LA-96-004

AUDIT REPORT

MOVING SUPPORT SERVICE CONTRACTORS ON-CENTER

LANGLEY RESEARCH CENTER

July 25, 1996

National Aeronautics and Space Administration

OFFICE OF INSPECTOR GENERAL

National Aeronautics and
Space Administration

Headquarters
Washington, DC 20546-0001

JUL 25 1996

Reply to Attn of: W

TO: 109/Chief Financial Officer, LaRC

FROM: W/Assistant Inspector General for Auditing

SUBJECT: Final Report
Moving Support Service Contractors On-Center
Assignment No. A-LA-95-008
Report No. LA-96-004

The NASA Office of Inspector General has completed an audit to determine whether Langley Research Center may realize cost savings by moving support service contractors on-Center. Specific objectives were to determine:

- the extent of available on-Center facilities, and
- the dollar impact of moving support service contractors from leased off-Center facilities to available on-Center facilities.

During the audit, we identified a condition which affected the planned issuance of two requests for proposals (RFPs). Due to the significance and time sensitivity of this condition, we issued a rapid action report dated March 13, 1996, recommending the Center Director revise the RFPs to stipulate that all contractor employees will be provided on-Center office space. Management concurred with the recommendation and amended the RFPs. The rapid action report is included in its entirety as Appendix 2.

As discussed in this report, increased management attention is also needed to better manage unoccupied office space. A discussion draft was issued on May 28, 1996, and an exit conference was held with Center real property officials on June 27, 1996. Written comments were received from the Director, Internal Operations Group on July 12, 1996. These comments are summarized after the audit recommendation and are included in their entirety as Appendix 1.

Management concurred with the recommendation and identified an appropriate plan for corrective actions. We consider the recommendation closed with issuance of this report. The NASA Office of Inspector General staff members associated with this audit express their appreciation to LaRC civil service and contractor personnel for their courtesy, assistance, and cooperation. If you have any questions or need additional information, please call Kerry Christian, Audit Field Office Manager, at (804) 864-3262, or Robert Wesolowski, Director, Audit Division-A, or me at (202) 358-1232.

Debra A. Guentzel

Debra A. Guentzel

Enclosure

cc:
JMC/Mr. P. Chait

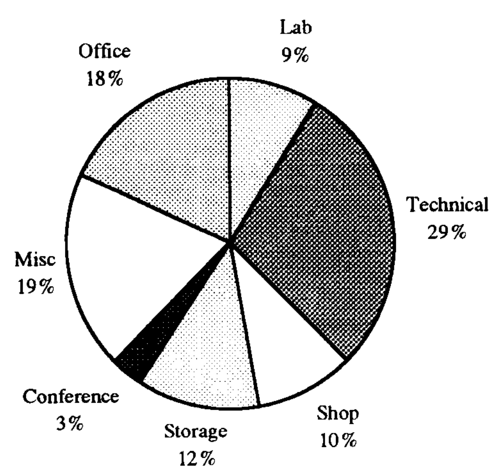
INTRODUCTION

The NASA Office of Inspector General (OIG) has completed an audit to determine whether Langley Research Center (LaRC) may realize cost savings by moving support service contractors on-Center.

During the audit, we identified a condition which affected the planned issuance of two requests for proposals (RFPs). Due to the significance and time sensitivity of this condition, we issued a rapid action report dated March 13, 1996, recommending the Center Director revise the RFPs to stipulate that all contractor employees will be provided on-Center office space. Management concurred with the recommendation and amended the RFPs. The rapid action report is included in its entirety as Appendix 2.

BACKGROUND

At the end of fiscal year (FY) 1995, LaRC facilities totaled 2.4 million square feet of floor space classified as follows:



Total square footage was virtually unchanged from April 1992 levels. However, during this same time period, the total number of resident civil service and contractor personnel decreased from 5,762 to 4,944.

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OBJECTIVES, SCOPE, AND METHODOLOGY

OBJECTIVES

The overall audit objective was to determine whether LaRC may realize cost savings by moving support service contractors to on-Center facilities. Specific objectives were to determine:

- the extent of available on-Center facilities, and
- the dollar impact of moving support service contractors from leased off-Center facilities to available on-Center facilities.

SCOPE AND METHODOLOGY

To determine the extent of available on-Center facilities, we interviewed facilities utilization officials; examined a variety of documents used by those officials for internal management purposes; analyzed utilization reports issued since April 1992; observed space usage in a judgemental sample of 30 rooms; and reviewed guidance provided in the NASA Facilities Utilization Program Implementation Handbook and Langley Management Instruction (LMI) 7234.1.

The scope and methodology of audit work to determine the dollar impact of moving contractors to on-Center facilities was discussed in the rapid action report (see Appendix 2).

