IG-00-043

AUDIT REPORT

CONSOLIDATED SPACE OPERATIONS CONTRACT – COST-BENEFIT ANALYSIS AND AWARD FEE STRUCTURE

September 20, 2000

OFFICE OF INSPECTOR GENERAL

National Aeronautics and
Space Administration

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Acronyms

CSOC	Consolidated Space Operations Contract
FAR	Federal Acquisition Regulation
IOA	Integrated Operations Architecture
OMB	Office of Management and Budget
SEB	Source Evaluation Board
SOMO	Space Operations Management Office

W September 20, 2000

TO: A/Administrator

FROM: W/Inspector General

SUBJECT: INFORMATION: Consolidated Space Operations Contract -- Cost-Benefit Analysis and Award Fee Structure Report Number IG-00-043

The NASA Office of Inspector General (OIG) conducted an audit of the Consolidated Space Operations Contract (CSOC). The Space Operations Management Office (SOMO) at Johnson Space Center (Johnson) is responsible for the CSOC. The SOMO estimated that consolidating existing space operations contracts under one contract would yield savings of $1.2 billion dollars over the next 10 years. However, the SOMO did not perform a cost-benefit analysis as part of the decisionmaking process prior to awarding the CSOC. As a result, NASA is not assured that CSOC is the best approach for fulfilling the space operations[1] requirements and that it will achieve the anticipated cost savings.

In addition, we found that NASA did not properly structure the award fee for the CSOC to evaluate performance of the Integrated Operations Architecture (IOA).[2] The CSOC Award Fee Plan lacks defined criteria for measuring performance, appropriate evaluation periods, and proper emphasis on cost performance. Without these provisions, NASA cannot measure contractor performance to assess the appropriate amount of award fee and provide an effective incentive for the contractor.

Background

The CSOC reflects a consolidation of most existing NASA-wide space operations contracts. The intent of the consolidation was to reduce the cost of operations by managing all of NASA's

[1] Space operations are those activities that provide products and services to enable the utilization and exploration of space.

[2] The IOA consists of an operations concept, a plan for developing the hardware and facilities, and the blueprints for the plan to provide space operations services under the CSOC.

data collection, telemetry,[3] and communications operations supporting Earth-orbiting satellites, planetary exploration, and human space flight activities under one contract. Johnson awarded the CSOC contract to Lockheed Martin Space Operations Company on September 25, 1998. The cost-plus award fee contract has a 5-year basic period and a 5-year option period. The current basic contract value is about $1.9 billion. Additional services may be transitioned to the contract through the exercise of options that could increase the contract by about $1.7 billion. The CSOC Award Fee Plan provides for two award fee pools to be administered separately under the contract. A 6-month pool will be awarded at the end of each 6-month evaluation period. A "lookback"[4] pool will be awarded at the end of years 2 and 5 under the basic contract. If Option 1 is exercised, extending the contract period of performance for 5 additional years, a "lookback" pool will also be awarded at the end of years 7 and 10. Total available award fee for the 10-year period is $221.6 million for 6-month evaluations and $55.4 million for "lookback" evaluations.

Recommendations

We recommended that NASA perform a cost-benefit analysis before completing the consolidation of contracts into the CSOC or exercising options and evaluate at least annually whether the projected benefits are being realized. Without a cost-benefit analysis, NASA is not assured that the integrated operations approach will reduce the cost of operations by the estimated $1.2 billion over 10 years. In addition, we recommended that the Associate Administrator for Space Flight, in coordination with the contracting officer and SOMO officials, establish performance evaluation criteria for the "lookback" award fee pool; reallocate award fee after criteria are established and meaningful evaluations can be performed; establish "lookback" award fee periods that do not exceed 12 months; and revise the CSOC Award Fee Plan to increase emphasis on cost control. These improvements will allow NASA to measure contractor performance and assess the appropriate amount of award fee and provide an effective incentive for contractor performance. Finally, we recommended that NASA require progress reports on the architecture baseline beyond the initial submission. Without current information, NASA cannot measure contractor performance to assess the appropriate amount of award fee.

Management's Response and OIG Evaluation

Management concurred with three of the seven recommendations. Management concurred in principal with the recommendations to determine whether future contract options are cost beneficial and to evaluate annually whether projected benefits have been realized. We ask that management provide additional comments to clarify that a

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[3] Telemetry is the technology of automatic measurement and transmission of data by wire, radio, or other means from remote sources, as from space vehicles, to a receiving station for recording and analysis.
[4] "Lookback" is the term NASA uses to describe the separate award fee pool for assessing the overall, long-term aggregate effects of contractor activities on the contract as a whole.

cost-benefit analysis, as described in OMB Circular No. A-94,[5] will be included in corrective actions. Without this analysis, NASA cannot determine whether the estimated cost savings will be achieved. Management's planned corrective actions for the recommendation to determine an appropriate frequency for the contractor's submission of progress reports on the architecture baseline is responsive to our recommendation.

NASA could award up to $14.1 million of "lookback" award fee to the contractor for the period ending December 31, 2000, without an objective basis related to contractor performance. The purpose of award fee is to provide an incentive for the contractor and to recognize its performance against established criteria. Awarding any amount without properly defined criteria, appropriate award fee periods and emphasis on cost control would not accomplish the intended purpose. Management nonconcurred with all recommendations to improve the "lookback" award fee provision in the Award Fee Plan because it believes that the current provisions are in the Government's best interest. However, after issuance of the draft report, management initiated corrective actions that partially satisfy the recommendations to establish performance evaluation criteria for the "lookback" award fee and to revise the Award Fee Plan to reflect a cost control factor of at least 25 percent.[6] These actions apply only to the current "lookback" period. Therefore, we ask that management provide additional comments to clarify that the corrective actions will apply to the "lookback" provision beyond the current award fee period. To make the award fee an effective incentive, we also ask that management reconsider its position on the recommendations:

- to allocate (after criteria are established) a proportionate share of the total "lookback" award fee, $3.1 million to the 6-month period June 30, 2000, through December 31, 2000, and transfer the remaining $10.9 million to future "lookback" award fee periods and
- to revise evaluation periods for the "lookback" award fee to be no longer than 12 months.

Details on the status of the recommendations are in the findings section of the report.

[Original signed by]
Roberta L. Gross

Enclosure

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[5]Office of Management and Budget Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, dated October 29,1992, provides guidance for conducting cost-benefit and cost-effectiveness analyses.
[6] The cost control factor is discussed on page 15 of the report in the section entitled, "Guidance for Evaluating Cost Control."

Final Report on Audit of Consolidated Space Operations Contract --
Cost Benefit Analysis and Award Fee Structure

FINAL REPORT
AUDIT OF CONSOLIDATED SPACE OPERATIONS CONTRACT – COST-BENEFIT ANALYSIS AND AWARD FEE STRUCTURE

W September 20, 2000

TO: M/Associate Administrator for Space Flight

FROM: Assistant Inspector General for Auditing

SUBJECT: Final Report on the Audit of Consolidated Space Operations Contract
Assignment Number A0000400
Report Number IG-00-043

The subject final report is provided for your use and comment. Please refer to the Executive Summary for the overall audit results. Our evaluation of your response is incorporated into the body of the report.

We request additional information for recommendations 1, and 2 as described in the report. We request that management reconsider its position on recommendations 3, 4, 5, and 7 based on the additional information provided and indicate its position in additional comments by November 20, 2000. The corrective action planned for recommendation 6 was responsive. Please notify us when action has been completed on the recommendation, including the extent of testing performed to ensure corrective actions are effective**.** All recommendations will remain open for reporting purposes until agreed-to corrective actions are completed.

If you have questions concerning the report, please contact Mr. Daniel Samoviski, Program Director, Earth and Space Science Audits, at (301) 286-6890, or Ms. Esther Judd, Program Manager/Auditor-in-Charge, at (301) 286-3359. We appreciate the courtesies extended to the audit staff. The final report distribution is in Appendix G.

[Original signed by]

Russell A. Rau

Enclosure

cc:
B/Chief Financial Officer
B/Comptroller
BF/Director, Financial Management Division
G/General Counsel
JM/Acting Director, Management Assessment Division
JSC/AA/Director, Lyndon B. Johnson Space Center

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NASA Office of Inspector General

IG-00-043 **September 20, 2000**
A0000400

Consolidated Space Operations Contract – Cost-Benefit Analysis and Award Fee Structure

Executive Summary

Background. In response to the challenge of the National Performance Review to provide higher quality service at lower cost, NASA and other Government agencies began to restructure their individual roles and responsibilities. As part of the NASA restructuring, the NASA Administrator designated the Johnson Space Center (Johnson) as Lead Center for Space Operations. The SOMO is responsible for the CSOC. The SOMO responsibilities include providing a strategy for accomplishing mission objectives, establishing goals, maintaining standards and architectural control,[7] providing financial management, and administering the CSOC. The CSOC reflects a consolidation of most existing NASA-wide space operations contracts. NASA's expectation is that the CSOC contractor will leverage aerospace industry experience with commercial expertise, processes, and services to develop innovative and cost-effective solutions for providing effective mission and data services.

Objective. The overall objective was to determine whether the CSOC goals were accomplished. This report identifies conditions regarding a cost-benefit analysis and award fee structure for the CSOC that warrant timely action by NASA management. Details on the objectives, scope, and methodology are in Appendix A. A subsequent report will address other issues associated with the CSOC contract.

Results of Audit. The SOMO neither effectively used cost-benefit analyses nor properly structured the award fee for CSOC.

- The SOMO has not performed cost-benefit analyses prior to consolidations that have occurred to ensure that the CSOC is the best approach for fulfilling the consolidated space operations requirements. Without a cost-benefit analysis, NASA is not assured that the integrated operations approach will reduce the cost of operations by the estimated $1.2 billion over 10 years (see Finding A).

