

**MEMORANDUM TO MEMBERS OF THE NATIONAL SCIENCE BOARD**

**SUBJECT:** Summary Report of the August 10-11, 2005 Meeting

The major actions of the National Science Board (NSB, the Board), at its 387<sup>th</sup> meeting on August 10-11, 2005 and a preliminary summary of the proceedings are provided. This memorandum will be publicly available for any interested parties to review. A more comprehensive set of NSB meeting minutes will be posed on the Board's public Web site (<http://www.nsf.gov/nsb/>) following Board approval at the September 2005 meeting.

**1. Major Actions of the Board** (not in priority order)

- a. The Board approved the minutes of the Plenary Open Session (NSB-05-76) for the May 2005 meeting of the NSB ([http://www.nsf.gov/nsb/meetings/2005/0505/open\\_min.pdf](http://www.nsf.gov/nsb/meetings/2005/0505/open_min.pdf)). Minutes for the Plenary Executive Closed and Closed Sessions for the May 2005 meeting of the NSB were also approved.
- b. The Board approved a resolution to close portions of the upcoming September 28-29, 2005 NSB meeting dealing with staff appointments, future budgets, pending proposals/awards for specific grants, contracts, or other arrangements, and those portions dealing with specific Office of the Inspector General investigations and enforcement actions, or agency audit guidelines (NSB-05-83) (Attachment 1).
- c. The Board concurred with the recommendation that the Rare Symmetry Violating Processes (RSVP) project be terminated before the start of construction as a result of the significantly increased construction and operations costs identified during the final stages of planning and the negative impact on the NSF portfolio that would result from proceeding with the project under such circumstances. The National Science Board noted the significant lost scientific opportunity that would result from this project termination.
- d. The Board authorized the Director, at his discretion, to make an award to Washington University, St. Louis, for "Sequencing the Maize Genome."
- e. The Board approved resolutions for the Fiscal Year (FY) 2007 budget requests to the Office of Management and Budget for the Office of the Inspector General (NSB-05-95) (Attachment 2), the National Science Board (NSB-05-96) (Attachment 3), and the National Science Foundation (NSB-05-97) (Attachment 4).

- f. The Board selected Boulder, Colorado as the site of the annual Board retreat, site visit, and meeting on February 9-10, 2006.
- g. The Board approved a resolution that supports the Director's actions to meet the polar icebreaking requirements of the U.S. Antarctic Program and to charter an icebreaking vessel from a non-Federal source in order to obtain necessary icebreaking services (NSB-05-100) (Attachment 5).
- h. The *ad hoc* Committee on Nominations for NSB Class of 2006-2012 was discharged, with thanks to the chairman, Dr. Mark Wrighton. Committee members were Drs. Barry Barish, Kenneth Ford, Diana Natalicio, Douglas Randall, and Daniel Simberloff.
- i. The Board approved the *Science and Engineering Indicators 2006* "Orange Book," subject to final revisions and copy-editing approved by the Chairman of the National Science Board and the chairman of the Subcommittee on Science and Engineering Indicators.

## **2. NSB Chairman's Report**

Dr. Warren Washington, NSB Chairman, noted that he reminded both the Executive Committee and the chair of the Committee on Programs and Plans that, under NSF Authorization Act of 2002, Section 14 requires that the Board report to Congress any delegations of authority related to the use of Major Research Equipment and Facilities Construction (MREFC) account. Dr. Washington will be reporting to Congress that there had been no delegation of authority related to MREFC during the last year. That report is due September 15, 2005.

The Chairman reminded Members that at the May meeting he had asked Dr. Michael Crosby, NSB Executive Officer, to develop a list of proposed sites for the 2006 annual retreat and site visit. The Executive Committee and the chairs of the four NSB standing committees reached a consensus recommendation that the Board's retreat and meeting site for February 2006 should take place at Boulder, Colorado. Dr. Washington announced that he accepted this recommendation. He asked Dr. Crosby to develop the logistics and agenda, and provide updated information to the Board in September and November.