MANAGEMENT CONTROLS REVIEWED

We reviewed significant management controls related to the policy, objectives, authority, and procedures for the Center's Facilities Utilization Program. Specifically, we reviewed controls designed to help ensure:

- facilities are allocated and managed so as to provide the best use of resources;
- early identification of new or additional facilities resources; and
- an accurate database of actual space occupancy is maintained.

As noted in the Observations and Recommendation section of this report, management controls were in need of improvement.

INDICATIONS OF FRAUD, WASTE, ABUSE, OR ILLEGAL ACTS

During the audit, nothing came to our attention to indicate that instances of fraud, waste, abuse, or illegal acts had occurred.

AUDIT FIELD WORK

Audit field work was conducted from September 1995 through March 1996. The audit was performed in accordance with generally accepted government auditing standards.

Observations and Recommendation

Overall Evaluation

The audit showed that LaRC may realize savings of more than $390,000 through FY 2000 by providing on-Center office space to all contractor employees on two large contracts. This issue was fully discussed in the rapid action report issued on March 13, 1996 (see Appendix 2). Increased management attention is also needed to better manage unoccupied office space.

Control Improvements Are Needed to Better Manage Unoccupied Office Space

Line organizations occupying LaRC facilities converted unoccupied office space to conference rooms, storage space, and other non-office space without independent review and approval. LMI 7234.1 states that no authority is vested in line organizations to make unilateral changes or modifications to office space allocations without review and approval by the Facility Utilization Manager. This condition occurred because Center management has not established adequate control procedures to manage unoccupied office space. Correcting this condition will help ensure that Center facilities are put to their best use and may lead to significant cost savings.

Recent Government downsizing efforts caused the Center to lose many civil service and contractor personnel. As those loses occurred, hundreds of offices became unoccupied. Our review showed that line organizations expanded into the vacant offices and, in many instances, converted them to conference rooms, storage space, and other non-office space without review and approval by the Facility Utilization Manager.

We analyzed space utilization reports which showed data from April 1992 through the end of FY 1995. The analysis showed a Center-wide trend to convert offices to non-office space (see Exhibit 1). Office space per person actually decreased by 1.53 percent during FY 1995 – the year in which the Center suffered its greatest personnel losses. Also during FY 1995, conference space per person increased by 24.6 percent.

In addition to our analysis of space utilization reports, we physically observed a sample of 30 offices which were classified as unoccupied on October 5, 1995. We observed the offices in January 1996 and found that 12 of the 30 (more than 49 percent of the total square footage) had been converted and reclassified to other types of space. Six offices had been converted to conference rooms.

LMI 7234.1 sets forth the policy, objectives, authority, and procedures for the Center's Facilities Utilization Program. This program is designed to provide:

- the best use of available facilities;
- early identification of new or additional facilities resources; and
- an accurate data base and report generating system to identify actual space occupancy.

The Facility Utilization Manager is vested with the authority to assign and manage the utilization of Center facilities.

LMI 7234.1 states the following:

> *All organizations occupying Center facilities are considered "tenants" in such facilities, not "owners." As tenants, no authority is vested in line organizations to make unilateral changes or modifications to research, office, or other space within facilities, without Facility Utilization Manager review and approval of proposals.*

This condition occurred because Center management has not established adequate control procedures to manage unoccupied office space. Currently, procedures for space allocation and management are as follows:

> The Facility Utilization Manager assigns space to LaRC organizations. Space is assigned in blocks (e.g., an entire floor of a building) only after the Facility Utilization Manager is satisfied the amounts and types of space are reasonably justified by needs.
>
> Once a block of space is assigned, all decisions over usage of the space are left to the tenant organization. Should the tenant organization lose personnel and offices become unoccupied, it may unilaterally decide to convert the offices to conference rooms, storage space, or other non-office space. Control procedures do not exist to solicit the Facility Utilization Manager's approval for this type of conversion or to notify facilities management officials that a conversion has occurred.

Periodically, an analyst from the facilities management staff physically observes how office space is utilized. If an office has been converted to another use, the analyst simply reclassifies the room to non-office space in the Space Utilization system. Subsequent management reports generated by the Space Utilization system reflect a decrease in net usable office space and a corresponding increase in non-office space. Other management reports of unoccupied office space do not reflect that additional resources are available.

Improved Control Will Lead to Two Efficiencies

Improved control over the use of unoccupied office space will help ensure that Center facilities are put to their **best use** and may lead to **cost savings**.

Putting Facilities to Best Use. Putting facilities to their best use requires a Center-wide perspective of space needs and available resources. Line organizations do not have this perspective and, as a result, they lean toward parochial decisions regarding the use of unoccupied office space. Control improvements will help ensure that facilities utilization decisions are made in the best interests of the Center as a whole.

Putting facilities to their best use also requires accurate and useful management information. The Facility Utilization Manager relies on a listing of unoccupied offices generated by the Space Utilization system to help allocate space. However, because line organizations have converted offices to non-office space, this space does not appear on the listing and may not be considered. Control improvements will result in fewer reclassifications and management information generated by the Space Utilization system will become more useful.

