IG-97-027

AUDIT REPORT

ARC SUPPORT OF SETI'S HIGH RESOLUTION MICROWAVE SURVEY PROGRAM

June 30, 1997

National Aeronautics and Space Administration

OFFICE OF INSPECTOR GENERAL

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

Reply to Attn of: W

June 30, 1997

TO: 200-1/Director, Ames Research Center

FROM: W/Acting Assistant Inspector General for Auditing

SUBJECT: Final Audit Report on ARC Support of SETI's High Resolution Microwave Survey Program
Assignment No. A-AR-96-002
Report No. IG-97-027

The Office of Inspector General has completed an audit of ARC's support of the High Resolution Microwave Survey (HRMS) Program. We found that ARC improperly supported the HRMS Program after Congress terminated the program's funding. Support included purchasing unique, special purpose equipment; using an Intergovernmental Personnel Act assignment agreement; and, lending NASA-owned equipment to the Institute. The OIG issued a draft report to management on April 24, 1997. Management's response was considered responsive to our recommendations, and is included in its entirety as Appendix 2 of the report.

A copy of the report is enclosed. Additional copies have been forwarded to the ARC Audit Liaison Representative for further distribution. In accordance with NMI 9910.1B, please include our office in the concurrence cycle to close Recommendation 1 of the report. We consider Recommendations 2, 3, 4, and 5 closed. If you have any questions, please call me at 202-358-1232.

Robert J. Wesolowski

Robert J. Wesolowski

Enclosure

cc:
ARC/W/OIG Program Director (w/o encl.)
200-9/Director of Center Operations
241-11/Audit Liaison Representative (w/6 encl.)

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ARC SUPPORT OF SETI'S HIGH RESOLUTION MICROWAVE SURVEY PROGRAM

INTRODUCTION

The NASA Office of Inspector General (OIG) has completed an audit of NASA Ames Research Center's (ARC) continued relationship with the High Resolution Microwave Survey (HRMS) Program. NASA and the Search for Extraterrestrial Intelligence (SETI) Institute conducted the program before October 1, 1993. The Institute has conducted the program since that date. The purpose of the audit was to determine whether ARC complied with the Congressional mandate to terminate NASA funding of the program, and with applicable property controls.

On November 14, 1996, the OIG issued Rapid Action Report IG-97-008 that addressed other instances of HRMS Program support after the funding termination. The OIG and Headquarters' Code B agreed that NASA would postpone action on Recommendation 1 until the OIG issued this final report. ARC concurred with OIG Recommendations 2, 3, and 4.

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OBJECTIVES, SCOPE, AND METHODOLOGY

The attached rapid action report describes NASA's relationship with the HRMS Program, and the audit's objectives, scope and methodology. The report (page 2) also provides the background on Congress' termination of funding for the HRMS Program. We conducted our audit field work during the period January 1996 through December 1996, according to generally accepted government auditing standards. The audit included such examinations and tests of applicable records and documents as we considered necessary in the circumstances.

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OBSERVATIONS AND RECOMMENDATIONS

RESULTS OF AUDIT

ARC continued to support the SETI Institute's HRMS Program after October 1, 1993, when Congress terminated NASA's participation in the program. In Rapid Action Report (RAR) IG-97-008, we identified three Small Business Innovation Research (SBIR) contracts under which ARC improperly provided or planned to provide $714,058 of equipment and other support to the SETI Institute (contracts NAS 2-14245, NAS 2-13974 and NAS 2-12936).

Our subsequent audit work revealed the following additional instances of improper support.

- ARC purchased a Radio Frequency Interference (RFI) processor costing $490,120 for the HRMS Program.
- ARC assigned a manager to the Institute's HRMS Program under an 18-month Intergovernmental Personnel Act (IPA) agreement. We estimated the HRMS-related cost of the agreement at $70,000.
- ARC lent or transferred other NASA equipment to the Institute estimated to cost $59,480.
- ARC allowed 11 of the Institute's HRMS employees to continue using ARC facilities until October 1994. We estimated the value of facilities improperly provided at $12,569.

Appendix 2 summarizes the total amount of unauthorized support ($1,346,227) identified by this audit and the rapid action report.

We discuss the additional instances of improper support below. We believe each instance violated the Congressional funding termination for the HRMS Program.

RFI PROCESSOR IMPROPERLY BOUGHT AND NEVER USED

Two weeks after Congress terminated NASA funding for the HRMS Program, ARC awarded a contract for a unique, special purpose RFI processor for the HRMS Program. ARC subsequently lent the processor to the Institute where it remained unused for 11 months. The Institute then returned the processor to ARC where it awaits disposition. ARC should find an alternate use for the RFI processor or dispose of it according to prescribed property disposal procedures.

On October 15, 1993, ARC awarded an SBIR Phase II contract (NAS 2-13920) for a unique, special purpose RFI processor for the HRMS Program. Sometime during the period October 1 - 15, 1993, ARC's cognizant contract specialist asked the then Microwave Observing Project (i.e., HRMS) manager whether ARC should award the contract considering the Program's termination. The manager stated that *"this proposal was still in effect and this contract should be awarded so that this research can continue . . . this is still needed research and the closure of SETI office should have no influence on this award."* ARC then awarded the contract for the RFI processor at a cost of $490,120.

After accepting delivery of the equipment, ARC lent the processor to the SETI Institute on October 25, 1995. The Executive Director, SETI Institute, advised the OIG that the Institute had never used the equipment since the day NASA delivered it to the Institute. Exhibit 1 is a photograph of the RFI processor in its unused state at the SETI Institute.

On October 3, 1996, following the Executive Director's discussion with the OIG, the Institute returned the processor to ARC. As of January 28, 1997, ARC was still attempting to find an alternate use for the equipment.

IPA Improperly Used

ARC assigned a NASA employee to the Institute's HRMS Program under an 18-month Intergovernmental Personnel Act (IPA) assignment agreement. We estimated the HRMS-related cost of this assignment to be $70,000.

The SETI Institute Director advised ARC that termination activities were completed as of March 31, 1994. According to ARC records, ARC employees were reassigned from HRMS activities to other programs as of March 31, 1994. On April 1, 1994, ARC assigned Dr. D. Kent Cullers, SETI Signal Detection Scientist, to the SETI Institute under an IPA agreement. The initial period of the agreement was 6 months. ARC later extended the agreement by an additional 12 months. Under the terms of the agreement, Dr. Cullers participation was essential to completing "detection systems and strategies to be used by the SETI Institute." The agreement said that completion of the detection systems would ensure that the government investment in SETI research would be used effectively, and that the technology developed by NASA would be efficiently transferred to the private sector.

During the 18-month term of the IPA agreement, ARC paid Dr. Cullers' full salary and benefits. Dr. Cullers advised the OIG that during this period, he spent about 50 percent of his time on HRMS activities and about 50 percent of his time on other NASA activities. We estimated his HRMS-related salary (burdened) during the 18-month period, at $70,000. ARC paid his salary and benefits with Research & Program Management funds.