[7] Architectural control refers to the SOMO's oversight of the IOA (see footnote 1) that provides the space operations services and manages that architecture's planned evolution over time.

- NASA has not defined the criteria upon which to evaluate the contractor's performance for the IOA. Further, NASA cannot measure contractor performance and assess the appropriate amount of award fee. Consequently, NASA could inappropriately award up to $14.1 million in award fee to the contractor for the period ending December 31, 2000, without an objective basis related to contractor performance (see Finding B).

- The CSOC procurement development team did not establish appropriate evaluation periods for the contractor's long-term performance (the “lookback” provision of the CSOC Award Fee Plan). Consequently, the lengthy award fee periods do not provide an effective incentive for the contractor (see Finding C).

- The contract does not require progress reports on the architecture baseline beyond the initial submission. As a result, NASA cannot ensure that the supporting infrastructure and capabilities are maintained to sustain product delivery activities. Without current information, NASA cannot measure contractor performance to assess the appropriate amount of award fee (see Finding D).

- Cost control is not sufficiently emphasized under the CSOC Award Fee Plan. This results in an allocation of award fee to cost performance that is $1.6 million less than the amount required to be allocated to cost performance. Therefore, NASA has less than the desired leverage to control cost incurred by the contractor (see Finding E).

Recommendations. NASA should perform a cost-benefit analysis before completing the consolidation of contracts into the CSOC or exercising options and should evaluate at least annually whether the projected benefits are being realized. In addition, the Associate Administrator for Space Flight, in coordination with the contracting officer and SOMO officials, should establish performance evaluation criteria for the “lookback” award fee pool, reallocate award fee after criteria are established and meaningful evaluations can be performed, establish “lookback” award fee periods that do not exceed 12 months, determine appropriate frequency for the contractor’s submission of progress reports, and revise the CSOC Award Fee Plan to increase emphasis on cost control.

Management’s Response and Evaluation of Response

Management’s Response. Management concurred in principal with the recommendations to determine whether future contract options are cost beneficial and to evaluate annually through a Cost Savings Profile review whether projected benefits have been realized. Also, management concurred with the recommendation to determine the appropriate frequency for the contractor's submission of the architecture baseline and to revise the contract to reflect this change. Management nonconcurred with all recommendations to revise the "lookback" award fee provision in the Award Fee Plan. The complete text of management’s response is in Appendix E.

Evaluation of Response. Management's response and planned corrective actions to require that the contractor update their architecture baseline annually are responsive to our recommendation. Although management agreed in principal with the recommendations concerning a cost-benefit analysis, the comments are not fully responsive because they do not address performing a cost-benefit analysis or evaluating benefits that result from a cost-benefit analysis.

Management's responses to the remaining recommendations are not fully nonresponsive. Although management nonconcurred with all recommendations relating to the "lookback" award fee, management initiated corrective actions that partially satisfy two of the recommendations. Management issued a letter to the contractor on July 28, 2000, that established performance evaluation criteria for the "lookback" award fee and specified that the cost control factor for the "lookback" award fee is 30 percent. We asked that management provide additional comments to clarify that the corrective actions will apply to the "lookback" provision beyond the current period.

We request that management reconsider its position on the recommendations to reallocate the "lookback" award fee to periods after criteria have been developed and to revise evaluation periods for the "lookback" award fee to be no longer than 12 months.

A detailed evaluation of management’s comments is provided with each recommendation in the body of the report. In addition, Appendix F provides our response to selected management comments.

Introduction

Johnson awarded the cost-plus award fee CSOC contract (NAS9-98100) to Lockheed Martin Space Operations Company (Lockheed) on September 25, 1998. The contract has a 5-year base period and a 5-year option period. The contract is valued at more than $3.4 billion over the 10 years. Lockheed has a supporting team consisting of Allied Signal, Booz-Allen Hamilton, Computer Sciences Corporation, GTE Government Systems Corporation, and about 36 subcontractors.

The CSOC contractor will provide and manage space operations services to meet the requirements of the NASA space flight programs. The contractor will also be accountable for data transmission to the end user, data processing and storage, mission support display and control, spacecraft operations support, mission planning and analysis, and mission control center operations. Services will also include trajectory data processing, navigation analysis, and attitude determination when required.

The CSOC Award Fee Plan provides for two award fee pools to be administered separately under the contract. A 6-month pool will be awarded at the end of each 6-month evaluation period. A "lookback" pool will be awarded at the end of years 2 and 5. If Option 1 is exercised, a "lookback" pool will also be awarded at the end of years 7 and 10.

Total Award Fee Available:

<u>Basic Contract</u>

6-month Evaluation Pool	$129.6 million
"Lookback" Evaluation Pool	$ 32.4 million

<u>Option 1 (if exercised)</u>

6-month Evaluation Pool	$ 92.0 million
"Lookback" Evaluation Pool	$ 23.0 million

Findings and Recommendations

Finding A. Cost-Benefit Analysis

The SOMO had not performed cost-benefit analyses to ensure that each consolidation of existing space operations contracts is in the best interest of the Government. Additionally, cost-benefit analyses have not been performed in support of future consolidation of contracts into CSOC. The SOMO was unaware of the Federal and Agency guidance to perform cost-benefit analyses and proceeded with the consolidation based on the assumption that it would yield cost savings. Without a cost-benefit analysis, NASA is not assured that the integrated operations approach will reduce cost of operations by the estimated $1.2 billion[8] over the next 10 years.

Requirement to Perform Cost-Benefit Analyses

Office of Management and Budget (OMB) Guidance. OMB Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs," October 29, 1992, provides general guidance for conducting cost-benefit[9] and cost-effectiveness analyses that are intended to promote efficient resource allocation through well-informed decisionmaking by the Federal Government. The Circular recommends performing a cost-benefit analysis as the formal economic analysis of Government programs or projects. The guidelines apply to any analysis used to support Government decisions to initiate, renew, or expand programs or projects that would result in a series of measurable benefits or cost extending for 3 or more years into the future. The guidelines are shown in Appendix B.

NASA Guidance. A March 13,1997, memorandum from the then Acting Deputy Administrator directed all NASA offices to perform cost-benefit analyses in the process of considering issues related to consolidation, downsizing, outsourcing, and research or program elimination.[10] The memorandum states that, in order for NASA to meet its goals, the Agency must make decisions based on the best information available. Independent and up-front cost-benefit analyses should be a key element in NASA's decisionmaking process. Further, the memorandum requires all NASA offices to perform the analysis in a reasonable and timely manner. The analysis should be sufficient to provide NASA management with the information it needs to make decisions as well as withstand the scrutiny of others.

[8] The SOMO developed an estimate that indicated the consolidation of space operations contracts would yield a total of $1.2 billion dollars over the CSOC's 5-year base period and the 5-year option period.

[9] OMB Circular A-94 provides guidelines for a "benefit-cost analysis." We use the term cost-benefit analysis for consistency in the report.

[10] The Deputy Administrator addressed the memorandum to Officials-in-Charge of Headquarters Offices; Directors, NASA Field Installations; and the Director, Jet Propulsion Laboratory.

SOMO's Basis for Consolidation

In 1995, NASA conducted an Agency-wide Zero-Base Review in response to the National Performance Review and budget challenges. The Zero-Base Review made several recommendations, which included maximizing outsourcing and commercialization and adopting consolidated, performance-based contracts. This prompted the SOMO to initiate an approach to consolidate existing space operations contracts.

Fact-Finding Review. In January 1996, the SOMO initiated a fact-finding review at Johnson, the Jet Propulsion Laboratory, Goddard Space Flight Center, and Marshall Space Flight Center. Each Center provided cost and technical data for its current operations services and operations capability. The fact-finding process was completed in March 1996. The fact-finding team's summary of the results showed that 58 percent[11] of total costs could transition to CSOC. The fact-finding team did not perform a cost-benefit analysis as recommended by OMB Circular A-94 to support its finding.

Procurement Development Team. In April 1996, the SOMO established a procurement development team to develop the acquisition strategy for the CSOC contract. The Acting Deputy Administrator directed in a March 13, 1997, memorandum that all NASA offices perform cost-benefit analyses in the process of considering issues related to consolidation. Although the CSOC procurement began prior to the direction from the Acting Deputy Administrator, the contract was not awarded until September 1998, 18 months after the requirement was in place. However, the procurement development team did not perform a cost-benefit analysis during this time in compliance with the NASA direction before awarding the CSOC.

Need for a Cost-Benefit Analysis and Periodic Evaluation

A cost-benefit analysis establishes the basis and support for making well-informed decisions and provides a baseline that can be used for future evaluation of decisions. OMB Circular A-94 states that a cost-benefit analysis should be used to support program or project decisions that will result in measurable benefits extending for 3 or more years. CSOC is expected to yield savings over a 10-year period. In addition, the Acting Deputy Administrator's memorandum states that up-front cost-benefit analyses should be a key element in NASA's decisionmaking process. The SOMO should have performed a cost-benefit analysis prior to each contract consolidation and completed periodic evaluations after consolidation to assure that the estimated saving of $1.2 billion is being achieved. Periodic evaluation would assist in identifying the need for corrective actions to achieve savings. Establishment of performance measures against which contractor performance can be assessed would be a useful management tool.

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[11] Fifty-eight percent of the total cost for redundant efforts in the following functional activities could transition to CSOC: administration and management; facility and contract management; strategic engineering; maintenance and operations; sustaining engineering; project development and engineering; and research and development technology. The SOMO determined that the remaining 42 percent of efforts in these functional activities could not be transitioned.