Opportunities for Cost Savings. Improved controls over unoccupied office space will also provide opportunities for cost savings. For example:

- Can the Center provide office space to contractor personnel currently located in off-Center leased facilities? We estimate annual savings of more than $1,100 for each contractor employee moved on-Center (see Exhibit 2).

- Should the Center relocate organizations and consolidate personnel so that additional facilities may be closed? By closing facilities, we estimate annual repairs and maintenance (R&M) costs may be reduced by \$2.13 per square foot (see Exhibit 2). For example, closing a 10,000 square foot facility will result in R&M cost savings of approximately \$21,300 each year (10,000 sq ft × \$2.13 per sq ft = \$21,300).

RECOMMENDATION

Center real property management should strengthen oversight to ensure that line organizations do not convert assigned office space to other uses without prior approval from the Facility Utilization Manager as required by LMI 7234.1.

Management's Response

Concur. Langley agrees with the recommendation and as such, the following action plan is presented.

Action Plan:

1. The Center Real Estate Management Team will convene periodically as required to assess, review, and reach rapid consensus on major facilities utilization, planning, and management matters. Such matters will be brought to the Team by the Facilities Utilization Officer and Facilities Utilization Manager through the Deputy Director, Internal Operations Group. LMI 7234.1 will provide general guidance to the Team. Internal Langley policies, programmatic, institutional, and functional needs will dominate discussions and consensus reaching decisions. Team members are responsible for keeping their respective organizations fully and effectively informed of facilities management matters and decisions reached by the Team.

2. Through the Center-wide electronic e-mail system, the following message will be distributed to all employees from the Facility Utilization Manager.

   "Because of current Center downsizing activities, facility closures, organization changes, severe budget reductions, and streamlining, it is extremely important that the Center's space utilization database be kept current. Individuals or organizations should not take any action to occupy additional office space or change space to any other type of use unless a written request has been submitted and approved per the requirements of LMI 7234.1. The Center is having to make hard decisions relative to our space and utilization needs, and it is imperative that the space utilization database be current to help us respond quickly to changing conditions. Your cooperation and attention to the procedures and requirements of LMI 7234.1 is appreciated."

Evaluation of Management's Response

Management's action plan is responsive to the recommendation.

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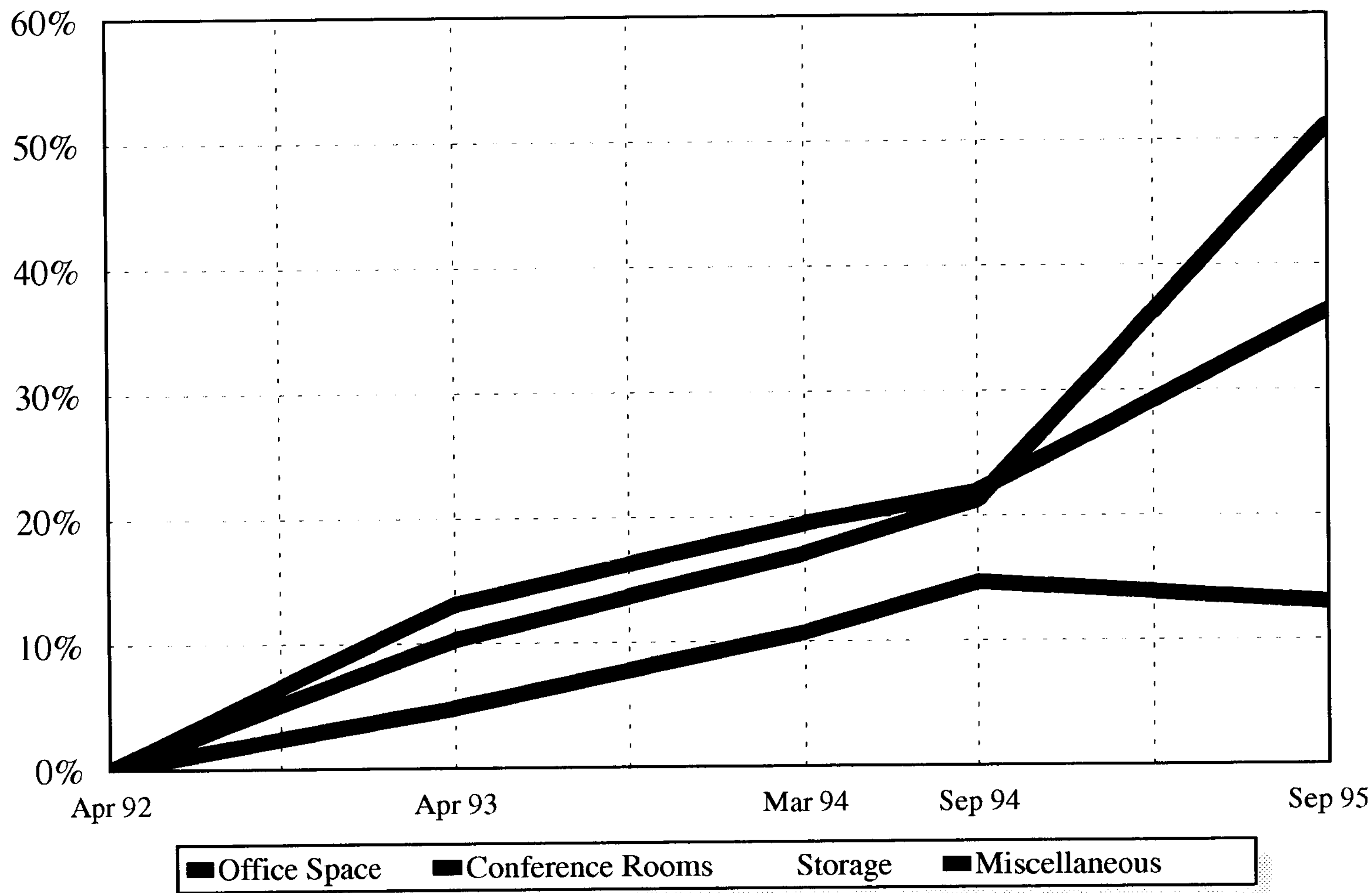
Changes in Facility Utilization