At the May meeting, the Board endorsed working on a Joint NSB-PCAST (Presidential Committee of Advisors for Science and Technology) Roundtable Discussion on Federal-State Policies for R&D (Research and Development). Drs. Bowen, Clough, Natalicio, and White agreed to represent the Board. The roundtable is tentatively slated for October 2005 in Washington, DC.

For the Commission on 21<sup>st</sup> Century Education in Science, Mathematics, and Technology – a draft charge to this Commission was provided to each Board Member. The charge will go before the Board for approval at the NSB September meeting. NSB is required to provide Congress with a progress report at the end of September 2005.

The Chairman discharged the *ad hoc* Committee on Nominations for NSB Class of 2006-2012 with thanks to the chairman, Dr. Mark Wrighton, and committee members, Drs. Barry Barish, Kenneth Ford, Diana Natalicio, Douglas Randall, and Daniel Simberloff.

The NSB held an evening reception on August 10 in honor of Dr. Joseph Bordogna, outgoing Deputy Director of the National Science Foundation, for his dedication and accomplishments. Dr. Bordogna was the longest serving deputy director in the agency's history. He was appointed acting deputy director in 1996, and in 1999 he was named deputy director. He served three Board Chairmen: Drs. Richard Zare, Eamon Kelly, and Washington. The Board appreciates his devoted service and achievements as deputy director.

Dr. Washington welcomed Dr. Kathie Olsen, the new Deputy Director for the National Science Foundation. Dr. Olsen was formerly the Associate Director for Science with the Office of Science and Technology Policy in the Executive Office of the President.

### **3. NSF Director's Report**

Dr. Arden Bement, NSF Director, introduced Dr. David Lightfoot as Assistant Director, Directorate for Social, Behavioral, and Economic Sciences (as of June 1, 2005); Dr. Richard Buckius, Acting Assistant Director for Engineering (as of September 1, 2005); Dr. Usha Varshney, Director, Division of Electrical and Communications Systems and Engineering (as of August 7, 2005); and Dr. Pius Egbelu, Dean of the NSF Academy (as of July 18, 2005).

Dr. Bement also announced three 2004 Presidential Rank Awards in NSF: Mr. Thomas Cooley, Chief Financial Officer received the Distinguished Executive Presidential Rank Award; Dr. Maryanna Henkart, Division Director, Molecular and Cellular Biosciences, received the Meritorious Executive Presidential Rank Award; and Mr. Gerard Glaser, Division Director, Grants and Agreements, received the Meritorious Executive Presidential Rank Award. The President recognized the Distinguished Rank Awardees at a White House ceremony on July 25, 2005.

The Director also reported that he testified before the Senate Science, Commerce, and Transportation Committee on Disaster Prevention and Prediction on June 8, 2005.

With regard to appropriations, on May 25, the House Science, Commerce, Justice, and State Department Appropriations Subcommittee marked up their bill for FY 2006. The full Appropriations Committee passed the bill on June 7. Under the House bill, which was approved by the full House on June 16, NSF would receive \$5,643 billion, \$38 million above the President's request.

On June 21, the Senate Commerce, Justice, and Science Appropriations Subcommittee marked up provided NSF with \$5,531 billion, \$74 million less than the President's request. The full Appropriations Committee passed the bill on June 23, and the full Senate action should occur in September. The differences between the House and Senate bills will be settled in conference, most likely in September.

In a letter dated July 13, House Appropriations Subcommittee Chairman Frank Wolf formally approved NSF's plan to establish an Office of Cyberinfrastructure as a separate entity, reporting directly to the NSF Director. The Senate, which did not provide a formal written notice, also endorsed the change.

Under science and engineering legislation, Dr. Bement met with Senator Kit Bond on June 8 to discuss S. 767 legislation that would establish a Division of Food and Agriculture Science at NSF. The bill would have serious long-term consequences to NSF if enacted as written. Senator Bond hoped to work with NSF in crafting legislation that will not impede NSF's "good works" but still allow him to move forward with a bill. The Senate Appropriations bill calls on the Office of Science and Technology Policy (OSTP) to "assess the merit-based, peer-reviewed basic science to support food and agriculture research across all Federal agencies" and to "assess future opportunities and avenues for improving merit-based, peer-reviewed basic science to support food and agriculture research and to report their findings to the committee."

