ADDITIONAL COPIES

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

SUGGESTIONS FOR FUTURE AUDITS

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

NASA HOTLINE

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.
TO: Lyndon B. Johnson Space Center  
ATTN: AA/Director

FROM: W/Acting Assistant Inspector General for Auditing

SUBJECT: Final Audit Report  
Financial Management Procedures for Supply Acquisition  
Assignment Number A-JS-96-003  
Final Report Number IG-97-034

The NASA Office of Inspector General (OIG) has completed the Review of Financial Management Procedures for Supply Acquisition. We determined that procedures were adequate to ensure timely posting of electronic transactions to the Financial Management Division accounting system. However, improvements were needed to ensure proper commitments, obligations, and disbursements for aircraft spares and supplies. The audit showed that JSC personnel needed to: (1) disburse or deobligate old unliquidated obligations obligated; and (2) request billing adjustments from the Defense Finance and Accounting Service and the General Services Administration for aircraft spares that had not been received. Also, changes to the automated systems used by supply personnel for the aircraft maintenance contractor could reduce the time needed to correct rejected transactions.

The Center waived the exit conference and responded to the discussion draft report. The Center's written response is presented after each recommendation and is included in its entirety as Appendix 3 in this final report. The NASA OIG concurs that the actions taken or planned by JSC are sufficient for the closures of recommendations 1 and 3. In accordance with NMI 9910.1B, please include our office in the concurrence cycle for closing recommendation 2.

Robert J. Wesolowski

Enclosure

cc: JM/D. Green  
JSC/BD/P. Ritterhouse
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acronyms</td>
<td>iv</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>vi</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>5</td>
</tr>
<tr>
<td>Objectives, Scope, and Methodology</td>
<td>7</td>
</tr>
<tr>
<td>Observations and Recommendations</td>
<td>9</td>
</tr>
<tr>
<td>Electronic Transactions Posted Timely</td>
<td>9</td>
</tr>
<tr>
<td>Additional Actions Needed to Disburse or Deobligate Unliquidated Obligations</td>
<td>9</td>
</tr>
<tr>
<td>Billing Adjustments Needed</td>
<td>13</td>
</tr>
<tr>
<td>Changing Interface Programs Could Reduce Workload</td>
<td>17</td>
</tr>
<tr>
<td>Major Contributors</td>
<td>19</td>
</tr>
<tr>
<td>Appendix 1, Requisitioning Supplies From Other Governmental Agencies</td>
<td>A-1-1</td>
</tr>
<tr>
<td>Appendix 2, Billing and Payment Procedures</td>
<td>A-2-1</td>
</tr>
<tr>
<td>Appendix 3, JSC Management Response, dated June 27, 1997</td>
<td>A-3-1</td>
</tr>
<tr>
<td>Appendix 4, Distribution List</td>
<td>A-4</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>AIMS</td>
<td>Aircraft Inventory Management System</td>
</tr>
<tr>
<td>AOD</td>
<td>Aircraft Operations Division</td>
</tr>
<tr>
<td>DFAS</td>
<td>Defense Finance and Accounting Service</td>
</tr>
<tr>
<td>DLA</td>
<td>Defense Logistics Agency</td>
</tr>
<tr>
<td>FMD</td>
<td>Financial Management Division</td>
</tr>
<tr>
<td>FY</td>
<td>Fiscal Year</td>
</tr>
<tr>
<td>GSA</td>
<td>General Services Administration</td>
</tr>
<tr>
<td>IBAS</td>
<td>Interactive Basic Accounting System</td>
</tr>
<tr>
<td>JSC</td>
<td>Johnson Space Center</td>
</tr>
<tr>
<td>NSMS</td>
<td>NASA Supply Management System</td>
</tr>
<tr>
<td>PR</td>
<td>Purchase Request</td>
</tr>
</tbody>
</table>
DEFINITION OF TERMS

**Aircraft Inventory Management System (AIMS)** is the automated system used by the aircraft maintenance contractor to manage the aircraft spare inventory. The system electronically ordered supplies and transmitted financial data to the Financial Management Division automated accounting system [Interactive Basic Accounting System (IBAS)].

**Closed Appropriation** is an appropriation that is no longer available for obligation or disbursement for any purpose. The appropriation closes at the fiscal year-end of the fifth fiscal year after the appropriation expires. Any remaining balance (whether obligated or unobligated) in the appropriation will be canceled. Once an appropriation is closed, obligations and adjustments properly chargeable to the appropriation before closing may be charged to any current agency appropriation available for the same purpose.

**Commitments** are the administrative reservations of funds based on an approved requisition, procurement request, authorization for contract execution, or other written evidence that would obligate the government.

**Costs** are the amounts charged by suppliers for items ordered and received. Costs are only posted to the accounting system for the actual dollar amounts of supplies and services received. Supply personnel entered the dollar amounts for each Purchase Request (PR) with items received into the automated supply systems. When the amounts by PR are electronically transmitted to IBAS, costs are posted to each respective PR. Accounts Payable personnel are responsible for making proper disbursements of committed and obligated funds when items are received and costed in IBAS.

**Disbursements** are outlays of public money for obligations of the government. These outlays are for goods or services received.

**Expired Appropriation** is an appropriation that has reached the end of the fiscal year or its fixed period of availability, as approved by Congress. The appropriation retains its identity and remains available for recording, adjusting, and liquidating obligations properly chargeable to the appropriation.

**NASA Supply Management System (NSMS)** is the automated system used by JSC Logistics Division to manage the supply inventory. The system electronically ordered supplies and transmitted financial data to the Financial Management Division automated accounting system (IBAS).

**Obligations** are the amounts for orders placed, contracts awarded, services received, or other similar transactions that would require the outlay of funds/money.

