

**IG-02-030**

**AUDIT  
REPORT**

---

**NASA'S PROPOSAL EVALUATION PROCESS**

**September 30, 2002**

---



National Aeronautics and  
Space Administration

**OFFICE OF INSPECTOR GENERAL**

## **Additional Copies**

To obtain additional copies of this report, contact the Assistant Inspector General for Audits at (202) 358-1232, or visit [www.hq.nasa.gov/office/oig/hq/issuedaudits.html](http://www.hq.nasa.gov/office/oig/hq/issuedaudits.html).

## **Suggestions for Future Audits**

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

Assistant Inspector General for Audits  
Code W  
NASA Headquarters  
Washington, DC 20546-0001

## **NASA Hotline**

To report fraud, waste, abuse, or mismanagement contact the NASA Hotline at (800) 424-9183, (800) 535-8134 (TDD), or at [www.hq.nasa.gov/office/oig/hq/hotline.html#form](http://www.hq.nasa.gov/office/oig/hq/hotline.html#form); or write to 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.

## **Reader Survey**

Please complete the reader survey at the end of this report or at [www.hq.nasa.gov/office/oig/hq/audits.html](http://www.hq.nasa.gov/office/oig/hq/audits.html).

---

## **Acronyms**

FAR	Federal Acquisition Regulation
FY	Fiscal Year
ISS	International Space Station
JOFOC	Justification for Other Than Full and Open Competition
MMI	Marshall Management Instruction
MWI	Marshall Work Instruction
RFP	Request for Proposal
SBA	Small Business Administration
SOW	Statement of Work

September 30, 2002

W

TO: H/Assistant Administrator for Procurement

FROM: W/Assistant Inspector General for Audits

SUBJECT: Final Report on NASA's Proposal Evaluation Process  
Assignment Number A-01-045-00  
Report Number IG-02-030

Enclosed please find the subject final report. Please refer to the Executive Summary for the overall audit results. Our evaluation of your response has been incorporated into the body of the report. The corrective actions planned and completed for the recommendations are responsive. Management's actions are sufficient to close recommendations 1 and 3 for reporting purposes. Recommendation 2 will remain open for reporting purposes until corrective actions are completed. Please notify us when action is completed on the recommendation, including the extent of testing performed to ensure corrective actions are effective. The final report distribution is in Appendix E.

We appreciate the courtesies extended to the audit staff. If you have questions concerning the report, please contact Mr. Lorne Dear, Program Director for Procurement Audits, at (818) 354-5634, or Ms. Mary S. Anderson, Auditor-in-Charge, at (301) 286-8137.

[original signed by]  
Alan J. Lamoreaux

Enclosure

cc:

HQ/AI/Assistant Deputy Administrator

HQ/B/Acting Deputy Chief Financial Officer

HQ/B/Comptroller

HQ/BF/Director, Financial Management Division

HQ/G/General Counsel

HQ/JM/Director, Management Assessment Division

GSFC/100/Director, Goddard Space Flight Center

JSC/AA/Director, Johnson Space Center

MSFC/DA01/Director, Marshall Space Flight Center

## ***Contents***

---

**Executive Summary, i**

**Introduction, 1**

**Findings and Recommendations, 2**

Finding A. Adequacy of Technical Analyses, 2

Finding B. Adequacy of Screening for Noncompetitive Contracts, 9

**Appendix A - Objectives, Scope, and Methodology, 11**

**Appendix B – Contracts Without Adequate Technical Analyses, 13**

**Appendix C – Prior Audits and Other Reviews, 14**

**Appendix D - Management’s Response, 15**

**Appendix E – Report Distribution, 18**

# NASA Office of Inspector General

IG-02-030  
A-01-045-00

September 30, 2002

## NASA's Proposal Evaluation Process

### Executive Summary

**Background.** In fiscal year (FY) 2000, NASA spent about \$12.5 billion (86 percent) of its \$14.5 billion budget on contract awards. Because of the significant amount spent for contracting, effective analyses of proposals are important to ensure that NASA obtains fair and reasonable prices.

Proposal evaluation is an assessment of the contractor's proposal and ability to perform the prospective contract successfully. An agency evaluates competitive proposals, then assesses the proposal's relative qualities against factors specified in the solicitation. Agencies may conduct proposal evaluations using any rating method or combination of methods. For each proposal, the relative strengths, deficiencies, significant weaknesses, and risks should be documented in the contract file.

Federal Acquisition Regulation (FAR) Part 15, "Contracting by Negotiation," prescribes policies and procedures governing competitive and noncompetitive<sup>1</sup> negotiated acquisitions. For competitive contracting, FAR Part 15 procedures minimize the complexity of the solicitation, the evaluation, and the source selection decision. Further, the procedures establish a process designed to foster an impartial and comprehensive evaluation of the offerors' proposals. For noncompetitive contracting, the technical analysis<sup>2</sup> is critical in helping NASA to ensure it obtains a fair and reasonable price. The contracting officer may request that the technical analysis be performed by personnel, internal or external to NASA, who have specialized knowledge, skills, experience, or capability in engineering, science, or management. For the technical analysis, an assessment is made of the proposed types and quantities of materials, labor, and other associated factors set forth in the proposal in order for the technical evaluator to determine the need for and reasonableness of the proposed resources.

Some NASA Centers have local instructions that supplement the FAR. For example, Johnson Space Center (Johnson) has established Johnson Procurement Instruction Subpart 1819.8, "Contracting with the Small Business Administration," which requires contracting officers or contract specialists to perform screening for potential small

---

<sup>1</sup> For a competitive acquisition, all responsible prospective contractors are permitted to compete. For a noncompetitive acquisition there is only one responsible prospective contractor to satisfy agency requirements.