Future Transitions Could Significantly Increase Contract Value

All or some of the services performed previously under 13 NASA contracts are transitioned to the CSOC under the basic contract. See Appendix C for the transition schedule. The current basic contract value is about $1.9 billion and includes all of the effort transitioned from the contracts and Option 6A, which was exercised February 18, 1999. Additional services may be transitioned to the contract through one or more of the remaining nine options. Eight of the options, listed in the table below, have been priced by the contractor. If exercised, these options could increase the contract by about $1.7 billion.[12]

Contract Options

Option Number	**Description**	**Effective Dates**	**Total Estimated Cost (Millions)**
1	Extend Contract Period of Performance	1/01/04 - 12/31/08	$1,302.6
2A	Kennedy Space Center (KSC) - Expendable Launch Vehicle Telemetry Station	2/01/01 - 12/31/03	$ 12.7
2B	KSC - Expendable Launch Vehicle Telemetry Station	1/01/04 - 12/31/08	$ 23.5
3A	KSC Effort - Communications System	10/01/01 - 12/31/03	$ 47.5
3B	KSC Effort - Communications System	1/01/04 - 12/31/08	$ 142.6
4A	KSC Effort - Checkout and Launch Control System	10/01/02 - 12/31/03	$ 27.3
4B	KSC Effort - Checkout and Launch Control System	1/01/04 - 12/31/08	$ 100.3
5	Additional Labor Hours (Maximum of 100,000 hours)	Basic contract or 5-year extension	To Be Proposed
6A	Space Station Enhanced Mission and Data Service Requirements	10/01/98 - 9/30/03	Exercised 2/18/99*
6B	Space Station Enhanced Mission and Data Service Requirements	1/01/04 - 12/31/08	$ 10.4
	Total Increase to Contract Value		$ 1,667.0

[12]Options 1 through 4B provide for additional direct labor hours for the "Level of Effort" portion of the contract. The additional 4,385,260 hours for these options are not included in the option prices. Estimated value of the additional direct labor hours at a rate of $53.31/hour is about $233.8 million.

*Option 6A, Space Station Enhanced Mission and Data Service Requirements, increased the basic contract value by $26.1 million and is included in the current contract value of $1.9 billion.

Recommendations, Management's Response, and Evaluation of Response

The Associate Administrator for Space Flight should:

1. Direct the SOMO to perform a cost-benefit analysis prior to exercising any contract options.

Management's Response. Concur. The Associate Administrator for Space Flight indicated that prior to exercising any contract options, management will determine whether exercising the option is the most advantageous method of fulfilling the Government's need.

Evaluation of Response. Management's comments are not fully responsive because they do not directly address the recommendation. Management did not state that the determination of whether to transition other services to the contract will include a cost- benefit analysis in accordance with the guidance in OMB Circular A-94 as recommended. Therefore, we request that management provide additional comments to specifically address the performance of a cost-benefit analysis. The recommendation is resolved but will remain undispositioned and open until the agreed-to corrective actions are completed.

2. Direct the SOMO to evaluate at least annually whether the projected benefits have been realized.

Management's Response. Concur. A periodic evaluation of projected benefits has already been put in place, and the contractor performs a quarterly Cost Savings Profile review of the initiatives contributing to cost savings. Further, NASA reports CSOC savings to Congress semiannually.

Evaluation of Response. Management's comments are not fully responsive because they do not address evaluating projected benefits resulting from a cost-benefit analysis. The intent of the recommendation is to ensure that prospectively, a cost-benefit analysis will be performed prior to future consolidations under the contract and that the SOMO will evaluate at least annually whether the projected benefits of the consolidation are realized. The evaluation of the contractor's performance against the contract cost baseline is a contract administration function that does not satisfy the intent of the recommendation. Further, we question the basis of reports to Congress of CSOC savings if the savings are not related to an analysis performed in support of the decision to consolidate contracts. Therefore, we request that management provide additional comments to address the evaluation of projected benefits resulting from a cost-benefit analysis. The recommendation will remain undispositioned and open until the agreed-to corrective action is completed.

Finding B. "Lookback" Award Fee Evaluation Criteria

NASA has not defined criteria upon which to evaluate the contractor's performance for the IOA. The contracting officer's technical representative did not develop the necessary criteria to evaluate the contractor's performance as required by Federal and Agency guidelines. Therefore, NASA could award up to $14.1 million of "lookback" award fee[13] to the contractor for the period ending December 31, 2000, without an objective basis related to contractor performance.

Requirements to Establish Criteria

Federal Acquisition Regulation. Federal Acquisition Regulation (FAR)16.401, "Incentive Contracts," states that incentive contracts, including cost-plus-award-fee contracts, are designed to obtain specific acquisition objectives by:

- establishing reasonable and attainable targets that are clearly communicated to the contractor, and
- including appropriate incentive arrangements designed to:
  - motivate contractor efforts that might not otherwise be emphasized and
  - discourage contractor inefficiency and waste.

NASA FAR Supplement. NASA FAR Supplement 1816.405-273, "Award Fee Evaluations," states that on contracts for which the deliverable is the performance of a service over a specified period, contractor performance is definitively measurable within each evaluation period. Subsection 1816.405-274 states that explicit evaluation factors shall be established for each award fee period.

NASA Award Fee Contracting Guide. The NASA Award Fee Contracting Guide, dated December 2, 1997, states that factors such as technical, project management, and cost control should be selected and supplemented by a limited number of subfactors describing significant evaluation elements over which the contractor has effective management control. Paragraph 3.4.2 in the Guide states that once evaluation factors are selected, standards or criteria are developed for measuring contractor performance and assessing the amount of award fee earned. Criteria for contract performance will be included in the contract, and the contractor is then judged on how well it performs in relation to those criteria.

"Lookback" Award Fee Evaluations

[13] Award fee is a monetary award paid to the contractor based on the Government's judgmental evaluation, which must be sufficient to provide motivation for excellence in contract performance. Under a cost-plus-award-fee contract, an available award fee pool is negotiated and included in the contract. However, the actual award fee earned by the contractor is determined by the Government and is based on the contractor's performance.

Under the “lookback” award fee provision, NASA will evaluate the contractor’s performance on the IOA. The evaluations will be based on the contractor’s success in implementing the IOA as submitted in the contractor’s proposal and will be subsequently documented in data requirements description 2.3-b, “Architecture Baseline.”[14] According to the Award Fee Plan, this evaluation will not address specific contractor actions or accomplishments but will assess the overall, long-term aggregate effects of such activities on the contract as a whole.

Criteria for Evaluating “Lookback” Award Fee

NASA did not define criteria upon which to evaluate the contractor’s performance on the IOA prior to the start of the current evaluation period. The contracting officer’s technical representative stated that he was still in the process of developing the “lookback” award fee evaluation criteria and its respective weightings.[15] The criteria the contracting officer’s technical representative is considering are for the contractor’s performance in:

- meeting the proposed cost savings profile,
- implementing the IOA development initiatives,
- achieving an adequate return on investment for the Government’s investment in the IOA initiatives, and
- meeting the original goals of the IOA.

In an attempt to clarify the basis for evaluations, on February 25, 2000, the contractor submitted to the NASA contracting officer’s technical representative a preliminary draft of suggested criteria for the first evaluation period. A contractor representative stated that NASA has not responded to the suggestions or communicated the criteria for the “lookback” award fee evaluation criteria. Therefore, the contractor is not aware of how its performance will be evaluated for the first “lookback” award fee evaluation period.

Motivating the Contractor and Determining Appropriate Award Fee

Without properly defined criteria, NASA is unable to effectively motivate the contractor and discourage inefficiency and waste. Further, without criteria, NASA cannot measure contractor performance and assess the appropriate amount of award fee. Consequently, NASA cannot perform meaningful evaluations and appropriately award up to $14.1 million for the award fee period ending December 31, 2000. Finally awarding any amount without properly defined criteria and an objective evaluation of contractor performance related to those criteria is inconsistent with the intent of acquisition regulations.

[14] Data requirement description 2.3-b requires the contractor to submit a description of the IOA and to manage its planned evolution over time. The contract requires an initial submission at the end of contract phase-in, December 31, 1998, with updates as necessary.
[15] In addition to identifying how performance will be evaluated and measured, the performance evaluation plan should indicate the relative priorities assigned to the various performance areas and evaluation factors or subfactors. This may be accomplished through using percentage weights for those areas, factors, or subfactors.

“Lookback” Award Fee Performance Period Ending December 2000

NASA allocated a proportionate amount of the “lookback” award fee, $14.1 million, to the 2-year[16] period ending December 31, 2000. However, NASA has not provided the contractor the criteria or standards of performance that will be used to evaluate performance under the “lookback” provision. The contractor has operated since October 1998 without properly defined criteria and could inappropriately be awarded $14.1 million in award fee.

Adjustment to Current Award Fee Periods and Amount

If NASA develops criteria by June 30, 2000, 21 of the 27 months in the first evaluation period will have already passed, but the criteria would be in place for the last 6 months of the evaluation period -- July 1, 2000, through December 31, 2000. A proportionate share of the $14.1 million “lookback” award fee, $3.1 million, should be allocated to that 6-month period. The remaining share associated with the first 21 months, $10.9 million, should be allocated to subsequent “lookback” award fee periods when criteria for evaluating performance under the “lookback” award fee are in place.

Recommendations, Management’s Response, and Evaluation of Response

3. The Associate Administrator for Space Flight should direct the CSOC contracting officer to establish performance evaluation criteria for the “lookback” portion of the award fee pool prior to June 30, 2000.