**Prepayment** is the amount of a disbursement that exceeds the cost amount posted in IBAS for a PR. Example: If Accounts Payable personnel disburses $100 for a PR that only had $50 costed in IBAS, then the prepayment amount would be $50 for the PR. The $50 is shown in accounting records as a prepayment.
**PR Number** is the sequential number automatically assigned by AIMS or NSMS for each line item ordered from a Defense Logistics Agency or General Services Administration supply source. This number is used to identify the item and for processing financial transactions for commitments, obligations, costs, and disbursements.

**Receipt**, as used in this report, is the dollar value of an item received by a supply activity.

**Unliquidated Obligations** are obligations incurred for which disbursements have not been made. The obligations may be for goods and services received or goods and services ordered but not yet received.
INTRODUCTION

During the audit of 1995 Financial Statements, we identified potential problems with financial management procedures for supplies obtained from government sources. At the time of the financial statement audit, we concluded that these problems would not significantly affect our opinion of the financial statements. We determined, however, that more detailed audit work was needed in the area to address the potential problems. This report addresses the results of the review of these problem areas. The review was done after the Financial Statement audit was completed.

OBJECTIVES

The overall audit objective was to determine if procedures were adequate to ensure commitments, obligations, costs, and disbursements for supplies were proper. Specific objectives were to determine if controls were adequate to ensure that:

- Electronic transactions were posted timely to the Financial Management Division (FMD) accounting system;

- Actions were taken to pay long outstanding unliquidated obligations for supplies obtained through other government agencies; and

- Bills for supplies from other government agencies were properly paid.

RESULTS OF AUDIT

Procedures were adequate for ensuring that electronic transactions were posted timely to the FMD accounting system; however, improvements were needed to ensure that commitments, obligations, and disbursements were proper for aircraft spares and supplies. The audit showed that JSC personnel needed to take actions to:

- ensure that old unliquidated obligations were disbursed or funds deobligated; and
request billing adjustments for about $61,000 paid to the Defense Finance and Accounting Service and the General Services Administration (GSA) for aircraft spares that had not been received.

Also, changes to the automated systems used by supply personnel for the aircraft maintenance contractor could reduce the time needed to correct rejected transactions.

The following paragraphs summarize the results of our review of: (1) the timeliness of posting rejected transactions; (2) disbursements for old unliquidated obligations; (3) requests for billing adjustments; and (4) changes needed to reduce time for correcting rejected transactions. JSC personnel have taken actions to address findings in this report. We will evaluate the responsiveness of these actions when Management comments are received.

**Electronic Transactions Posted Timely.** FMD implemented procedures that ensured timely posting of all electronic transactions. Commitment, obligation, and costs transactions were electronically transmitted to the Interactive Basic Accounting System (IBAS) daily. Supply personnel generally corrected rejected transactions the next work day. IBAS generated a report of rejected transactions, as needed, to ensure that supply personnel made corrections promptly. See Observations and Recommendations, page 9, for more details.

**Additional Actions Needed to Disburse or Deobligate Unliquidated Obligation.** JSC personnel needed to take additional actions to disburse or deobligate old unliquidated obligations for supplies obtained from Air Force supply activities. JSC could not pay the Air Force for the supplies because the Air Force did not bill JSC for the supplies. On February 29, 1996, unliquidated obligations totaled about $2.8 million for supplies originally ordered and received between Fiscal Year (FY) 1990 through FY 1993. In FYs 1995 and 1996, FMD deobligated about $790,000 and $920,000 of FY 1989 and 1990 funds, respectively, because appropriations closed. Once an appropriation closed, JSC lost the authority to use the appropriation for disbursements and adjustments to obligations appropriately chargeable to the appropriation. If the Air Force submitted bills for supplies originally obligated under a closed appropriation, JSC would have to use current year funds to pay the obligations. For details see Observations and Recommendations, page 9.
Billing Adjustments Needed. JSC personnel had not requested billing adjustments to collect about $61,000 paid for aircraft spares that were not received. FMD received and paid bills for the spares in accordance with the Defense Logistics Agency and GSA requirements to pay bills in full. However, billing adjustments were not requested for payments made when discrepancies occurred. FMD made payments for purchase requests (PRs) that were: (1) canceled; (2) erroneous in quantities; or (3) not identified by contractor supply personnel. See Observations and Recommendations, page 13.

Changing Interface Programs Could Reduce Workload. Supply personnel for the aircraft maintenance contractor did duplicate work to correct some rejected transactions. They manually corrected PR transactions that rejected when increases in prices exceeded the amount committed and obligated for the PR. The interface programs used to transmit financial transactions to IBAS did not include making automatic increases, within a specific range, to commitments and obligations when price increases occurred. These types of rejected transactions could be corrected automatically by the automated systems when price increases within a specific range occurred. Unlike the automated system used by the contractor, the JSC Logistics Division's automated system already has the capability to make automatic adjustments when price increases within a specified dollar range occurred. See Observations and Recommendations, page 17, for more details.

We made the following recommendations.

**RECOMMENDATION 1**

FMD and Aircraft Operations Division (AOD) personnel should jointly prepare and send a written request to the appropriate Air Force activity for bills to clear unliquidated obligations for aircraft spares and supplies already received. The request should include a deadline for responses. The responses could be used as the basis to pay the Air Force or to deobligate funds.

**RECOMMENDATION 2**

Supply and FMD personnel should jointly: (1) identify PRs that require collection actions; (2) request billing adjustments for the PRs identified; and (3) establish procedures that will ensure billing adjustments are requested promptly after the need for adjustments is identified.
RECOMMENDATION 3

AOD should request changes to the AIMS/IBAS interface computer programs to allow for automatic increases to commitments and obligations meeting specified dollar criteria.

