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United States General Accounting Office
Washington, DC 20548

May 23, 2002

The Honorable Dan Burton
Chairman
Committee on Government Reform
House of Representatives

Subject: *NASA Contract Payments*

Dear Mr. Chairman:

You asked us to determine whether the National Aeronautics and Space Administration (NASA) had significant problems with overpayments to its contractors. The objectives of our review were to (1) survey contractors and vendors to determine whether NASA had made significant payment errors on its contracts and purchase orders and (2) review the design of NASA's controls to prevent, detect, and correct payment errors.

We selected 110 contracts and purchase orders on which NASA had made $4.8 billion in payments during the first 9 months of fiscal year 2001 (the most recent data available at the time). During those 9 months, NASA had disbursed about $8.7 billion on 6,815 contracts and purchase orders. By the end of fiscal year 2001, NASA disbursed almost $11.7 billion on 8,141 contracts and purchase orders, of which about $11.5 billion pertained to the contracts and purchase orders included in the 9-month population from which we made our selection.

For the survey, we selected the 10 contracts and 10 purchase orders with the highest total disbursements for the 9-month period and random samples of 45 contracts and 45 purchase orders. NASA disbursed about $6.3 billion during fiscal year 2001 on these 110 contracts and purchase orders. For the selected items, we asked the contractors and vendors to identify payments that were more than or less than the amounts they had billed NASA during the year, with the exception of advances and properly calculated progress payments.[1] Our survey was intended to identify whether NASA had a significant problem with payment errors but not to project the amount or number of errors to NASA's payment population. For our random samples, one or more payment errors reported to us in the survey would indicate a significant or systemic problem during the review period. For the 20 largest contracts and purchase orders, the dollar amounts of reported errors would have to be evaluated individually

[1]Under certain circumstances, the Federal Acquisition Regulation authorizes reductions in progress payments, which can be paid in advance of work being accepted. Therefore, we did not consider any reduced progress payments as underpayments.

to determine their significance. Because the contractors and vendors self-reported these overpayments and underpayments, the reliability of our survey results is dependent upon the reliability of their responses.

We defined payment errors as payments that were more than or less than what was owed to the contractor or vendor as of the payment date. We did not consider billed amounts that NASA was disputing or billings less than 30 days old as of September 30, 2001, to be underpayments. Also, overpayments and underpayments that resulted from routine retroactive adjustments by contractors and vendors to overhead or general and administrative rates were considered errors only if they were not resolved promptly.

We also reviewed information on some of the refunds that NASA had received during fiscal year 2001 and other financial data from the period to identify evidence of payment errors. Finally, we reviewed the design of the controls that NASA implemented to detect and prevent overpayments to contractors and vendors. Our scope and methodology is discussed in more detail in enclosure I. We conducted our work from October 2001 through March 2002 in accordance with generally accepted government auditing standards. We provided a draft of this letter to NASA officials and their comments are reprinted in enclosure II.

Results in Brief

We did not find that NASA had a significant or systemic problem with overpayments or underpayments during fiscal year 2001. Contractors and vendors responded to our request for payment information on 108 of the 110 contracts and purchase orders we selected for review. Only one respondent reported an overpayment that met our definition of a payment error. The error occurred on a contract selected specifically because of its high-dollar disbursements and resulted from an incorrect calculation made by a NASA procurement official and a miscommunication between NASA and the contractor. The error was identified by the contractor and corrected promptly. The dollar amount of the error ($570,171) was insignificant—about 0.2 percent—relative to total disbursements of almost $258 million on this contract in fiscal year 2001.

The controls that NASA put in place to prevent and detect payment errors appeared to be properly designed. These controls ranged from automated system edits to supervisory review and postpayment audits. At our request, NASA officials told us of instances in which preventive controls were circumvented by human error, but officials indicated that those instances were infrequent and were usually resolved promptly. We then reviewed certain NASA records related to refund payments and amounts owed to the agency and found that most were not due to payment errors on contracts and purchase orders. For those amounts that did represent payment errors, it appeared that NASA's detective controls had identified many of them. NASA centers that identified failures in their preventive controls told us that they are taking actions to improve the effectiveness of those controls, such as improving training for the clerks who input payment information and for the examiners who review the invoices and supporting documents before payments are made.