Management's Response. Nonconcur. Management stated that the Government has performance evaluation criteria in place against which the CSOC IOA is evaluated. The contractor is being provided an Award Fee Areas of Emphasis letter that further clarifies the Government's plan to evaluate the "lookback" portion of the award fee. The response included excerpts from the letter dated July 28, 2000. Further, management explained that NASA uses the contract Award Fee Plan, the recently issued “Lookback” Areas of Emphasis letter, and the 6-month Award Fee Area of Emphasis letter to determine the contractor's success in meeting the IOA.

Evaluation of Response. Although the response indicates nonconcurrence, management has taken corrective action that partially addresses the recommendation. The contractor and the NASA contracting officer's technical representative confirmed our conclusion that criteria for

[16] The first period includes the 3-month phase-in period ended December 31, 1998, and the first 2 years of contract performance.

evaluating the "lookback" fee had not been developed and communicated to the contractor. They explained that criteria were being developed and that the contractor had submitted suggested evaluation criteria. Further, the contractor pointed out that paragraph VII of the Award Fee Plan that addresses the “lookback” provision contained no evaluation factors or weightings. The plan differentiates between the 6-month evaluations and the "lookback" provision and makes no reference to the weightings being used for both. It was not clear to the contractor or us whether NASA intended for the evaluation criteria and weighting presented in paragraph VI to apply to the “lookback” provision in paragraph VII and to the 6-month evaluations.

We consider the issuance of management's letter to the contractor, specifying evaluation criteria and weightings, to be partial corrective action for this recommendation. Management may have been in the process of developing the criteria during our review, but it did not formalize and communicate this information to the contractor until after our discussions. We reviewed the Award Fee Plan again and concluded that it does not adequately convey criteria for the “lookback” award fee. If the criteria and weightings presented in the letter are applicable to all “lookback” award fee periods, this information should be clarified in the Award Fee Plan. References to implementation of the IOA in the Award Fee Plan and the Statement of Work, while descriptive of services to be provided, do not provide criteria for evaluation. Therefore, we request that management reconsider its position and provide additional comments.

4. Direct the CSOC contracting officer to:

- **Evaluate the contractor’s performance for the period June 30, 2000, through December 31, 2000, after evaluation criteria are in place and meaningful evaluations can be performed.**

- **Allocate a proportionate share of the total “lookback” award fee, $3.1 million, (22 percent of $14.1 million) to the 6-month period June 30, 2000, through December 31, 2000, after criteria have been developed.**

- **Transfer the remaining $10.9 million (78 percent of $14.1 million) to future “lookback” award fee periods.**

Management's Response. Nonconcur. Management stated that criteria for the "lookback" portion of the award fee pool is already in place and that no changes are needed to the contract. An Award Fee Areas of Emphasis letter is being provided to the contractor that further clarifies the Government's plan to evaluate the "lookback" portion of the award fee.

Evaluation of Response. Management's comments are nonresponsive. The letter described in the response covers the IOA "lookback" period October 1, 1998, through December 31, 2000, but was not issued until July 28, 2000, which was the same date that comments were provided to a draft of this report (see Appendix E). We maintain that the contractor has operated since October 1998 without properly defined criteria. The Performance Evaluation Board can use criteria recently developed to evaluate performance for the 6-month period ending December 31, 2000. Accordingly, only a proportionate share of the available "lookback" award fee should be allocated to this period. We maintain our position that the remaining share should be allocated to subsequent award fee periods when criteria for evaluating performance are in place. We request that management reconsider its position and provide additional comments.

Finding C. “Lookback” Award Fee Periods

The CSOC procurement development team did not establish appropriate evaluation periods for the “lookback” award fee provision of the CSOC Award Fee Plan. The team did not follow guidance in the NASA FAR Supplement or NASA Award Fee Contracting Guide in developing these evaluation periods. The two periods for the “lookback” award fee evaluation under the basic contract are 2 and 3 years, respectively. These lengthy award fee periods do not provide an effective incentive for the contractor. As a result, NASA may not receive the desired performance on the IOA.

Requirements to Establish Award Fee Periods

Federal Acquisition Regulation. FAR 16.405-2, “Cost-Plus-Award-Fee Contracts,” states that such contracts shall provide for evaluation at stated intervals during performance, so that the contractor will periodically be informed of the quality of its performance and the areas in which improvement is expected. Partial payment of fee shall generally correspond to the evaluation periods. Therefore, the award fee can create an effective incentive by inducing the contractor to improve poor performance or to continue good performance.

NASA FAR Supplement. The NASA FAR Supplement 1816.405-272 (a) states that award fee evaluation periods including those for interim evaluations should be at least 6 months in length and should in no case be longer than 12 months. Paragraph (b) states that a portion of the total fee available shall be allocated to each of the evaluation periods. This allocation may result in an equal or unequal distribution of fee among the periods. The contracting officer should consider the nature of each contract and the incentive effects of fee distribution in determining the appropriate allocation structure.

NASA Award Fee Contracting Guide. NASA Award Fee Contracting Guide, paragraph 3.5.1, states that one of the benefits of using award fee contracts is improved communications between the Government and contractor personnel. The Guide cautions that this benefit may be jeopardized if evaluation periods are too lengthy.

“Lookback” Award Fee to Assess Long-Term Performance Trends

The “lookback” award fee evaluations will be based on the contractor’s success in implementing the IOA as submitted in the contractor’s proposal and as subsequently documented in data requirements description 2.3-b, “Architecture Baseline.” This evaluation is intended to assess long-term performance trends and its impact on the program. The “lookback” award fee evaluation will not address specific contractor actions or accomplishments, but will assess the overall long-term aggregate effects of such activities on the contract as a whole.

Evaluation Periods Longer Than 2 Years

The CSOC procurement development team did not establish appropriate evaluation periods in the CSOC Award Fee Plan for the "lookback" award fee provision. The two periods for the "lookback" award fee evaluation under the basic contract are 2[17] and 3 years, respectively. According to the award fee distribution schedule in the Plan, the contractor will not be evaluated and will not have the opportunity to earn "lookback" award fee until the end of these periods. This distribution schedule does not provide an effective incentive to the contractor to improve poor performance or to continue good performance.

Guidance Specifies Approval Needed for Deviations

The procurement development team did not follow guidance in the NASA FAR Supplement or the NASA Award Fee Contracting Guide in developing evaluation periods for the "lookback" provision of the CSOC Award Fee Plan. Further, the procurement development team did not obtain a waiver for establishing periods longer than those specified in the NASA FAR Supplement. FAR 1.403, "Individual Deviations," requires that justification and agency approval of deviations shall be documented in the contract file. The NASA FAR Supplement 1801.471, "Procedures for Requesting Deviations," lists the minimum elements that shall be contained in the request and specifies that the request shall be submitted to the NASA Headquarters Office of Procurement. The minimum requirements are shown in Appendix D.

Johnson procurement officials stated that the procurement development team submitted to the NASA Headquarters Procurement Director an acquisition strategy that included award fee periods longer than 1 year. Because the NASA Headquarters Procurement Director did not object, the team concluded that this approach was approved. Paragraph 1807.103(d)(v) of the NASA FAR Supplement states that approval of an acquisition plan does not constitute approval of any special conditions or special clauses that may be required unless the plan so specifies and the individual having approval authority is a signatory of the plan. The contract file documentation for the acquisition strategy consists of briefing charts, minutes of the acquisition strategy meetings, and memoranda to the file. None of these documents include specific reference to the evaluation periods of the "lookback" award fee provision being longer than the 12 months prescribed by the NASA FAR Supplement.

Effective Incentive for the Contractor

The CSOC procurement development team intended to assess long-term aggregate effects of the contractor's activities through the "lookback" award fee. However, lengthy periods for evaluating performance jeopardize the benefit of improved communications between Government and contractor personnel. To emphasize long-term performance, Johnson

[17] The initial evaluation period is extended by 3 months to include the contract phase-in period from October 1, 1998, through December 31, 1998.

procurement officials can provide an incentive for the contractor by establishing periods no longer than 12 months and allocating a larger amount of award fee to the last period of the contract.

Recommendation, Management's Response, and Evaluation of Response

5. The Associate Administrator for Space Flight should direct the CSOC contracting officer to revise evaluation periods to be no longer than 12 months for the "lookback" award fee provision of the CSOC Award Fee Plan and to allocate total available award fee under this provision so as to emphasize long-term performance.

Management's Response. Nonconcur. The award fee plan to establish both a biannual award fee and a "lookback" award fee was presented in the Acquisition Strategy Meeting and approved by NASA Headquarters. The NASA Office of Procurement provided its approval of the Request for Proposal that contained the "lookback" award fee feature. The unequal distribution of the award fee pool provided what management considers an incentive for the contractor to provide long-term improvements related to the IOA and for the Government to adequately evaluate those long-term performance trends. Furthermore, Johnson requested a deviation from the NASA FAR Supplement 1816.405-273(a), which states " . . . all evaluations are final, and the contractor keeps the fee earned in any period regardless of the evaluations of subsequent periods. Unearned award fee in any given period in a service contract is lost and shall not be carried forward or 'rolled-over' into subsequent periods."

Evaluation of Response. Management's comments are nonresponsive to the recommendation. The deviation request was not located and provided to the auditors for review until after issuance of the draft report. We subsequently reviewed the document and the accompanying handwritten comments from the Associate Administrator for Procurement. Although the comments do not raise any objections to the 2- and 3-year periods provided in the deviation request, we found no formal approval for the deviation. Even if the evidence clearly indicated approval of the lengthy periods, we still maintain our position that this arrangement does not provide an effective incentive to the contractor. We agree with the unequal distribution of the award fee pool described in the response and encourage this technique to emphasize long-term performance rather than the use of periods longer than 12 months. We request that management reconsider its position and provide additional comments.