The actions planned or taken by supply, FMD, and AOD personnel were responsive for recommendations 1 and 3. Supply and FMD personnel needed to take additional actions to fully implement recommendation 2.
INTRODUCTION

Johnson Space Center (JSC) Logistics and the aircraft maintenance contractor obtained supplies and repair parts from various sources, including other government agencies. The JSC Logistics and contractor activities used the NASA Supply Management System (NSMS) and the Aircraft Inventory Management System (AIMS), respectively, for inventory management, including ordering supplies electronically. These systems electronically interfaced with the Interactive Basic Accounting System (IBAS) to transmit transactions for commitments, obligations, and costs.

A purchase request (PR) number is automatically assigned to each supply item ordered. JSC personnel used the PR number to identify and track commitments, obligations, and disbursements for each item ordered through NSMS or AIMS. When supplies are ordered, electronic transmission of data to IBAS created transactions for commitments and obligations. Supply personnel entered the dollar amounts for the supplies received into NSMS or AIMS. When these receipt amounts are electronically transmitted to IBAS by PR number, costs are posted to IBAS for each PR with supplies received.

The Accounts Payable group of the Financial Management Division (FMD) was responsible for making disbursements for supplies received at JSC. For a more detailed discussion of the procedures used to pay for supplies, see Appendix 2.

Supply Budget and Actual Expenses. The following chart shows the Fiscal Year (FY) 1996 budget and the FY 1995 actual expenses for supplies and repair parts for JSC Logistics and the aircraft maintenance contract.

<table>
<thead>
<tr>
<th>Activity</th>
<th>FY 1996 Budget</th>
<th>FY 1995 Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSC Logistics</td>
<td>$ 5,800,000</td>
<td>$ 6,660,000</td>
</tr>
<tr>
<td>Aircraft Maintenance</td>
<td>6,000,000</td>
<td>5,446,000</td>
</tr>
<tr>
<td>Contract</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The supplies were funded by the two-year appropriation for Human Space Flight.
OBJECTIVES, SCOPE, AND METHODOLOGY

OBJECTIVES
The overall audit objective was to determine if procedures were adequate for ensuring commitments, obligations, and disbursements for supplies were proper. Specific objectives were to determine if controls were adequate to ensure that:

- electronic transactions were posted timely to the FMD accounting system;

- actions were taken to pay long outstanding unliquidated obligations for supplies obtained through other government agencies; and

- bills for supplies from other government agencies were properly paid.

To determine the adequacy of procedures for ensuring proper commitments, obligations, and disbursements for aircraft spares and supplies, we interviewed key JSC and contractor personnel, reviewed pertinent records, and performed limited tests of management controls. Specifically, we:

- discussed the systems used for committing, obligating, and disbursing funds for aircraft spares and supplies with personnel from: (1) JSC's Financial Management and Logistics Divisions; and (2) contractor personnel for the aircraft maintenance contract at JSC;

- tested selected transactions to ensure accuracy of financial records for commitments, obligations, and disbursements for aircraft spares and supplies; and

- met with JSC FMD and Aircraft Operations Division (AOD) personnel to discuss the results of the audit.

SCOPE AND METHODOLOGY

MANAGEMENT CONTROLS REVIEWED

We reviewed significant management controls for:

- electronic transmissions of commitments, obligations, and costs to IBAS by JSC Logistics and the aircraft maintenance contractor; and
- payment procedures used to pay bills from other government billing activities.

**Audit Standards**

The audit was accomplished in accordance with generally accepted government auditing standards and included such examinations and tests of applicable records and documentation as were considered necessary. Audit field work was conducted from March 1996 through October 1996 at Johnson Space Center.
OBSERVATIONS AND RECOMMENDATIONS

OVERALL EVALUATION

FMD personnel implemented procedures that ensured electronic transactions were posted timely to the accounting system. However, improvements were needed to ensure proper commitment, obligation, and disbursement of funds for aircraft spares and supplies. Obligations for supplies remained in accounting records without disbursement activity for three or more years. JSC personnel did not request billing adjustments for 10 of 16 PRs for supply items that were paid for but not received. Requests for adjustments were not made promptly for two of the six PRs that had adjustments requested. Also, changing the interface programs for the Aircraft Inventory Management and the Interactive Basic Accounting Systems could reduce the workload for supply personnel.

ELECTRONIC TRANSACTIONS POSTED TIMELY

Electronic transactions were posted timely to FMD accounting records. Supply activities electronically transmitted commitment, obligation, and costs transactions to IBAS daily. When electronic transactions were rejected by IBAS, supply personnel generally corrected them the next work day. IBAS generated the Batch Failure Report to show which transactions were rejected. The report included the PR number for the transactions and the reasons the transactions rejected. At one time, PR numbers did not appear on the report provided to the supply activity for the aircraft maintenance contractor. However, FMD personnel changed the report so that it included the PR number for rejected transactions to ensure that corrections are made promptly.

ADDITIONAL ACTIONS NEEDED TO DISBURSE OR DEOBLIGATE UNLIQUIDATED OBLIGATIONS

Disbursements or deobligations of funds had not been made for unliquidated obligations, for supplies already received, that were three or more years old. JSC personnel had taken only limited actions to request bills to pay FY 1990 through FY 1993 unliquidated obligations for supplies obtained from Air Force activities through the Defense Logistics Agency (DLA). On February 29, 1996, about $2.8 million of FY 1990 through FY 1993 unliquidated obligation remained unpaid. JSC would have to use current fiscal year appropriations to
pay the unliquidated obligations if prior year appropriations are closed before payments are made.

**Fiscal Year Appropriations Provide Budget Authority**

Congress finances Federal programs and activities by providing budget authority. Appropriations are the most common form of budget authority. An appropriation is the authorization by an act of Congress that permits Federal agencies to incur obligations and make payments out of the Treasury for specified purposes. Appropriations are made available for obligations for a fixed period of time or fiscal year. When the fixed period or year-end is reached, the appropriation expires. The appropriation retains its identity and remains available for recording, adjusting, and liquidating obligations properly chargeable to the appropriation.