<sup>2</sup> A technical analysis is an assessment of the offeror's ability to accomplish the technical requirements. The technical analysis determines whether the proposed resources, labor, and other direct costs are reasonable and reflective of the proposed technical approach.

business contractors that may be technically capable of performing contract requirements. The screening procedures are performed prior to issuance of the request for proposal (RFP).<sup>3</sup>

**Objectives.** The overall audit objective was to determine whether NASA contracting officers effectively evaluated proposals on cost-type contracts and noncompetitive fixed-price contracts. We performed the audit at Goddard Space Flight Center (Goddard), Johnson, and Marshall Space Flight Center (Marshall). Specifically, we determined whether the contracting officers:

- used adequate price and cost analyses in accordance with the FAR requirements applicable to the procurement action and
- obtained technical analyses needed to adequately evaluate proposed costs.

Details on our audit scope and methodology are in Appendix A.

**Results of Audit.** NASA contracting officers at Johnson and Marshall can more effectively evaluate proposals on cost-type contracts and noncompetitive fixed-price contracts.<sup>4</sup> The contracting officers used price and cost analyses in accordance with the FAR requirements applicable to the procurement action but had not obtained adequate technical analyses to effectively evaluate proposed costs. Specifically, Johnson and Marshall contracting officers did not obtain and document complete technical analyses for 7 (16 percent) of 45 contracts reviewed. As a result, NASA had reduced assurance that contractors' abilities to accomplish the technical requirements were adequately assessed or that fair and reasonable prices were obtained on the seven contracts totaling about \$6.3 million (Finding A).

In addition, contracting officers at Johnson issued two of three Small Business Administration (SBA) contracts without conducting adequate screening to competitively select a technically capable company from 8(a)<sup>5</sup> contractors. As a result, NASA did not have adequate assurance that it received fair and reasonable prices and may have denied other potential small business offerors the opportunity to compete for procurements (Finding B).

**Recommendations.** We recommended that (1) the Johnson and Marshall procurement officers direct contracting officers to obtain and document technical analyses in accordance with the FAR and Center instructions, (2) the Marshall procurement officer revise and update Center instructions and forms for performing technical analyses, and

---

<sup>3</sup> A request for proposal is used in negotiated acquisitions to communicate Government requirements to prospective contractors and to solicit proposals.

<sup>4</sup> We did not find any deficiencies in 26 contracts reviewed at Goddard.

<sup>5</sup> The SBA enters into all types of contracts with other agencies and awards subcontracts to firms eligible for participation. The subcontractors are referred to as "8(a) contractors," which are owned and operated by socially and economically disadvantaged individuals and are eligible to receive Federal contracts under the SBA 8(a) Business Development program.

(3) the Johnson procurement officer direct contracting officers to comply with the Center instruction for conducting small business screening for noncompetitive contract requirements.

**Management's Response.** Management concurred with all the recommendations. Marshall procurement personnel have been reminded to request additional details for inadequate technical analyses. Additionally, the training course conducted by Marshall contracting officers has been revised to include instruction for placing more emphasis on quality technical evaluations.

The Office of Procurement at Johnson has emphasized the requirements for technical analyses in a Procurement Forum. Attendance for the forum was mandatory for all procurement staff. Johnson's policy for screening to competitively select a technically capable small business contractor goes beyond the FAR requirement. Additionally, the Small Business Specialist is providing individual training sessions, and continued emphasis will be given in the Procurement Forum to ensure that the Center policy is followed.

**Evaluation of Management's Response.** We consider management's planned or implemented actions responsive to the recommendations.



## Introduction

Effective analyses of contractors' proposals are critical to ensure that NASA effectively uses funds. Contracting officers must analyze contractors' proposals to develop a negotiation position on pricing and to ensure that the final negotiated price is fair and reasonable.

The FAR states that the contracting officer is responsible for evaluating the contractor's price for reasonableness. The complexity and circumstances of each acquisition should determine the level of detailed analysis required. Contracting officers should use a price analysis<sup>6</sup> when cost or pricing data<sup>7</sup> are not required and to verify that the overall price offered is fair and reasonable. Contracting officers should also use a cost analysis<sup>8</sup> to evaluate the reasonableness of the separate cost elements and profit when cost or pricing data are required. To determine the need for and reasonableness of the proposed resources, contracting officers request technical analyses of the proposed types and quantities of material, labor, and other factors in a contractor's proposal.

Some NASA Centers have instructions that supplement the FAR requirements. Johnson instructions require contracting officers to ensure that all critical areas (including labor category/skill mix and material types and quantities) of technical analyses are completed. Johnson also requires contracting officers to screen potential small business contractors for those that may be technically capable of performing the contract requirements. Screening procedures are part of the proposal evaluation process and are performed before the RFP is issued.

Marshall instructions provide guidance to contracting officers for requesting technical analyses and to technical evaluators for performing technical analyses. The instructions require contracting officers to prepare written technical requests that clearly identify the specific proposal areas to be reviewed by the technical evaluator. The technical evaluator is required to perform a detailed review of the identified proposal areas.

We reviewed a total of 71 cost-type and fixed-price contracts<sup>9</sup> at Goddard, Johnson, and Marshall with obligations totaling about \$367.2 million in FY 2000.

---

<sup>6</sup> A price analysis is the process of examining and evaluating a proposed price without evaluating the separate cost elements.

