
July 10, 2006



Acquisition

Source Selection for the National
Polar-Orbiting Operational
Environmental Satellite System -
Conical Microwave Imager/Sounder
(D-2006-097)

Department of Defense
Office of Inspector General

Quality

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Acronyms

AFAC	Air Force Acquisition Circular
AFFARS	Air Force Federal Acquisition Regulation Supplement
BATC	Ball Aerospace and Technologies Corporation
BSS	Boeing Satellite Systems
CMIS	Conical Microwave Imager/Sounder
DoC	Department of Commerce
FAR	Federal Acquisition Regulation
GAO	Government Accountability Office
IPO	Integrated Program Office
NASA	National Aeronautics and Space Administration
NPOESS	National Polar-Orbiting Operational Environmental Satellite System
NSTC	National Science and Technology Council
OIG	Office of Inspector General
PRAG	Performance Risk Assessment Group
SEIT	Systems Engineering, Integration, and Testing
SMSC	Space and Missile Systems Center
SSA	Source Selection Authority
SSAC	Source Selection Advisory Council
SSET	Source Selection Evaluation Team
SSP	Source Selection Plan



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July 10, 2006

MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Report on Source Selection for the National Polar-Orbiting Operational
Environmental Satellite System - Conical Microwave Imager/Sounder
(Report No. D-2006-097)

We are providing this report for review and comment. We performed this audit at the request of the Office of Under Secretary of Defense for Acquisition, Technology, and Logistics. We considered management comments on a draft of this report in preparing the final report.

DoD Directive 7650.3 requires that all issues be resolved promptly. The Air Force comments were partially responsive. We request that the Military Deputy, Office of the Assistant Secretary of the Air Force (Acquisition) provide additional comments on Recommendations 2 and 3 by August 10, 2006.

If possible, please provide management comments in electronic format (Adobe Acrobat file only) to AudDFS@dodig.mil. Copies of the management comments must contain the actual signature of the authorizing official. We cannot accept the / Signed / symbol in place of the actual signature. If you arrange to send classified comments electronically, they must be sent over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Questions should be directed to Ms. Lorin T. Pfeil at (703) 325-5568 (DSN 221-5568) or Mr. Walter Gaich at (703) 325-5894 (DSN 221-5894). See Appendix C for the report distribution. The team members are listed inside the back cover.

By direction of the Deputy Inspector General for Auditing:

A handwritten signature in black ink, appearing to read "Paul J. Granetto", is written over a horizontal line.

Paul J. Granetto, CPA
Assistant Inspector General
Defense Financial Auditing
Service

Department of Defense Office of Inspector General

Report No. D-2006-097

July 10, 2006

(Project No. D2005-D000FE-0168.000)

Source Selection for the National Polar-Orbiting Operational Environmental Satellite System - Conical Microwave Imager/Sounder

Executive Summary

Who Should Read This Report and Why? Acquisition and contracting personnel within DoD and the military departments should read this report. It discusses the need for oversight of the source selection process for contract awards.

Background. This audit is one in a series performed at the request of the Office of Under Secretary of Defense for Acquisition, Technology, and Logistics. On February 11, 2005, the Under Secretary of Defense for Acquisition, Technology, and Logistics referred eight Air Force contracts for DoD Office of Inspector General (OIG) to audit due to concerns that the Principal Deputy Assistant Secretary of the Air Force, Acquisition and Management may have used undue influence to award these contracts to Boeing Corporation and four other contractors. One contract referred for audit awarded the National Polar-Orbiting Operational Environmental Satellite System – Conical Microwave Imager/Sounder. That contract is addressed in this report. Subsequently, the DoD OIG initiated additional audits based on the same concerns.

Results. The Air Force did not award the National Polar-Orbiting Operational Environmental Satellite System - Conical Microwave Imager/Sounder contract in accordance with the Federal Acquisition Regulation. The Air Force Source Selection Authority for the contract award:

- lacked impartiality with respect to the contract winner, Boeing Satellite Systems and
- manipulated complex proposal evaluation ratings to benefit Boeing Satellite System's contract proposal and hinder Ball Aerospace and Technologies Corporation's contract proposal.

In addition, source selection personnel did not adequately document the evaluation of the offerors' proposals and used undefined and inconsistently applied evaluation ratings in the source selection reporting process. Also, source selection personnel chose significantly more relevant contracts from Ball Aerospace and Technologies Corporation than relevant contracts from Boeing Satellite Systems for the past performance evaluation of the source selection process. As a result, the Air Force unfairly awarded the \$317 million Conical Microwave Imager/Sounder contract to Boeing Aerospace. We recommend that the Air Force establish a source selection oversight process, require support for source selection findings, and update past performance evaluation guidance. See the Finding section of the report for detailed recommendations.