On fiscal year-end of the fifth fiscal year after expiration, an appropriation is closed. Any remaining balance (whether obligated or unobligated) in the account will be canceled and will not be available for obligation or expenditures for any purpose. Once an appropriation is closed, obligations and adjustments properly chargeable to the appropriation before closing may be charged to any current agency appropriation available for the same purpose.

For FY 1994 and before, supplies ordered by JSC Logistics and the aircraft maintenance contractor were funded by the Space Flight, Control, and Data Communication and the Research and Development appropriations. Both were two-year appropriations.

**Limited Actions Taken to Request Bills From The Air Force**

JSC personnel had taken only limited actions to request bills to liquidate old obligations for supplies. AOD personnel stated that they had verbally requested bills from the Air Force so that obligations could be paid; however, they had not requested bills from the Air Force in writing. AOD personnel also stated that Air Force personnel had told them that some supply billing information was lost when the Air Force converted to a new customer billing system. Air Force personnel indicated that they would not be billing JSC for unliquidated obligations prior to FY 1993. Accounts payable personnel in FMD needed bills from suppliers before disbursements could be properly made.

**Authority to Use Funds Lost**

NASA lost the authority to use prior year funds for prior year requirements when appropriations were closed before payments were made or funds deobligated. The following chart shows the status of
unliquidated obligations for supplies for FY 1990 through FY 1993 on February 29, 1996.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 1990</td>
<td>$ 920,000</td>
</tr>
<tr>
<td>FY 1991</td>
<td>790,000</td>
</tr>
<tr>
<td>FY 1992</td>
<td>380,000</td>
</tr>
<tr>
<td>FY 1993</td>
<td>690,000</td>
</tr>
<tr>
<td>Total</td>
<td>$ 2,780,000</td>
</tr>
</tbody>
</table>

*Chart 1*

The FY 1990 appropriations expired at the end of FY 1991 and closed at the end of FY 1996. JSC lost the use of these funds because the Air Force did not bill JSC/NASA for supplies that had already been received. About $920,000 of FY 1990 funds for 692 PRs were deobligated between May and September 1996. Accounts Payable personnel provided documentation that showed the dates that deobligations of FY 1990 funds were made.

<table>
<thead>
<tr>
<th>Date</th>
<th>Amount Deobligated</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 8, 1996</td>
<td>$ 7,000</td>
</tr>
<tr>
<td>June 25, 1996</td>
<td>85,000</td>
</tr>
<tr>
<td>September 10 &amp; 17, 1996</td>
<td>828,000</td>
</tr>
<tr>
<td><strong>Total Deobligations</strong></td>
<td><strong>$ 920,000</strong></td>
</tr>
</tbody>
</table>

*Chart 2*

In FY 1995, FMD deobligated about $790,000 of FY 1989 funds for 576 PRs because bills were not received from the Air Force and paid or deobligated before the appropriations closed. If the Air Force billed JSC for any items after appropriations closed, JSC would have to use current year funds to pay for the items.

**Recommendation 1**

FMD and AOD personnel should jointly prepare and send a written request to the appropriate Air Force activity for bills to clear unliquidated obligations for aircraft spares and supplies already received. The request should include a deadline for responses. The responses could be used as the basis to pay the Air Force or to deobligate funds.
Management's Response

We concur with the recommendation. A Team formed to review procedures and make necessary changes developed procedures that encompass both aspects of the recommendation. Written requests for vouchers, with expected response times, are now sent by FMD personnel on a routine basis to the appropriate Air Force supply depot. These requests were the basis for releasing all unliquidated funds backed by Program Year (PY) 1990, 1991, 1992, and 1993 funds during the closing of business activities for FY 1996. The exercise returned $2.4 Million in Shuttle appropriated funds to either the U.S. Treasury (PY 90 funds) or to the Closed Appropriations Accounts managed by NASA Headquarters (all other years). Kelly Air Force Base has a new accounting system and will not be billing for the PY 93 and prior unliquidated balances since records prior to PY 94 are no longer available.

NASA will notify the Air Force of its intent to work within a compressed vouchering window at the initiation of a request for goods or services from the military. NASA FAR Supplement 1817.504, dated October 29, 1996, and released in May 1997, now requires a statement be added to all Military Interagency Purchase Requests requiring the servicing agency or department to submit a final voucher, invoice, or other appropriate payment document within six months after the completion date of the order. A different period may be specified by mutual agreement. The early notification of limiting the vouchering window should provide a greater ability to reduce future unliquidated obligations associated with aircraft spares and supplies.

These procedures should have a positive impact on reducing the unliquidated balances. The Team will continue to monitor and track the unliquidated balances related to aircraft spares, and initiate necessary actions to encourage billing by the Air Force. With these actions, we consider this recommendation closed.

Evaluation of Management's Response

The actions taken by the Team formed to review procedures and make necessary changes were responsive to Recommendation 1. The NASA OIG concurs that the actions taken and planned are sufficient for closure of this recommendation.
BILLING ADJUSTMENTS NEEDED

JSC personnel needed to initiate billing adjustment requests for aircraft spares that were paid for but not received. FMD paid bills from the Defense Finance and Accounting Service (DFAS) for PRs with discrepancies. These PRs were canceled, had quantity errors, or could not be identified. Responsible FMD and supply personnel did not always request billing adjustments for PRs with discrepancies. When billing adjustment requests were made, the requests were not always timely. Accounts Payable personnel made payments of about $243,000 for aircraft spares and supplies that had been canceled, received with incorrect quantities, or could not be identified by supply personnel.