<sup>7</sup> Cost or pricing data are all the facts that, as of the date of price agreement, prudent buyers and sellers would reasonably expect to significantly affect price negotiations. Federal Acquisition Circular 97-20, dated October 11, 2000, increased the FY 2000 cost or pricing data threshold of \$500,000 to the current threshold of \$550,000.

<sup>8</sup> A cost analysis is the review and evaluation of the separate cost elements and profit in an offeror's proposal (including cost or pricing data or other information) and the application of judgment to determine how well the proposal costs represent what the cost of the contract should be.

<sup>9</sup> We reviewed 26 contracts at Goddard, 20 at Johnson, and 25 at Marshall.

## **Findings and Recommendations**

---

### **Finding A. Adequacy of Technical Analyses**

Contracting officers awarded contracts without obtaining adequate technical analyses to assist in contract negotiations. Specifically, for the 20 contracts<sup>10</sup> we reviewed at Johnson and the 25 contracts reviewed at Marshall, contracting officers awarded a total of 7 contracts (see Appendix B) without obtaining documented, complete, and timely technical analyses as required by the FAR and Johnson and Marshall instructions. For the seven contracts, technical analyses were oral, not completed, partially completed, or not completed before negotiations but after contract award. These technical analysis deficiencies occurred because contracting officers accepted (1) incomplete technical analyses from technical evaluators and (2) oral discussions with evaluators as the bases for contract negotiations. Additionally, the contracting officers did not use written requests for technical analyses that would have assisted in obtaining complete analyses. As a result, NASA had reduced assurance that the contractors' ability to accomplish the technical requirements was adequate or that fair and reasonable prices were obtained on the seven contracts totaling about \$6.3 million.

#### ***FAR and Center Requirements***

**FAR Requirements.** FAR Part 15.404-1(e)(2), "Proposal analysis techniques," states that, at a minimum, the technical analysis should examine the types and quantities of material and the need for the types and quantities of labor hours and labor mix. Further, the analysis should include any other data that may be pertinent to (1) an assessment of an offeror's ability to accomplish the technical requirements or to (2) the cost or price analysis of the service or product being proposed. Additionally, Johnson and Marshall instructions supplement the FAR requirements.

**Johnson Procurement Requirements.** Johnson Procurement Instruction Subpart 15.404-1(e), "Requirement for Technical Analysis," supplements the proposal analysis techniques set forth in FAR 15.404-1. The Instruction requires contracting officers to ensure that all critical areas of the technical analysis have been completed. The analysis shall address quantitative and qualitative aspects of the proposal such as labor hours, labor category and skill mix, other direct costs, and material types and quantities. For procurements under \$10 million, a Technical Analysis Report is required to document the results of the technical analysis, and the report becomes part of the background of the prenegotiation position memorandum. The report should comment on whether the offeror is satisfying the requirements of the statement of work.<sup>11</sup> The contracting officer

---

<sup>10</sup> Three of the 20 contracts were SBA contracts, which are addressed further in Finding B.

<sup>11</sup> The most important feature of the report is the rationale that the technical evaluator either accepts the proposed resource elements as written or provides for exceptions taken to those elements.

may modify the Technical Analysis Report format but must still ensure that the technical analysis is adequate.<sup>12</sup> The complexity and circumstances of procurements under \$10 million determine the level of detail of the technical analysis.

Johnson Announcement 00-016, “Technical Analysis (Evaluation of) Contract/Change Proposals,” states that a complete, comprehensive, and timely technical analysis can provide information that is essential in establishing a fair and reasonable price or cost and in obtaining a quality product or performance. The contracting officer shall request the analysis in writing in order to focus and tailor the technical analysis. The written request shall identify specific areas of the proposal where special emphasis should be placed. Effective technical analyses are essential in helping the Center to meet cost, schedule, and technical objectives. Technical reviewers must provide the technical analyses in a timely manner and ensure that they meet the basic requirements requested by the contracting officer.

**Marshall Procurement Instructions.** Marshall Work Instruction (MWI) 5100.1, Chapter 2.5.2, “Procedures for Technical Evaluations (dated August 8, 2001),” requires contracting officers to submit a written technical analysis request to the Marshall element initiating the procurement action.<sup>13</sup> The written request must clearly identify the specific proposal elements to be evaluated and include instructions related to definitive supplemental or special information, if required.

Marshall Form 3409, “Request for Technical Evaluation (dated February 1973),” requires the technical reviewer to look at the proposal resource requirements in detail and to translate the requirements into labor effort and material requirements in order for the technical reviewer to arrive at a conclusion that a contractor’s proposed resources are reasonable. Additionally, Marshall Form 3409 contains areas and categories to be evaluated during the technical analysis.

### *Adequacy of Technical Analyses*

For the 45 contracts we reviewed at Johnson and Marshall, contracting officers did not obtain adequate technical analyses for the 7 (16 percent) contracts discussed below and shown in the following table:

---

<sup>12</sup> Some technical evaluators submitted their results to contracting officers in the form of an email. The email is acceptable if it examines the types and quantities of material and the need for the types and quantities of labor hours and skill mix and if it includes any other information that may be relative to assessing the offeror’s ability to perform (that is, the email should meet all the requirements of the Technical Analysis Report).

<sup>13</sup> Before issuance of MWI 5100.1, instructions for technical analyses were contained in instruction MSFC-P06-1-CO3, “Procurement Initiators Guide,” which superceded Marshall Management Instruction 5150.3, “Technical Evaluation of Proposals,” on February 19, 1998.