Finding D. Updates to Architecture Baseline

The contract data requirement description 2.3-b, "Architecture Baseline," does not require revisions or progress reports beyond the initial submission to NASA management. The procurement development team did not anticipate the need for regular status updates on the IOA. As a result, NASA cannot ensure that supporting infrastructure and capabilities are maintained to sustain product delivery activities. Further, without current information, NASA management cannot measure progress toward IOA goals in order to determine the appropriate amount of award fee and to effectively motivate the contractor.

Guidance Regarding Architecture Baseline

NASA Procedures and Guidelines. NASA Procedures and Guidelines 7120.5A, "NASA Program and Project Management Processes and Requirements," governs the formulation, approval, implementation, and evaluation of all Agency programs and projects. In section 2.3.5.1(c), "Deliver Products and Services," the guidance specifies that one of its purposes is to ensure that supporting infrastructure and capabilities are maintained to sustain product delivery activities. Further, it is the responsibility of the program/project office and the contracting officer to monitor performance in order to ensure timely identification of all project performance problems. Monitoring performance ensures that value is received commensurate with funds expended and that the contractor complies with the terms of the contract.

CSOC Award Fee Plan. The CSOC Award Fee Plan states that progress against the contractor's architecture will be evaluated and scored. The contractor will be evaluated for the long-term viability of its IOA plans and approaches based on their impact to program goals and objectives.

CSOC Statement of Work. The CSOC statement of work provides that the contractor shall document the current architecture and planned architecture changes in the data requirement description 2.3-b, "Architecture Baseline." The purpose of the document is to describe the contractor's proposed architecture that will provide the space operations services and the manner in which the contractor will manage the architecture's planned evolution over time. The current data requirement description does not require progress reports beyond the initial submission. After the initial baseline submission, at the end of contract phase-in on December 31, 1998, updates are required only as necessary.

Need for Revised Architecture Baseline

When the procurement development team drafted the data requirement description 2.3-b, the team did not anticipate the need for status updates of the architecture baseline. After the contractor submitted the initial baseline, the team envisioned that the contractor would commercialize the CSOC services and would no longer need the NASA infrastructure. However, the contractor has not commercialized the CSOC services and still utilizes the NASA infrastructure.[18] Therefore, periodic updates of the contractor changes to the IOA baseline are necessary. Without current information, NASA cannot measure progress toward IOA goals in order to determine the appropriate amount of award fee and to effectively motivate the contractor.

The contractor submitted a progress report[19] on April 19, 2000, and plans to submit quarterly reports in the future. However, the contract data requirements description has not been revised to require regular updates to the IOA.

Recommendation, Management's Response, and Evaluation of Response

6. The Associate Administrator for Space Flight should direct the CSOC contracting officer to determine the appropriate frequency for the contractor's submission of the architecture baseline, and revise the contract data requirement description 2.3-b, "Architecture Baseline," to reflect this change.

Management's Response. Concur. The architecture baseline should be updated and submitted annually. The contracting officer's technical representative is developing a revised data requirement description to further clarify the contractor's requirements to update its architecture baseline annually.

Evaluation of Response. The action planned is responsive to the recommendation. The recommendation is considered resolved but will remain undispositioned and open until the agreed-to corrective action is completed.

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[18] NASA still owns about 98 percent of the CSOC architecture, and only 2 percent of the architecture is new commercial endeavors.

[19] The first progress report covered IOA cost savings management, risk management, status of projects, and other related topics.

Finding E. Cost Control in Award Fee Plan

The current CSOC Award Fee Plan does not sufficiently emphasize contractor cost control performance. The procurement development team did not follow guidance in the NASA FAR Supplement or the NASA Award Fee Contracting Guide in developing the cost control factor of the CSOC Award Fee Plan. The current cost control factor is $1.6 million less than the amount required for allocation to cost performance by the contractor. Consequently, NASA may receive less than desired cost control performance.

Guidance for Evaluating Cost Control

NASA FAR Supplement. The NASA FAR Supplement 1816.405-274, "Award Fee Evaluation Factors," states that cost control shall be an evaluation factor in all cost-plus-award-fee contracts. When explicit performance evaluation factor weightings[20] are used, cost control shall be no less than 25 percent of the total weighted evaluation factors. Also, the NASA Award Fee Contracting Guide, paragraph 3.4.3, states that cost control should always be a substantial factor. When percentage weights are used, cost control will be at least 25 percent of the total award fee.

CSOC Award Fee Plan. The CSOC Award Fee Plan provides for two award fee pools to be administered separately under the contract. A 6-month pool will be awarded at the end of each 6-month evaluation period; a "lookback" pool will be awarded at the end of years 2, 5, 7, and 10. The total award fee available under the basic contract is $162.0 million. The plan assigns 80 percent of the total award fee, about $129.6 million, to the 6-month evaluation pool, and 20 percent, about $32.4 million, to the "lookback" evaluation pool. Two areas are included in the 6-month evaluations. The managerial and technical performance area is weighted 70 percent, while cost performance is weighted 30 percent. However, when compared to the total available award fee, only 24 percent (.30 X .80 = .24) of the total award fee is assigned to cost performance. The appropriate allocation of total award fee available to cost control is 25 percent, or $40.5 million. The allocation of only 24 percent, or $38.8 million, is $1.6 million less than the appropriate amount.[21]

Emphasis on Cost Control

The procurement development team did not follow guidance in the NASA FAR Supplement or the NASA Award Fee Contracting Guide in developing the cost control factor of the CSOC

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[20] In addition to identifying how performance will be evaluated and measured, the performance evaluation plan should indicate the relative priorities assigned to the various performance areas and evaluation factors or subfactors. This may be accomplished by using percentage weights for the areas, factors, or subfactors.

[21] The appropriate allocation of total award fee available to cost control, 25 percent, is $40.5 million (.25 X $162.0 million). The allocation of only 24 percent, $38.8 million (.24 X $162.0 million) is $1.6 million less than the appropriate amount ($40.5 - $38.8 = $1.6 million).

Award Fee Plan. The Agency policies specify that when percentage weights are used, cost control will be at least 25 percent of the total award fee.
The lower total award fee may not sufficiently motivate the contractor, and NASA may receive less than the desired cost performance. If the contracting officer does not revise the weighting for total award fee, then the effective cost control factor is only 24 percent. The NASA FAR Supplement and the NASA Award Fee Contracting Guide require a cost control factor of 25 percent.

Recommendation, Management's Response, and Evaluation of Response

7. The Associate Administrator for Space Flight should direct the CSOC contracting officer to revise the CSOC Award Fee Plan to reflect a cost control factor of at least 25 percent of the total award fee as required by NASA policy.

Management's Response. Nonconcur. Management stated it is utilizing the same award fee weighting guidelines in both the "lookback" portion of the award fee and the 6-month evaluations. Therefore, 30 percent of the overall award fee is being dedicated to cost performance rather than the 24 percent noted in the draft audit report.

Evaluation of Response. Although management nonconcurred, it has taken corrective action that partially addresses the recommendation. At the conclusion of our field work, management had not yet specified or communicated to the contractor the factors or weightings that would be included in the evaluation of performance for the "lookback" portion of award fee. Consequently, at that time, the cost control factor was less than 25 percent, as stated in the draft report. Prior to issuance of the draft report, management told us that it intended to assign the same award fee weighting used in the 6-month evaluations to the "lookback" portion of the award fee. We responded that this action, if taken, would satisfy our concerns. On July 28, 2000, management issued a letter to the contractor specifying that a weighting equivalent to that assigned for the 6-month evaluations would be assigned to the "lookback" portion of the award fee. As a result, 30-percent of the total award fee will be dedicated to cost performance. We consider the issuance of management's letter to the contractor, specifying a 30-percent weighting for cost under both the 6-month and "lookback" portion of the award fee to be partial corrective action for this recommendation. If the weightings presented in the letter are applicable to all "lookback" award fee periods, this information should be clarified in the Award Fee Plan. We request that management reconsider its position and provide additional comments.

Appendix A. Objectives, Scope, and Methodology

Objectives

The overall objective, which will be addressed in a separate report, was to determine whether the CSOC goals were being accomplished. This report identifies conditions regarding a cost-benefit analysis and award fee structure that warrant timely action by NASA management.

Scope and Methodology

The audit included a review of the rationale and plan for consolidation and award fee structure. We reviewed budget and spending data for fiscal year 1999 provided by the Space Operations Management Office. In addition, we reviewed NASA guidance for developing award fee plans. We interviewed program and contractor personnel to understand the history and the current and planned progress of the procurement. We did not assess the reliability of computer-processed data because we did not rely on computer-process to achieve the audit objectives.

Management Controls Reviewed

We reviewed the following management controls:

- Office of Management and Budget Circular A-94, “Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs,” October 29, 1992, provides guidance for conducting cost-benefit and cost-effectiveness analyses.

- March 13, 1997, NASA Deputy Administrator’s memorandum requiring cost-benefit analyses addressed to Officials-in-Charge of Headquarters Offices; Directors, NASA field installations; and Director, Jet Propulsion Laboratory.

- FAR 1.403 “Individual Deviations” states that justification and agency approval for contract deviations shall be documented in the contract file.

- NASA FAR Supplement 1801.471, “Procedures for Requesting Deviations,” lists the requirements for securing a deviation from established contracting procedures.

- FAR, Subpart 16.4, “Incentive Contracts,” provides guidance for developing incentive contracts including cost-plus-award-fee contracts.

- NASA FAR Supplement 1816.405-273, “Award Evaluation,” describes development of award fee evaluation factors.

- "The NASA Award Fee Contracting Guide," December 2,1997, explains and provides guidance for NASA's award fee policy.

- NASA Procedures and Guidelines 7120.5A, "NASA Program and Project Management Processes and Requirements," governs formulation, approval, implementation, and evaluation of all NASA programs and projects.