SUPPLY ORDERS AND FINANCIAL DATA ELECTRONICALLY TRANSMITTED

JSC Logistics and the aircraft maintenance contractor obtained some supplies and aircraft spares from other government agencies. The supply activities used automated systems to electronically order supplies. Electronic transmissions of data to FMD for supplies ordered created commitments and obligations in IBAS. When supply items were received, supply personnel entered the dollar value of the items received into the automated systems. The dollar value of items received was electronically transmitted to IBAS to create costs in IBAS. See Appendix 1 for more details on the systems used by the supply activities.

PROCEDURES USED TO PAY BILLS FOR SUPPLIES

NASA Financial Management Manual 9051-7 states that payments would not be made before the receipt and acceptance of goods or services, unless specifically provided by contractual agreement. JSC obtained supplies from General Services Administration (GSA) and DLA sources. GSA used the On-line Payment and Collection system to charge JSC for supplies and services. DLA billed JSC through DFAS. The billing procedures required FMD to pay for aircraft spares and supplies as billed without verifying that supply items were received. When billing errors occurred because of discrepancies between the dollar amount for items billed and received, FMD or supply personnel should request billing adjustments from GSA or DFAS. More details on the billing procedures can be found in Appendix 2.

PREPAYMENTS MADE FOR SOME SUPPLIES

When accounts payable personnel disbursed amounts that were more than the costs for a supply PR, the excess disbursement amount went into prepayment status. FMD provided a prepayment report to the
supply activities each month. Supply personnel reviewed the reports to determine the current status of each PR with a prepayment. The prepayment amount remained in IBAS until FMD personnel posted a billing adjustment to IBAS or the supply activity received additional items equal to the prepayment amount for a PR.

Responsible FMD and supply personnel did not always request billing adjustments for aircraft spares and supplies that were paid for but not received. We found that Accounts Payable personnel paid for PRs that were: (1) canceled; (2) erroneous in quantity; or (3) not identified by supply personnel. We reviewed 37 prepayments in January and February 1996 prepayment reports and found the following.

<table>
<thead>
<tr>
<th>Number of PRs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items Received, Payment Correct</td>
</tr>
<tr>
<td>Items Not Received--PRs Still Open</td>
</tr>
<tr>
<td>Items Received, Quantity Errors, Adjustment Requested</td>
</tr>
<tr>
<td>Items Received, Quantity Errors, No Adjustment Requested</td>
</tr>
<tr>
<td>Items Not Received--PR Canceled, Adjustment Requested</td>
</tr>
<tr>
<td>Items Not Received--PR Canceled, No Adjustment Requested</td>
</tr>
<tr>
<td>Items That Could Not be Identified</td>
</tr>
</tbody>
</table>

*Chart 3*

Sixteen PRs valued at about $243,000 needed requests for billing adjustments. FMD and supply personnel requested adjustments for six of the sixteen PRs for about $182,000. For the remaining ten PRs, FMD paid about $61,000 even though none of the ordered supplies were received.

**Canceled PRs.** FMD personnel paid for ten PRs, valued at about $22,000, that were canceled. DFAS billed JSC for the PRs and FMD paid the bills. Supply personnel for the aircraft maintenance contractor canceled three of the ten PRs after reviewing the February 1996 prepayment report. One of the PRs was canceled in February 1996. The remaining six PRs were canceled during FY 1995. The PRs with cancellation dates are listed in the following chart.
<table>
<thead>
<tr>
<th>PR Number</th>
<th>Amount</th>
<th>Date Canceled</th>
</tr>
</thead>
<tbody>
<tr>
<td>950230425N0A</td>
<td>$1,190</td>
<td>March 25, 1996</td>
</tr>
<tr>
<td>950270093N01</td>
<td>2,027</td>
<td>March 21, 1996</td>
</tr>
<tr>
<td>950270105N01</td>
<td>1,039</td>
<td>March 21, 1996</td>
</tr>
<tr>
<td>942070146N01</td>
<td>3,508*</td>
<td>February 12, 1996</td>
</tr>
<tr>
<td>942300064N01</td>
<td>3,508*</td>
<td>May 26, 1995</td>
</tr>
<tr>
<td>940670184N01</td>
<td>2,003*</td>
<td>March 14, 1995</td>
</tr>
<tr>
<td>942779500N01</td>
<td>1,515</td>
<td>January 23, 1995</td>
</tr>
<tr>
<td>942550015N01</td>
<td>3,034</td>
<td>January 23, 1995</td>
</tr>
<tr>
<td>942550013N01</td>
<td>3,034</td>
<td>January 23, 1995</td>
</tr>
<tr>
<td>941120058N0A</td>
<td>1,154</td>
<td>January 23, 1995</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$22,012</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Billing adjustment requested

Chart 4

JSC personnel requested billing adjustments for three of the PRs for about $9,000.

**Other Billing Discrepancies.** JSC was billed and paid for supply items on six PRs, valued at about $221,000, that had quantity errors or could not be identified by supply personnel. FMD personnel requested billing adjustments for three PRs valued at about $173,000. For the remaining three PRs, valued at about $48,000, we found that:

- Supply personnel for the aircraft maintenance contractor could not identify two PRs valued at about $48,000. They searched their files and could not find any data on the two PRs. Further research by accounts payable personnel showed that one of the PRs, valued at about $30,000, was shown as canceled on the April 1995 prepayment report.

- Supply items were received for one PR valued at $71,000. JSC Logistics received 1,758 units on the PR; however, GSA billed JSC for 1,760 units. Accounts Payable personnel disbursed $81 too much for the items received. While the amount overpaid for the PR was not significant, the payment showed that FMD paid for supply items that had not been received at JSC.