While the surveys and our other work did not disclose any significant or systemic problems with payment errors during fiscal year 2001, the controls implemented by both NASA and its contractors and vendors are not infallible and are subject to change over time. In fact, NASA officials informed us about a large overpayment that occurred after the period of our review on a contract that was part of our sample. The contractor quickly identified the overpayment, which was caused by a problem in the contractor's billing system, immediately informed NASA of the error, and offset the overpayment amount against its next bill. Defense Contract Audit Agency (DCAA) officials, who are responsible for reviewing and approving contractors' billing systems, are working with the contractor to identify the extent of its systems problems and the necessary corrective actions. Meanwhile, NASA says that it has increased its review of invoices from that contractor.

Background

NASA's payment process primarily involves three parties—contractors and vendors, NASA procurement officials, and NASA finance officials. Each of these parties is responsible for a different part of the process, and each has controls in place to prevent or detect payment errors.

- *Contractors and Vendors*: Contractors and vendors generate the bills for goods and services and are responsible for ensuring that the bills they send to NASA are correct. Effective February 19, 2002, the Federal Acquisition Regulation was amended to add a paragraph to the recommended "prompt payment" clauses of contracts to require the contractor to notify the contracting officer if it becomes aware of a duplicate payment or other overpayment on an invoice payment. The contractor must request instructions on the disposition of the overpayment.[2]

- *NASA Procurement*: NASA procurement officials manage NASA's contracts and purchase orders. Contracting officers authorize payment of invoices and are responsible for confirming that the goods and services ordered have been received and are satisfactory—or that acceptable progress is being made on contracts—before authorizing payment. Contracting officers also check contractor cost or price calculations and calculate contract fee amounts. Contracting officers may delegate certain duties to DCAA or the Defense Contract Management Agency (DCMA).[3] For instance, they may request that DCAA review contractor cost vouchers on certain contracts and audit contractor billing systems, incurred costs, and overhead rates. When the work on a contract or purchase order is complete, procurement officials review the contract or purchase order file to ensure that the proper amount has been paid for the goods or services purchased, a process known as closeout.

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[2]By its terms, this requirement does not apply to overpayments due to errors in financing payments or contract administration actions. Further, this requirement is binding on the contractor only if the contracting officer includes the clause in the contract.

[3]NASA has an agreement with the Department of Defense stating that the department will provide contract administration and audit services in support of NASA contracts. DCAA provides contract audit services, including audits of contractor billing systems and incurred costs. DCMA provides contract administration services, including quality assurance and engineering support. NASA determines, for each contract, which functions are to be delegated to these Defense agencies.

- *NASA Finance*: NASA finance staff process the actual payments on contracts and purchase orders. The finance office receives invoices either from the procurement office or directly from contractors and vendors.[4] When an invoice arrives in finance, office personnel ensure that it has the proper approval signatures and appropriate supporting documentation, such as a receiving report. If the invoice is acceptable, office personnel enter information into an automated payment system, including the contractor or vendor taxpayer identification code or name and address, contract or purchase order number, invoice number, and payment amount. The system automatically checks to ensure that the contract or purchase order is valid (i.e., the contract or purchase order number is in the system and an obligation has been established) and funds are available to be disbursed (i.e., the obligated amount is sufficient to cover the payment as well as any previous payments). The system also checks to see whether this invoice number has already been entered for payment on this contract or purchase order. In addition to the system edits, finance office supervisors review certain payments—such as particularly large payments or payments being processed by less-experienced staff—to ensure that they have been properly entered. Once an invoice has been processed, personnel enter the payment information on a schedule that is kept in the finance file for that particular contract or purchase order. The automated payment information is then transmitted to the U.S. Treasury, which makes the actual payment.

Overpayments and underpayments may occur because of various factors that are an inherent part of the procurement process or because of payment errors. For example, overpayments and underpayments may occur as a result of routine retroactive adjustments to contract terms or changes in overhead rates, items being returned, or other actions that are a normal part of the procurement process. These overpayments and underpayments do not represent problems unless they are not resolved promptly.

Payment errors, on the other hand, occur when personnel involved in the payment process make mistakes. For instance, payment errors may occur if contracting officers approve payment of duplicate bills or if finance personnel process payments to the wrong vendors. Payment errors may also occur if finance personnel make errors or override controls when entering information into the automated payment system.

Payment Errors Appear to Be Infrequent and Promptly Resolved

For the NASA contracts and purchase orders that we selected, survey respondents did not report significant problems with overpayments or underpayments during fiscal year 2001 nor did they indicate that they were aware of any systemic problems at NASA that could result in significant undetected payment errors during that period. We performed a limited review of NASA's controls for preventing and detecting payment errors and found them to be properly designed. While NASA's preventive controls are not infallible and some errors do occur, NASA documentation indicated that these errors are usually promptly identified and corrected.