#### **4. NSB Committee Reports**

##### **a. Executive Committee (EC)**

###### EC Open Session

Dr. Bement, EC chairman, noted that NSF now has an official portrait on display of Dr. Rita Colwell, who served as NSF Director from 1998 to 2004. Dr. Washington notified the committee about the Board's congressional requirement of the NSF Authorization Act of 2002, Section 14 report, and that no delegation of MREFC authority was made by the Board during the last year.

###### EC Closed Session

Dr. Washington asked Dr. Crosby to present the candidate sites for the annual NSB retreat and off-site meeting in February 2006. The Executive Committee and the four standing committee chairs discussed candidate sites and reached a consensus recommendation for Dr. Washington that Boulder, Colorado be the site. Dr. Bement informed members on the status of several executive staff searches and budget issues.

##### **b. Audit and Oversight (A&O) Committee**

###### A&O Open Session

Dr. Norine Noonan provided a report on the work of the NSF Advisory Committee on GPRA [Government Performance and Results Act] Performance Assessment (AC/GPA), of which she is chair. She described the committee's role and function, and noted that the committee's report

is both a stand-alone document and key to NSF's annual Performance and Accountability Report. She stated that the committee determined that NSF demonstrated significant achievement for indicators under Ideas, Tools and Organizational Excellence (including merit review). She also indicated that the committee determined that NSF did not demonstrate significant achievement for one indicator under People (research on learning, teaching, and mentoring). The AC/GPA also recommended that the next NSF Strategic Plan needs to refine the concept of "significant achievement" for assessment purposes.

The committee discussed their charge to develop a statement on NSB roles and responsibilities for the Board's new "2020 Vision for NSF" report. There was a consensus that the Vision document needed further refinement in this regard. Further discussion will continue before the December deadline.

During the committee discussion of the draft report of NSF Merit Review System Review, Dr. Arvizu reviewed the work that had been done. Interviews with NSF program staff were conducted on how the merit review system is implemented across NSF. A draft report is targeted to be provided to A&O by the end of August. An A&O conference call will be scheduled to discuss this draft, which should be finalized at the NSB September meeting.

A draft NSB policy statement on the respective roles of the Office of Inspector General (OIG) and NSF Management in the Pursuit and Settlement of Administrative Investigatory Matters was circulated. It called for OIG and NSF to work cooperatively and in partnership with respect to administratively addressing OIG investigations and recommendations, and to collaborate on developing procedures and practices that will facilitate this objective. It was anticipated that the draft policy, together with any changes agreed to by the Director and the Inspector General, will be discussed and put to a vote at the September meeting.

Mr. Joel Grover, OIG, reported that the competitive procurement process to award a 5-year contract for the audit of the agency's financial statements was proceeding smoothly. The NSF Chief Financial Officer, Mr. Thomas Cooley, advised the committee on the considerable progress made on addressing reportable conditions in the FY 2004 audit. Mr. Dan Kovlak, KPMG, agreed with Mr. Cooley's assessment and stated that the FY2005 financial statement audit was proceeding according to schedule.

#### Closed Session

The committee reviewed the OIG proposed FY 2007 budget resolution and approved recommending the request to the full Board. *[The full Board subsequently approved the OIG budget submission.]* (NSB-05-95) (Attachment 2) The committee also heard about an ongoing investigation.

### **c. Education and Human Resources (EHR) Committee**

The committee discussed how to proceed with the proposed new NSB Education Commission. All NSB members received a draft charge for consideration and discussion. The EHR committee discussed comments from the Hill and the Administration regarding the Commission. Members of the committee suggested that: NSB establish the Commission; the Commission look broadly at K-12 science, technology, engineering, and mathematics (STEM) and higher education as it relates to K-12; and Commission member appointments should be highly visible individuals.

NSF staff reviewed the history and purpose of the Math and Science Partnership (MSP) Program, projects funded, impacts and results to date. The committee discussed the unique aspects and value-added of the MSP Program.