**Inadequate Technical Analyses**

<u>Center</u>	<b>Technical Analyses Reviewed (a)</b>	<b>Inadequate Technical Analyses (b)</b>	<b>Percent (b/a)</b>
Johnson	20	4	20
Marshall	<u>25</u>	<u>3</u>	12
<b>Total</b>	<b><u>45</u></b>	<b><u>7</u></b>	<b>16</b>

**Johnson Contracts Reviewed.** Contracting officers at Johnson did not follow the FAR and Johnson procurement instructions in obtaining complete technical analyses for 4 of the 20 contracts reviewed:

- One contract was for technical assistance, maintenance, and support for the Space Program Integrated Contract Environment database. The contract award amount was \$1.2 million. The contracting officer did not obtain a complete Technical Analysis Report. Instead, the contracting officer accepted an incomplete written technical analysis of proposed travel, material, and subcontract costs. For example, the technical evaluator’s written assessment of material was “Materials proposed are considered to be reasonable.” The assessment should have stated whether the proposal materials were in the correct quantities and were the type needed to complete the contract. The contracting officer told us that he believed oral discussions with the technical evaluator were an adequate basis on which to negotiate the contract. Lacking a complete technical analysis, the Agency was not assured that its negotiation position was sound and supportable.
  
- Another contract was for the continuation of technical support for software used by the X-38 project.<sup>14</sup> The contract award amount was \$814,795. The contracting officer did not obtain a complete Technical Analysis Report. Instead, the contracting officer accepted an emailed technical analysis from the technical evaluator that addressed only labor costs and did not address other quantitative and qualitative aspects of the proposal, such as material and other direct costs that require analysis in accordance with the Johnson Procurement Instruction. The contracting officer did not request a more detailed and substantive analysis from the technical evaluator. As a result, the contracting officer did not have sufficient information (1) to assess the contractor’s ability to accomplish the technical requirements and (2) to develop a prenegotiation position.
  
- A third contract was for the purchase of data acquisition units in support of the

---

<sup>14</sup> The X-38 is a crew-return vehicle for use in the event of crew injury or illness, International Space Station failure, or Space Shuttle unavailability.

X-38 project. The contract award amount was \$552,536. The contracting officer did not obtain a Technical Analysis Report. Instead, the contracting officer accepted an email message from the technical evaluator stating that the proposed hardware met all the requirements of the statement of work (SOW).<sup>15</sup> The email message stated only that “the proposed hardware meets all of the requirements of our SOW,” and did not address labor and other costs related to the contract. Consequently, the contracting officer did not have sufficient quantitative and qualitative information needed to assess the contractor’s ability to accomplish the technical requirements or to develop a sound prenegotiation position.

- A fourth contract was for scientific and engineering analysis support to the International Space Station (ISS). The contract award amount was \$921,544. The contracting officer did not obtain a Technical Analysis Report. Instead, the contracting officer accepted an oral technical analysis from the technical evaluator. No written analysis existed of labor skill mix, material, and travel costs. The complexity of the ISS program and the many challenges NASA has faced in controlling the cost and schedule of the ISS program increase the need for a technical analysis that is thorough, complete, and documented in order for the technical evaluator to determine the need for and reasonableness of proposed resources. The contracting officer’s technical representative subsequently prepared a written technical analysis on July 20, 2001, after our inquiry and review of the contract file and after contract negotiations had been completed. However, the contract had been awarded on October 1, 2000. Further, the analysis was not in the required Technical Analysis Report format.

The most recent NASA Procurement Management Survey report at Johnson<sup>16</sup> also identified deficiencies in technical analyses. The report stated, in part, “many prenegotiation position memorandums ... relied on technical analyses that were of marginal quality, failed to address all areas of the cost proposal and lacked detailed analysis.” The report also stated that the “types of cost and quantities other than for direct labor were often given a cursory review.” In addition, the report stated that no evidence existed to show that contracting officers returned insufficient analyses to technical evaluators to obtain a more detailed and substantive analysis.

**Marshall Contracts Reviewed.** Contracting officers at Marshall did not follow FAR and Marshall procurement instruction procedures either for using written requests for technical analyses or for obtaining written analyses on 3 of 25 contracts reviewed, as discussed below:

---

<sup>15</sup> A statement of work is a specific description to contractors, suppliers, or vendors of the goods, services, research, products, and other items that an agency needs to purchase.

<sup>16</sup> The NASA Office of Procurement conducted a Procurement Management Survey at Johnson from February 28 through March 10, 2000.

- Two contracts were for off-site leased space in support of the Center Operations Directorate. The contract award amounts were \$1.3 million and \$532,488. The contracting officer did not request, in writing, technical analyses of designated elements of the contractors' proposals. During our review of the contract files, we found no written technical analyses or any other type of written support to indicate that technical analyses had been requested and performed. The contracting officer told us that technical analyses were not performed due to the urgent nature of the acquisitions and the short turnaround time for award. After our file reviews and discussions in October 2001, the Deputy Manager of the Facilities Engineering Department prepared technical analyses that we received in November 2001. The analyses were dated September 29, 2000, --the date of contract awards--even though they were prepared a year after negotiation and award of the contracts. A written analysis prepared after contract award does not aid the contracting officer either in establishing a supportable prenegotiation position to ensure that NASA receives the best value for its contracting dollars or in negotiating a fair and reasonable price.
- A third contract was for off-site office space to support the Integrated Financial Management Program. The contract award amount was \$1 million. The contracting officer did not request, in writing, technical analyses of designated elements of the contractor's proposal. The contract file did not contain a technical analysis. The contracting officer stated that a technical analysis was not performed because of time constraints to expedite the award of the acquisition. Consequently, NASA was not assured that a fair and reasonable price was obtained to lease the office space.