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[4]For contractors with DCAA-approved accounting and billing systems, NASA procurement may allow the contractors to submit their invoices directly to finance without going through procurement.

One Erroneous Payment Reported in Sample

For our selected 55 contracts and 55 purchase orders, we asked contractors and vendors whether they had received any overpayments or underpayments from NASA during fiscal year 2001. For our samples of 45 contracts and 45 purchase orders, one or more payment errors would have indicated a significant problem at NASA. For the 20 largest contracts and purchase orders, any reported payment errors would have to be evaluated individually for significance. We received responses for 108 contracts and purchase orders, and only one respondent reported an overpayment that met our criteria for a payment error. We defined an error as a payment that was more than or less than what was owed to the contractor or vendor as of the payment date, with the exception of an advance or a properly calculated progress payment. We also provided the following information to assist the respondents in identifying payment errors.

- Erroneous overpayments result when NASA makes duplicate payments, pays invoices without properly considering previous progress payments, or improperly considers contract modifications, or from other situations.
- Erroneous underpayments result when NASA does not pay an invoice, calculates discounts incorrectly, or incorrectly offsets a subsequent invoice, or from other situations.
- Amounts that are under dispute or billings that are less than 30 days old as of September 30, 2001, should not be considered underpayments for purposes of the survey.
- Overpayments and underpayments that result from retroactive adjustments by contractors and vendors to overhead or general and administrative rates should be considered errors only if they are not resolved promptly (i.e., within 30 days).

The error occurred on a contract we had selected because of its high disbursement value and was the result of an incorrect calculation made by a NASA official and a miscommunication between NASA and the contractor. The contractor identified the error promptly and corrected the overpayment problem by subtracting the erroneous amount from its next bill. The amount of the error ($570,171) was not significant relative to the almost $258 million disbursed on that contract during fiscal year 2001.

Controls Appear to Be Designed Properly

NASA has designed its payment systems and processes to include both automated and human controls to prevent and detect payment errors. These controls include

- automated payment system edits designed to prevent payments from being processed without adequate funding (the current payment plus previous payments cannot exceed the obligated amount) and to prevent duplicate payments (the same invoice number cannot be used more than once for a given contract);
- various supervisory reviews in both the procurement and finance offices, including reviews of invoices being processed for payment and reviews of obligated and unobligated balances; and

- NASA and DCAA postpayment audits, including annual incurred-cost audits and contract closeout audits.

While the design of NASA's controls generally appeared to be effective, no controls are infallible. For example, automated controls may be willfully or mistakenly circumvented and supervisory reviews can fail if they are not done properly. Nevertheless, when taken as a whole, the controls appeared to be properly designed, and information we received from NASA indicated that, in general, the controls were working as intended.

While we did not test controls related to payment processing, we reviewed cases in which the controls had functioned as designed during the period. Six NASA centers provided us with information on payment errors that had occurred and been resolved for contracts and purchase orders not included in our sample. Although NASA's controls did not prevent these errors from occurring, other controls enabled NASA to detect them promptly as illustrated by the following examples.

- A duplicate payment was not detected by automated system edits because, while processing the payment a second time, a finance clerk made a typographical error when entering the invoice number—the clerk entered the letter "O" instead of the numeral "0." Because this invoice number was not identical to the number entered the first time, the system edit did not identify the invoice as a duplicate. Although the preventive control failed in this instance, finance staff identified the duplicate payments while reviewing a vendor disbursement report—a detective control. As a result, NASA notified the contractor of the payment error and recovered the funds within 20 days of identifying the error.
- An overpayment was made because a finance clerk input an incorrect dollar amount for payment, that is, the total value of the invoice was entered even though only a partial payment was due. The contracting officer detected the error when reviewing obligations, costs, and disbursements for the contract. NASA planned to recover the funds by deducting the overpayment amount from the amount to be paid on the next contract invoice.

Based on the documents that we reviewed, when errors were identified, NASA and its contractors or vendors usually corrected them quickly. In some cases, contractors and vendors sent checks to NASA for overpayment amounts. In others, contractors and vendors offset future payments on the particular contract or purchase order to compensate for the error. Centers that identified failures in their controls told us that they are taking actions to improve the effectiveness of those controls, such as additional training for finance clerks who input payment data and for invoice examiners who approve items for payment.