The committee heard reports from the NSF Assistant Directors of the Directorate for Engineering as well as the Directorate Mathematical and Physical Science, completing the series of staff presentations on the topic of integration of research and education at NSF, which began in March 2005.

Dr. Crosby reported on a June 23 presentation by Dr. George Langford, former Board Member and Vice Chair of the Task Force on National Workforce Policies for Science and Engineering, at a roundtable discussion on the Science and Technology Workforce, organized by Science Committee minority staff. Dr. Crosby also provided an update on an Innovation Summit being organized for this fall by the House Science Committee Chairman Sherwood Boehlert; Vernon Ehlers, Chairman of the Subcommittee on Environment, Technology and Standards of the Science Committee; and Chairman Frank Wolf of the House Appropriations Subcommittee on Science, State, Justice and Commerce, which has jurisdiction for NSF budgets.

Dr. Hastings briefed the committee on the progress of the NSB “Workshop on Engineering Workforce Issues and Engineering Education: What Are the Linkages?” to be held on October 20, 2005 at the Massachusetts Institute of Technology (MIT).

The committee briefly discussed the EHR contribution to the development of the Board’s Vision for NSF regarding education of the 21<sup>st</sup> century workforce, and will discuss this subject in more detail at the September meeting to develop overarching goals for the future of science and engineering education, including consideration of long- and near-term NSF education program priorities.

The Committee approved a motion by the Science and Engineering Indicators Subcommittee to forward to the full Board a motion to approve the *Science and Engineering Indicators 2006* “Orange Book” and cover, subject to final edits by the respective committee chairs. *[The full Board subsequently approved the Science and Engineering Indicators 2006 “Orange Book” motion.]*

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

The subcommittee agreed to make a motion to EHR that the National Science Board approve the “Orange Book” draft for *Science and Engineering Indicators 2006*, subject to final revisions and copy editing approved by the Chairs of the National Science Board and the Subcommittee on SEI, with a cover illustration of gravitational waves.

The subcommittee also discussed a draft of the *Science and Engineering Indicators 2006* Companion Piece and will prepare a revised version based on the comments received for distribution to the full Board.

One of the Board Office’s two external contractors undertaking an assessment of the NSB *Science and Engineering Indicators 2006* publication presented a draft of an alternative form for an Overview Chapter. Given the tight time frame for production of the current *Indicators* volume, it was decided that most of the suggestions presented would be considered for future editions of the publication.

#### **e. Committee on Programs and Plans (CPP)**

##### CPP Open Session

Dr. Daniel Simberloff, CPP chairman, led discussions regarding input to the NSB Task Force on Vision for NSF. The committee agreed that additional attention should be placed on mid-size equipment projects—which collectively represent a significant share of the NSF portfolio. The *Facility Plan* and the NSB Guidance for NSF Centers, both actions coming through CPP, provide additional guidance.

Dr. Simberloff updated the committee on the Board’s 2001 report on international science. Drs. Natalicio, Lubchenco, and Bowen are working with the Board Office to develop a charge for this effort. The revised charge will be sent out immediately following the NSB meeting.

Dr. Rossmann reported on the status of the NSB report, *Long-Lived Data Collections: Enabling Research and Education in the 21<sup>st</sup> Century* (NSB-05-40). The report was being finalized for print format and printed copies will be available at the NSB September meeting.

Drs. Washington and Simberloff worked closely with Board Office staff to draft revised guidelines for sending information and actions to CPP and NSB in an effort to address concerns from Board Members on the timing and communication process for information and action items to the Board from NSF. The intent is to create increased lead-time and advance communication on future items in order to afford feedback from the Board to NSF, prior to the Director formally approving NSF items to be brought before the Board. Dr. Crosby will meet with Dr. Olsen to finalize the new process and will report to the Board at the September NSB meeting.

The committee asked for some final changes to be made to the *National Science Foundation Facility Plan* regarding the National Ecological Observatory Network (NEON) and the Rare Symmetry Violating Processes (RSVP). Dr. Simberloff asked the Board Office to work with the Director's Office to ensure that the footnotes are changed appropriately, and once completed, the *Facility Plan* will be released by NSF.