Percentage Change in Space Per Person Using April 1992 Baseline



Source: Analysis of Langley Research Center's Building Space Utilization Reports

Estimated Savings from Moving a Contractor Employee On-Center

Average lease rate for commercial office space (note a)	$	11.28	per sq ft
Less: On-Center repairs and maintenance rate (note b)		2.13	per sq ft
Marginal cost of off-Center office space		9.15	per sq ft
Multiply: Office space needed (note c)		125	sq ft
Estimated Savings from Moving a Contractor Employee On-Center	$	1,143.75	

Note (a). We have relied on the January 1995 "Office Market Analysis of the Hampton Roads Office Market" for information about the average off-Center lease rate for commercial office space. The Office Market Analysis is based on a survey of properties in the Norfolk-Virginia Beach-Newport News metropolitan statistical area. The survey is sponsored by the Old Dominion University Real Estate Center and, according to leasing specialists, is the most comprehensive survey of commercial office space conducted in the Hampton Roads area. Specifically, we have relied on the Office Market Analysis for information about lease rates in the Peninsula market. The Peninsula market is made up of Newport News, Hampton, Williamsburg, James City County, and York County.

The Office Market Analysis found the average lease rate for Class A, B, and C space in the Peninsula market was $12.53 per square foot. Since the Office Market Analysis discusses net leasable area, which is defined as the usable square footage plus common areas, we have made a 10 percent adjustment to arrive at $11.28 per square foot of net usable office space. The adjustment percentage is consistent with industry practice and the collateral space factor used by Center facilities management officials.

Note (b). The rate for on-Center repairs and maintenance (R&M) is based on actual R&M costs incurred during fiscal years 1994 and 1995 for 24 buildings which consist primarily of office space.

Note (c). The amount of office space needed is consistent with on-Center space allowances; i.e., according to Langley Management Instruction 7234.1, "The Center's average office space per person may not exceed 125 square feet."

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Management's Response to the Audit Recommendation

National Aeronautics and
Space Administration
Langley Research Center
Hampton, VA 23681-0001

Reply to Attn of: 446

JUL 10 1996

TO: 292/Audit Field Office Manager
THRU: 109/Chief Financial Officer

FROM: 112/Director, Internal Operations Group

SUBJECT: Response to Discussion Draft Audit Report Moving Support Service Contractors On-Center, Assignment Number A-LA-95-008

In response to the recommendation of the discussion draft report, "Center real property management should strengthen oversight to ensure that line organizations do not convert assigned office space to other uses without prior approval from the Facility Utilization Manager as required by LMI 7234.1." Langley agrees with the recommendation and as such, the following action plan is presented.

Action Plan:

1. The Center Real Estate Management Team will convene periodically as required to assess, review, and reach rapid consensus on major facilities utilization, planning, and management matters. Such matters will be brought to the Team by the Facilities Utilization Officer and Facilities Utilization Manager through the Deputy Director, Internal Operations Group. LMI 7234.1 will provide general guidance to the Team. Internal Langley policies, programmatic, institutional, and functional needs will dominate discussions and consensus reaching decisions. Team members are responsible for keeping their respective organizations fully and effectively informed of facilities management matters and decisions reached by the Team.

2. Through the Center-wide electronic e-mail system, the following message will be distributed to all employees from the Facility Utilization Manager.