ARC assigned Dr. Cullers to the Institute because of his background and expertise in HRMS activities. After working 18 months with the Institute under the IPA agreement, Dr. Cullers resigned from NASA to become an employee of the SETI Institute. He is currently the Institute's Senior Scientist and Manager of Project Phoenix, formerly called the HRMS Program.

EQUIPMENT IMPROPERLY LENT

During the period October 1994 to December 1994, ARC allowed SETI Institute personnel to physically relocate 29 pieces of NASA-owned equipment, costing $59,480, to the Institute's facilities in Mountain View, California. ARC did not follow prescribed procedures governing the equipment transfer. Further, ARC's property records showed that the equipment was still at ARC and not at the Institute. ARC should immediately recover all NASA property being used by the Institute's HRMS Program.

NASA Handbooks 4200.1D and 4200.2 require that NASA officials approve any movement of NASA-owned equipment, whether by borrowing, loaning, leasing, or transferring. The Institute had informed ARC of its plans to relocate 15 of the 29 pieces of equipment. However, ARC took no action to formally transfer the equipment to the Institute. Property management officials were unable to explain why ARC had seemingly ignored NASA's property transfer procedures and were not aware that the Institute had relocated the equipment to its facilities in Mountain View.

Most of the relocated equipment consisted of general purpose personal computers, printers, and monitors. The Institute's records showed that the Institute had assigned most of the equipment to Institute personnel who worked on the HRMS Program. As of January 1997, the status of the 29 pieces of equipment was as follows:

No. of Items	Total Cost	Location
4	$11,867	Returned to ARC in 8/95
11	10,480	Returned to ARC in 11/96
1	800	Unknown
3	10,975	SETI's observatory at Greenbank, Maryland
10	25,358	SETI Institute
29	$ 59,480	Total

ARC allowed the Institute's HRMS Program to continue using Government-owned property, long after Congress terminated NASA's funding for the program. To ensure that ARC complies with the intent of Congress, ARC should immediately recover all NASA property being used by the Institute's HRMS Program and comply with prescribed property controls regarding the release of Government-owned property to ARC contractors and grantees.

OTHER IMPROPER SUPPORT

ARC allowed 11 Institute HRMS employees to work at ARC after Congress terminated NASA funding for the HRMS Program. ARC and the SETI Institute agreed that Institute employees would remain at ARC through March 1994, to phase out all HRMS work at ARC. The SETI Institute Executive Director notified ARC that HRMS termination activities were completed as of March 31, 1994. However, these employees continued to occupy office space at ARC and use Government property including laboratory and office equipment during the period April through October 1994. Using cost data provided by ARC's Financial Management Division, we estimated the value of facilities support (office space) to these 11 Institute employees at $12,569. Data were not adequate to estimate the value of laboratory and equipment support used.

CONCLUSION

The audit showed that ARC had improperly provided various types of support to the HRMS Program after Congress terminated NASA funding of the program. In recognition of the findings stated in this report and our previously issued rapid action report, we make the following recommendations.

RECOMMENDATION 1

The NASA Chief Financial Officer/Comptroller, Code B, should report to Congress that NASA used SBIR and other funds to support the HRMS Program after Congress terminated funding of the program.

Management Response

Concur, with conditions. ARC understands that the actions taken may have created the appearance of having continued to fund the HRMS program after Congressional direction to terminate funding. While the Center maintains that no improper actions were taken, we concur with the recommendation that NASA should inform Congress of the actions taken.

Evaluation of Management's Response

ARC maintains that the actions referenced in this report and the attached rapid action report "may have created the appearance" of continued funding; nonetheless, it states that it did not act improperly. We disagree. Our audit findings disclosed a pattern of continued, unauthorized support that began when Congress terminated NASA funding of the program, and ended more than 3 years later after the OIG issued its reports on the HRMS program.

A memo from ARC's Manager, HRMS Survey Project, to ARC University Affairs, dated January 14, 1994, helps illustrate ARC's intention to continue supporting the program (in this case, with direct transfers of equipment) -- despite Congress' attempts to terminate it. The manager stated:

> *"The HRMS itself is terminating as a NASA project by March 31, 1994. . . . it is our plan to provide as much of the material of the HRMS to the Institute through direct transfer and loans to make their continuation successful."*

The actions to be taken satisfy the intent of the recommendation.

RECOMMENDATION 2

ARC should find an alternate use for the HRMS RFI processor (total cost $490,120) or dispose of the processor according to prescribed property disposal procedures.

Management Response

Concur. The RFI Processor was shipped to the SETI Institute for verification testing of the contract deliverable. The COTR of the SBIR contract attended the testing. After the testing was accomplished, the processor should have been returned to ARC, but was instead left at the Institute. The Institute did not use the processor in their HRMS Program, or any other program to our knowledge. ARC has had the RFI processor returned to ARC. We have reviewed other possible uses for the processor, but have not identified any at this time. We will dispose of the processor according to prescribed property disposal procedures.

Evaluation of Management's Response	The actions to be taken satisfy the intent of the recommendation.
RECOMMENDATION 3	ARC should immediately recover all NASA property (total estimated cost $59,480) being used by the SETI Institute's HRMS Program.
Management Response	Concur. Review of this property revealed that property passes were improperly used for this equipment. Twenty-four of the 29 items have been returned to ARC for use on other programs. The remaining five items have been properly added to the SETI Institute loan agreement.
Evaluation of Management's Response	The actions taken satisfy the intent of the recommendation.
RECOMMENDATION 4	ARC should comply with prescribed property controls regarding the release of Government-owned property to ARC contractors and grantees.
Management Response	Concur. ARC agrees that we should assure that prescribed property control procedures should be followed in the use and loan of government equipment. A review found that proper procedures were not followed for all items. Proper documentation has been completed, and our employees have been reminded of the procedures and the necessity to follow them.
Evaluation of Management's Response	The actions taken satisfy the intent of the recommendation.
RECOMMENDATION 5	ARC should ensure that it does not use Intergovernmental Personnel Act (IPA) Assignment Agreements to circumvent funding controls.
Management Response	Concur. ARC agrees that the IPA should not be used in such a manner as to give the appearance of frustrating the intent of Congressional guidance. With regard to SETI, we would note there was no legal issue as to the funding controls since the Congressional action did not extend to the research and program management appropriation. In the case of Dr. Kent Cullers, ARC believes that proper procedures to review and approve his IPA to support the transfer of technology to a not-for-profit organization were used.
Evaluation of Management's Response	While ARC may have used proper procedures to review and approve the IPA agreement, we believe ARC has ignored the main issue; that is, that Congress intended to terminate <u>all</u> NASA funding for the

HRMS program. To illustrate, Senator Richard H. Bryan - Nevada (see page 2 of our earlier rapid action report), had expressed concern that the program had continued after it was eliminated from the Fiscal Year 1993 authorizing legislation. In highlighting the program's legislative history, Senator Bryan stated:

> *" . . . After legislation was enacted* [i.e., FY 1993], *NASA failed to carry out the mandate of the Congress in eliminating the program, but rather changed the characterization --, that is, the name -- of the program. So no longer do we have a search for extraterrestrial intelligence. Now we have a new program whose function is identical in all respects to the program that we have been seeking to eliminate. It is called the high resolution microwave survey."*

The response satisfies the intent of the recommendation.