Dr. Jane Lubchenco provided a presentation at the last NSB meeting on the Millennium Ecosystem Assessment and would like to engage NSF in a discussion. Dr. Simberloff asked CPP to take the lead on thinking strategically about meeting these challenges.

The committee continued discussion on the report, NSF's *Cyberinfrastructure Vision for the 21<sup>st</sup> Century*, and a strategic plan for High Performance Computing. It was reported that the search for a permanent Director for the new Office of Cyberinfrastructure and establishment of an Advisory Committee for Cyberinfrastructure were ongoing. The revised *Cyberinfrastructure Vision* report will be composed of several chapters, which the Board will review over the next months. Chapters A, "Call to Action," and B, "Strategic Plan for High Performance Computing," were provided for CPP review at this meeting. NSF plans to post Chapters A and B of the document for public comment in September following incorporation of final comments from the Board.

#### CPP Closed Session

The committee considered two action items and two information items:

Following identification of potential cost increases for the RSVP MREFC project, an independent evaluation and an NSF-led baseline review, NSF recommended termination of the project. CPP voted to recommend this resolution for termination to the full NSB. [*The full Board subsequently approved the resolution to terminate RSVP.*] (NSB-05-93) A second action, "Sequencing the Maize Genome," was approved by CPP. [*The full Board subsequently approved the "Sequencing the Maize Genome" resolution.*] (NSB-05-94)

Additional information was provided to the committee on two other projects: Atacama Large Millimeter Array (ALMA) and Deep Underground Science and Engineering Laboratory (DUSEL).

#### **f. CPP Subcommittee on Polar Issues (SOPI)**

Dr. John White, SOPI chairman, led discussions on various topics. Dr. Karl Erb, Director of the Office of Polar Programs, reported that the National Academy of Science/National Research Council Icebreaker Requirements Committee had been established and would hold its first meeting August 25-27, 2005. Dr. Erb also reported on the signing of a memorandum of agreement (MOU) between NSF and the U.S. Coast Guard to provide the framework for cooperation to meet annual polar icebreaking needs. Additionally, the finalizing of a special solicitation for the International Polar Year (IPY) was nearing release. A resolution expressing NSB priorities for polar icebreaking services for the current year was approved by SOPI (and

CPP) and forwarded to the full Board for approval. *[The full Board subsequently approved the resolution on Icebreaking Issues for the U.S. Antarctic Program.]* (NSB-05-100) (Attachment 5)

**g. CPP Task Force on Transformative Research (TR)**

Dr. Nina Fedoroff, TR chair, led a discussion on the upcoming August 12, 2005 workshop at the National Science Foundation. The task force also discussed plans for the next workshop, slated for later this year, which will focus on various approaches and methods to better measure and understand transformative research.

**h. Committee on Strategy and Budget (CSB)**

CSB Open Session

Dr. Bement presented a report on the status of NSF's FY 2006 budget request. Both the House and Senate had taken action on the NSF appropriation. In both chambers, NSF received an increase relative to FY 2005, but relative to NSF's FY 2006 request, the House provided an increase and the Senate total was below the NSF request. The House mark provided NSF \$5.6 billion, a net increase of \$38 million, or 0.7 percent above the FY 2006 request. The most significant increase would be within the EHR account, which would receive \$70 million (9.5 percent) more than requested. The Senate total represents a decrease of \$74 million, or 1.3 percent below the FY 2006 request. Minimal increases are provided for the Research and Related Activities and EHR accounts, but the increases are offset by decreases to the MREFC and salaries and expenses accounts.