The most recent NASA Procurement Management Survey report at Marshall<sup>17</sup> also identified deficiencies in technical analyses. The report states that numerous contract files did not contain technical analyses. The report also states that technical analyses "lack sufficient detail and very little analysis could be located in several contract files."

### ***Written Technical Requests***

Contracting officers at Johnson and Marshall did not obtain adequate technical analyses because the contracting officers did not use written requests for evaluation to ensure that the necessary elements were covered in the analyses. The contracting officers at Johnson did not request in writing that specific areas of the proposals be evaluated and did not return inadequate analyses to technical evaluators. The contracting officers instead accepted incomplete emailed analyses and oral comments as adequate bases on which to negotiate four of the contracts. Because contracting officers did not provide written requests for analyses, evaluators either were not aware of the elements to be covered in a technical analysis or believed that a detailed technical analysis was not necessary because the contractor had been awarded a previous contract.

---

<sup>17</sup> The NASA Office of Procurement conducted a Procurement Management Survey at Marshall from April 23 through May 4, 2001.

The contracting officers at Marshall did not provide written requests for written technical analyses or specify elements to be included in the evaluation for three questioned contracts. The contracting officers stated that the three contract files did not contain a written technical analysis due to the urgent nature of the acquisition and the short turnaround time for award. Marshall Form 3409 allows contracting officers to request specific areas and categories to be evaluated during a technical analysis. Marshall procurement officials stated that use of Form 3409 was optional. Marshall's current instruction, MWI 5100.1, Chapter 2.5.2, requires a written request for technical analyses, but the instruction does not reference Form 3409, which is in use. Further, Form 3409 references a cancelled instruction. The most recent NASA Procurement Management Survey report at Marshall stated that Form 3409 had been used to request technical analyses. MWI 5100.1, Chapter 2.5.2, should be amended to reference Form 3409, and Form 3409 should be revised to reference current Marshall technical analysis instructions because Marshall plans to continue optional use of the form to request technical analyses.

### ***Reasonableness of Proposed Resources and Prices***

NASA's ability to determine the reasonableness of contractors' proposed resources and prices were reduced because of a lack of complete written technical analyses. NASA contracting officers at Johnson and Marshall awarded seven contracts, totaling \$6.3 million, without having adequate written technical analyses prior to negotiations. As a result, the contracting officers did not have sufficient data to assess the contractors' ability to accomplish the technical requirements or to establish strong prenegotiation positions based on the cost or price analysis of the service or product proposed.

## **Recommendations, Management's Response, and Evaluation of Response**

- 1. The Procurement Officers at Johnson and Marshall should direct contracting officers to obtain and document technical analyses in accordance with the FAR and Center instructions.**

**Management's Response.** Concur. The Office of Procurement at Johnson is now requiring all procurement staff to attend a Procurement Forum emphasizing the requirements for technical analyses. The forums and briefings are available on-line for future reference. At Marshall, contracting officers are conducting contracting officer's technical representative training. The training has been revised to place more emphasis on requesting quality technical evaluations. Marshall procurement personnel were reminded to request additional details when technical evaluations are inadequate.

**Evaluation of Management's Response.** Management's actions are responsive to the recommendation. We consider the recommendation resolved, dispositioned, and closed for reporting purposes.

**2. The Procurement Officer at Marshall should amend MWI 5100.1, Chapter 2.5.2, to reference the use of Form 3409 to request technical analyses and should update the form to reference MWI 5100.1.**

**Management's Response.** Concur. Marshall has updated its Form 3409 to reference MWI 5100.1. Marshall plans to amend MWI 5100.1, Chapter 2.5.2 to state that MSFC Form 3409 may be used as the written request for a technical evaluation.

**Evaluation of Management's Response.** Management's comments are responsive to the recommendations. The recommendation is resolved but will remain undispositioned and open until Marshall amends MWI 5100.1, Chapter 2.5.2 to state that MSFC Form 3409 may be used as the written request for a technical evaluation. Marshall updated Form 3409 before completion of the audit.



## **Finding B. Adequacy of Screening for Noncompetitive Contracts**

Contracting officers at Johnson issued two of three SBA contracts without conducting adequate screening to competitively select a technically capable company from 8(a) contractors. This occurred because Johnson contracting officers believed FAR 19.805, “Competitive 8(a),” exempted them from screening small business contractors for non-competitive requirements under \$3 million. Consequently, contracting officers did not comply with the Johnson instruction that requires screening. As a result, NASA did not have adequate assurance that it received fair and reasonable prices for the contracts that totaled about \$2.1 million. In addition, NASA may have denied other potential small business offerors the opportunity to compete for procurements.

### ***FAR and Center Requirements***

**FAR Requirements.** FAR 19.805-1(a), “Competitive 8(a),” states that an acquisition offered under the SBA 8(a) Business Development program shall be awarded on the basis of competition limited to eligible 8(a) firms if there is reasonable expectation that at least two eligible and responsible 8(a) firms will submit offers and the anticipated total value of the contract, including options, will not exceed \$3 million.

**Johnson Procurement Instruction.** Johnson Procurement Instruction Subpart 1819.804, “Evaluation, offering and acceptance,” requires that contracting officers conduct 8(a) screening for noncompetitive requirements under \$3 million to select a suitable 8(a) vendor for the acquisition. The screening shall consist of the following six actions:

- developing a potential 8(a) source list,
- schedule 8(a) companies for capability presentations,
- conduct screening presentations,
- select an 8(a) company for the requirement,
- develop detailed technical areas of emphasis, and
- develop past performance areas of emphasis.