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GENERAL COMMENTS

We appreciate the courtesy, assistance, and cooperation extended to us by NASA and contractor officials contacted during this audit.

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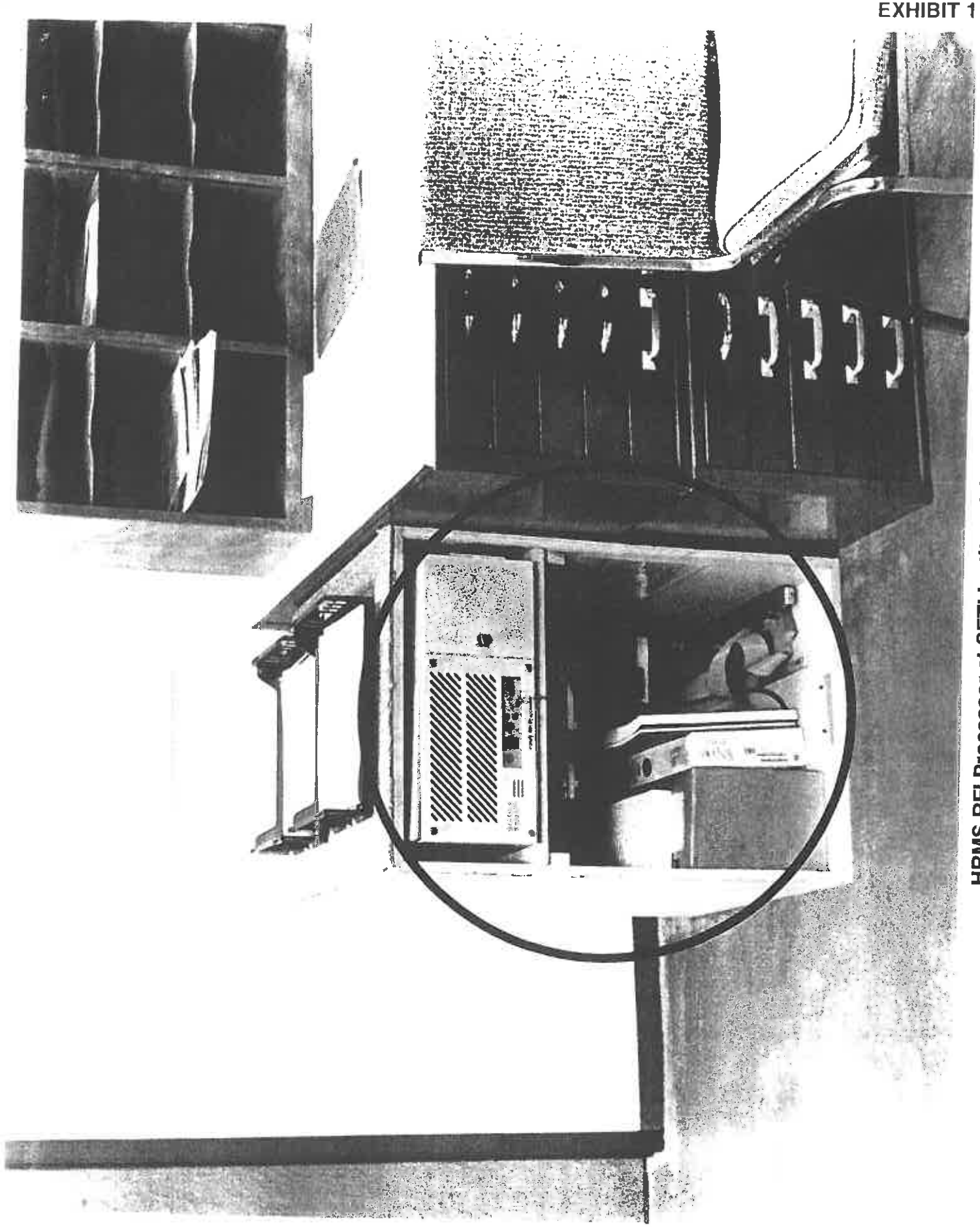
EXHIBIT 1



HRMS RFI Processor at SETI Institute (circled area)

IG-97-008

AUDIT REPORT

RAPID ACTION

ARC'S SUPPORT OF SETI'S HIGH RESOLUTION MICROWAVE SURVEY PROGRAM

AMES RESEARCH CENTER

November 14, 1996

National Aeronautics and Space Administration

OFFICE OF INSPECTOR GENERAL

ADDITIONAL COPIES

To obtain additional copies of this audit report, contact the Assistant Inspector General for Auditing at 202-358-1232.

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To suggest ideas for or to request future audits, contact the Assistant Inspector General for Auditing. Ideas and requests can also be mailed to:

Assistant Inspector General for Auditing
NASA Headquarters
Code W
300 E St., SW
Washington, DC 20546

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To report fraud, waste, abuse, or mismanagement, contact the NASA OIG Hotline by calling 1-800-424-9183; 1-800-535-8134 (TDD); or by writing the NASA Inspector General, P.O. Box 23089, L'Enfant Plaza Station, Washington, DC 20026. The identity of each writer and caller can be kept confidential upon request to the extent permitted by law.

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

Reply to Attn of: W

November 14, 1996

TO: B/Chief Financial Officer
D/Center Director, Ames Research Center

FROM: W/Assistant Inspector General for Auditing

SUBJECT: Final Rapid Action Report on ARC's Support of the SETI Institute
Ames Research Center, Assignment No. A-AR-96-002
Report No. IG-97-008

An OIG audit of ARC's Support of the SETI Institute has identified matters requiring immediate management attention and/or action by the Center. The enclosed rapid action report is intended to provide early advice on these matters. Six additional copies of the report have been forwarded to the ARC/OIG Audit Liaison Representative for further distribution at the center.

The OIG's audit work to date indicates that ARC continued to support the SETI Institute's High Resolution Microwave Survey (HRMS) project after Congress terminated funding of the project effective October 1, 1993. In March 1995, ARC used SBIR funds to purchase almost $0.6 million of HRMS equipment, with the intent of loaning the equipment (a data recorder) to the SETI Institute. Although the Center maintained that its support of research on the data recorder was based on its "commercial uses," ARC still had not identified a commercial user for the equipment as of September 18, 1996.

Additionally, the Center needed to close a $0.5 million contract awarded in November 1988, to acquire a signal detector for use in the HRMS project. ARC deobligated the contract's remaining balance on September 26, 1995, but did not close the contract until September 17, 1996.

The OIG issued a draft rapid action report to ARC management and to Code B, NASA Headquarters on October 10, 1996. We incorporated into the report managements' responses to the report's four recommendation. If you have any questions regarding this report, please call me at 202-358-1232.