Audit Field Work

We performed the audit field work from October 1999 through April 2000. We conducted the audit in accordance with generally accepted government auditing standards.

Appendix B. Elements of Benefit-Cost or Cost-Effectiveness Analysis

The Office of Management and Budget Circular No. A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, " October 29, 1992, provides the following guidance.

c. Elements of Benefit-Cost or Cost-Effectiveness Analysis.

1. **Policy Rationale.** The rationale for the Government program being examined should be clearly stated in the analysis. Programs may be justified on efficiency grounds where they address market failure, such as public goods and externalities. They may also be justified where they improve the efficiency of the Government's internal operations, such as cost-saving investments.

2. Explicit Assumptions. Analyses should be explicit about the underlying assumptions used to arrive at estimates of future benefits and costs. In the case of public health programs, for example, it may be necessary to make assumptions about the number of future beneficiaries, the intensity of service, and the rate of increase in medical prices. The analysis should include a statement of the assumptions, the rationale behind them, and a review of their strengths and weaknesses. Key data and results, such as year-by-year estimates of benefits and costs, should be reported to promote independent analysis and review.

3. Evaluation of Alternatives. Analyses should also consider alternative means of achieving program objectives by examining different program scales, different methods of provision, and different degrees of Government involvement. For example, in evaluating a decision to acquire a capital asset, the analysis should generally consider: (i) doing nothing; (ii) direct purchase; (iii) upgrading, renovating, sharing, or converting existing government property; or (iv) leasing or contracting for services.

4. Verification. Retrospective studies to determine whether anticipated benefits and costs have been realized are potentially valuable. Such studies can be used to determine necessary corrections in existing programs, and to improve future estimates of benefits and costs in these programs or related ones.

Agencies should have a plan for periodic, results-oriented evaluation of program effectiveness. They should also discuss the results of relevant evaluation studies when proposing reauthorizations or increased program funding.

Appendix C. CSOC Transition Schedule

Schedule of Contracts
Transitioned Under the Basic Contract

Contracts By Center	Name	Previous Contractor	Scheduled Transition Date
Goddard Space Flight Center			
5-31000	Consolidated Network and Mission Operations Support	Allied Signal	9/25/98
5-31500	Systems, Engineering & Analysis Support Services	Computer Sciences Corporation	"
5-32153	Operation and Maintenance of Radar Telecommunications	Allied Signal	"
5-32617	Upper Atmospheric Research Satellite (UARS)/Total Ozone Mapping Spectrometer (TOMS) Flight Operations	Lockheed Martin	"
5-32660	Earth Observing System Data and Operations (EDOS)	TRW	1/1/99 7/1/00 8 Months after AM-1 launch
5-32700	Logistics Support	Raytheon	4/1/99
5-60000	Earth Observing System Data and Information System Core System (EOSDIS Core)	Hughes/ Raytheon	11/1/02
Marshall Space Flight Center			
8-60000	Program Information Systems Mission Support	Computer Sciences Corporation	5/1/99
8-44000	Utilization & Mission Support	Lockheed Martin	8/19/01
Johnson Space Center			
9-20000	Space Flight Operations Contract	USA	9/25/98
9-18300	Mission Systems Maintenance & Operations and Sustaining Engineering	Lockheed Martin	10/1/99 12/10/99
Jet Propulsion Laboratory			
957890	Maintenance & Operations of Deep Space Network	Allied Signal	9/25/98
958226	Mission & Computing Support	OAO Corporation	1/1/00

Appendix D. Procedure for Requesting Deviations

NASA FAR Supplement 1801.471, “Procedure for requesting deviations,” states:

(a) Requests for authority to deviate from the FAR or the NFS [NASA FAR Supplement] shall be submitted by the Procurement Officer to the Headquarters Office of Procurement (Code HS).

(b) Each request for a deviation shall contain, as a minimum --

  (1) Identification of the FAR or the NFS requirement from which a deviation is sought;
  (2) A full description of the deviation, the circumstances in which it will be used, and the specific contract action(s) to which it applies;
  (3) A description of its intended effect;
  (4) A statement as to whether the deviation has been requested previously and, if so, the circumstances of the previous request;
  (5) Identification of the contractor(s) and the contract(s) affected, including dollar value(s);
  (6) Detailed reasons supporting the request, including any pertinent background information; and
  (7) A copy of counsel's concurrence or comments.

(c) In addition to the information required by 1801.471(b), requests for individual deviations from FAR cost principles under FAR section 31.101 should include a copy of the contractor's request for cost allowance.

Appendix E. Management's Response

National Aeronautics and
Space Administration

Headquarters
Washington, DC 20546-0001

JUL 28 2000

Reply to Attn of: M

TO: W/Assistant Inspector General for Auditing

FROM: M/Associate Administrator for Space Flight

SUBJECT: Management Response to Office of Inspector General's (OIG) Draft Report on Audit of Consolidated Space Operations Contract, Assignment Number A0000400

We have reviewed the subject audit report, and thank you for the opportunity to provide comments. This response was prepared in concert with the Space Operations Management Office at the Johnson Space Center that is responsible for the Consolidated Space Operations Contract (CSOC). We do not concur with the audit findings and the rationale for this non-concurrence is explained in detail in the enclosure.

If you have any questions, please contact Mr. Robert Spearing at 202-358-2020 or Ms. Gail Gabourel, Audit Liaison Representative, at 202-358-1462 for other matters.

for William Readdy
Joseph H. Rothenberg

Enclosure

cc:
HK/J. E. Horvath
JM/J. D. Werner
M-3/R. E. Spearing
MX/G. A. Gabourel
JSC/AA/G. W. S. Abbey
JSC/BD5/P. H. Ritterhouse
JSC/BN/L. Kenyon
JSC/TA/S. Newberry
JSC/TA/J. Nise

Management Response to OIG's Draft Report on Audit of Consolidated Space Operations Contract, Assignment Number A0000400

Auditor's Findings (Finding A)

"The SOMO had not performed cost-benefit analyses to ensure that each consolidation of existing space operations contracts is in the best interest of the Government. Additionally, cost-benefit analyses have not been performed in support of future consolidation of contracts into CSOC. The SOMO was unaware of the Federal and Agency guidance to perform cost-benefit analyses and proceeded with the consolidation based on the assumption that it would yield cost-savings. Without a cost-benefit analysis, NASA is not assured that the integrated operations approach will reduce cost of operations by the estimated $1.2 billion over the next 10 years."

Recommendations:

"The Associate Administrator for Space Flight should:

1. Direct the SOMO to perform a cost-benefit analysis prior to exercising any contract options.

2. Direct the SOMO to evaluate at least annually whether the projected benefits have been realized."

NASA Comments to Recommendations 1 and 2

To fully appreciate the dramatic savings anticipated with the advent of CSOC, one must reflect on the efficiencies and cost savings already achieved in NASA's Space Communications Program since the Zero Based Review recommendations were implemented. This program has achieved approximately $1 Billion in savings from FY 1996 to FY 2000 including reduction to our contractor workforce by 40 percent. CSOC enabled NASA to achieve further efficiencies and lower cost to the Government by consolidating multiple individual contracts into a single prime contract, reducing overlapping and eliminating redundant activities.

The NASA Administrator developed a Space Operations charter on October 18, 1995. Following that event, extensive briefings were made to Industry, Congress, and Office of Management and Budget regarding the planned CSOC acquisition. Following these briefings, factfinding activities were conducted at each of the respective NASA field Centers. During these presentations, NASA outlined its objective for CSOC to obtain a highly capable and accountable contractor who will be responsible for providing Space Operations Mission and Data Services that:

See Appendix F, OIG Comment 2

- Reduce Cost
- Reduce duplication of capabilities across the agency
- Reduce government oversight
- Increase Contractor Accountability

The NASA CSOC Source Selection Board (SEB) developed a Government estimate based on the scope of work contained within the Request for Proposal (RFP). The estimate was based on NASA's FY 1999 Congressional Budget. The requirement was also established to have the "should cost" baseline and core competencies established. A cost and workforce baseline was developed for a CSOC "should cost" comparison for service elements in the Statement of Work.

See Appendix F, OIG Comment 1

During the SEB process, a cost analysis utilizing the already developed "should cost" was performed by the Procurement Development Team. The IG participated in this evaluation. This analysis included the Government's estimate of the cost to continue without benefit of either proposal. The cost analysis was done at a very detailed level i.e. for each of the 204 facilities in the RFP for both offers with cost versus benefit data compiled in the technical and business analysis. From this "should cost" analysis, it was determined during the SEB process that potential savings of $1.4B could be realized through the selection of LMSOC performing the CSOC contract. Data supporting the aforementioned reviews was provided to the IG for its consideration.

The periodic evaluation of adherence to the proposed cost profile has already been put in place. The CSOC contractor performs a quarterly review; called the Cost Savings Profile review, to track all of the initiatives contributing to cost savings. Additionally, NASA provides a CSOC saving report semi-annually, to Congress.

Also, with new architecture development, a make/buy analysis is performed by the contractor. This process is defined in the DRD for the project commitment document (PCD). The PCD provides the project plan for project justification, commitment, and tracking through the project life cycle or until the project capabilities are included into the standard services catalog or services. The PCD defines the project justification, strategy, and plans for major in-scope projects and tasks. It is used initially to justify projects prior to the Make or Buy decision process and during the Program Operating Plan process. During the project or task's life cycle, the PCD will be updated annually to reflect programmatic changes and track project progress. Also, during the award fee process, review of the contractor's progress in meeting its established negotiated contract baseline is performed. To date NASA has determined that it has realized savings when comparing LMSOC's cost performance against the contract baseline.

