

MA-96-003

**AUDIT
REPORT**

CENTER DIRECTOR'S DISCRETIONARY FUND

MARSHALL SPACE FLIGHT CENTER

June 10, 1996



National Aeronautics and
Space Administration

OFFICE OF INSPECTOR GENERAL

National Aeronautics and
Space Administration
Headquarters
Washington, DC 20546-0001



JUN 10 1996

Reply to Attn of: W

TO: Marshall Space Flight Center
DA01/Director

FROM: W/Assistant Inspector General for Auditing

SUBJECT: Final Audit Report
Center Director's Discretionary Fund (CDDF)
Marshall Space Flight Center (MSFC)
Assignment No. A-MA-95-012
Report No. MA-96-003

The NASA Office of Inspector General (OIG) has completed a review of the Center Director's Discretionary Fund at MSFC. The review was initiated to determine if the CDDF was effectively and efficiently managed.

We found that the fund was generally being effectively and efficiently managed. The Program Manager provided sufficient fund oversight and tracking. However, in one instance we found that guidelines concerning fund use and reporting were not being followed. We recommended that the MSFC Director ensure that the NASA Academy fulfill CDDF program objectives and that CDDF projects using NASA Academy students as research assistance properly account for the cost of such assistance. We also recommended that annual CDDF reports to Headquarters accurately reflect fund use.

We issued a discussion draft report on February 12, 1996. An exit conference was held on March 7, 1996. Appropriate changes were made to the report as a result of the exit conference discussions. A draft report was issued on March 20, 1996, and we received a written response from the Center on April 23, 1996. MSFC's management reply is responsive to the audit recommendations and is incorporated into the report with the complete management response included as Appendix A. Our response to the Center's detailed comments is included as Appendix B.

In accordance with the OIG's audit follow-up policy, please include our office in the concurrence cycle for closing recommendations 1 and 2. Recommendation 3 is considered closed.

We appreciate the cooperation and assistance provided by MSFC officials during the survey.


Debra A. Guentzel

Enclosure

cc:
BE01/L. Cucarola
JMC/P. Chait

INTRODUCTION

The Office of Inspector General has completed an audit of the Center Director's Discretionary Fund (CDDF). The CDDF was established by the NASA Deputy Administrator in 1978. Its purpose is to permit NASA Field Center Directors to allocate funds to selected employees or organizations having innovative research and technology ideas. The fund offers each Center Director an opportunity to encourage new concepts in scientific or technical areas not directly related to current programs or projects.

The Marshall Space Flight Center (MSFC) CDDF was initially funded for \$250,000 in Fiscal Year (FY) 1979, and has periodically increased to \$2.2 million for FY 1995. A MSFC Advisory Panel recommends innovative project proposals submitted by MSFC employees for funding each year. Projects are selected based on technical value, potential for success, and technical or scientific importance to MSFC.

CDDF projects should cultivate MSFC's technical and scientific talent through "hands-on" experience. With this objective in mind, the projects should be performed largely in-house with contracted expenditures limited to less than fifty percent of the project's funds. A project's planned completion should not exceed two years.

The MSFC CDDF is currently governed by the MSFC CDDF Guidelines and Procedures, May 1995. This publication is based on a letter, dated September 11, 1978, from the Deputy Administrator which established the CDDF. Both documents give general ground rules for fund use and reporting. Requirements of the CDDF include:

- exclusive support of innovative ideas in research and technology;
- planned project duration of less than two years;
- support work performed primarily by MSFC in-house personnel; and,
- submission of annual report of fund use to Headquarters.

The ground rules are general in nature in an effort to minimize paperwork and reporting requirements. However, the MSFC document specifically addresses the need for adherence to the ground rules to control CDDF resources.

OBJECTIVES, SCOPE, AND METHODOLOGY

OBJECTIVES

The overall audit objective was to determine if the CDDF is efficiently and effectively managed. Specifically, we determined whether MSFC CDDF management:

- provides adequate oversight and tracking, and;
- complies with applicable guidelines and procedures.

SCOPE AND METHODOLOGY

To meet our audit objectives, we reviewed documents pertaining to the CDDF proposal selection process, fund accounting and reporting requirements. Interviews were conducted with the CDDF Program Manager, Program Analyst, selected Principal Investigators (PI) and contractor personnel.

MANAGEMENT CONTROLS REVIEWED

We reviewed significant management controls to determine whether:

- oversight and tracking of the CDDF was adequate;
- appropriate controls were in place for monitoring fund use; and,
- proper procedures were followed in recommending proposals.

AUDIT FIELD WORK

We performed audit field work at MSFC between May and September, 1995. The audit was performed in accordance with generally accepted government auditing standards.