"Because of current Center downsizing activities, facility closures, organization changes, severe budget reductions, and streamlining, it is extremely important that the Center's space utilization database be kept current. Individuals or organizations should not take any action to occupy additional office space or

Management's Response to the Audit Recommendation

change space to any other type of use unless a written request has been submitted and approved per the requirements of LMI 7234.1. The Center is having to make hard decisions relative to our space and utilization needs, and it is imperative that the space utilization database be current to help us respond quickly to changing conditions. Your cooperation and attention to the procedures and requirements of LMI 7234.1 is appreciated."

We would like to thank the Inspector General (IG) audit team for their review of this very sensitive subject of space utilization and ownership at Langley. We feel the recommendation was positive and hopefully will help us improve how we manage this activity in the future.

Kristin A. Hessenius

cc:
112/IOG
109/CFO
446/FPDO
446/A.L. Farrow

446/ALFarrow:slc 7-3-96 (46856)

109/JRS

Rapid Action Report

LA-96-001

AUDIT REPORT

RAPID ACTION

MOVING SUPPORT SERVICE CONTRACTORS ON-CENTER

LANGLEY RESEARCH CENTER

March 13, 1996

WARNING: This document is a final report of audit issued by the NASA Office of Inspector General (OIG). Contractor information contained herein may be company confidential. The restriction of 18 USC 1905 should be considered before this data is released to the public. Any Freedom of Information Act request for this report should be directed to the NASA Inspector General for processing in accordance with Title 14 Code of Federal Regulations, Part 1206.504.

National Aeronautics and Space Administration

OFFICE OF INSPECTOR GENERAL

Rapid Action Report

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

MAR 13 1996

Reply to Attn of: W

TO: 109/Chief Financial Officer, LaRC

FROM: W/Assistant Inspector General for Auditing

SUBJECT: Rapid Action Report
Moving Support Service Contractors On-Center
Assignment No. A-LA-96-001 (A-LA-95-008)
Report No. LA-96-001

The NASA Office of Inspector General is conducting an audit to determine whether Langley Research Center may realize cost savings by moving support service contractors on-Center. During the audit, we identified a condition which affected two requests for proposals (RFPs). Due to the significance and time sensitivity of this condition, we issued a draft of this rapid action report with a recommendation for the immediate attention of the Center Director.

The draft report, issued on January 10, 1996, recommended two RFPs be modified to stipulate that all contractor personnel will be provided on-Center office space. A written response was received on March 5, 1996, in which you concurred with the recommendation and notified us that the RFPs had been amended. Your response is summarized in the recommendation section of this report and is included in its entirety as Appendix 1. We consider the recommendation to be closed with issuance of this report.

The NASA Office of Inspector General staff members associated with this audit express their appreciation to LaRC civil service and contractor personnel for their courtesy, assistance, and cooperation. If you have any questions or need additional information please call Kerry Christian, Audit Field Office Manager, at (804) 864-3262, or me at (202) 358-1232.

Debra A. Guentzel

Enclosure

cc:
JMC/P. Chait

Rapid Action Report

INTRODUCTION

The NASA Office of Inspector General (OIG) is conducting an audit to determine whether Langley Research Center (LaRC) may realize cost savings by moving support service contractors on-Center. During the audit, we identified a condition which may affect the planned issuance of two requests for proposals (RFPs). These RFPs, as currently written, will require that a significant number of contractor employees be located off-Center in leased facilities. Locating these employees on-Center could result in savings of more than $390,000. Due to the significance and time sensitivity of this condition, we have issued this rapid action report with a recommendation for the immediate attention of the Center Director. We are continuing field work on this assignment and will report other conditions, if any, in our regular reporting process.

BACKGROUND

In October 1994, the Center Director initiated an internal review of LaRC's on- and near-Center research support contracts. The objective of the review was to develop a comprehensive, integrated approach to contracting for research support services. To meet this objective, the Center Director appointed an Internal Review Team to gather data, report findings, and recommend procurement strategies; and a Contractor Review Panel to guide the review and serve as the decision-making body.

A key aspect of the internal review was to develop a procurement strategy for the Lockheed follow-on contract. For several years, the Center's largest research support service contract (376 contractor employees as of August 1995) has been with the Lockheed Engineering and Sciences Company, NAS1-19000. The Lockheed contract will expire in April 1996, and Center management wanted the follow-on to be consistent with an overall approach to contracting for research support services.

The internal review resulted in a procurement strategy which, to avoid overlapping scope among contracts, combined the support services provided by the Lockheed contract with those provided by 14 smaller support contracts. The services provided by these 15 contracts were then differentiated as being either research or research support. The follow-on to these contracts (often referred to simply as the Lockheed follow-on) will consist of the following two performance-based contracts:

Rapid Action Report

- *Aerospace Research and Technology (ART) contract.* The ART contract will encompass the research element of the current Lockheed contract. Initial staffing on ART is planned at 273 full-time equivalents (FTEs). Staffing levels will be reduced to zero by the end of fiscal year (FY) 2000. The reduction to zero reflects management's decision that civil service employees hold all lead researcher positions in as short a time frame as practical.

