Award given in recognition of a Federal employee who has demonstrated continuous outstanding service to the academic research community. This award recognized Mr. Cooley's clear and effective communication of changes to NSF policies and programs, helping to ensure effective proposal generation and award oversight.

Dr. Beering, speaking on behalf of the Board, congratulated the awardees and expressed deep appreciation to the departing staff for their contributions.

d. Congressional Update

The NSF Director reported that the November 2006 election, which resulted in a switch in the majority party for both the House and Senate, would affect the chairmen and ranking members of NSF committees. Senators Barbara Mikulski and Richard Shelby were expected to switch roles and become chairman and ranking member, respectively, of the NSF Senate Appropriations Subcommittee. Representative Alan Mollohan was expected to replace Representative Frank Wolf as chairman of the House Appropriations Subcommittee. The ranking member of that subcommittee was uncertain. Representative Bart Gordon, who has served on the Science Committee for more than a decade, will replace Representative Sherwood Boehlert as chairman of that committee. Senators Edward Kennedy and Daniel Inouye will be chairmen of the two Senate authorizing committees - the Health, Education, Labor, and Pensions Committee as well as the Commerce Committee - where Senators Michael Enzi and Ted Stevens will serve as ranking members.

Since the September 2006 Board meeting, there were no hearings involving NSF; however, a number of bills were introduced or subject to congressional action. A list of those actions was included in the November 2006 Board Book (Tab 13G), and none of the actions were likely to be enacted prior to the conclusion of the 109th Congress.

AGENDA ITEM 9: Open Committee Reports

a. Executive Committee (EC)

Dr. Bement, EC chairman, reported that there were no items of business.

b. Audit and Oversight (A&O) Committee

Dr. Dan Arvizu, A&O chairman, expressed concern for the increasing workload and the complexity of tasks asked of NSF staff, illuminated by his visit with NSF leadership and staff about A&O Committee related issues. It was an item that was highlighted in the *OIG Semiannual Report to Congress, September 2006*.

Dr. Christine Boesz, NSF Inspector General, discussed the *Semiannual Report to Congress*. Dr. Fae Korsmo, Staff Associate, Office of the Director, presented the NSF management response with data tables, along with the transmittal letter (Board Book Tab 7B). Based on the recommendation by the A&O Committee:

The Board unanimously APPROVED the transmittal letter and management response to the *OIG Semiannual Report to Congress, September 2006*.

Mr. Salvatore Ercolano, Partner-in-Charge with Clifton-Gunderson LLP, presented the results of NSF's financial statement audit and Information Technology (IT) Security Program review. The agency received an unqualified opinion in its financial audit report with no material weaknesses. However, despite improvements made over the past year, two prior reportable conditions remained: (1) post-award oversight for high-risk grants and cooperative agreements; and (2) contract monitoring. Mr. Ercolano stated that most of the improvements made by the agency to improve post-award oversight were implemented at the end of the year leaving little time for evaluation by the auditors. With regard to contract monitoring, Mr. Ercolano commented that the corrective actions were not yet fully comprehensive. He also stated that the review of NSF's IT Security Program, known as the FISMA (Federal Information Security Management Act) report, found no significant deficiencies, but listed six findings under "other matters." The agency agreed with the findings but there was some level of disagreement regarding the significance or level of severity.

Dr. George Strawn, NSF Chief Information Officer, reported on NSF's plans to handle the FISMA-related findings and additional IT security demands in FY 2007.

Mr. Cooley, NSF Chief Financial Officer, noted that this financial statement audit cycle was particularly successful and complimented the new audit firm on its extensive and open communications. Copies of the *NSF FY2006 Performance and Accountability Report* were provided to Board Members and made available on the NSF Web page, http://www.nsf.gov/publications/pub_summ.jsp?ods_key=par. Mr. Cooley reported on NSF's extensive efforts in FY 2006 and planned for FY2007 to address the reportable condition related to post-award monitoring for high risk awards. He emphasized a comprehensive risk based approach for oversight of NSF's \$19 billion multi-year award portfolio and the suite of activities for the Award Monitoring and Business Assistance Program. More extensive desk reviews, increased financial transaction testing for high-risk awards, and added contract support will strengthen the program.