### ***Screening for Noncompetitive Contracts***

At Johnson, we reviewed three noncompetitive SBA contracts. One contracting officer for contract NAS9-00107 screened six vendors before awarding a contract for \$1.2 million to support the Space Program Integrated Contract Environment database. Contracting officers did not conduct screening for the following two contracts totaling \$2.1 million:

- Contract NAS9-00046 for \$1.2 million to upgrade the fire detection and alarm systems in Center Building 30L.

- Contract NAS9-00073 for \$882,000 to supply and install computer processing units and flat screen monitors for the computer upgrade requirement of the Mission Control Center at Johnson.

The contracting officers did not develop potential 8(a) source lists, schedule 8(a) companies for capability presentations, or conduct screening presentations because they believed FAR Part 19.805-1(a)(2) exempted them from screening 8(a) contracts under \$3 million. The contracting officers were not aware of Johnson Procurement Instruction Subpart 1819.804 because the procurement management officials had not emphasized complying with the Center instruction for 8(a) acquisitions under \$3 million.

### ***Benefits of Screenings***

Although FAR 19.805-1(a)(2) does not require competition for acquisitions under \$3 million, the Center instruction states that the contracting officer or contract specialist will conduct 8(a) screening for noncompetitive requirements under \$3 million to select a suitable 8(a) vendor for acquisition. Johnson established the Center instruction to (1) provide opportunities to all potential 8(a) contractors, (2) promote competition, and (3) provide instructions for contracting officers for 8(a) acquisitions under \$3 million. The screenings identify potential 8(a) contractors that are technically capable of performing the contract requirements.

### ***Reasonableness of Proposed Price***

NASA does not have adequate assurance that it received fair and reasonable prices because Johnson contracting officers did not perform the screening actions and may, therefore, have denied other potential small business offerors the opportunity to compete for procurements.

## **Recommendation, Management's Response, and Evaluation of Response**

- 3. The Procurement Officer at Johnson should direct contracting officers to comply with instruction JPI 1819.804, "Evaluation, offering and acceptance," for conducting small business screening for noncompetitive contract requirements.**

**Management's Response.** Concur. The Small Business Specialist at Johnson is providing training on an individual basis through Procurement Forums or small business training sessions to emphasize compliance with Center policy.

**Evaluation of Management's Response.** Management's comments are responsive to the recommendation. We consider the recommendation resolved, dispositioned, and closed for reporting purposes.

## Appendix A. Objectives, Scope, and Methodology

---

### Objectives

The overall audit objective was to determine whether NASA contracting officers effectively evaluated proposals on cost-type and noncompetitive fixed-price contracts. We performed the audit at Goddard Space Flight Center (Goddard), Johnson Space Center (Johnson), and Marshall Space Flight Center (Marshall). Specifically, we determined whether the contracting officers:

- used adequate price and cost analyses in accordance with the Federal Acquisition Regulation (FAR) requirements applicable to the procurement action, and
- obtained technical analyses needed to adequately evaluate proposed costs.

### Scope and Methodology

To accomplish our objectives, we reviewed Federal and NASA policies and procedures for proposal evaluation, sampled NASA fiscal year (FY) 2000 contract files to determine whether appropriate policies and procedures were followed, and interviewed key NASA Headquarters and Center personnel at Goddard, Johnson, and Marshall.

We relied on computer-generated data to achieve our audit objectives. We obtained a list of contracts awarded in FY 2000 from the NASA Financial and Contractual Status (FACS) System and a second list of cost-type and fixed-price contracts from the Acquisition Management System at the three Centers. We reviewed contract files at Goddard, Johnson, and Marshall. We compared the Centers' lists to the NASA FACS list obtained from Headquarters to assure that the universe of contracts was complete. We selected our sample based on the universe of cost-type and fixed-price contracts at each Center. We reviewed 40 contracts (totaling \$357.5 million) above the FY 2000 threshold of \$500,000 for obtaining cost or pricing data. We also reviewed 31 contracts (totaling \$9.7 million) below that threshold. The total value of the 71 contracts reviewed was \$367.2 million. We used the cost or pricing data threshold as a baseline because cost/price is one of the NASA-required proposal evaluation factors.<sup>18</sup> In accordance with the FAR, the contracting officer shall use a price analysis when cost or pricing data are not required and shall use a cost analysis to evaluate the reasonableness of individual cost elements when cost or pricing data are required. Contracting officers also may use a cost analysis to evaluate information other than cost or pricing data to determine cost reasonableness. The FAR lists examples of price and cost analysis techniques and procedures that may be used to ensure a fair and reasonable price.

---

<sup>18</sup> NASA FAR Supplement 1815.304-70 establishes three evaluation factors: mission suitability, cost/price, and past performance.

### **Management Controls Reviewed**

We reviewed the following management controls related to the proposal evaluation process:

- Agency and Center procedures for evaluating contract proposals, and
- FAR, NASA FAR Supplement, Center instructions, and related guidance for applicable proposal evaluation policy and procedures.

Management controls need to be strengthened to ensure that Johnson and Marshall perform adequate technical analyses as required by the FAR (see Finding A) and that contracting officers ensure that the evaluations completely cover all critical areas. In addition, Johnson should implement controls to ensure that Johnson contracting officers comply with the Center instruction for screening small businesses (see Finding B).