- *Systems Analysis and Engineering Research Support (SAERS).* The SAERS contract will encompass the research support element of the current Lockheed contract. Initial staffing on SAERS is planned at 164 FTEs. Staffing will be reduced to approximately 109 FTEs by the end of FY 2000 because of overall downsizing in the NASA budget.

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OBJECTIVES, SCOPE, AND METHODOLOGY

OBJECTIVES

The purpose of this audit is to determine whether the Langley Research Center may realize cost savings by moving support service contractors to on-Center facilities. The objectives are to determine:

(1) the extent of available on-Center facilities; and

(2) the dollar impact of moving support service contractors from leased off-Center facilities to available on-Center facilities.

SCOPE AND METHODOLOGY

For purposes of this rapid action report, we limited the scope of our audit to assessing whether there may be significant savings by providing on-Center facilities to ART and SAERS contractor personnel. Audit methodology included conducting interviews, examining Agency records, and determining near-Center lease costs. Additional discussion of audit methodology is included in the exhibit.

MANAGEMENT CONTROLS REVIEWED

Management controls which are significant to the audit objectives will be tested as part of our on-going audit work. The final audit report will discuss these controls and the results of our tests.

INDICATIONS OF FRAUD, WASTE, ABUSE, OR ILLEGAL ACTS

To date, nothing has come to our attention to indicate instances of fraud, waste, abuse, or illegal acts. On-going audit work will include specific tests for illegal acts.

AUDIT FIELD WORK

Audit field work began in September 1995 and is continuing. Audit work is being performed in accordance with generally accepted government auditing standards.

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OBSERVATIONS AND RECOMMENDATIONS

INADEQUATE CONSIDERATION OF COSTS

Center management did not give adequate consideration to costs before drafting two requests for proposals (RFPs) which will require that a significant number of contractor employees be located off-Center in leased facilities. Management is responsible for making cost-effective decisions. Cost effectiveness can only be assessed after obtaining and reviewing accurate cost information. Costs were not adequately considered because (1) no analyses were performed to determine the relative costs of locating contractor employees in on- versus off-Center facilities, and (2) management believed other issues, particularly the issue of avoiding improper personal service relationships, were paramount. We estimate savings of more than $390,000 through FY 2000 may be realized by providing on-Center office space to the contractor employees.

Center management did not adequately consider costs before drafting RFPs for the Aerospace Research and Technology (ART) contract and the Systems Analysis and Engineering Research Support (SAERS) contract. As drafted, the ART and SAERS RFPs will require that a significant number of contractor employees be located in off-Center leased facilities. The startup staffing level for the ART contract is planned at 273 FTEs. The RFP for ART specifically requires that the contractor provide off-Center facilities for at least 40 percent of its staff. The startup staffing level for the SAERS contract is planned at 164 FTEs. The RFP for SAERS does not require specific on- and off-Center percentages, but Center management plans that approximately 15 percent of the contractor's employees will be located off-Center. Our review showed that management did not prepare a cost comparison between on- and off-Center facilities costs before drafting these two RFPs.

We discussed our observation with the Chairperson of the Contract Review Panel. She told us that the final decision on the physical location of ART and SAERS contractor employees has not yet been made. She said the RFP was drafted and sent to NASA Headquarters for review, but Langley management is eager to review the OIG cost analysis which is being performed as part of this audit before finalizing the two RFPs.

Management did not adequately consider cost impact for two reasons. First, no analyses were performed to determine the relative costs of locating contractor employees in on- versus off-Center facilities. We

Rapid Action Report

discussed whether a cost analysis should have been performed with the Leader of the Internal Review Team. She stated that a cost analysis would have been within the scope of the review, but time and resource limitations did not permit it. Second, management believed other issues, particularly the issue of avoiding improper personal service relationships, outweighed any potential cost disadvantages.

Personal service relationships were addressed in OIG report LA-93-001, Contract for Technical Support Services. The report found working relationships between contractor employees and civil service personnel often constituted personal services, which are prohibited by the Federal Acquisition Regulation. The report recommended that (1) Center management develop and implement plans to avoid personal service relationships in the future, and (2) lasting corrections be made in the most cost-effective manner.

Throughout this audit we have observed Center management's commitment to avoiding improper personal service relationships. Specific actions taken include the following:

(1) developing a comprehensive, integrated approach to contracting for research support service;

(2) adopting performance-based contracting methods for the ART and SAERS contracts;

(3) requiring that ART and SAERS bidders submit a management plan for avoiding personal services; and

(4) physically separating on-Center contractor and civil service personnel.

We believe these actions are effective in avoiding personal services and it is unnecessary that contractors be physically located in off-Center facilities.

We estimate that savings of more than $390,000 through FY 2000 may be realized by providing on-Center space to all ART and SAERS contractor employees. This estimate is based on a cost comparison between on-Center and leased near-Center office space. The exhibit provides additional information about our cost comparison.