Mr. Cooley also reported on NSF's new Project Report Tracking and Notification System, which went live in November 2006. He also provided the committee with an update on related activities of the National Science and Technology Council's Committee on Science's "Research Business Models." This project included a number of interagency initiatives to develop common standards in a variety of policies and practices related to Federal research funding and management.

c. Education and Human Resources (EHR) Committee

Dr. Hoffman, EHR chairman, reported the committee heard from two guest speakers. Mr. Robert Shea, Associate Director for Management, Office of Management and Budget (OMB) and Head, President's Budget and Performance Integration Initiative, provided the committee with an overview of OMB's work to evaluate the effectiveness of programs in STEM education. He described the charge, results obtained, specific metrics used for the tasks undertaken, and measures of effectiveness. The full OMB report will be available in February 2007, and will clarify the roles of programs and their impacts to date as well as approaches to reduce the cost of evaluations. The committee was especially interested in evidence relevant to STEM teacher retention and recruitment.

Dr. Ward, currently Acting Assistant Director, NSF Directorate for EHR, provided the committee with background information regarding EHR's systematic approach to evaluation, the methods and procedures used, and how the evaluations are used to inform and revise EHR programs. NSF EHR makes use of a multiplicity of evaluation methods to assess program value and impact. Some examples of programs that have been evaluated for impacts include the Math and Science Partnership (MPS), the Louis Stokes Alliances for Minority Participation (LSAMP), the Integrative Graduate Education and Research Traineeship (IGERT), and the Advanced Technology Education (ATE).

Dr. Vasquez updated the committee on the recent meeting of the Board's STEM Commission held on November 20-21, 2006, at the Museum of Science and Industry in Chicago. The committee discussed a response to the recent request from Representative Rush Holt (D-NJ), asking the Board to provide a summary of its review of the NSF EHR program evaluations being undertaken by the committee on behalf of the Board. In a letter dated October 31, 2006, Dr. Beering responded to Representative Holt stating that the Board will provide a summary review of the NSF EHR programs with respect to evaluation procedures and results.

Dr. Hoffman asked for Board Members to send comments to her and Dr. Crosby. A draft response will be circulated to the Board for comment and approval on a schedule that ensures the Board report can be delivered to Representative Holt in January 2007. This would be an opportunity to promote the excellent EHR programs at NSF for the beginning of the 2008 budget cycle.

Finally, the EHR Committee agreed to a formal meeting in February 2007.

d. EHR Subcommittee on Science and Engineering Indicators (SEI)

Dr. Louis Lanzerotti, SEI chairman, reported that Board Members and SEI members provided comments and suggestions for the chapters on *Science and Engineering Indicators (Indicators) 2008*, and the subcommittee agreed that the revised outlines were ready for the authors to begin preparing chapter drafts. The subcommittee also reviewed a matrix circulated to Board Members to sign-up as chapter reviewers. Additionally, the subcommittee received staff suggestions and offered additional names for external reviewers for individual chapters. Members were asked to send additional suggestions to Dr. Lanzerotti and Dr. Alan Rapoport, SEI Executive Secretary. The subcommittee also initiated a discussion of candidate topics for the Companion Piece.

SEI began a parallel discussion of *Indicators 2010*, and covered three topics for that publication. Some data needs were identified from the comments received from Board Members on the *Indicators 2008* chapter outlines. The subcommittee discussed plans to have a meeting with state representatives to discuss the state chapter and how the coverage of state interests and concerns could be better addressed. Similarly, the subcommittee plans a meeting with industry representatives to adequately cover national endeavors in science and engineering related to industry. Lastly, SEI discussed plans for *Indicators 2010*.

e. ad hoc Engineering Education Group

On behalf of Drs. Lanzerotti and Hastings, Dr. G. Wayne Clough reported on the *ad hoc* Engineering Education Group. The November 7, 2006 Board-sponsored workshop on Engineering Education, "Moving Forward to Improve Engineering Education," was held at the Georgia Institute of Technology. Over 20 engineering deans from leading institutions around the country attended the workshop. Workshop participants shared ideas and possibilities to address the topics important to the future of engineering education. Workshop summaries from the group's two workshops will be combined into one document for distribution to a larger audience.