### **Audit Field Work**

We performed the audit field work from June 2001 through April 2002 at Goddard, Johnson, and Marshall. We performed the audit in accordance with generally accepted government auditing standards.

### **Prior Audit Coverage**

The NASA Office of Inspector General, Department of Defense, and the General Accounting Office have issued reports on adequate price analysis and price reasonableness. Related reports are summarized in Appendix C of this report.

## **Appendix B. Contracts Without Adequate Technical Analyses**

---

We identified the following seven contracts at Johnson Space Center and Marshall Space Flight Center that were awarded without obtaining documented, complete, and timely technical analyses (see Finding A).

<b>Center</b>	<b>Contract Number</b>	<b>Contract Value</b>
<b>Johnson Space Flight Center</b>	NAS9-00060	\$ 814,795
	NAS9-00090	921,544
	NAS9-00105	552,536
	NAS9-00107	1,170,000
<b>Marshall Space Flight Center</b>	NAS8-00106	1,024,990
	NAS8-00202	532,488
	NAS8-00206	1,270,118
<b>Total</b>	<b>7</b>	<b>\$ 6,286,471</b>

## Appendix C. Prior Audits and Other Reviews

---

### NASA Office of Inspector General

**“NASA Noncompetitive Procurements,” Report Number IG-99-056, September 28, 1999.** Technical analyses for 17 of 40 noncompetitive procurement actions reviewed at Glenn Research Center (Glenn), Goddard Space Flight Center (Goddard), and Johnson Space Center (Johnson) were inadequate. Technical analysts provided general statements rather than the required detailed justifications for accepting the proposed types and quantities of resources. In addition, technical analysts did not document fact-finding meetings held with contractors to resolve proposal issues. The inadequacies occurred because the technical analysts had other duties and priorities or did not follow Center guidance. Therefore, the contracting officer’s ability to develop a sound and supportable prenegotiation position and to obtain a more favorable award price may have been weakened. We made three recommendations to NASA relating to contracting officers obtaining quality technical analyses. Management concurred with all the recommendations.

### U.S. General Accounting Office (GAO)

**“Major Management Challenges and Program Risks, National Aeronautics and Space Administration,” Report Number GAO-01-258, January 1, 2001.** GAO cited contract management as an area at high risk because NASA lacked effective systems and processes for overseeing contractor activities. Specifically, NASA placed little emphasis on end results and on controlling costs. GAO continues to categorize contract management as high risk due to ineffective NASA systems and processes for overseeing contractor activities. However, GAO also stated that NASA has made progress in addressing its contract management challenges.

### Department of Defense (DOD) Office of Inspector General

**“Contracting Officer Determinations of Price Reasonableness When Cost or Pricing Data Were Not Obtained,” Report Number D-2001-129, May 30, 2001.** The objective of the audit was to determine whether DOD contracting officials obtained information, in accordance with the Federal Acquisition Regulation, to determine price reasonableness when certified cost or pricing data were not required, and whether these reasonableness determinations were adequate. DOD found that contracting officials lacked valid exceptions from obtaining certified cost or pricing data and failed to obtain required data in 46 (32 percent) of the 145 contracting actions reviewed. In addition, price analysis documentation did not adequately support price reasonableness in 124 (86 percent) of those 145 actions.

## Appendix D. Management's Response

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




September 26, 2002

Reply to Airmail HK

**TO:** W/Assistant Inspector General for Auditing  
**FROM:** HK/Director, Contract Management Division  
**SUBJECT:** Revised Agency Response to OIG Draft Report on NASA's Proposal  
Evaluation Process, Assignment No. A-01-045-00

Enclosed is our revised response to the subject report dated July 01, 2002. This revised response reflects the deletion of the last sentence of the General Comments originally submitted July 22, 2002. Additionally, the request to include the MSFC comments dated July 29, 2002 is withdrawn. The initial request for incorporation was made via e-mail from Lou Becker to you on July 31, 2002. We apologize for any inconvenience this may have caused.

Please call Lou Becker at 202-358-4593 if you have any questions or need further coordination on this matter.

  
R. Scott Thompson

Enclosure

**General Comment:** We are pleased to comment on the recently completed audit of NASA's Proposal Evaluation Process and to respond to the three recommendations noted in the report. Proposal evaluation is an assessment of the contractor's proposal and ability to perform the prospective contract successfully. The agency takes very seriously its obligation to evaluate competitive proposals and assess the proposal's relative qualities against factors specified in the solicitation to ensure it obtains a fair and reasonable price. In general, the report cited specific instances where JSC and MSFC could more effectively evaluate proposals on cost-type contracts and noncompetitive fixed-price contracts. As stated in the report, agencies may conduct proposal evaluations using any rating method or combination of methods.

**Recommendation 1:** The Procurement Officers at Johnson and Marshall should direct contracting officers to obtain and document technical analyses in accordance with the FAR and Center instructions.

**Response:**

Concur.

The JSC Office of Procurement emphasized the requirements regarding technical analyses in a Procurement Forum. These forums are used as training mechanisms, and briefings are available on-line for future reference. Attendance is mandatory for all procurement staff.

At MSFC, procurement personnel have been reminded to request additional details when technical evaluations are inadequate. COTR training has been revised to include instruction to place more emphasis on the quality of technical evaluations. MSFC's COTR course is now being conducted by MSFC Contracting Officers. In some cases, contract specialists are attending training with the COTR to help highlight correcting this.

We believe the action described above meets the intent of the recommended actions and consider this issue closed.