OBSERVATIONS AND RECOMMENDATIONS

OVERALL EVALUATION

The MSFC CDDF is generally being efficiently and effectively managed, and the Program Manager provides sufficient fund oversight and tracking. However, in one instance we found that CDDF guidelines concerning fund use and fund reporting are not being followed. As a result, CDDF funding for one project may be inappropriate, and inaccurate fund use is reported to Headquarters.

FUND USE

One project supported by CDDF funds is the NASA Academy. The NASA Academy is a summer research internship for exceptional undergraduate students. The purpose of the internship is to provide an introduction to NASA's programs and operations. In contrast, CDDF ground rules require that funds be allocated to NASA employees conducting well-defined research or technology development in a scientific or technical area. While the NASA Academy is a worthwhile endeavor, its goals do not support CDDF objectives.

NASA Academy

The NASA Academy was initiated in the summer of 1993 at Goddard Space Flight Center. MSFC started its own program in 1994, funded in part by the MSFC CDDF, as well as the NASA Space Grant Program and the NASA/University Joint Venture in Research (JOVE) Program. The program is coordinated by the Alabama Space Grant Consortium.

Twelve to fifteen selected students spend time each week of their ten-week session in discussions, tours and demonstrations with NASA and private industry employees. The NASA Academy PI reported that approximately seventy percent of the students' time is spent with CDDF project PIs doing hands-on laboratory research. The students also visit Kennedy Space Center and local aerospace industry sites.

Ground Rules

The NASA Academy is allotted CDDF funds as if it were a project. It received approximately \$28,000 in 1994 and \$32,000 in 1995. To meet CDDF criteria, the ground rules state that:

- funds will be used exclusively to support innovative ideas in research and technology;
- projects should not be planned in excess of two years.

Well-Defined Research or Technology Development. The NASA Academy is an educational program with a stated purpose of developing aerospace professionals. As such, it does not meet the requirements or the objective of funding an individual or group conducting well-defined research or technology development. A summer intern program offering a variety of educational activities is not well-defined research, nor could it be considered technology development.

The NASA Academy students spend their internship involved in numerous activities which are not directly related to any specific research or development project. Their budgets for CDDF funds include field trips, social events and meeting/meal expenses. The budget also includes local and staff transportation, housing, overhead and a Program Assistant's salary.

With the intent of giving the students experience in a world-class laboratory, the project provides student research assistance to other CDDF projects. Consequently, the availability of research assistants may be influencing personnel requirements for some projects. Normally, a research or development project's needs drive its personnel requirements.

Also, the cost of using NASA Academy student assistance is not included in CDDF project proposals benefitting from the students' help. Currently, none of the student's assistance is budgeted in the individual projects. This masks a project's true fund requirements and does not address NASA's efforts to establish full project costing.

More Than Two Years. NASA Academy at MSFC has been in operation two summers and has CDDF funding approval for the summer of 1996. Although no long-term funding commitments have been given to the NASA Academy, no funding alternatives are under consideration. However, the ground rules of the MSFC CDDF state that projects will be completed within two years, and then should either be eligible for some other type of funding or be terminated.

FUND REPORTING

Required reporting documents submitted to NASA Headquarters do not accurately reflect CDDF use. The NASA Academy project was not included in the 1994 report to Headquarters. MSFC personnel could not explain why this project was excluded. As a result, the Deputy Administrator did not have accurate information to consider in establishing the following year's funding level.

When the CDDF was established, the Deputy Administrator included a reporting requirement in the fund ground rules. Each Center is expected to submit an annual report on the use that has been made of CDDF funds. The Deputy Administrator considers the report in establishing the following year's funding level.

CONCLUSION

We recognize the intent of the broad ground rules which have been established for the MSFC CDDF, as an effort to ease the administrative burden for PIs and allow greater focus on their CDDF projects. However, by disregarding the general ground rules, the Deputy Administrator's program intentions are not being fulfilled. By not following the guidelines concerning fund use and fund reporting, program objectives are being compromised.

RECOMMENDATIONS

The Director, MSFC should ensure that:

1. NASA Academy fulfill CDDF program objectives as an appropriate project that meets and follows the ground rules for CDDF funding, or identify viable alternatives for funding the activity.
2. individual CDDF projects using NASA Academy student research assistance properly account for the cost of such assistance.

***MANAGEMENT
RESPONSE***

Concur. The current system is being modified to allow the PIs, in their initial proposals, to request NASA Academy students to work on their CDDF projects. The NASA Academy costs will be charged to those specific CDDF projects to which the students are assigned. We believe these changes satisfy the recommendations.

***EVALUATION OF
MANAGEMENT'S
RESPONSE***

The actions planned are considered responsive to the intent of the recommendation. Appendix B to this report contains responses to the Center's additional comments.

3. annual reports to Headquarters accurately reflect fund use.

***MANAGEMENT
RESPONSE***

Concur. In the FY95 CDDF Annual Report to NASA Headquarters, MSFC included the cost of the NASA Academy students. Since the

necessary corrective action has been taken, we consider this recommendation closed upon issuance of the final report

***EVALUATION OF
MANAGEMENT'S
RESPONSE***

The actions taken are considered responsive to the recommendation.