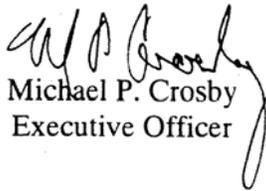
CSB: Closed Session

Dr. Crosby reported on the FY 2007 budget request for NSB and outlined activities and initiatives that would be supported. The committee recommended that the Board approve the FY 2006 budget request for NSB. *[The full Board subsequently approved the NSB FY 2007 budget submission.]* (NSB-05-96) (Attachment 3)

Dr. Bement presented an overview of the FY 2007 budget submission to the Office of Management and Budget. The budget submission reflected NSF strategies and investment priorities. The committee recommended that the Board approve the FY 2006 budget request for NSF. *[The full Board subsequently approved the NSF FY 2007 budget submission.]* (NSB-05-97) (Attachment 4)

### **i. CPP and CSB Joint Session**

The joint session of CPP and CSB examined the topic of NSF centers programs and determined the following: the Board agrees that the current investment in centers is appropriate and endorses re-competing centers, and that centers provide a special value, which would not be attained with individual investigator awards. The group voted to accept the draft guidance on NSF centers programs subject to editing that would be approved by the chairs. The joint session also discussed award size, duration, and funding rate and noted that award size has gone up substantially in the last 5 years, while the success rate has declined. The group will revise the draft guidance on this topic and review the guidance again at the NSB September meeting.



Michael P. Crosby  
Executive Officer

- Attachment 1: [NSB-05-83](#)
- Attachment 2: [NSB-05-95](#)
- Attachment 3: [NSB-05-96](#)
- Attachment 4: [NSB-05-97](#)
- Attachment 5: [NSB-05-100](#)

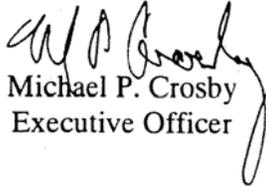
**MEMORANDUM TO MEMBERS OF THE NATIONAL SCIENCE BOARD**

**SUBJECT:** Closed Session Agenda Items for September 28-29, 2005 Meeting

The Government in the Sunshine Act requires formal action on closing portions of each Board meeting. The following are the closed session agenda items anticipated for the September 28-29, 2005 meeting.

1. Staff appointments
2. Future budgets
3. Grants and contracts
4. Specific Office of Inspector General investigations and enforcement actions

A proposed resolution and the General Counsel's certification for closing these portions of the meetings are attached for your consideration.

  
Michael P. Crosby  
Executive Officer

Attachments

PROPOSED  
RESOLUTION  
TO CLOSE PORTIONS OF  
388th MEETING  
NATIONAL SCIENCE BOARD

RESOLVED: That the following portions of the meeting of the National Science Board (NSB) scheduled for September 28-29, 2005 shall be closed to the public.

1. Those portions having to do with discussions regarding nominees for appointments as National Science Board members and National Science Foundation (NSF) staff appointments, or with specific staffing or personnel issues involving identifiable individuals. An open meeting on these subjects would be likely to constitute a clearly unwarranted invasion of personal privacy.
2. Those portions having to do with future budgets not yet submitted by the President to the Congress.
3. Those portions having to do with proposals and awards for specific grants, contracts, or other arrangements. An open meeting on those portions would be likely to disclose personal information and constitute a clearly unwarranted invasion of privacy. It would also be likely to disclose research plans and other related information that are trade secrets, and commercial or financial information obtained from a person that are privileged or confidential. An open meeting would also prematurely disclose the position of the NSF on the proposals in question before final negotiations and any determination by the Director to make the awards and so would be likely to frustrate significantly the implementation of the proposed Foundation action.
4. Those portions having to do with specific Office of the Inspector General investigations and enforcement actions, or agency audit guidelines.

The Board finds that any public interest in an open discussion of these items is outweighed by protection of the interests asserted for closing the items.

## CERTIFICATE

It is my opinion that portions of the meeting of the National Science Board (NSB) or its subdivisions scheduled for September 28-29, 2005 having to do with nominees for appointments as NSB members and National Science Foundation (NSF) staff, or with specific staffing or personnel issues or actions, may properly be closed to the public under 5 U.S.C. § 552b(c) (2) and (6); those portions having to do with future budgets may properly be closed to the public under 5 U.S.C. § 552b(c) (3) and 42 U.S.C. 1863(k); those portions having to do with proposals and awards for specific grants, contracts, or other arrangements may properly be closed to the public under 5 U.S.C. § 552b(c) (4), (6), and (9) (B); those portions disclosure of which would risk the circumvention of a statute or agency regulation under 5 U.S.C. § 552b(c) (2); and those portions having to do with specific Office of the Inspector General investigations and enforcement actions may properly be closed to the public under 5 U.S.C. § 552b(c) (5), (7) and (10).