NASA does concur with the recommendation to perform continual evaluation of the CSOC costs through many means including exercising contract options and other avenues to ensure the projected benefits of CSOC are realized. Prior to exercising any options, a determination will be made at that time to determine whether the exercise of an option is the most advantageous method of fulfilling the Government's need. However, we do not agree with the findings stated in the auditors report. We consider recommendations 1 and 2 closed.

Auditor's Findings (Finding B)

"NASA has not defined criteria upon which to evaluate the contractor's performance for the IOA. The contracting officer's technical representative did not develop the necessary criteria to evaluate the contractor's performance as required by Federal and Agency guidelines. Therefore, NASA could inappropriately award up to $14.1 million of 'lookback' award fee to the contractor for the period ending December 31, 2000."

Recommendations for Corrective Action

"The Associate Administrator for Space Flight should:

3. Direct the CSOC contracting officer to establish performance evaluation criteria for the "lookback" portion of the award fee pool prior to June 30, 2000.

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4. Direct the CSOC contracting officer to:

   - Evaluate the contractor's performance for the period June 30, 2000, through December 31, 2000, after evaluation criteria are in place and meaningful evaluations can be performed.

   - Allocate a proportionate share of the total "lookback" award fee, $3.1 million, (22 percent of $14.1 million) to the 6-month period June 30, 2000, through December 31, 2000, after criteria have been developed.

   - Transfer the remaining $10.9 million (78 percent of $14.1 million) to future "lookback" award fee periods."

NASA Comments to Auditor Finding and Recommendations 3 and 4

NASA does not concur with the Auditor Finding nor Recommendations 3 and 4. NASA encouraged CSOC to provide the Integrated Operations Architecture (IOA). In fact, as part of the SEB process, each offeror's IOA was evaluated separately. The Government does have in place performance evaluation criteria against which the CSOC IOA is evaluated. The contract Award Fee Plan, the Lookback Areas of Emphasis, and the 6-month Award Fee Area of Emphasis letter are used by NASA to determine the contractor's success in meeting the proposed IOA.

The criteria and weightings for the Lookback Provision are documented in Attachment J-5, Award Fee Plan, of the contract. Section VI, Evaluation Criteria and Weighting, contemplates that the contractor will be evaluated on Management and Technical Performance (70%) and Cost (30%). This includes the Lookback Provisions of the contract. Further, Attachment J-5 includes a specific reference to "Implementation of the Integrated Operation Architecture."

Section VII of the Award Fee Plan "Lookback Provision" states "This IOA Lookback will accomplish an overall evaluation of the contractor's performance in implementing the IOA during the time period. Progress against the contractor's architecture baseline will be evaluated and scored. The evaluation will be performed in order to ensure that a balanced perspective of contractor performance is achieved that does not unfairly reward or penalize the contractor for short-term performance trends that may not have been apparent during the more frequent six-month evaluation periods. In addition, the contractor will be evaluated for the long-term viability of its IOA plans and approaches based on their impact to program goals and objectives."

In addition, Statement of Work Paragraph 2.1, Consolidated Space Operations Contract, sets forth criteria relating to the IOA as follows:

- Implement an integrated architecture that reduces overlap, eliminates unnecessary duplication, and reduces lifecycle costs,

- Define streamlined processes that minimize intermediaries required to define requirements and deliver services.

An Award Fee Areas of Emphasis Letter is being provided to Lockheed-Martin (LM), which further clarifies the Government's plan to evaluate the lookback portion of the award fee. The content of that letter is as follows:

LM will be evaluated in terms of the degree and manner in which LM satisfies all the requirements of the lookback provision as provided in paragraph VII of attachment J-5. To this end, all areas of performance will be evaluated within the definition of evaluation factors as provided in paragraph VI of Attachment J-5 of the contract.

Managerial and Technical Performance 70%

Managerial and Technical performance is based on Development Schedule Performance (DSP) and Development Content Performance (DCP) of IOA initiatives. The DSP and DCP determine the contractor's success into modernization of ground network assets, integration of commercial suppliers, capitalization of equipment and the transition of government assets as infrastructure is reduced. Maintaining a current and accurate IOA implementation plan to meet the CSP and other SOMO provided service elements is also an evaluation factor.

Cost Performance 30%

Cost performance is based on the Cost Savings Profile (CSP). CSP consists of successful implementation of Operations Change Document (OCD) savings and Project Commitment Document (PCD) savings in relationship to the CSP the contractor has proposed. The PCD's (which define development and the associated cost benefits for the development) and OCD's (which define operational savings through new ways of performing functions) will be evaluated.

Lastly, the award fee Areas of Emphasis letter for the six-month's evaluation period includes the following: "Demonstrate progress toward the successful implementation of an integrated architecture that reduces overlap and lifecycle costs." Therefore, emphasis is provided to the contractor and a review is performed regarding the contractor's progress in the development of an IOA architecture.

As a result of the above, NASA feels that there are in fact evaluation criteria relating to the "lookback" portion of the award fee pool and that no changes need to be made to the contract. We consider recommendation 3 and 4 closed.

Auditor's Findings (Finding C)

"The CSOC procurement development team did not establish appropriate evaluation periods for the "lookback" award fee provision of the CSOC Award Fee Plan. The team did not follow guidance in the NASA FAR Supplement or NASA Award Fee Contracting Guide in developing these evaluation periods. The two periods for the "lookback" award fee evaluation under the basic contract are 2 and 3 years, respectfully. These lengthy award fee periods do not provide an effective incentive for the contractor. As a result, NASA may not receive the desired performance on the IOA."

4

Recommendation for Corrective Action

"5. The Associate Administrator for Space Flight should direct the CSOC contracting officer to revise evaluation periods to be no longer than 12 months for the "lookback" award fee provision of the CSOC Award Fee Plan and to allocate total available award fee under this provision so as to emphasize long-term performance."

NASA Comments to Recommendation 5

NASA does not concur with Recommendation 5. The Lookback Award Fee is a component of the Award Fee Evaluation. The procurement development team presented its plan to establish both a biannual award fee and a lookback award fee within the confines of the award fee plan. The plan for performing a lookback fee was presented at the Acquisition Strategy Meeting (ASM) that was reviewed and approved at NASA Headquarters; Code H. NASA Headquarters' Code H provided its approval of the RFP, which also contained this feature of the award fee. Throughout all of the reviews, the Inspector General Office provided personnel who actively participated in the Source Evaluation Board activities. Furthermore, a deviation request was provided by the Johnson Space Center and reviewed by the Associate Administrator for Procurement (see attached).

Further, we believe that NASA's implementation of this clause is consistent with clause 1816.405-272, Award fee evaluation periods. The award fee is conducted on a six-month basis, where among other things progress toward successful implementation of an integrated architecture has been reviewed consistent with the six-month award fee areas of emphasis letter. The clause also requires that a portion of the award fee shall be allocated to each award fee period. Per the clause, this allocation may result in an equal or unequal distribution among the periods. The allocation of award fee from period to period is not equal, because of the fact that award fee review based on the lookback provision of the award fee plan is conducted at the end of years 2, 5, 7, and 10. Finally, the clause requires that the contracting officer should consider the nature of each contract and the incentive effects of the fee distribution in determining the appropriation allocation structure. As discussed herein the unequal distribution of the award fee pool provided what we believe to be incentive for the contractor to provide long-term improvements related to the IOA and for the Government to adequately evaluate those long-term performance trends. We therefore believe it is in the Government's best interest to continue with the review of the lookback as is described in the award fee plan. We consider recommendation 5 closed.

Auditor's Findings (Finding D)

"The contract data requirement description 2.3-b, "Architecture Baseline," does not require revisions or progress reports beyond the initial submission to NASA management. The procurement development team did not anticipate the need for regular status updates on the IOA. As a result, NASA cannot ensure that supporting infrastructure and capabilities are maintained to sustain product delivery activities."

Recommendation for Corrective Action

"6. The Associate Administrator for Space Flight should direct the CSOC contracting officer to determine the appropriate frequency for the contractor's submission of the architecture baseline, and revise the contract data requirement description 2.3.b, "Architecture Baseline," to reflect this change."

NASA Comments to Recommendation 6

We concur that the Architecture Baseline should be updated and submitted annually. The Architecture Baseline is to describe the Space Operations Integrated Architecture that provides the space operations and manages its planned evolution over time. Further, the contract stipulates that any Architecture baseline changes shall be incorporated within 30 days of the approved change. All baseline architecture configuration changes are controlled through the in-place Space Operations Control Board (SOCB) process. To further clarify the Contractor's requirements to update their architecture baseline annually, a revised DRD is in work.

Auditor's Findings (Finding E)

"The current CSOC Award Fee does not sufficiently emphasize contractor cost control performance. The procurement development team did not follow guidance in the NASA FAR Supplement or the NASA Award Fee Contracting Guide in developing the cost control factor of the CSOC Award Fee Plan. The current cost control factor is $1.6 million less than the amount required for allocation to cost performance by the contractor. Consequently, NASA may receive less than desired cost control performance."

Recommendation for Corrective Action

"7. The Associate Administrator for Space Flight should direct the CSOC contracting officer to revise the CSOC Award Fee Plan to reflect a cost control factor of at least 25 percent of the total award fee as required by NASA policy."

NASA Comments to Recommendation 7

NASA does not concur with this finding or need for any corrective action for Recommendation 7. Utilizing the same award fee weighting guidelines in both the Lookback portion of the award fee and the 6-month evaluations, 30 percent of the overall award fee is being dedicated to cost performance rather than the 24 percent noted in the draft audit report. The contractor will be evaluated for the long-term viability of its IOA plans and approaches based on their impact to program goals and objectives, which includes measures that reduces lifecycle costs. Therefore, both long-term cost and technical performance will be reviewed during the Lookback Award Fee Evaluation.