**ADJUSTMENT REQUESTS NOT ALWAYS TIMELY**

When made, billing adjustment requests were not always timely. FMD personnel requested billing adjustments for 6 of the 16 PRs that needed billing adjustments. Adjustments for two of the six PRs were requested one year after the PRs had been canceled. The following chart presents activity for the six PRs with billing adjustment actions.
<table>
<thead>
<tr>
<th>PR Number</th>
<th>Supply Action</th>
<th>Date of Supply Action</th>
<th>Date Adjustment Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>940670184N01</td>
<td>(1)</td>
<td>March 1995</td>
<td>March 1996</td>
</tr>
<tr>
<td>942070146N01</td>
<td>(1)</td>
<td>February 1996</td>
<td>March 1996</td>
</tr>
<tr>
<td>942300064N01</td>
<td>(1)</td>
<td>May 1995</td>
<td>May 1996</td>
</tr>
<tr>
<td>943460749001</td>
<td>(2)</td>
<td>August 1995</td>
<td>August 1995</td>
</tr>
<tr>
<td>951590712001</td>
<td>(2)</td>
<td>July 1995</td>
<td>July 1995</td>
</tr>
<tr>
<td>952910152N02</td>
<td>(2)</td>
<td>None Taken</td>
<td>Not Documented</td>
</tr>
</tbody>
</table>

(1) PR Canceled (Total value for the three PRs was $9,000.)
(2) Items Received with quantity errors (Total value of the three PRs was about $173,000.)

Chart 5

JSC personnel should ensure that adjustments are requested as soon as the need for adjustments are identified.

RECOMMENDATION 2

Supply and FMD personnel should jointly: (1) identify PRs that require collection actions; (2) request billing adjustments for the PRs identified; and (3) establish procedures that will ensure billing adjustments are requested promptly after the need for adjustments are identified.

Management’s Response

We agree with the recommendation. Procedures are in place to identify these Purchase Requests (PRs) and their status. The Financial Management Division handles the Reports of Discrepancies (ROD’s) for billing adjustments. The Defense Finance and Accounting Service (DFAS) will not accept a hard copy ROD for billing adjustments, but allow ROD’s only via a telephone call or through their DAMES system. At the DFAS conference, the FMD team members spoke with DFAS officials and requested access to the DAMES system. Final approval and passwords were received May 23, 1997. Following configuration, testing, and completion of final set-up, ROD’s will be done on-line. With these actions taken, we consider the recommendation closed.

Evaluation of Management’s Response

Management’s comments do not fully respond to the recommendation. The actions taken to establish procedures to ensure billing adjustments are requested promptly were responsive to the recommendation. However, management comments did not include actions taken to obtain billing adjustments on PRs for aircraft spares that were paid for but not received. JSC Management did not address
if actions were taken to: (1) identify these PRs; and (2) request billing adjustments for the PRs identified.

**CHANGING INTERFACE PROGRAMS COULD REDUCE WORKLOAD**

By requesting changes to the interface programs used for transmitting transactions to IBAS, supply personnel for the aircraft maintenance contractor could reduce their workload. Supply personnel did duplicate work to correct some rejected transactions involving price increases for the supply items ordered.

**CORRECTIONS OF SOME TRANSACTIONS REQUIRED DUPLICATE WORK**

The contractor supply technician sometimes had to do duplicate work to correct rejected transactions. When the unit price of an item increased between the time of the original order and the receipt of ordered items, the receipt transaction automatically rejected. Unlike the NSMS/IBAS interface computer programs, the AIMS/IBAS interface computer programs did not automatically increase commitments and obligations within a specific dollar range when price changes occurred. The contractor's supply technician had to enter the receipt of the item and manually adjust the commitments and obligations if the receipt transaction rejected. Once a receipt is transmitted to IBAS, any rejections, because of the need for additional commitments and obligations within a specific dollar range, should not occur. The interfacing of the AIMS and IBAS systems could automatically generate these additional commitments and obligations.

**RECOMMENDATION 3**

AOD should request changes to the AIMS/IBAS interface computer programs to allow for automatic increases to commitments and obligations meeting specified dollar criteria.

**Management's Response**

We agree with the intent of this recommendation. Currently, there is a moratorium on upgrades to our existing systems, and the cost outweighed the benefits. Computer upgrades, changes and modifications within the IBAS and other Agency financial computer systems have been halted until the implementation of the Agency-wide Integrated Financial Management Project (IFMP). The IFMP is projected to be available, on a limited basis, within a two-year time frame. The audit recommendation will be revisited when the freeze on modifications to financial computer systems has been released. Should the IFMP, as implemented, fail to provide a much improved interface to the IBAS-replacement system, then the AIMS/IBAS replacement interface would probably benefit from additional
upgrading. In the meantime, FMD personnel and DynCorp personnel have procedures in place to manually increase commitments and obligations as required.

**Evaluation of Management's Response**

Management's comments are responsive to the recommendation. NASA OIG concurs with JSC's planned actions for ensuring that the AIMS/IBAS replacement interface programs include automatic increases of commitments and obligations, as needed. We also agree that this recommendation should be revisited once the moratorium on making changes to financial systems is lifted.
MAJOR CONTRIBUTORS TO THIS AUDIT

JOHNSON SPACE CENTER

Janice Goodnight, Program Director, Human Exploration and Development of Space

Bessie Cox, Auditor-in-Charge

June Glisan, Program Assistant
Requisitioning Supplies From Other Governmental Agencies

JSC Logistics and the contractor for aircraft maintenance used automated systems for inventory management. The procedures used for these systems are summarized below.