James W. Hagerty
for Debra A. Guentzel

Enclosure

cc:
OIG Liaison Representative, ARC (w/6 encl.)

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IG-97-008

ARC SUPPORT OF SETI'S HIGH RESOLUTION MICROWAVE SURVEY PROGRAM

AMES RESEARCH CENTER, CALIFORNIA

INTRODUCTION

The NASA Office of Inspector General is conducting a survey of NASA Ames Research Center's (ARC) continued relationship with the High Resolution Microwave Survey (HRMS) project. The project had been conducted by NASA and the Search for Extraterrestrial Intelligence (SETI) Institute prior to October 1, 1993, and since then by the Institute. The purpose of the survey is to determine whether ARC complied with the congressional mandate to terminate NASA funding of the project, and with applicable property controls. During our survey, we identified certain conditions that warrant management's immediate attention. We have issued this rapid action report due to the significance and time sensitivity of these conditions.

In the early 1970s, ARC began to consider the technology required for an effective search for extraterrestrial intelligence. By the late 1970s, SETI programs had been established at ARC and the Jet Propulsion Laboratory (JPL). Using large microwave radio telescopes, ARC would examine 1,000 Sun-like stars in a targeted search and JPL would sweep all directions in a sky survey.

The SETI Institute was founded in 1984 as a nonprofit corporation for scientific and educational projects concerning the nature, distribution, and prevalence of life in the universe. The Institute conducts and/or encourages research and related activities in all science and technology aspects of astronomy and the planetary sciences, chemical evolution, the origin of life, biological evolution, and cultural evolution.

NASA began funding the SETI Institute's HRMS project in 1985 (then called the Microwave Observing Program), under NASA cooperative agreement NCC 2-336. In Fiscal Year 1993, NASA funding of the HRMS project totaled about $12 million.

In September 1993, in a Senate floor debate on NASA's Fiscal Year 1994 Appropriations Act, Senator Richard H. Bryan - Nevada, cited other funding priorities as his reason for wanting to terminate the Microwave Observing Program, and expressed concern that the program had continued after it was eliminated from the authorizing legislation. Senator Bryan served on the Senate Commerce Committee, which was the authorizing committee for the program. He highlighted the program's legislative history as follows:

> *" . . . last year, fiscal year 1993, the program* [i.e., the Microwave Observing Program] *was eliminated in the authorizing legislation. This program had been known for many, many years as the Search for Extraterrestrial Intelligence, . . . After this legislation was enacted, NASA failed to carry out the mandate of the Congress in eliminating the program, but rather changed the characterization --, that is, the name -- of the program. So no longer do we have a search for extraterrestrial intelligence. Now we have a new program whose function is identical in all respects to the program that we have been seeking to eliminate. It is called the high resolution microwave survey."* (September 20, 1993.)

On September 22, 1993, Senator Bryan submitted Amendment No. 911 to NASA's appropriations bill for Fiscal Year 1994, to prohibit the use of funds for the HRMS project. Effective October 1, 1993, Congress withdrew its support of the HRMS project.

The Appropriations Act, Public Law 103-124, dated October 28, 1993, stated "*Provided, That not to exceed $1,000,000 under this Act shall be available for the Towards Other Planetary Systems/High Resolution Microwave Survey Program (also known as the Search for Extraterrestrial Intelligence Project).*" The conference report explained the purpose of the funds as follows:

> "*Finally, the conferees have agreed to include a provision proposed by the Senate and modified to limit to $1,000,000 any funds made available under this act for the Towards Other Planetary Systems/High Resolution Microwave Survey Program (also known as the Search for Extraterrestrial Intelligence Project). The $1,000,000 included for this activity is available only for termination costs.*"

OBJECTIVES, SCOPE, AND METHODOLOGY

OBJECTIVES

The objectives of the survey are to determine whether NASA:

- Terminated funding for the HRMS project as mandated by Congress on October 1, 1993; and
- Properly transferred/loaned equipment to the SETI Institute.

SCOPE AND METHODOLOGY

In addressing our objectives, we interviewed ARC and SETI Institute officials; examined ARC's funding and expenditure records; examined transactions concerning the purchase, maintenance, transfer/loan of equipment; and reviewed other relevant documents. Our audit work to date has primarily focused on the first objective and is continuing on both objectives.

MANAGEMENT CONTROLS REVIEWED

We reviewed management controls to the extent needed to satisfy the survey objectives, including controls over:

- Funding and administration of cooperative agreement NCC 2-336.
- Equipment loaned to the SETI Institute.
- Use of Intergovernmental Personnel Act (IPA) agreements.
- Award of Small Business Innovation Research (SBIR) contracts to acquire HRMS equipment.

AUDIT FIELD WORK

Audit field work began in January 1996 and is continuing. Field work is being performed at ARC and the SETI Institute. The audit is being performed according to generally accepted government auditing standards, and includes such examinations and tests of applicable records and documents as are considered necessary in the circumstances.

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OBSERVATIONS AND RECOMMENDATIONS

INTERIM RESULTS OF AUDIT

ARC has continued to support the SETI Institute's High Resolution Microwave Survey (HRMS) project, despite actions taken by Congress to terminate it. Audit work to date indicates that ARC awarded a $0.6 million contract (NAS 2-14245) to purchase equipment for the HRMS project, after Congress terminated NASA funding of the project effective October 1, 1993. The contractor was expected to deliver the equipment to ARC in September 1996. The audit also disclosed a contract (NAS 2-12936) to purchase HRMS equipment, awarded before Congressional termination, that ARC continued to fund for work performed after termination. As of August 26, 1996, ARC still had not issued a change order to close the contract.

TAKE ACTION ON DATA RECORDER CONTRACT

Contract NAS 2-14245 (HRMS data recorder) -- ARC planned to lend to the SETI Institute almost $0.6 million of HRMS equipment that ARC purchased after Congress terminated NASA funding of the project. After the OIG expressed its concerns to the Center on this matter, an ARC official advised that ARC had changed its position and would either modify the data recorder for use with other NASA equipment, or make the recorder available to other government agencies. If the equipment is loaned to the Institute, NASA will use $0.6 million of funds for a purpose not intended by the Congress. Details follow.