MAJOR CONTRIBUTORS TO THIS AUDIT

***MARSHALL SPACE
FLIGHT CENTER***

C. Thomas Hassell, Audit Manager
Teresa J. Danne, Auditor-in-Charge
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APR 23 1996

Reply to Attn of: DE01

TO: Office of Inspector General
Attn: W/Debra A. Guentzel


FROM: DE01/Susan McGuire Smith

SUBJECT: OIG Draft Audit Report on the Center Director's
Discretionary Fund (CDDF), MSFC, Assignment No.
A-MA-95-012

We have reviewed the subject report, and our detailed comments are enclosed.

We concur with the three recommendations in the report. Action is currently underway to address Recommendations 1 and 2. Furthermore, the corrective action associated with Recommendation 3 has been completed, therefore, we consider this recommendation closed upon issuance of the final report.

If you have any questions or need additional information concerning our comments, please contact BE01/Lana Cucarola at (205) 544-0096.


Susan McGuire Smith
Associate Director

Enclosure

CC:
M-DI/Mr. Echerd

**MSFC RESPONSE TO OIG DRAFT AUDIT REPORT
ON THE CENTER DIRECTOR'S DISCRETIONARY FUND (CDDF)
ASSIGNMENT NO. A-MA-95-012**

COMMENTS:

Overall, we do not agree with the OIG's position that the NASA Academy should not be funded by the CDDF. Although the program may have some activity anomalous to CDDF projects, it contributes significantly to the MSFC CDDF program. We do agree that the cost of the program should be allocated to individual CDDF projects rather than handled as a discrete project. Also, we agree that the cost of the program should be properly accounted for and reported to Headquarters.

Page 4, Paragraph 1, Lines 3-6: We do not fully agree with these two statements. The NASA Academy students assist the Principal Investigators (PI's) in accomplishing their research objectives. Consequently, we think that the basic intent of the CDDF program is being met.

Page 4, Paragraph 2, Lines 3-4: We do not agree that the NASA Academy's only purpose is to provide an introduction to students on NASA's programs and operations. The Academy has a two-fold purpose: (1) to provide an introduction to our programs and operations (30 percent of the intern's time) and (2) to provide exceptional students with a research internship whereby they gain hands-on experience in various research endeavors (70 percent of the intern's time). Presently, MSFC is only paying for 34 percent of the student's cost and receiving 70 percent of the benefit, which indicates that the Center is getting a very good deal.

Page 5, Paragraph 3, Lines 3-6: We disagree with the speculative statement that the availability of research assistants may be influencing personnel requirements for some projects.

Page 6, Paragraph 3, Lines 4-7: We take exception to these statements. There are no program objectives being compromised by using NASA Academy students on the CDDF projects. The various research project objectives are being accomplished by using talented students who add value to the research.

ENCLOSURE

RECOMMENDATIONS 1 AND 2: Concur. The current system is being modified to allow the PI's, in their initial proposals, to request NASA Academy students to work on their CDDF projects. The NASA Academy costs will be charged to those specific CDDF projects to which the students are assigned. We believe these changes satisfy the recommendations.

RECOMMENDATION 3: Concur. In the FY95 CDDF Annual Report to NASA Headquarters, MSFC included the cost of the NASA Academy students.

Since the necessary corrective action has been taken, we consider this recommendation closed upon issuance of the final report.

**RESPONSE TO MSFC'S DETAILED COMMENTS
DRAFT AUDIT REPORT ON THE CENTER DIRECTOR'S DISCRETIONARY FUND
ASSIGNMENT NO. A-MA-95-012**

Management's Response to Recommendations 1 and 2 indicates management's agreement that the NASA Academy should meet CDDF program objectives. Management's proposed modification to the current system removes NASA Academy from CDDF funding as an individual project, while allowing other CDDF projects to benefit from the significant contributions offered by NASA Academy students.

Page 4, Paragraph 1, Lines 3-6: We agree that NASA Academy students assist the PTs in accomplishing their research objectives. We also think the basic intent of the CDDF program is generally being met.

Page 4, Paragraph 2, Lines 3-4: Our audit objective was to determine if the CDDF is efficiently and effectively managed. NASA Academy was not a focus of our review; therefore, we are unable to address the accuracy, reliability or merits of the program benefits as stated.

Page 5, Paragraph 3, Lines 3-6: Based on information obtained during our audit of CDDF, we became aware that the availability of research assistants may influence personnel requirements for some projects.

Page 6, Paragraph 3, Lines 4-7: We agree that various research project objectives are being accomplished by using talented students who add value to the research. As a project, however, NASA Academy does not meet nor follow the ground rules for CDDF funding as indicated by Management's concurrence with our recommendations.