**JSC Logistics Procedures.** JSC Logistics personnel used NASA Supply Management System (NSMS) to order supplies from other Governmental Agencies. Personnel also posted receipts for the items ordered to NSMS. Purchase request (PR) numbers were assigned automatically for each line item requisitioned. Receipts were also posted by PR number. NSMS electronically interfaced with the Interactive Basic Accounting System (IBAS) to generate financial transactions for the PRs. Supply personnel entered required data into NSMS to create the desired transactions. At the end of each day, the data is electronically transmitted to IBAS. When NSMS interfaced with IBAS, the interface computer programs automatically converted the transactions for commitments, obligations, and costs. The transaction for the order of supply items generated commitments and obligations in IBAS. When the items are received, supply personnel entered receipt data into NSMS. Receipt data is electronically transmitted to IBAS to generate costs in IBAS.

**Aircraft Maintenance Contractor Procedures.** The contractor used the Aircraft Inventory Management System (AIMS) to order supplies. Contractor supply personnel entered the necessary data for each PR number into AIMS when repair parts or supplies were ordered and received. At the end of each day, the supply technician transmitted the supply request or receipt data to IBAS electronically. Unlike NSMS, AIMS required the supply technician to code the data so that commitments, obligations, and costs are generated in IBAS. The initial PRs are coded to generate commitments and obligations. When items are received, they were coded and transmitted so that receipts are posted to IBAS. Receipts are posted as costs in IBAS.
Billing and Payment Procedures

The General Services Administration (GSA) used the On-line Payment and Collection (OPAC) system to charge JSC for supplies obtained from GSA supply sources. The Defense Logistics Agency (DLA) billed JSC through the Defense Finance and Accounting Service (DFAS) for supplies obtained through Department of Defense supply sources. The procedures used to bill JSC for the supplies and summarized below.

**OPAC Procedures.** OPAC allowed participating agencies to charge other agency accounts/appropriations when supplies are shipped. GSA used OPAC to charge JSC for supplies that it provided to JSC. GSA directly charged the applicable Agency location code for JSC when supplies were shipped. Financial Management Division (FMD) personnel determined the appropriation and fund source code for the charge. Follow up detailed bills supporting the charges were provided to FMD by GSA after the charges were made.

Current guidelines allowed FMD to post disbursements even if there was no confirmation that the supplies were received. Chapter 10000 of the Treasury Financial Manual stated:

> OPAC billings are rendered for services purchased or supplies shipped. A charge should not be considered erroneous simply because the customer agency receives the paid billing statement before supplies are received. If the customer agency subsequently finds that the charge was erroneous, the adjustments should be made then; however, the customer agency is limited to three months, upon receipt of its OPAC statement, to process the adjustment.

Each month FMD personnel accessed the OPAC system to generate summaries of charges to JSC appropriations during the month. FMD used the Treasury Reconciliation to check the accuracy of the OPAC charges. The charges were totals only billed by GSA to JSC for supplies. Accounts payable personnel then: (1) identified the purchase requests (PR) applicable to the charges; (2) verified that the amounts billed in supporting documentation agreed with the OPAC charges; and (3) posted disbursements to the appropriate PRs in Integrated Basic Accounting System.

**DLA Procedures.** DLA billed JSC for aircraft spares through DFAS. FMD provided direct payments to DFAS based on the billings. When FMD received bills from DFAS, personnel manually entered the bills into the Cash Management System. This system automatically aged the bills for a 30-day period and provided notices to responsible personnel when a bill was due for payment. Disbursements were made at the end of the 30-day aging period even if there is no confirmation that items were received.
BQ-97-026

TO: W-JS/Program Manager, Human Exploration and Development of Space
FROM: AA/Director

As discussed with your office, JSC opted to waive an exit conference and respond directly to the discussion draft report. Prior to the initiation of this audit assignment, a team representing the Flight Crew Operations Business Management Office, Aircraft Operations Division, Dyncorp Support Personnel and the Financial Management Division had been formed to flowchart and improve the aircraft spares process. The Team had already addressed many of the issues highlighted in this audit and procedures were implemented to improve the overall process. Actions taken are discussed in the enclosure.

With the actions taken, or planned, and your acceptance of the actions, we will consider the audit closed on issuance of the final report. If you have any questions regarding this response, contact Pat Ritterhouse at 281-483-4220.

George W. S. Abbey

Enclosure

cc:
CA/D. C. Leestma
JA/J. A. Hickmon
LA/W. L. Draper
HQ/JM/J. D. Werner
HQ/MX/G. A. Gabourel

BQ/PRitterhouse:lsd:8/9/97:34220
Auditor's Findings

"JSC personnel had taken only limited actions to request bills to liquidate old obligations for supplies. AOD personnel stated that they had verbally requested bills from the Air Force so that obligations could be paid; however, they had not requested bills from the Air Force in writing. AOD personnel also stated that Air Force personnel had told them that some supply billing information was lost when the Air Force converted to a new customer billing system. Air Force personnel indicated that they would not be billing JSC for unliquidated obligations prior to FY 1993. Accounts payable personnel in FMD needed bills from suppliers before disbursements could be properly made."

Recommendation 1

"FMD and Aircraft Operations Division (AOD) personnel should jointly prepare and send a written request to the appropriate Air Force activity for bills to clear unliquidated obligations for aircraft spares and supplies already received. The request should include a deadline for responses. The responses could be used as the basis to pay the Air Force or to deobligate funds."

JSC Comments

We concur with the recommendation. The Team formed to review procedures and make necessary changes developed procedures that encompass both aspects of the recommendation. Written requests for vouchers, with expected response times, are now sent by Financial Management personnel on a routine basis to the appropriate Air Force supply depot. Those requests were the basis for releasing all unliquidated funds backed by Program Year 1990, 1991, 1992, and 1993 funds during the closing of business activities for Fiscal Year 1996. That exercise returned $2.4 Million in Shuttle appropriated funds to either the U. S. Treasury (Program Year [PY] 90 funds) or to the Closed Appropriations Accounts managed by NASA Headquarters (all other years). Kelly Air Force Base has a new accounting system and will not be billing for the PY93 and prior unliquidated balances since records prior to PY94 are no longer available.