Report to Congress on HRMS Funding Activities

On January 5, 1994, ARC awarded an SBIR Phase I contract (NAS 2-13974) for $69,957, to determine the feasibility of adapting a data recorder for the HRMS project. Fiscal Year 1993-94 funds were used to fund the contract. According to the Phase I Final Report, "*the fundamental goal of this SBIR project* [Phase I] *is to find a way to use the VLBA* [Very Long Baseline Array] *Recorder for recording and playing back SETI data.*" (Emphasis added)

On March 24, 1995, ARC purchased HRMS equipment under a follow-on SBIR Phase II contract valued at $599,101. Fiscal Year 1995-96 funds were used to fund the contract. The Phase II contract was for the purchase of one Very Long Baseline Array (VLBA) data recorder consisting of a Modified DR 101-A high density tape

recorder and a high performance parallel interface (HIPPI) Test Set. According to the SBIR Phase II proposal,

> *". . . Phase I work was carried out for the purpose of showing how SETI data may be recorded . . . . However, the HIPPI interface makes the system completely general and the recorder may be used for any data source for which the total required recording rate does not exceed the maximum for the configuration chosen."*

The former NASA Contracting Officer's Technical Representative (COTR) for this contract stated that the funds used to purchase the recorder were not subject to Congress' decision to terminate NASA funding.* He cited two reasons: (1) The SBIR funds used to purchase the equipment were not tied to the SETI program and were not part of the $1 million provided by Congress for project termination; and (2) the data recorder could be used in non-SETI applications. Notwithstanding the former COTR's rationale, we believe the Phase I and II contracts were clearly intended to further NASA's support of the HRMS project. NASA's intentions were evidenced by the many references to HRMS or SETI throughout the Phase I and II proposals, and by the names of officials associated with the HRMS project who signed various documents related to the proposals.

In our opinion, ARC's award of the Phase I and II contracts circumvented Congress' intent to limit funding of HRMS activities to termination costs only. Therefore, NASA should notify Congress that it used SBIR funds to support the HRMS project after Congress terminated NASA funding of the project.

Provide Data Recorder to an Authorized User

The data recorder was expected to arrive at ARC in September 1996. According to the current COTR for this contract, the COTR planned to transfer the data recorder under a loan to the SETI Institute's HRMS project where it would have been used to help search for extraterrestrial radio transmissions.

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* The former COTR is now the Institute's Senior Scientist and Manager of Project Phoenix, formerly called the HRMS project.

ARC should not loan this equipment to the SETI Institute without Congressional approval to release it. If such approval is not forthcoming, then ARC should find another use for the equipment within NASA, or properly dispose of the equipment.

TERMINATE SIGNAL DETECTOR CONTRACT

Contract NAS 2-12936 (SETI signal detector) -- ARC needs to close contract NAS 2-12936 to avoid incurring possible additional contract costs and, in turn, using funds that Congress intended for other purposes. Specifically, the results of our survey showed that ARC awarded this $500,000 SBIR Phase II contract on November 18, 1988, to acquire a "SETI Signal Detector Prototype System 86-1," for use in the HRMS project.

ARC continued to spend money on this contract through March 1994, for additional contractor work performed on the equipment after October 1, 1993. (The amount expended after October 1, 1993, totaled $45,000; funds for this contract were obligated in Fiscal Year 1990.) ARC has made no contract payments since March 1994. The contract has remained open almost 6 years beyond the original completion date (November 17, 1990), and almost 3 years after Congress terminated NASA's support of the HRMS project. Progress payments totaled $230,000. ARC deobligated the remaining $270,000 on September 26, 1995. Almost one year later, ARC still had not issued a change order to close the contract.

The former COTR for this contract advised the OIG that ARC was justified in continuing to fund the contract after October 1, 1993, because SBIR funds were not tied to the HRMS project. We believe ARC circumvented Congressional intent by using SBIR funds as a means to continue supporting the HRMS project.

As of August 6, 1996, the Center anticipated issuing a change order that would close the contract. Because the contract is still open, the Center should expedite the contract closeout process.

RECOMMENDATION 1

The NASA Chief Financial Officer/Comptroller, Code B, should report to Congress that NASA used SBIR funds to support the HRMS project after Congress terminated funding of the project.

Management's (Code B) Response

Although the recommendation was specifically directed to Headquarters' Code B, both Code B and ARC management responded. The Chief Financial Officer, Code B, deferred to ARC's

response, stating "*Should the Ames response to this draft report be unconvincing to you, we would have no objection to disclosing your findings to the Congress.*"

ARC maintained that at the time it recommended awarding the SBIR Phase I contract, ARC had not been directed to terminate spending on the HRMS program. ARC further maintained that although the related proposal was written in terms of its specific application to the HRMS program, the VLBA equipment had a broader application, as well as commercialization potential. When ARC received notice to terminate HRMS support, ARC said it again reviewed the proposal and decided to continue with the award based on the potentially wider application of the work within NASA and on its high commercialization potential.

The full text of the Code B and ARC responses is included as Appendices A and B to the report.

Evaluation of Management's Responses

Headquarters' Code B and ARC management have not adequately supported their response to Recommendation 1. Our reasons follow:

1. The proposal stated that Phases I & II of the proposed SBIR contracts were to:

> *" . . . formulate a plan for using the Very Long Baseline (VLBA) tape recorder for recording High Resolution Microwave Survey data (HRMS)."*
>
> *" . . . find a way to use the VLBA Recorder for recording and playing back SETI data."*
>
> *" . . . make the signal and control interfaces sufficiently general so that the upgraded VLBA Recorder may be used in a variety of applications. This is to be done both for NASA and with the objective of finding commercial uses."*

ARC continued to support a research effort that Congress had specifically terminated. It now maintains that it justifiably supported research on the data recorder based on the "commercial uses" (Goal 3) that it expected to find for the recorder. Notwithstanding ARC's position, Goals 1 and 2

directly supported the HRMS program and, according to the Phase II proposal, Goal 2 represented the "fundamental goal" of the contract.

Agencies can use SBIR contracts only to support authorized "technical topics." Because Congress had previously terminated the HRMS program, the HRMS program could no longer be considered an authorized technical topic. Accordingly, ARC awarded contract NAS2-14245 for an unauthorized purpose (i.e., "to modify a VLBA recorder for use in HRMS recording").

Goal 3 is common to any SBIR contract and was of secondary importance. In this regard, if the quest for commercial uses of NASA-funded new technology were the sole reason for SBIRs, then NASA could embark on virtually any research endeavor it pleased, without consideration to whether the research supported an authorized NASA program. Clearly, SBIRs confer no such "blanket" authority on the sponsoring agency.

2. ARC had ample time to eliminate the frequent and specific references to HRMS-oriented goals in the Phase I and II proposals and contracts. ARC made no such revisions. Specifically, ARC made no substantive changes to the Phase I proposal during the 3-month period from October 1, 1993, to January 5, 1994 (date of the Phase I contract). Also, ARC made no substantive changes to the Phase II proposal during the 9-month period from July 1, 1994, to March 24, 1995 (date of the Phase II contract). ARC did not even change the title of the Phase II proposal or contract, which remained: "Use of the VLBA Recorder for HRMS Recording." The absence of substantive revisions to the HRMS-orientation of these proposals and contracts strongly suggests that ARC intended to continue supporting the HRMS program after Congress had terminated it. Finally, ARC's statement that it continued to fund the proposals only because of their non-HRMS applications, is not supported by the documentation that ARC presented to the OIG.