Contractor Billing System Weakness Caused Large Overpayment

While the surveys and our other work did not disclose significant or systemic problems with payment errors during fiscal year 2001, we did identify instances in which payment errors were made and later corrected, as discussed in the previous section. In addition, NASA officials told us about an overpayment that occurred after the period of our review on a contract that was part of our sample. Because of

weaknesses in its billing system, one of NASA's largest contractors overbilled NASA by $47 million on a multibillion dollar contract. At the time the invoice was sent, according to both NASA and contractor officials, neither party was aware of the error. However, upon receipt of the overpayment amount, the contractor realized that it had made a billing error, notified NASA of the mistake, and adjusted its next monthly invoice appropriately.

NASA, in turn, informed DCAA of the billing error. DCAA, which was already in the process of reviewing the contractor's billing system, expanded the scope of its review. In February 2002, DCAA issued an interim report that identified several weaknesses in the contractor's billing system and recommended corrective actions to the contractor. DCAA is continuing its review and will issue a final report when work is completed. Meanwhile, NASA, DCAA, and the contractor are meeting at least monthly to implement improvement actions for ensuring accurate billings. The contractor's action plan identifies strategies and improvement initiatives, interim goals and milestones, and major delivery items.

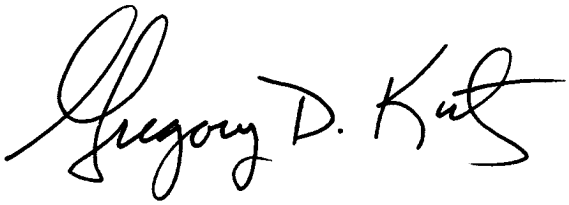
Agency Comments

In written comments on a draft of this report, NASA's Associate Deputy Administrator for Institutions stated that the agency will continue to strive to improve the effectiveness of its entire internal control system and, as part of that effort, will emphasize the importance of staff training and supervisory review. NASA's comments are reprinted as enclosure II to this letter.

We are sending copies of this letter to the Chairmen and Ranking Minority Members of the Senate Committee on Commerce, Science, and Transportation, the Senate Committee on Governmental Affairs, and the House Committee on Science, and to the Ranking Minority Member of the House Committee on Government Reform. We are also sending copies to NASA's Administrator and Chief Financial Officer. The letter will also be available on GAO's home page at http://www.gao.gov.

If you or your staff have any questions concerning this letter, please contact me at (202) 512-9505 or by e-mail at kutzg@gao.gov or Molly Boyle, Assistant Director at (202) 512-9524 or by e-mail at boylem@gao.gov. Major contributors to this letter were Kristi Karls, Fannie Bivins, Thanomsri S. Piyapongroj, Maria Storts, and Carolyn Voltz.

Sincerely yours,



Gregory D. Kutz
Director, Financial Management and Assurance

Enclosures

Scope and Methodology

To determine whether NASA had a significant problem with payment errors, we selected 110 contracts and purchase orders for which NASA made disbursements during the first 9 months of fiscal year 2001 (the most recent data available at the time). The items we chose for review were the 10 contracts and 10 purchase orders on which NASA made the largest total disbursements during the first three quarters of fiscal year 2001 and 45 other contracts and 45 other purchase orders chosen at random. These 110 items accounted for $4.8 billion of the $8.7 billion that NASA disbursed on contracts and purchase orders during those 9 months. Our methodology was not intended to project the dollar amount or number of overpayments and underpayments to NASA's payment population. For our random samples, one or more payment errors reported to us in the survey would indicate a significant or systemic problem during the review period. For the 20 largest contracts and purchase orders, the dollar amounts of reported errors would have to be evaluated individually to determine their significance. Because the contractors and vendors self-reported these overpayments and underpayments, the reliability of our survey results depends on the reliability of their responses.

To select the contracts and purchase orders, we used information from NASA's Financial and Contractual Status (FACS) system for the first 9 months of fiscal year 2001. FACS contains summary-level disbursement data for all of its contracts and purchase orders. While we did not fully assess the reliability and completeness of these disbursement data, we compared the disbursement totals from FACS to amounts in NASA's report on budget execution and budgetary resources. For the 110 contracts and purchase orders we reviewed, we also compared the disbursement data from FACS to data maintained in the NASA procurement system and the Federal Procurement Data System to ensure that disbursed totals did not exceed total contract value or total obligations.

