

Audit of Supplemental Funding for Certain CISE Research Awards

National Science Foundation
Office of Inspector General

December 1, 2008
OIG 09-2-004



NATIONAL SCIENCE FOUNDATION
4201 Wilson Boulevard
ARLINGTON, VIRGINIA 22230



OFFICE OF
INSPECTOR GENERAL

MEMORANDUM

DATE: December 1, 2008

TO: Kathie L. Olsen
Deputy Director, National Science Foundation

FROM: *Deborah H. Cureton*
Deborah H. Cureton
Associate Inspector General for Audit

SUBJECT: *Audit of Supplemental Awards in the Measurement and Signatures Intelligence Program, OIG Report 09-2-004*

Attached please find the final report of our audit of Supplemental Awards in the Measurement and Signatures Intelligence Program. We have included NSF's response, in full, as an appendix in the final report.

OMB Circular A-50 requires NSF to prepare a time-phased corrective action plan to address the report recommendations. Please furnish our office with a copy of this corrective action plan by January 30, 2009.

I appreciate the courtesies and assistance provided by so many NSF staff during the audit. If you have any questions, please contact Karen Scott or me at (703) 292-7100.

Attachment

Cc: Dr. Christine Boesz, OIG
Mr. Thomas Cooley, BFA
Dr. Deborah Crawford, CISE
Ms. Kristen Cutforth, OIG
Ms. Elizabeth Goebels, OIG
Dr. Haym Hirsh, CISE
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Ms. Joanne Rom, BFA
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Ms. Karen Tiplady, BFA
Dr. Jeannette Wing, CISE

Introduction

In 2007, the National Science Foundation (NSF) Office of Inspector General (OIG) received anonymous information expressing concerns that NSF's Computer and Information Science and Engineering (CISE) Directorate improperly made supplemental funding awards. Specifically, the information alleged that CISE had provided supplemental funding awards for the Measurement and Signatures Intelligence Program (MASINT) without following NSF's required external merit review process.

Background

In fiscal year 2004, at the direction of the Congress, the Defense Intelligence Agency (DIA) established the MASINT program "to discover, develop and implement advanced science-based technologies and techniques that will enhance our ability to acquire actionable, unambiguous intelligence despite an adversary's attempts to conceal or deceive."¹ NSF administers the unclassified, university, basic-research element of the program by facilitating the awarding of funds to DIA-approved university research institutions, and by providing focus and insight for ongoing and potential basic research investments. DIA transfers funds to NSF for these awards through interagency agreements.²

Objective, Scope and Methodology

In response to the anonymous concerns expressed to the OIG, the objective of our audit was to determine whether NSF staff followed NSF's merit review policies and procedures for awarding supplemental funds under the MASINT program. To make this determination, we reviewed documentation for 19 MASINT awards³ and interviewed NSF and DIA staff involved with the MASINT program and with administering the program's awards.

We conducted this performance audit from February 2008 to August 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results of Audit

Our audit found that while CISE appears to have had a proper basis to request a deviation from NSF's standard merit review process to make supplemental awards for the MASINT program, it did not

¹ Charter for the National Consortium for Measurement and Signatures Intelligence Research, at 3.

² Id. at 11.

³ The anonymous information we received contained a list of 21 MASINT awards, of which 19 had supplements. We requested a full listing of MASINT awards from CISE, but did not receive it. However, based on interviews with CISE staff, we believe these 19 to be representative of the program.

obtain the required Director’s approval for the deviation. CISE also did not adequately document, and thus communicate to the staff responsible for making the awards, the reasons for the deviation from these standard policies and procedures. Consequently, concerns on the part of grants officials about the lack of merit review led to funding delays and additional investigations and reviews. Further, the lack of approval and documentation gave the appearance to Division of Grants and Agreements (DGA) staff of circumventing and undermining the propriety of one of NSF’s most important and fundamental quality control processes.