In addition to actions currently underway to minimize the existing unliquidated obligations, the Air Force will now be notified of NASA's intent to work within a compressed vouchering window at the initiation of a request for goods or services from the military. NASA FAR Supplement 1817.504, dated October 29, 1996, and released in May 1997, now requires a statement be added to all Military Interagency Purchase Request's (MIPR's) requiring the servicing agency or department to submit a final voucher, invoice, or other appropriate payment document within six months after the completion date of the order. While a different period may be specified by mutual agreement if six months is not sufficient, the different period requires a specific statement to be valid. The early notification of NASA's intent to limit the vouchering window, while a relatively new tool, should provide a greater ability to reduce future unliquidated obligations liabilities associated with aircraft spares and supplies.

Enclosure
Personnel from Aircraft Operations Division, Financial Management Division, and the Flight Crew Business Management Office have initiated several face-to-face meetings with the larger Air Logistics Centers in an effort to encourage vouchering. The most recent of these trips occurred on April 21, 1997, to Kelly Air Force Base, San Antonio, Texas.

These procedures should have a positive impact on reducing the unliquidated balances. The Team will continue to monitor and track the unliquidated balances related to aircraft spares, and initiate necessary actions to encourage billing by the Air Force. With these actions in place, we consider this recommendation closed.

Auditor’s Findings

"JSC personnel needed to initiate billing adjustment requests for aircraft spares that were paid for but not received. FMD paid bills from the Defense Finance and Accounting Services (DFAS) for PRs with discrepancies. These PRs were canceled, had quantity errors, or could not be identified. Responsible FMD and supply personnel did not always request billing adjustments for PRs with discrepancies. When billing adjustment requests were made, the requests were not always timely."

Recommendation 2

"Supply and FMD personnel should jointly: (1) identify PRs that require collection actions; (2) request billing adjustments for the PRs identified; and (3) establish procedures that will ensure billing adjustments are requested promptly after the need for adjustments is identified."

JSC Comments

We agree with the recommendation and procedures are in place to identify these Purchase Requests (PRs) and monitor their status. The number of PRs that are recorded as a prepayment because of billing adjustments or required collection action make up about one percent of the total number paid annually. Logistics and Dyncorp receive a monthly report, called the Prepayment Report, which identifies all of the PRs in this category. Both areas review the report, and document the action taken. All Report of Discrepancy’s (ROD’s) are initiated by either Logistics or Dyncorp except when it is a billing adjustment.

The Financial Management Division handles the ROD’s for billing adjustments. The Defense Finance and Accounting Service (DFAS) will not accept a hard copy ROD for billing adjustments, but allow ROD’s only via a telephone call or through their DAMES system. In the past, all of our ROD’s were called in and if credits were not received in a timely manner, follow-up requests were made. At the DFAS conference, the FMD team member spoke with DFAS officials and requested access to the DAMES system. DFAS agreed to our request and has furnished the software requirements for the system. Final approval, and passwords, was received May 23, 1997, following configuration and testing, and ROD’s on-line will be implemented once the final set up is completed. With these actions taken, we consider the recommendation closed.
Auditor's Findings

"The contractor supply technician sometimes had to do duplicate work to correct rejected transactions. When the unit price of an item increased between the time of the original order and the receipt of ordered items, the receipt transaction automatically rejected. Unlike the NSMS/IBAS interface computer programs, the AIMS/IBAS interface computer programs did not automatically increase commitments and obligations within a specific dollar range when price changes occurred."

Recommendation 3

"AOD should request changes to the AIMS/IBAS interface computer programs to allow for automatic increases to commitments and obligations meeting specified dollar criteria."

JSC Comments

We agree with the intent of this recommendation. The Team also identified this as a possible benefit in one of its recommendations. Currently, there is a moratorium on upgrades to our existing systems, and the cost outweighed the benefits. Computer upgrades, changes and modifications within the Interactive Basic Accounting System (IBAS), as with all Agency financial computer systems, have been halted until the implementation of the Agency-wide Integrated Financial Management Project (IFMP). The IFMP is projected to be available, on a limited basis, within a two year time frame. The audit recommendation will be revisited when the freeze on financial computer system modification has been released. Should the IFMP, as implemented, fail to provide a much improved interface to the IBAS-replacement system, then the Aircraft Inventory Management System (AIMS)/IBAS replacement interface would probably benefit from additional upgrading. In the meantime, FMD personnel and Dyncorp personnel have procedures in place to manually increase commitments and obligations as required.
Report Distribution

National Aeronautics and Space Administration (NASA) Officials-In-Charge

Code B/Chief Financial Officer
Code B/Comptroller
Code G/General Counsel
Code J/Associate Administrator for Management Systems and Facilities
Code L/Associate Administrator for Legislative Affairs

NASA Offices of Inspector General

Ames Research Center
Goddard Space Flight Center
Jet Propulsion Laboratory
John F. Kennedy Space Center
Langley Research Center
Lewis Research Center
George C. Marshall Space Flight Center
John C. Stennis Space Center

Non-NASA Federal Organizations and Individuals

Assistant to the President for Science and Technology Policy
Deputy Associate Director, Energy and Science Division, Office of Management and Budget
Budget Examiner, Energy Science Division, Office of Management and Budget
Associate Director, National Security and International Affairs Divisions, General Accounting Office
Special Counsel, Subcommittee on National Security, International Affairs, and Criminal Justice

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

Senate Committee on Appropriations
Senate Subcommittee on VA-HUD-Independent Agencies
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 Subcommittee on Space and Aeronautics
House Committee on Science

Congressional Members

The Honorable Pete Sessions, U. S. House of Representatives

A-4