f. Committee on Programs and Plans (CPP)

Dr. Ford, CPP chairman, reported that Dr. Margaret Leinen, Assistant Director, Directorate for Geosciences, gave a brief update on the status of the Scientific Ocean Drilling Vessel, a construction project, funded through the Major Research Equipment and Facilities Construction (MREFC) account. NSF released a request for proposals to the community for this project, and three shipyards responded. All three proposals exceeded the budget by at least \$25 million due largely to dramatic increases in material and energy costs. NSF is exploring various alternatives to meet this shortfall. Shifting funds within the FY 2008 budget request would delay the project

and perhaps result in additional increases in cost. NSF is working with the contractor and the relevant advisory groups to find alternatives to reduce the cost while still meeting the science goals. NSF will update the Board again at the next meeting.

Dr. Ford reported on the status of several task forces and a subcommittee.

Task Force on International Science (INT)

Dr. Jon Strauss, INT chairman, presented CPP with a proposed timeline for future plans. After the discussion with the Department of State and many others, the task force will plan to hold its third international roundtable forum in Brussels during the spring of 2007. He reported that the timeline also included plans to convene several smaller meetings with science and technology government and university representatives in the Middle East in the spring or summer of 2007. INT plans to have a final report prepared by the October 2007 Board meeting. Based on the recommendation by CPP:

The Board unanimously APPROVED the INT timeline and plans to convene a third international roundtable discussion in Brussels during the spring of 2007.

Subcommittee on Polar Issues (SOPI)

Dr. Barry Barish, SOPI chairman, reported that Dr. Karl Erb, OPP Director, circulated copies of postage stamps that the U.S. Postal Service will release in celebration of the International Polar Year (IPY). He also noted a recent award by the state of Colorado to the Raytheon Polar Services Corporation, contractor for the U.S. Arctic Program, for exemplary environmental stewardship; provided a status update on the *Oden* travel to McMurdo Station; and reported that NSF will publish a request for information concerning re-supply services for McMurdo Station within the next few days.

Dr. Anita Jones, former Board Member and chairman of the National Research Council's (NRC's), Committee on the Assessment of U.S. Coast Guard (USCG) Polar Icebreaker Roles and Future Needs, provided an overview on the committee's charge and recommendations on the committee's view of the national needs in this area: (1) resume regular USCG patrols in the Arctic, with Federal science agencies paying incremental costs; (2) build two new ships to give the U.S. the capability that is required in that area; and (3) issue a Presidential Decision Directive, asserting the need for U.S. icebreaker capability and aligning agency responsibilities and budgets. The committee also noted that NSF research relates to U.S. global and foreign policy. In the discussion that followed, Dr. Bement stressed the need to differentiate the short-term practices used by NSF and the eventual long-term goals or roles of icebreakers or the national use of icebreakers. Dr. Bement also noted that in addition to the large cost of building icebreakers, there would be an issue of maintenance costs and deferred maintenance. He endorsed the idea of the Presidential Directive, and urged the Board to recognize the need to be flexible during the interim period without new icebreakers. During the question-and-answer period, it was noted that NSF is exploring alternate ways to resupply McMurdo Station at the South Pole. Dr. Lanzerotti emphasized that the U.S. presence at the South Pole is strategic as well as scientific. SOPI plans to establish a task group to update the Board's official policy on icebreakers, which would be presented to CPP at the Board meeting in March 2007.

Task Force on Transformative Research (TR)

Dr. Leshner reported on behalf of Dr. Douglas Randall, TR chairman, on the timeline for completing the task force report. Board Members were asked to provide comments on the draft report to Drs. Randall and Crosby by December 11, 2006. Those comments would be reviewed and incorporated into a new draft, which would be returned to the task force by mid-January 2007. A revised draft report will be made available for public comment by February 2007, and a final report submitted for Board approval by March 2007. In order to meet the above schedule, the task force requested that their charge, which was due to expire in December 2006, be extended through the May 2007 Board meeting. Based on the recommendation by CPP:

The Board unanimously APPROVED the extension of the charge to the Task Force on Transformative Research to May 2007.