National Aeronautics and
Space Administration
Lyndon B. Johnson Space Center
2101 NASA Road 1
Houston, Texas 77058-3696

TA-SEB-98-137

APR 17 1998

TO: NASA Headquarters
Attn: HS/Director, Program Operations

FROM: BA/Acting JSC Procurement Officer

SUBJECT: Request for Deviation from NASA Federal Acquisition Regulation (FAR) Supplement 1816.405-273(a); Approval of New Clause for Consolidated Space Operations Contract (CSOC)

FAR/NFS Reference	• NASA FAR Supplement 1816.405-273(a)
Description of the Deviation	• Approval of new clause "Integrated Operations Architecture Lookback" Clause

The NASA FAR Supplement provides, in pertinent part at 1816.405-273(a), Award fee evaluations, that "where the contract deliverable is the performance of a service over any given time period . . . all evaluations are final, and the contractor keeps the fee earned in any period regardless of the evaluations of subsequent periods. Unearned award fee in any given period in a service contract is lost and shall not be carried forward, or 'rolled-over,' into subsequent periods."

The purpose of this request is to obtain deviation authority to include a clause in the CSOC which will provide for interim 6 month award fee evaluations, with periodic "lookback" evaluations to assess the contractor's overall progress in implementing its Integrated Operations Architecture (IOA). Although the CSOC contractor will be providing services, the contract is unique in that the contractor will be performing services toward an overall implementation of the IOA. In order for the Government to effectively motivate the contractor, it is considered necessary to be able to periodically review the contractor's progress towards implementing the IOA and either award additional fee or take back fee that has already been awarded, as appropriate. These periodic evaluations will be conducted at the conclusion of Years 2 and 5 of the basic contract, and years 7 and 10 of the option period, should Option 1 be exercised. Progress against the proposed architecture will be evaluated and scored. The evaluation will be performed in order to ensure that a balanced perspective of contractor performance is achieved that does not unfairly reward or penalize the contractor for short term performance trends that may not have been apparent during the more frequent six-month evaluation periods. In addition, the contractor will be evaluated for the long-term viability of its IOA plans and approaches based on their impact to program goals and objectives. As a result of the "IOA Lookback" evaluation, fee dollars may either be added to or deducted from the overall award fee dollars previously earned, as well as any shared savings as a result of the Shared Savings clause. In no event shall the deduction be greater than the total amount of award fee earned and shared savings earned on the contract.

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The "IOA Lookback" evaluation will have no pre-established areas of emphasis. The evaluation will focus on implementation of the Integrated Operations Architecture. The intent of the "IOA Lookback" evaluation is to assess long-term performance trends and their impact on the program.

The full text of the "Lookback Clause" is enclosed.

Description of the Intended Effect

This clause is intended to assess the contractor's long-term performance in affecting an Integrated Operations Architecture (IOA) that meets the NASA's overarching goal to develop and implement an architecture that integrates all space operations, mission and data services across NASA, while attaining the goals delineated in the CSOC Phase 2 Statement of Work. The clause will enable the Government to fully motivate the contractor by providing for reward of additional fee for superior performance and the taking back of fee for poor performance.

Status of Previous Deviation Requested	- This deviation has not been requested before
Subject Acquisition	- Consolidated Space Operations Contract (CSOC)
Anticipated Value	- $500M per year (approximated)

Detailed reasons supporting request (plus background)

The primary objective of the Consolidated Space Operations Contract is to meld the Agency's space operations in to a single contract, eliminating overlapping/redundant facilities and functions yet accomplish space operations services effectively. The specific goals that the contractor is expected to achieve are:

- Provide excellent quality and reliable mission and data services at a significantly reduced cost.
- Move end-to-end mission and data service responsibility and accountability to industry.
- Implement an integrated architecture that reduces overlap, eliminates unnecessary duplication, and reduces life cycle costs.
- Define streamlined processes that minimize intermediaries required to define requirements and deliver services.
- Adopt private sector commercial practices and services.

Given the fact that achievement of these goals is a migratory and evolutionary process, short term performance may be an erroneous indication, either positively or negatively. The viability of the contractor's IOA would be more accurately determined from a long-term view, which this clause institutes.

The implementation of an effective IOA is imperative to the overall success of the consolidation that the Agency is attempting, as well as a robust goal. This clause, which is intended to obtain the most optimum IOA that the contractor can possibly implement, is a much-needed inducement to achieve the Government's objective goals.

Although the CSOC contractor will deliver services under the contract which are usually to be considered final, in this case, the requirement to implement an IOA is most potentially probable by the use of interim evaluations. Additionally, the ability to access unearned fee, is a positive inducement to gaining an effective IOA.

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This request for deviation has been reviewed by JSC legal counsel. If this review resulted in no legal objection or comment, evidence thereof is shown by counsel's signature in the signature block shown below; otherwise, counsel's comments or objections are set forth in a memorandum attached to this request for deviation.

Debra L. Johnson
Procurement Officer

I have reviewed the above deviation request and have no legal objection or comment with respect to it.

Joyce R. Simmons
Assistant Chief Counsel for Procurement Matters

Appendix F. OIG Response to Selected Management Comments

Management's response discusses the OIG participation on the Source Evaluation Board (SEB) and the support for the CSOC cost savings. Our evaluation of these comments follows:

Management's Comments. During the SEB process, the Procurement Development Team developed a cost analysis utilizing the "should cost" baseline for the scope of work contained in the CSOC Request for Proposal already developed by the Agency. The OIG participated in this evaluation. The Procurement Development Team presented the plan for performing a "lookback" award fee at the Acquisition Strategy Meeting. Throughout all of the reviews, the OIG provided personnel who actively participated in the SEB activities.

1. OIG Comments. Management inaccurately characterizes the OIG's participation on the SEB. The OIG assigned representatives to the SEB to provide audit advisory services only. The representatives attended meetings and observed the activities of the SEB. The representatives were shown data at a summary level but were not permitted to review the data in detail and did not perform any analysis of the data reviewed. The OIG stated at the outset that the role of representatives on the SEB was advisory only and that the OIG did not have a role in the management or the decisionmaking processes of the team. Further, we clarified that our presence did not alter our responsibilities under the Inspector General's Act to conduct independent audit and investigations of NASA's programs and operations.

Management's Comments. NASA made extensive briefings to industry, Congress, and the OMB regarding NASA's objective for the CSOC acquisition. In addition, fact-finding activities were conducted. The NASA CSOC SEB developed a Government estimate based on NASA's Fiscal Year 1999 Congressional Budget. Subsequently, the Agency established a "should cost" baseline for the scope of work contained in the CSOC Request for Proposal. During the SEB process, the Procurement Development Team performed a cost analysis and determined that potential savings of $1.4 billion could be realized through the selection of Lockheed Martin Space Operations Company (LMSOC) performing the CSOC contract. To date, NASA has determined that it has realized savings when comparing LMSOC's cost performance against the contract baseline.

2. OIG Comments. During the audit, the auditors requested evidence that the Agency performed a cost-benefit analysis with quantitative data in accordance with Circular A-94. Program officials told the auditors that while no formal cost-benefit analysis had been performed, various briefings, fact finding, and other activities such as those provided by procurement officials and described in the response satisfied the intent of a cost-benefit analysis. The Agency must perform a cost-benefit analysis to justify the programmatic decision to undertake a major consolidation <u>prior</u> to beginning a procurement activity.
However, a key element described in Circular A-94 is not present in the programmatic activities described. Specifically, the Circular specifies that:

> . . . analyses should be explicit about the underlying assumptions used to arrive at estimates of future benefits and costs. The analysis should include a statement of the assumptions, therationale behind them, and a review of their strengths and weaknesses. Key data and results, such as year-by-year estimates of benefits and costs, should be reported to promote independent analysis and review.

In addition, management comments state that activities performed by the CSOC SEB satisfy the requirement. However, the Government estimate and "should cost" baseline are procurement activities that did not support examination of various alternatives and the decision to consolidate multiple contracts. We reviewed the additional information provided by procurement officials before preparing our evaluation of management's response and issuance of the final report. The information also supports the procurement activity rather than the programmatic consideration that led to the decision to consolidate contracts. Therefore, we stand by our earlier conclusion that the required analysis was not performed.

Appendix G. Report Distribution

National Aeronautics and Space Administration (NASA) Headquarters

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

NASA Centers

Director, Goddard Space Flight Center
Director, Lyndon B. Johnson Space Center
  Director, Space Operations
Director, John F. Kennedy Space Center
Director, Marshall Space Flight Center
Jet Propulsion Laboratory
Chief Counsel, John F. Kennedy Space Center
Director, Space Operations, Lyndon B. Johnson 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
Associate Director, National Security and International Affairs Division, Defense Acquisitions Issues, General Accounting Office
Professional Assistant, Senate Subcommittee on Science, Technology, and Space

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 National Security, Veterans Affairs, and International Relations
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

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Report Title: Final Report on Audit of Consolidated Space Operations Contract

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**
- **Very Good**
- **Good**
- **Fair**
- **Poor**

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. ______________

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How did you use the report? ____

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How could we improve our report? ____

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How would you identify yourself? (Select one)

Congressional Staff Media

NASA Employee Public Interest
Private Citizen Other: ____________________________
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

Daniel Samoviski, Program Director, Earth and Space Science Audits

Esther Judd, Program Manager/Auditor-in-Charge

Clara L. Seger, Auditor

Mary S. Anderson, Auditor

Joe Kroener, Procurement Analyst

Nancy Cipolla, Report Process Manager

Iris Purcarey, Program Assistant