NSF Requires Merit Review or Waiver for Supplements

According to NSF’s Proposal and Award Manual (PAM), in unusual circumstances, awardees may request small amounts of supplemental funding and up to six months of additional financial support to assure adequate completion of the original scope of work. If the total supplemental funding request, including all actual and anticipated increments, exceeds 20 percent of the original award total or if the proposal request is beyond the scope of original work, the PAM requires external merit review of the proposal for the supplemental funds, regardless of whether that funding is from NSF or another Federal agency. However, in another section related to merit review in general, the PAM does allow NSF’s Director or his designee to waive external merit review requirements. The PAM also recommends that information relating to a special exemption from merit review be documented in NSF’s Electronic Jacket System (eJacket).

MASINT Program Did Not Follow NSF Policies to Waive Merit Review

CISE awarded supplemental funds to MASINT awardees that exceeded the 20-percent threshold without first obtaining the required merit review. In many cases, these supplements were significantly greater than the original award. For example, in one instance, the original award was for \$199,911. The supplements increased the total amount of funding to over \$1,000,000. Similarly, in another instance, the original award was for \$147,503, but supplements increased the total amount of funding to \$973,503.

CISE staff appeared to have a sound basis for making these follow-on awards without obtaining a merit review, but did not seek the required NSF Director’s approval for the waiver. Additionally, CISE staff did not adequately document in the eJacket award files the reason for not conducting merit review that would have provided explanations for the deviation to the responsible grants office staff.

As part of making the original MASINT awards, DIA invited pre-screened, potential awardees to submit proposals to NSF for funding. As stated in the MASINT program Charter, “university efforts

deemed successful will continue for a full three-year period.” Consequently, most, but not all, of the initial proposals contemplated future years funding and included information on research activities for subsequent years in those proposals.⁴ NSF conducted merit reviews of these original proposals using DIA-approved panel reviewers, and, according to one NSF employee, panelists were made aware of the potential for a full three years of funding. In addition, DIA conducted semi-annual reviews to ensure the progress was adequate and warranted the subsequent year’s funding. However, because DIA’s appropriation only allowed for funding these awards in one-year increments, NSF opted not to take the risk that DIA’s funding priorities might change leaving NSF potentially responsible for funding the second and/or third year of the awards from its own appropriations. As such, NSF chose not to award three-year continuing grants, but instead made one-year awards to the successful proposers and provided supplemental awards for the second and third years.

Therefore, it seems that CISE may have had a reasonable basis for using supplemental awards as the vehicle to fund the second and third years without conducting further merit review, and that basis could have justified the Director’s approval of a waiver for the deviation. However, CISE did not seek or obtain the required waiver from the NSF Director. Additionally, the proposers were not required to provide nor did the panelists review financial budgets for the full three years. Consequently, reviewers did not have sufficient information to ensure that the scope of the research could be appropriately and sufficiently funded or that projects would not be over funded during the full life of the award.

In addition, CISE did not adequately document its decision-making process or the verbal guidance it received when making the supplemental MASINT awards without additional merit review. During the course of our audit, CISE stated it consulted with the NSF Policy Office and the Office of General Counsel (OGC) when making the decision to use supplemental awards to fund the out years of the MASINT program awards. We have confirmed that NSF’s Policy Office was indeed involved in and agreed to this decision. However, the representative from OGC has no knowledge or recollection of these events. Further, we were informed by OGC that they believed any conversations they may have had with NSF staff regarding the MASINT awards could potentially be covered by an attorney-client privilege, thus prohibiting any discussion with our office.

⁴ DIA instructs awardees that while they *may* provide details of several years in their proposals they should be clear on what will be accomplished within the first year and what funding is needed for the first year.

Clear documentation in unique award circumstances is not only recommended by NSF's policies, but also is vital for effective communication between NSF's Division of Grants and Agreements (DGA) and its science directorates. From July 2004 to September 2007, at least 12 different grants and agreements officers processed awards and amendments for the MASINT program. With so many grants officers working on this program, documentation of the basis to deviate from merit review requirements is critical to preserving the integrity of this well-regarded process of grantee selection. "The merit review process is at the very heart of NSF's selection of the projects through which its mission is achieved."⁵ When such documentation and communications to the responsible grants officers is not provided, misunderstandings and second-guessing occur and create the appearance of undermining important agency core values.