Task Force on Hurricane Science and Engineering (HSE)

Dr. Droegemeier, HSE co-chairman, presented the final draft report, *Hurricane Warning: The Critical Need for a National Hurricane Research Initiative (NSB-06-104)*. Dr. Droegemeier reviewed the major elements of the report with specific emphasis on recent revisions. The committee recommended forwarding the draft report to the full Board for approval.

The Board unanimously APPROVED the draft report, *Hurricane Warning: The Critical Need for a National Hurricane Research Initiative (NSB-06-104)*, subject to final editing by the Board Chairman and HSE co-chairmen.

Dr. Crosby briefed the committee on the FY 2007 schedule of NSF information and action items for Board review.

Dr. Lanzerotti led a discussion on the Board policy on recompetition of NSF awards. CPP discussed the creation of a task group to develop criteria for recompetition, but decided to defer action until further review. Dr. Lanzerotti presented an overview of NSF's funding mechanisms and recompetition strategy within the context of the Board's standing policy of 1997. CPP recommended full Board approval for the Board Chairman to request additional information from NSF.

The Board APPROVED that the Board Chairman request NSF to provide the Board Office with additional information on management and operations costs associated with large, multi-user facilities and MREFC account facilities.

Dr. Kathie Olsen, NSF Deputy Director, indicated that the information will be provided in time for the March 2007 Board meeting.

The committee heard two presentations on information items from the Division of Astronomical Sciences (AST), Directorate for Mathematical and Physical Sciences (MPS): one on the AST Senior Review, presented by Dr. Roger Blandford, review panel chairman; and one on the management review of the 5-year cooperative agreement with the National Optical Astronomy Observatory (NOAO) and the National Solar Observatory (NSO) by Dr. Thomas Barnes, AST Program Director. Dr. Blandford provided CPP with a review of AST's senior review.

Dr. Barnes presented the information item on NOAO and NSO, in which NSF conducted a management review to recommend whether or not to recomplete the cooperative agreement with the Association of Universities for Research in Astronomy (AURA) that currently operates these two facilities. The panel reviewed the performance of AURA in the cooperative agreement and recommended that the award should not be recompleted at the present time. NSF plans to request a proposal from AURA for a new 5-year cooperative agreement and will bring to the Board in March 2007 a request for a 1-year extension of the current cooperative agreement.

g. Committee on Strategy and Budget (CSB)

Dr. Ray Bowen, CSB chairman, reported that the committee heard an update from the NSF Working Group on Impact of Proposals and Award Management Mechanisms (IPAMM) by Dr. Joanne Tornow, Senior Advisor, Planning, Policy, and Analysis, Office of the Deputy Director. She provided information on different variables that influence program directors as they make award decisions, including issues of the increasing number of proposals, speculation as to why, and the impact of that on success rates. Her presentation produced questions that included recommendations for further consideration. A draft report from the working group, which is expected in the next few months, will assist the Board to come to a conclusion on guidance concerning balance between success rates and award size.

Dr. Bement presented an update on the status of NSF's FY 2007 budget request. He stated that NSF was under a continuing resolution through December 8, 2006. It was anticipated that Congress would pass another continuing resolution that would be effective into January.

AGENDA ITEM 10: Presentation on the Overview of NSF Outreach Activities

Mr. Jeffrey Nesbit, OLPA Director, presented an overview of NSF media outreach activities. He noted that the recent NSF study finding that the Internet is second only to television as a source of science news for Americans has been important in shaping OLPA strategies. OLPA launched a number of new public affairs initiatives in the past 4 months aimed at reversing the long decline in the public's understanding and appreciation of scientific exploration and discovery. Many of these initiatives take advantage of new media technologies to directly reach the American public, while others create partnerships with existing media to extend the reach of OLPA public affairs activities. Some of these initiatives include partnerships with the Research Channel, LiveScience, NSF-funded research institutions. He reported that Web statistics reflect some success in the form of increasing traffic on the NSF Web site. Board Members noted the need to increase efforts to reach private industry as well as more traditional NSF publics.

Dr. Beering adjourned the Open Session at 3:15 p.m.

A handwritten signature in black ink, reading "Ann A. Ferrante". The signature is written in a cursive style with a large initial 'A'.

Ann A. Ferrante
Writer-Editor
National Science Board Office