3. The Phase II contract made no mention of other possible users. In fact, ARC had not identified other potential users of the data recorder equipment until after the OIG advised ARC of its concerns regarding the intended recipient, the SETI Institute. Specifically, on May 15, 1996, the COTR for contract NAS 2-14245 advised the OIG that he planned to have the data recorder delivered to the SETI Institute because it was the most likely user of the equipment. We then advised the COTR of our concerns regarding the propriety of his plan. As of about September 18, 1996, when we requested a meeting with ARC officials on this subject, ARC still had not identified another user for the equipment. On September 25, 1996, the date of our audit exit conference, ARC officials indicated they would probably have the data recorder shipped to the National Radio Astronomy Observatory in New Mexico.

ARC's actions after October 1, 1993, have shown a pattern of continued support to the HRMS program. Accordingly, we believe ARC circumvented Congressional intent and improperly expended additional hundreds of thousands of dollars.

Code B has stated its willingness to disclose the OIG's findings to the Congress. Code B's notification to Congress will satisfy the intent of the recommendation.

RECOMMENDATION 2

If NASA wants to provide equipment purchased under contract NAS 2-14245 to the SETI Institute, then the NASA Chief Financial Officer/Comptroller, Code B, should obtain approval from Congress to do so.

Management's (Code B) Response

Concur. Code B stated *"The Center concurs with this recommendation. However, ARC has not provided, and does not intend to provide, any hardware developed under this SBIR contract to the SETI Institute, or to any other company, for use on the HRMS project."*

Evaluation of Management's Response

The Center's response satisfies the intent of the recommendation.

RECOMMENDATION 3	If Congressional approval is not obtained regarding contract NAS 2-14245, then ARC should initiate actions to find another use for the equipment within the agency, or properly dispose of the equipment.
Management's (ARC) Response	Concur. ARC stated *"It was the stated intent in the Phase II proposal to identify non-HRMS users during the Phase II contract. The National Radio Astronomy Observatory (NRAO) in Socorro, New Mexico, has been identified as such a user. Negotiations are presently underway to conduct the test program there."*
Evaluation of Management's Response	The Center's response satisfies the intent of the recommendation.
RECOMMENDATION 4	ARC should direct the contractor to cease work on contract NAS 2-12936, and expedite the termination process for this contract.
Management's (ARC) Response	Concur. ARC stated *"The contract was closed on September 17, 1996 (see Enclosure). We request that your final report reflect the closure."*
Evaluation of Management's Response	The Center's response satisfies the intent of the recommendation. The OIG acknowledges the closure of contract NAS 2-12936.

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GENERAL COMMENTS

We appreciate the courtesy, assistance, and cooperation extended to us by NASA and contractor officials contacted during this survey.

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National Aeronautics and
Space Administration

Headquarters
Washington, DC 20546-0001

NOV 4 1996

Reply to Attn of B

TO: W/Assistant Inspector General for Auditing

FROM: B/Chief Financial Officer

SUBJECT: Draft Rapid Action Report on ARC's Support of the SETI Institute, Ames Research Center, Assignment No. A-AR-96-002

We have reviewed the subject draft rapid action report and our comments on Recommendations 1 and 2 are as follows:

Recommendation No. 1:

The NASA Chief Financial Officer, Code B, should report to Congress that NASA used Small Business Innovation Research (SBIR) Funds to support the High Resolution Microwave Survey (HRMS) project after Congress terminated funding of the project.

The Center does **not concur** with this recommendation. The Center maintains that no SBIR funds were spent specifically in support of the HRMS project, only, after October 1, 1993, the Congressional mandated termination date.

The purpose of the NASA SBIR Program is to seek "innovative concepts in SBIR that meet NASA mission needs and have potential for commercial applications." Thus, the SBIR program has two purposes, both of which have been approved by Congress. Given the wide potential application of the technology proposed in the HRMS related SBIR's (both within NASA and for commercialization), it was decided to continue with the award of the SBIR contracts. It was also decided to redirect the contracted efforts toward non-HRMS uses, which was done.

Should the Ames response to this draft report be unconvincing to you, we would have no objection to disclosing your findings to the Congress.

Recommendation No. 2:

If NASA wants to provide equipment purchased under Contract NAS2-14245 to the SETI Institute, then the NASA Chief Financial Officer, Code B, should obtain approval from Congress to do so.

The Center **concurs** with this recommendation. However, ARC has not provided, and does not intend to provide, any hardware developed under the SBIR contract to the SETI Institute, or to any other company, for use on the HRMS project.

Should you have any questions regarding our response, please contact Ralph H. Robinson, Chief Financial Officer, ARC, at (415) 604-5068.

Arnold G. Holz

National Aeronautics and
Space Administration
Ames Research Center
Moffett Field, CA 94035-1000

Reply to Attn of: J:241-11

OCT 25 1996

TO: NASA Headquarters
Attn:W/Debra A. Guentzel, Assistant Inspector General for Auditing

FROM: Director of Center Operations

SUBJECT: Draft Rapid Action Report on ARC's Support of the SETI Institute
Ames Research Center Assignment No. A-AR-96-002

The Center has reviewed the subject draft report and appreciates the opportunity to respond. The following are our comments regarding the Observations and Recommendations 3 and 4, as requested.

RESPONSE TO OBSERVATIONS:

The Center does not agree with the first sentence of the "Observations and Recommendations" section of the report. We understand, however, how a review of the relevant documents could result in such a determination. Unfortunately, the documentation was not kept current. The language used in the SBIR contracts should have been changed, after the termination of the HRMS project, to accurately reflect the broader application of the efforts and modified non-HRMS emphasis, thereby avoiding this confusion regarding intent.

The Center maintains that no SBIR funds were spent in support of the HRMS project after the October 1, 1993, Congressional mandated termination date. The following comments about the SBIR contracts in question are provided with the two SBIR efforts addressed in the order to which they are referred in the subject report.

Contract NAS2-14245 (HRMS data recorder): The SBIR Phase I contract NAS2-13974 was awarded on January 5, 1994, to Interferometrics to determine the feasibility of adapting the VLBA data recorder (originally developed by the National Radio Astronomy Observatory - NRAO) to high rate, high data load usage. The successful Phase I was followed by a Phase II contract, NAS2-14245, on March 24, 1995, to do the technology development and delivery of a general purpose, prototype high speed, bulk storage tape recorder.

At the time the award of the Phase I contract was recommended, we had not been directed to terminate spending on the HRMS program. Thus, the proposal was written in terms of its specific application to the HRMS program. However, the proposal and the evaluation of it made reference to the broader application to NASA's mission and

the commercialization potential. The notice to terminate HRMS was received before the actual award was made. After that notice, we reviewed the recommendation again. We decided that due to the potentially wide application of the work within NASA and the high commercialization potential, we would continue with the award.