**Recommendation 2:** The Procurement Officer at Marshall should amend MWI 5100.1, Chapter 2.5.2, to reference the use of the Form 3409 to request technical analyses and should update the form to reference MWI 5100.1.

**Response:**

Concur.

MSFC Form 3409 has been updated to reference MWI 5100.1, and the MWI will be amended to state that MSFC Form 3409 may be used for the written request.

**Recommendation 3:** The Procurement Officer at Johnson should direct contracting officers to comply with instruction JPI 1819.804, "Evaluation, offering and acceptance," for conducting small business screening for noncompetitive contract requirements.



## Appendix D

---

**Response:**

Concur.

It was duly noted in the report that although it is a JSC written policy to do the screenings, they were not always performed. However, it should be noted that the JSC established policy is above that required, and failure to strictly adhere to that policy does not mean that we don't have adequate assurance that fair and reasonable prices were obtained. The actions that were taken were well within the regulatory requirements. The Small Business Specialist provides training on an individual basis, and continued emphasis will be provided via Procurement Forums or small business training sessions to ensure adherence to Center policy.

We believe this action meets the intent of the recommendation and consider this issue closed.

## **Appendix E. Report Distribution**

---

### **National Aeronautics and Space Administration (NASA) Headquarters**

HQ/A/Administrator  
HQ/AI/Associate Deputy Administrator  
HQ/B/Acting Deputy Chief Financial Officer  
HQ/B/Comptroller  
HQ/BF/Director, Financial Management Division  
HQ/G/General Counsel  
HQ/H/Assistant Administrator for Procurement  
HQ/HK/Director, Contract Management Division  
HQ/HS/Director, Program Operations Division  
HQ/J/Assistant Administrator for Management Systems  
HQ/JM/Director, Management Assessment Division  
HQ/L/Assistant Administrator for Legislative Affairs  
HQ/M/Associate Administrator for Space Flight

### **NASA Centers**

GSFC/100/Director, Goddard Space Flight Center  
JSC/AA/Director, Lyndon B. Johnson Space Center  
MSFC/DA01/Director, George C. Marshall Space Flight Center  
KSC/CC/Chief Counsel, John F. Kennedy 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  
Branch Chief, Science and Space Programs Branch, Energy and Science Division, Office of Management and Budget  
Director, Acquisition and Sourcing Management Team, General Accounting Office  
Senior Professional Staff Member, Senate Subcommittee on Science, Technology, and Space  
Director, Defense Contract Management Agency  
Director, Defense Contract Audit Agency

**Chairman and Ranking Minority Member – Congressional Committees and Subcommittees**

Senate Committee on Appropriations

Senate Subcommittee on VA, HUD, and 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, and Independent Agencies

House Committee on Government Reform

House Subcommittee on Government Efficiency, Financial Management, and Intergovernmental Relations

House Subcommittee on Technology and Procurement Policy

House Committee on Science

House Subcommittee on Space and Aeronautics, Committee on Science

**Congressional Member**

Honorable Pete Sessions, U.S. House of Representatives

## NASA Assistant Inspector General for Auditing Reader Survey

The NASA Office of Inspector General has a continuing interest in improving the usefulness of our reports. We wish to make our reports responsive to our customers' interests, consistent with our statutory responsibility. Could you help us by completing our reader survey? For your convenience, the questionnaire can be completed electronically through our homepage at <http://www.hq.nasa.gov/office/oig/hq/audits.html> or can be mailed to the Assistant Inspector General for Auditing; NASA Headquarters, Code W, Washington, DC 20546-0001.

**Report Title: NASA's Proposal Evaluation Process**

**Report Number:** \_\_\_\_\_ **Report Date:** \_\_\_\_\_

*Circle the appropriate rating for the following statements.*

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
1. The report was clear, readable, and logically organized.	5	4	3	2	1	N/A
2. The report was concise and to the point.	5	4	3	2	1	N/A
3. We effectively communicated the audit objectives, scope, and methodology.	5	4	3	2	1	N/A
4. The report contained sufficient information to support the finding(s) in a balanced and objective manner.	5	4	3	2	1	N/A

***Overall, how would you rate the report?***

- Excellent       Fair  
 Very Good     Poor  
 Good

***If you have any additional comments or wish to elaborate on any of the above responses, please write them here. Use additional paper if necessary.*** \_\_\_\_\_

---



---



---



---



---

***How did you use the report?*** \_\_\_\_\_

---

---

---

---

---

---

---

---

***How could we improve our report?*** \_\_\_\_\_

---

---

---

---

---

---

---

---

***How would you identify yourself? (Select one)***

- |   |  |
|---|--|
| <input type="checkbox"/> Congressional Staff  | <input type="checkbox"/> Media           |
| <input type="checkbox"/> NASA Employee  | <input type="checkbox"/> Public Interest |
| <input type="checkbox"/> Private Citizen  | <input type="checkbox"/> Other: _____    |
| <input type="checkbox"/> Government: _____ Federal: _____ State: _____ Local: _____ |  |

***May we contact you about your comments?***

Yes: \_\_\_\_\_ No: \_\_\_\_\_

Name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Thank you for your cooperation in completing this survey.

## **Major Contributors to the Report**

Lorne A. Dear, Program Director, Procurements Audits

Tony A. Lawson, Program Manager

Mary S. Anderson, Auditor-in-Charge

Amy L. Larkin, Auditor

Lydia C. Lin, Auditor

Theresa Becker, Procurement Analyst

Nancy Cipolla, Report Process Manager

Debra Schuerger, Program Assistant