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Rapid Action Report

Our review has shown LaRC has adequate unoccupied office space to accommodate all ART and SAERS contractor personnel. We plan to discuss utilization of Center office space in the final audit report.

RECOMMENDATION

The Center Director should revise the ART and SAERS RFPs to stipulate that all contractor employees will be provided on-Center office space.

MANAGEMENT'S RESPONSE

The subject report was referred to the Director, Internal Operations Group for review and necessary action. As a result of the review, the Aerospace Research and Technology (ART) and Systems Analysis and Engineering Research Support (SAERS) requests for proposals (RFP's) were revised to provide on-Center office space for all of the contractor personnel on these contracts (see Appendix 1).

EVALUATION OF MANAGEMENT'S RESPONSE

Actions taken by LaRC management are fully responsive to the recommendation.

Rapid Action Report

Exhibit

Marginal Cost Analysis

The purpose of this analysis is to estimate the marginal costs of locating ART and SAERS contractor personnel in near-Center leased office facilities. Marginal costs are the additional costs of choosing one management alternative over another. The management alternatives addressed by this analysis are whether to locate contractor personnel (1) in on-Center Government-provided office facilities or (2) in off-Center leased office space.

Some costs are irrelevant to the marginal cost analysis. Irrelevant costs are those which do not change significantly between alternatives. For example, utility costs for office facilities are assumed not to vary between the on- and off-Center alternatives and are not addressed in this analysis. Likewise, the costs of janitorial, mail-handling, and other incidental services are deemed irrelevant since comparable costs would be incurred both on- and off-Center.

This analysis does not account for the cost effect of a new property management policy. Had we accounted for this policy, the marginal cost of locating contractor personnel off-Center would have been higher. According to the new property management policy, if contract performance is on-Center, the contractor will be provided the equipment which currently exists on the Lockheed contract. However, if contract performance is off-Center, no equipment is provided by the Government. Because of this policy, it is likely that the contractor will have to acquire new equipment for all off-Center personnel. The cost of this new equipment will be passed on to the Government. On-Center contractors may not need new equipment until/unless existing equipment becomes unserviceable.

E-1

Exhibit

Schedule A. Marginal Cost of Locating ART and SAERS Contractor Employees in Off-Center Leased Facilities

	May 1996 through end of FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	
ART off-Center staffing levels (see Schedule B)	109.2	87.4	60.6	40.2	17.1	FTEs
SAERS off-Center staffing levels (see Schedule B)	24.6	23.1	20.9	19.0	17.4	FTEs
Combined off-Center staffing	133.8	110.5	81.8	59.2	34.5	FTEs
Office space needed per person (note a)	125	125	125	125	125	sq ft
Total office space needed	16,725	13,813	10,225	7,400	4,313	sq ft
Marginal cost of off-Center office space (note b)	$9.15	$9.15	$9.15	$9.15	$9.15	per sq ft
Marginal cost of off-Center office space, unadjusted	$153,034	$126,384	$93,559	$67,710	$39,459	
Adjustment for partial year in 1996	($89,270)					Total
Marginal cost of off-Center facilities	$63,764	$126,384	$93,559	$67,710	$39,459	$390,877

Note (a). Needed office space is estimated at 125 square feet per person. This amount is consistent with on-Center space allowances; i.e., according to Langley Management Instruction 7234.1, "The Center's average office space per person may not exceed 125 square feet."

Note (b).

Average commercial rate	$11.28
Less: On-Center repairs and maintenance rate	(2.13)
Marginal cost of off-Center office space	$9.15

We have relied on the January 1995 "Office Market Analysis of the Hampton Roads Office Market" for information about the average off-Center lease rate for commercial office space. The Office Market Analysis is based on a survey of properties in the Norfolk-Virginia Beach-Newport News metropolitan statistical area. The survey is sponsored by the Old Dominion University Real Estate Center and, according to leasing specialists, is the most comprehensive survey of commercial office space conducted in the Hampton Roads area. Specifically, we have relied on the Office Market

E-2

Rapid Action Report

Exhibit

Analysis for information about lease rates in the Peninsula market. The Peninsula market is made up of Newport News, Hampton, Williamsburg, James City County, and York County.

The Office Market Analysis found the average lease rate for Class A, B, and C space in the Peninsula market was $12.53 per square foot. Since the Office Market Analysis discusses net leasable area, which is defined as the usable square footage plus common areas, we have made a 10 percent adjustment to arrive at $11.28 per square foot of net usable office space. The adjustment percentage is consistent with industry practice and the collateral space factor used by Center facilities management officials.

The rate for on-Center repairs and maintenance (R&M) is based on actual R&M costs incurred during fiscal years 1994 and 1995 for 24 buildings which consist primarily of office space.

It is probable that near-term R&M spending will decrease from fiscal year 1994/95 levels as new budget priorities are put into place. We have not adjusted the R&M rate to anticipate lower funding levels. Had we made this adjustment, the marginal cost of locating contractor employees in off-Center facilities would have been higher.