SBIR Phase I contracts are short term activities; 6 months to do the work, write the Final Report, and submit the Phase II Proposal. Therefore, companies rely heavily on databases that they have readily at hand. The SBIR Phase I Final Report by Interferometrics for "Use of the VLBA Recorder for HRMS Data Recording" does state, as noted by the OIG, that "*the fundamental goal of the SBIR project is to find a way to use the VLBA Recorder for recording and playing back SETI data.*" The Final Report goes on to state, *"An equally important goal is to make the signal and control interfaces sufficiently general so that the upgraded VLBA Recorder may be used in a variety of applications. This is to be done both for NASA and with the objective of finding commercial uses."*

The purpose of the NASA SBIR Program is to seek "innovative concepts in SBIR that meet NASA mission needs and have potential for commercial applications." Thus, the SBIR program has two purposes, both of which have been approved by Congress. Given the wide potential application of this technology as discussed in the Phase II Proposal (real-time spacecraft or wind tunnel data, as well as other large recording capacity users, i.e., EOS data streams, and non-NASA archival storage for movie industry, computer networks, super computer peripherals, etc.), it was decided to continue with the award of the Phase II contract to develop a prototype unit.

As also stated in the Phase II Proposal, the contractor intended to identify an appropriate testbed during the contract: *"We anticipate identifying a system within NASA or some other organization which meets those requirements and arranging for a field test."* The National Radio Astronomy Observatory (NRAO) in Socorro, New Mexico, has been identified as this potential test-bed and negotiations are presently underway with them. No delivery of any hardware, developed under this SBIR contract, has been or will be made to the SETI Institute, or any other company, in support of the HRMS project at NASA's expense.

<u>Contract NAS2-12936 (SETI signal detector)</u>: SBIR Phase II contract NAS2-12936 was awarded to Silicon Engines on November 18, 1988, to develop both analytical simulations of and a hardware prototype of a signal detector that would meet the needs of the SETI Program, as well as being applicable to other activities which require the detection and the identification of a low level signal against a noisy background (e.g., planetary detection, tape processing, etc.).

This award was made well before the termination of the HRMS project. Under normal conditions, hardware delivery would have been made in about two years. However, Silicon Engines had a great deal of difficulty bringing this work to fruition and requested several no cost extensions to continue the work. The ARC COTR developed a series of milestones for them to complete in order to continue the contract. Late in 1993, they apparently, reported to the COTR that they would be able

to complete the milestones associated with the simulation development, but would not be able to do the hardware prototype development. That simulation work was completed in March 1994, demonstrated to the COTR, and payment was made for the simulation effort. No deliveries were made to the SETI Institute for use in the HRMS project nor was any further work approved.

Over the past 2 years there have been three different COTRs for this contract. The contract was not deobligated in a more timely fashion because of extreme administrative workload and unusual staff turnover. However, no funds have been expended on this contract since March 1994.

RECOMMENDATION 3: CONCUR

If Congressional approval is not obtained regarding contract NAS2-14245, then ARC should initiate actions to find another use for the equipment within the agency, or properly dispose of the equipment.

It was the stated intent in the Phase II proposal to identify non-HRMS users during the Phase II contract. The National Radio Astronomy Observatory (NRAO) at Socorro, New Mexico, has been identified as such a user. Negotiations are presently underway to conduct the test program there.

RECOMMENDATION 4: CONCUR

ARC should direct the contractor to cease work on contract NAS2-12936, and expedite the termination process for this contract.

The contract was closed on September 17, 1996 (see Enclosure). We request that your final report reflect the closure.

Should you have questions regarding our response, please contact Wanda Riney at (415) 604-6628.

Jana M. Coleman

Enclosure

cc:
W:204-11/D. L. Gandrud

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NASA

Contract Completion Statement

APPENDIX 1

1. FROM: (Office administering contract)
NASA Ames Research Center
Procurement Office, Code JAC
M/S 241-1
Moffett Field, CA 94035-1000

2a. CONTRACT NUMBER
NAS2-12936

2b. LAST MODIFICATION NUMBER
Modification Seven (7)

2c. CALL/ORDER NUMBER

3. TO: (Name and Address of Purchasing Office and Office Symbol of the PCO, if known)
NASA Ames Research Center
Acquisition Division, Code JA
M/S 241-1
Moffett Field, CA 94035-1000

4. CONTRACTOR NAME AND ADDRESS
Silicon Engines, Inc.
950 N. California Ave. Ste. 201
Palo Alto, CA 94303

5. EXCESS FUNDS ☐ YES ☒ NO
$

6a. IF FINAL PAYMENT HAS BEEN MADE, COMPLETE ITEMS 6b., AND 6c.	6b. VOUCHER NUMBER 94012	6c. DATE 3-14-94
7a. IF FINAL APPROVED INVOICE FORWARDED TO FINANCIAL MANAGEMENT OFFICE OF ANOTHER ACTIVITY AND STATUS OF PAYMENT IS UNKNOWN, COMPLETE ITEMS 7b. AND 7c.	7b. INVOICE NUMBER	7c. DATE FORWARDED

8. REMARKS

Contract will be closed as of the date of final payment and upon receipt of a copy of th final paid voucher from Fiscal.

Invoice No. 94012, dated March 14, 1994, in the amount of $15,000.00 was forwarded to Fiscal on 3/23/94.

COMPLETED

9a. ALL CONTRACT ADMINISTRATION ACTIONS REQUIRED HAVE BEEN FULLY AND SATISFACTORILY ACCOMPLISHED. THIS INCLUDES FINAL SETTLEMENT IN THE CASE OF A PRICE REVISION CONTRACT.

9b. TYPED NAME OF RESPONSIBLE OFFICIAL	9c. SIGNATURE	9d. DATE
Dolores M. Morrison Contracting Officer	Dolores M. Morrison	9-17-96

FOR PROCUREMENT OFFICE USE ONLY

10a. ALL PROCUREMENT OFFICE ACTIONS REQUIRED HAVE BEEN FULLY AND SATISFACTORILY ACCOMPLISHED. CONTRACT FILE OF THIS OFFICE IS HEREBY CLOSED AS OF:

☒ DATE SHOWN IN ITEM 9d. ABOVE.

☐ DATE SHOWN IN ITEM 10e. BELOW. *(Check this box only if final completion of any significant procurement office action extends more than three months beyond close-out date shown in Item 9d. above. In such cases, submit a copy of the completed form upon final accomplishment of all procurement office actions to the office administering contract. (Upon receipt, the office administering contract shall extend its contract file close-out date accordingly.))*

10b. REMARKS

A copy of the final paid voucher was received on September 17, 1996. the contract is hereby closed.

10c. TYPED NAME OF RESPONSIBLE OFFICIAL	10d. SIGNATURE	10e. DATE
Dolores M. Morrison Contracting Officer	Dolores M. Morrison	9-17-96

NASA
Ames Research Center

APPENDIX 1

RECEIVAL AND INSPECTION REPORT

CONTRACTOR	ORDER NO.
Silicon Engines, Inc.	NAS2-12936

REC'D FROM	PKG. LIST NO.	SHIPPER'S WT.

FRT. BILL NO.	GOVT. B/L NO.	VIA	NO. OF PIECES	ACTUAL WT.