Consequences of Missing Waiver and Inadequate Documentation

Because CISE did not obtain an approved waiver or adequately document in eJacket the process and rationale for making these supplemental awards, DGA staff questioned why CISE was not conducting the otherwise required merit reviews of the MASINT follow-on awards, some of which amounted to as much as \$700,000 per supplement. DGA staff began canceling MASINT supplements and an investigation of the matter was called for. In turn, funding to MASINT awardees was significantly delayed until at least some of the DGA staff concerns were addressed.

NSF Is Taking Partial Corrective Action

DGA and CISE are currently working on creating language to place in all MASINT award jackets explaining the process NSF uses to provide funding to MASINT awardees. Once developed, this language should then be available through eJacket to all DGA grants officers processing these awards. However, at the time of our audit, NSF did not have any plans to address the NSF requirement to obtain a formal waiver from the Director.

Conclusion and Recommendations

It appears that CISE had a justifiable basis to obtain the Director's formal approval to deviate from NSF's standard merit review policies when using supplemental funds to provide subsequent years' funding to MASINT awardees. As such, NSF had documented policies and procedures that provide CISE with the flexibility it needed to make the supplemental awards for this program without merit review. However, by not following those procedures, CISE did not seem to have the proper authority to provide the supplemental funding without merit reviews and gave the appearance to DGA staff of undermining the integrity of one of NSF's most important and fundamental quality control processes.

⁵ Report to the National Science Board on the National Science Foundation's Merit Review Process Fiscal Year 2006, March 2007.

Consequently, we recommend that the NSF Deputy Director direct the Assistant Director for CISE to:

- 1) Request, on a program-wide basis, the required authorization from the NSF Director to waive the merit review of all MASINT proposals for supplemental awards for out-year funding and document the waiver in eJacket, in accordance with NSF's policy; and
- 2) Ensure each existing affected MASINT eJacket contains the "[p]rogram memoranda, diary notes, correspondence to and from the proposer, or other data/information/ correspondence relating to the recommendation or special exemption from external merit review" as required by the Proposal and Award Manual, including documentation of the decision-making process and rationale CISE staff used to justify funding supplemental awards without merit review.

Additionally, because unique situations such as these may arise in the future, we also recommend that the NSF Deputy Director direct the NSF Chief Financial Officer, Director Office of Budget, Finance and Award Management to:

- 3) Issue a memorandum to all NSF staff reminding them of the current NSF policy for making supplemental awards, including the requirement for merit review of supplemental award proposals except in unusual circumstances, in which case a written waiver must be obtained from the NSF Director or his designee; and
- 4) Provide cross-references in the PAM that link the requirements surrounding merit review of supplemental awards with those related to merit review in general, including the possibility for a waiver from the Director in unusual circumstances.

Agency Response

NSF concurred with the findings and stated it will implement the report's recommendations. The Appendix contains the agency's response to the report in its entirety.

Appendix: Agency Response

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OFFICE OF THE
DEPUTY DIRECTOR

TO: Deborah Cureton
Associate Inspector General for Audit

FROM: Kathie L. Olsen *KLO*
Deputy Director

DATE: November 26, 2008

SUBJECT: NSF Management Response to OIG Draft Report: Supplemental Awards
in the Measurement and Signatures Intelligence Program

Thank you for providing us with the opportunity to review and comment on the official draft report describing the audit of the Measurement and Signatures Intelligence (MASINT) program. MASINT is representative of several programmatic endeavors NSF undertook in partnership with the US intelligence community in response to the September 11, 2001 tragedy.

We appreciate the report including the finding that NSF staff appeared to have a sound basis for their award decisions. We also understand that the OIG concerns are that the procedures used in the program may not have been appropriately authorized, and that there was not adequate documentation of the procedures and their authorization.

The MASINT program has been following procedures in line with those developed under a previous NSF Director to work with homeland security and intelligence agencies. These procedures were developed in response to requests from other federal agencies to support scientific and engineering activities in connection to matters of national security.

NSF management will implement the actions stated in the recommendations.

Please contact me at 703 292 8001 if you have any questions or wish to discuss further.

cc: Tom Cooley
Jeannette Wing