E-3

Rapid Action Report

Exhibit

Schedule B. ART and SAERS Off-Center Staffing Levels

All amounts expressed in FTEs unless otherwise noted. Differences due to rounding.	May 1996 through end of FY 1996	FY 1997	FY 1998	FY 1999	FY 2000
ART staffing levels (avg)	245.5	190.5	135.5	80.5	26.5
Off-Center percentage	40%	40%	40%	40%	40%
Unadjusted ART off-Center staffing levels	98.2	76.2	54.2	32.2	10.6
Adjustment for idle facilities (note c)	11.0	11.2	6.7	8.0	6.5
Adjusted ART off-Center staffing levels	109.2	87.4	60.9	40.2	17.1
SAERS staffing levels (avg)	154.8	140.3	127.3	114.3	109.0
Off-Center percentage	15%	15%	15%	15%	15%
Unadjusted SAERS off-Center staffing levels	23.2	21.0	19.1	17.1	16.4
Adjustment for idle facilities (note c)	1.4	2.1	1.8	1.9	1.1
Adjusted SAERS off-Center staffing levels	24.6	23.1	20.9	19.0	17.4

Note (c). As staffing levels on the ART and SAERS contracts decrease, it is likely that the contractors will incur idle facilities costs. In our opinion, idle facilities costs will be allowable charges to the Government. According to Federal Acquisition Regulation 31.205-17(b), "The costs of idle facilities are unallowable unless the facilities . . . were necessary when acquired and are now idle because of changes in requirements . . . ." Costs of idle facilities are allowable for a reasonable period, ordinarily not to exceed 1 year.

To account for idle facilities costs, our analysis assumes that idle facilities costs will be charged for 8 months following a reduction in staffing levels. We elected to use 8 months because we believe this is a reasonable period of time in which to find alternative uses for idle facilities.

E-4

Rapid Action Report

Management's Response to the Audit Recommendation, Appendix 1

National Aeronautics and
Space Administration
Langley Research Center
Hampton, VA 23681-0001

Reply to Attn of: 109

February 28, 1996

TO: 292/Audit Manager, Office of Inspector General

FROM: 109/Chief Financial Officer

SUBJECT: Draft Rapid Action Report A-LA-95-008, "Moving Support Service Contractors On-Center"

The subject report was referred to the Director, Internal Operations Group for review and necessary action. As a result of the review, the Aerospace Research and Technology (ART) and Systems Analysis and Engineering Research Support (SAERS) requests for proposals (RFP's) were revised to provide on-Center office space for all of the contractor personnel on these contracts. The complete response of the Director, Internal Operations Group is enclosed.

If you have any questions or need additional information, please contact me at extension 48084.

Joseph R. Struhar
48084

Enclosure

Rapid Action Report

Management's Response to the Audit Recommendation, Appendix 1

National Aeronautics and
Space Administration
Langley Research Center
Hampton, VA 23681-0001

NASA

Reply to Attn of: 112

[illegible]

TO: 109/Chief Financial Officer

FROM: 112/Director, Internal Operations Group

SUBJECT: Response to Inspector General Report A-LA-95-008

The subject report from the NASA Langley Office of Inspector General (OIG) was reviewed, as requested, by the appropriate personnel in the Internal Operations Group. The purpose of the review was to evaluate the OIG recommendation that the requests for proposals (RFP's) for the Aerospace Research and Technology (ART) and the Systems Analysis and Engineering Research Support (SAERS) contracts be revised to stipulate that all contractor employees be provided on-Center office space.

The procedure for calculating the marginal cost of locating the contractor employees in off-Center leased facilities appears to use an average commercial rate that includes some costs for utilities; however, when the cost of utilities is added to the on-Center costs, the marginal cost of off-Center office space still supports the recommendation to provide on-Center office space. In addition, it is agreed that additional savings will be realized as a result of the new property management policy which allows the use of equipment that currently exists on the Lockheed contract to be used by on-Center contractors. Under this policy, on-Center contractors may not need to purchase new equipment until/unless existing equipment becomes unserviceable.

In summary, the Contract Review Panel and Senior Management concurred with the Internal Operations Group recommendation to revise the ART and SAERS RFP's to provide on-Center office space for all of the contractor personnel on those contracts. It should be noted that no single office building is available for housing the contractor workforce and that multiple locations in several buildings will be required to house the contractor employees. The SAERS RFP was amended on February 14, 1996, and the ART RFP was amended on February 21, 1996, to include that provision. All proposals will be evaluated taking the revised terms into consideration.

If additional information is needed on this subject, please contact me at extension 46016.

Kristin A. Hessenius
46014

cc:
112/IOG
134/AD

Rapid Action Report

FINANCIAL IMPACT OF RECOMMENDED ACTIONS

This rapid action audit report contains one recommendation which will result in cost savings of approximately $390,000 through fiscal year 2000.