Lawrence Rudolph  
General Counsel  
National Science Foundation

**RESOLUTION**

NATIONAL SCIENCE BOARD

OFFICE OF THE INSPECTOR GENERAL  
NATIONAL SCIENCE FOUNDATION  
FISCAL YEAR 2007 BUDGET SUBMISSION

RESOLVED, that the National Science Board approves the proposed National Science Foundation, Office of the Inspector General Fiscal Year 2007 budget request for transmittal to the Office of Management and Budget, as recommended by the Audit and Oversight Committee.

A handwritten signature in black ink, appearing to read "Warren M. Washington". The signature is fluid and cursive, with a long horizontal stroke at the end.

Warren M. Washington  
Chairman

**RESOLUTION**

NATIONAL SCIENCE BOARD

NATIONAL SCIENCE BOARD  
FISCAL YEAR 2007 BUDGET SUBMISSION

RESOLVED, that the National Science Board approves the proposed National Science Board Fiscal Year 2007 budget request for transmittal to the Office of Management and Budget, as recommended by the Committee on Strategy and Budget.

A handwritten signature in black ink, appearing to read "Warren M. Washington". The signature is fluid and cursive, with a long horizontal stroke at the end.

Warren M. Washington  
Chairman

**RESOLUTION**

**NATIONAL SCIENCE BOARD**

**NATIONAL SCIENCE FOUNDATION  
FISCAL YEAR 2007 BUDGET SUBMISSION**

RESOLVED, that the National Science Board approves the proposed National Science Foundation Fiscal Year 2007 budget request for transmittal to the Office of Management and Budget, as recommended by the Committee on Strategy and Budget.

A handwritten signature in black ink, appearing to read "Warren M. Washington". The signature is fluid and cursive, with a long horizontal stroke at the end.

Warren M. Washington  
Chairman

**RESOLUTION**

NATIONAL SCIENCE BOARD  
ICEBREAKING ISSUES FOR THE U.S. ANTARCTIC PROGRAM

WHEREAS U.S. policy requires maintaining an active and influential presence in Antarctica through year-round occupation of South Pole Station and two coastal stations; and

WHEREAS NSF is the agency responsible for managing the U.S. Antarctic Program in support of this policy; and

WHEREAS the research supported by NSF in Antarctica is critical for understanding phenomena of global importance, and polar regions offer unique opportunities for forefront research in a broad range of disciplines; and

WHEREAS McMurdo Station and South Pole Station depend on icebreakers opening an annual supply channel to McMurdo Station; and

WHEREAS the Coast Guard has advised engaging two icebreakers to mitigate the risk that one might be inadequate this coming season; and

WHEREAS the *Polar Star* is the only Coast Guard Polar class icebreaker currently operational while the U.S. Coast Guard Cutter *Healy* is scheduled for maintenance after a research cruise in the Arctic; and

WHEREAS only one contractor responded to NSF's Request for Information requesting availability of icebreakers - Far Eastern Shipping Company (FESCO) offered the *Krasin*, which performed well in McMurdo Sound last year; and

WHEREAS engaging the *Krasin* to open the channel to McMurdo Station, holding the *Polar Star* in ready reserve to assist if needed, would both mitigate risk and reduce costs and has the potential to preserve the *Polar Star* for service in 2006/2007; and

WHEREAS NSB Resolution NSB-05-68<sup>1</sup> supports the NSF Director taking all necessary steps to meet the requirements for polar icebreaking among available options to best meet the needs of the research community in the most cost effective manner;

Therefore, be it RESOLVED that the National Science Board supports the Director's actions to meet the polar icebreaking requirements of the U.S. Antarctic Program and to charter an ice-breaking vessel from a non-Federal source in order to obtain necessary icebreaking services.



Warren M. Washington  
Chairman

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<sup>1</sup> Dated May 26, 2005, approved at May 2005 NSB meeting and appended to Plenary Open Session minutes (NSB-05-76).