ITEM	QUANTITY	DESCRIPTION
		Description of Procurement:
		SETI Signal Detector, SBIR Phase II
		1. Please sign the certification below, indicating that the subject
		contract/order is complete:
		CERTIFICATION
		All work required by the Gov't under the subject contract/order has been
		completed, delivered, and accepted. Contractor did not
		complete originally contracted for.
		TECHNICAL MONITOR'S SIGNATURE
		2. In addition, has all Government Furnished Property not accountabl
		under the subject contract/order (if applicable), been returned
		to the Government, or been accounted for:
		YES_____ NO_____ N/A X
		Where NO is checked, please explain.

ORDER IS ☒ COMPLETE ☐ SHORT ☐ OVER ☐ DAMAGED

See above

I certify that the supplies and/or services listed in this receival and inspection report have been received and conform to contract requirements.

Date Received	Date Signed	Signature of Authorized Government Representative
9/13/96	9/13/96	

Title: Technical Monitor

PLEASE PRESS FIRMLY – ALL COPIES MUST BE LEGIBLE.

White – Acquisition 241-1 Yellow – Shipping & Receiving 255-3 Pink – Preparing Office
Goldenrod – Financial Mgmt. 203-18 Green – Equipment Mgmt. 255-2

ARC 76 (Rev. April 88) Previous editions of this form are obsolete

Silicon Engines Inc.

950 North California Ave., Suite 201
Palo Alto, CA 94303

Tel: 415-424-0480
Fax: 415-424-0480

Invoice Number
94012

APPENDIX 1

APR 06 1994 409601

TO:	REMIT TO:
NASA-Ames Research Center Financial Analysis & Payments N203-18 Moffet Field, CA 94035	Silicon Engines, Inc. 950 North California Ave., Suite 201 Palo Alto, CA 94303 9409437355

Date:	Terms:	Contact:
14 Mar 94	Net 30	Jerome Duluk

Item	Description	Project	Amount	Totals
1	CAM IC Verilog Simulation Complete, Paragraph G.1, Item 13	SETI Signal Detector NAS2-12936	$15,000.00	
	I certify that the supplies / services listed on this invoice have been received and accepted, except as noted above, and conform to the contract requirements. Signature _____ Contracting Officer / Administrator 3/23/94 Date			
		15,000.00 1,551.457 Log interest paid in error 14,949.55	JIMMY FONG CERTIFYING OFFICER 3/25 SC10 3/24/94	$15,000.00

Notes:
A previous invoice, Invoice Number 94002, for the "CAM Integrated Circuit Model Complete, Paragraph G.1, Item 13" has the incorrect item reference number compared to the contract. It should have been for item "Paragraph G.1, Item 12".

AID

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Budget Examiner, Energy Science Division, Office of Management and Budget
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Senate Subcommittee on Science, Technology and Space
Senate Committee on Governmental Affairs
House Committee on Appropriations

House Subcommittee on VA-HUD-Independent Agencies
House Committee on Government Reform and Oversight
House Committee on Science
House Subcommittee on Space and Aeronautics

TOTAL UNAUTHORIZED SUPPORT IDENTIFIED BY THE OIG

ITEM	AMOUNT
(1) SBIR Contract NAS 2-14245 (RAR IG-97-008)	$ 599,101
(2) SBIR Contract NAS 2-13974 (RAR IG-97-008)	69,957
(3) SBIR Contract NAS 2-12936 (RAR IG-97-008)	45,000
(4) Improper purchase of RFI processor	490,120
(5) Equipment improperly relocated to the SETI Institute	59,480
(6) Improper use of IPA	70,000
(7) Other improper support	12,569
Total	$1,346,227

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National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, CA 94035-1000

Reply to Attn of: J:241-11

May 28, 1997

TO: NASA Headquarters
Attn: W/Robert Wesolowski, Assistant Inspector General for Auditing

FROM: Director of Center Operations

SUBJECT: Draft Audit Report on ARC's Support of the SETI Institute's HRMS Program
Assignment No. A-AR-96-002

The Center has reviewed the subject draft report and appreciates the opportunity to respond. The following are our comments regarding the recommendations contained in the report.

RECOMMENDATION 1: CONCUR, WITH CONDITIONS

The NASA Chief Financial Officer/Comptroller, Code B, should report to Congress that NASA used SBIR and other funds to support the HRMS Program after Congress terminated funding of the program.

ARC understands that the actions taken may have created the appearance of having continued to fund the HRMS program after Congressional direction to terminate funding. While the Center maintains that no improper actions were taken, we concur with the recommendation that NASA should inform Congress of the actions taken.

RECOMMENDATION 2: CONCUR

ARC should find an alternate use for the HRMS RFI processor (total cost $490,120) or dispose of the processor according to prescribed property disposal procedures.

The RFI Processor was shipped to the SETI Institute for verification testing of the contract deliverable. The COTR of the SBIR contract attended the testing. After the testing was accomplished, the processor should have been returned to ARC, but was instead left at the Institute. The Institute did not use the processor in their HRMS Program, or any other program to our knowledge. ARC has had the RFI processor returned to ARC. We have reviewed other possible uses for the processor, but have not identified any at this time. We will dispose of the processor according to prescribed property disposal procedures.

RECOMMENDATION 3 : CONCUR

ARC should immediately recover all NASA property (total estimated cost $59,480) being used by the SETI Institute's HRMS Program.

Review of this property revealed that property passes were improperly used for this equipment. Twenty-four of the 29 items have been returned to ARC for use on other programs. The remaining five items have been properly added to the SETI Institute loan agreement.

RECOMMENDATION 4: CONCUR

ARC should comply with the prescribed property controls regarding the release of Government-owned property to ARC contractors and grantees.

ARC agrees that we should assure that prescribed property control procedures should be followed in the use and loan of government equipment. A review found that proper procedures were not followed for all items. Proper documentation has been completed, and our employees have been reminded of the procedures and the necessity to follow them.

RECOMMENDATION 5: CONCUR

ARC should ensure that it does not use Intergovernmental Personnel Act (IPA) Assignment Agreements to circumvent funding controls.

ARC agrees that the IPA should not be used in such a manner as to give the appearance of frustrating the intent of Congressional guidance. With regard to SETI, we would note there was no legal issue as to the funding controls since the Congressional action did not extend to the research and program management appropriation. In the case of Dr. Kent Cullers, ARC believes that proper procedures to review and approve his IPA to support the transfer of technology to a not-for-profit organization were used.

Should you have questions regarding our response, please contact Wanda Riney at (415) 604-6628.

Jana M. Coleman

CONCURRENCE:

Malcolm L. Peterson
Comptroller
NASA HQ/Code B

Glenn C. Fuller
Director, Resources Management Office
NASA HQ/Code R

cc:
ARC/W:204-11/D. L. Gandrud

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Senate Committee on Commerce, Science and Transportation
Senate Subcommittee on Science, Technology and Space
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on VA-HUD-Independent Agencies
House Committee on Government Reform and Oversight
House Committee on Science
House Subcommittee on Space and Aeronautics

Congressional Members

The Honorable Richard H. Bryan, U.S. Senate
The Honorable Pete Sessions, U.S. House of Representatives

MAJOR CONTRIBUTORS TO THIS REPORT

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