Although our sample was selected using data for 9 months, our survey pertained to payments made on our 110 sample items during the entire fiscal year 2001. We asked contractors and vendors whether they received any payments from NASA that were significantly more than or less than the amounts billed on those 110 contracts and purchase orders during fiscal year 2001. We considered individual overpayments or underpayments of $500 or more to be significant. We defined overpayments as occurring whenever NASA paid contractors and vendors more than they were owed and underpayments as occurring whenever NASA paid contractors and vendors less than they were owed, excluding items for which NASA was disputing charges.

We received information from contractors or vendors on 108 of the 110 items we reviewed. Of the two contractors that did not respond to our information requests, one had dissolved prior to the beginning of our work and the other did not respond to our attempts to make contact. Therefore, we obtained and reviewed billing and payment records for these contracts from NASA for fiscal year 2001. That review did not reveal any reason to suspect payment errors on these contracts.

For contractors and vendors that indicated they had received overpayments or underpayments, we followed up with further discussions with them or NASA, or both,

to determine whether the overpayments or underpayments were caused by errors or were the result of normal procurement processes. Of 14 such responses, our follow-up work indicated that only one of these items was a payment error, which we discuss in our report. Because the error occurred in a contract that we selected specifically because of its high-dollar disbursements total and not in one of our randomly sampled items, we evaluated the error individually for significance.

To determine what NASA was doing to detect and prevent payment errors, we examined the design of the controls that NASA had in place. We did not, however, test the operating effectiveness of the individual controls and, accordingly, we express no opinion on their effectiveness. We spoke with NASA staff at headquarters and three of the centers—Johnson Space Flight Center in Houston, Tex.; Marshall Space Flight Center in Huntsville, Ala.; and Goddard Space Flight Center in Greenbelt, Md. We reviewed how their payment processes function and the design of the controls in place at different points in the process to prevent and detect payment errors. We discussed the roles and responsibilities of procurement and finance officials and of DCAA and DCMA officials who support NASA operations. We also reviewed relevant portions of the *NASA Financial Management Manual*, the *Federal Acquisition Regulation*, and the *NASA Federal Acquisition Regulation Supplement*.

Although we did not test the effectiveness of individual controls that NASA has in place, we reviewed payment information that demonstrated how the controls functioned collectively as designed. For the centers we visited, we obtained information on the overpayments and underpayments they had identified during fiscal year 2001. We also obtained accounts receivable and accounts payable data. We reviewed this information to see if there was evidence of payment errors occurring or being corrected. We also obtained data from all of the NASA centers on reported refunds to identify whether these refunds related to contracts and purchase orders and whether they resulted from payment errors. To the extent that we found evidence of such errors, we spoke with center officials to discuss the causes and how the errors were detected and resolved. We also discussed the actions that were being taken to prevent similar errors from occurring in the future, particularly at centers where certain types of errors were more prevalent.

To understand the role that Department of Defense organizations have in helping NASA prevent and detect payment errors, we spoke with DCAA auditors who had reviewed NASA contractors and we obtained copies of recent DCAA reports on NASA contractor billing systems and incurred costs. We also spoke with DCMA staff members about the services they may perform for NASA.

We conducted our fieldwork from October 2001 through March 2002 in accordance with generally accepted government auditing standards. We requested comments on a draft of this letter from the NASA Administrator. Written comments from NASA's Associate Deputy Administrator for Institutions are reprinted in enclosure II.

Comments from the National Aeronautics and Space Administration

National Aeronautics and
Space Administration
Office of the Administrator
Washington, DC 20546-0001

May 6, 2002

Mr. Gregory D. Kutz
Director, Financial Management
and Assurance
U.S. General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Kutz:

We appreciate the opportunity to comment on the draft report, "NASA Contract Payments."

We are pleased to note that GAO concluded that NASA did not have a significant or systematic problem with overpayments or underpayments during fiscal year 2001 and that NASA's controls to prevent and detect payment errors appeared to be properly designed. We continue to strive to improve the effectiveness of our entire system of internal controls, and as part of this effort, we will emphasize to our Centers the importance of staff training and supervisory review of payment activities.

If you have any questions, or require additional information, please contact me at 358-1820 or Stephen J. Varholy, Deputy Chief Financial Officer, at 358-0978.

Cordially,

Michael D. Christensen

Michael D. Christensen
Associate Deputy Administrator for
Institutions

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