Management Comments and Audit Response. The Military Deputy, Office of the Assistant Secretary of the Air Force (Acquisition) concurred with two of the three recommendations. Comments received were partially responsive, but did not address the need for a sufficient audit trail to support source selection actions. The Military Deputy nonconcurred with the recommendation to update past performance evaluation guidance to include methodology to address when there are significant disparities in past performance experience between offerors. We agree that past performance evaluation should be based on contractor past performance as a whole. However, the past performance evaluation methodology needs to include the impact of past performance strengths and weaknesses in proper proportion to the population of past performance experiences reviewed. Therefore, we request that the Secretary of the Air Force, Acquisition and Management comment on this report by August 10, 2006. See the Finding section of the report for a discussion of management comments and the Management Comments section of the report for the complete text of the comments.

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Background

In accordance with Presidential Decision Directive National Science and Technology Council (NSTC)-2, May 5, 1994, the National Polar-Orbiting Operational Satellite System (NPOESS) was established to converge DoD, Department of Commerce (DoC), and National Aeronautics and Space Administration (NASA) polar-orbiting environmental satellite programs into a single operational system. NPOESS would reduce acquisition and operational costs and duplication of efforts in meeting common requirements while satisfying the unique requirements of the civil and national security communities. To implement NSTC-2, the Integrated Program Office (IPO), consisting of personnel from DoD, DoC, and NASA, was created to manage, plan, develop, fabricate, and operate NPOESS. DoD was responsible for supporting the IPO in major system acquisitions necessary to support NPOESS.

Conical Microwave Imager/Sounder. The Conical Microwave Imager/Sounder (CMIS) sensor is one of an array of sensors with which the NPOESS will be equipped. The sensors will collect and disseminate data on the Earth's weather, atmosphere, oceans, land, and near space environment. The sensors also will be able to monitor the entire planet and provide data for long-range weather and climate forecasts in a more timely and accurate manner. The CMIS sensor will collect global microwave radiometry and sounding data to produce microwave imagery and other meteorological and oceanographic data for military and civilian use.



Figure 1. NPOESS with CMIS and Other Sensors

CMIS Awards and Protest. The IPO implemented the CMIS acquisition strategy in two phases. Phase I, “Sensor Definition and Risk Reduction,” addressed CMIS sensor payload and algorithm development up to preliminary design review. On July 30, 1997, the Air Force awarded Phase I contracts to both Boeing Satellite Systems (BSS) and Ball Aerospace and Technologies Corporation (BATC). Phase II, “Detailed Design and Fabrication,” addressed continued sensor development up to critical design review and delivery of six CMIS sensor units. On July 30, 2001, the Air Force awarded the Phase II contract to BSS over BATC. On August 9, 2001, BATC contested the CMIS Phase II contract award and filed a complaint with the Government Accountability Office (GAO) Procurement Law Control Group stating that the Government significantly violated applicable regulations, thereby severely prejudicing BATC. On September 21, 2001, BATC abruptly withdrew its GAO protest of the CMIS award, citing business reasons. See the Appendix B for a detailed description of the CMIS Phase II source selection process.

Darlene Druyun Case. On April 20, 2004, Darlene Druyun, Principal Deputy Assistant Secretary of the Air Force, Acquisition and Management entered a guilty plea in Federal court for conspiring with Boeing Corporation’s¹ (Boeing) chief financial officer to help Boeing win a multi-billion dollar airplane tanker leasing contract. Druyun admitted in a post-plea agreement with the Government that she gave Boeing preferential treatment on numerous other contracts as well. On February 11, 2005, the Acting Under Secretary of Defense for Acquisition, Technology, and Logistics referred eight Air Force contract awards made by Druyun, including the CMIS Phase II contract award for which Druyun was the Source Selection Authority (SSA), to the DoD OIG for audit.

Objective

Our audit objective was to determine whether the National Polar-Orbiting Operational Environmental Satellite System - Conical Microwave Imager Sensor (NPOESS-CMIS) was procured in accordance with the Federal Acquisition Regulation (FAR). The scope of our audit was limited to source selection for the CMIS Phase II contract. See Appendix A for a discussion of the scope and methodology and prior coverage related to the objective.

Managers’ Internal Control Program

DoD Directive 5010.38, “Management Control Program,” August 26, 1996, and DoD Instruction 5010.40, “Management Control Program Procedures,” August 28, 1996, require DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls. We did not review the Air Force management control program because the audit focused on determining whether the CMIS contract was awarded in accordance with the

¹ Parent corporation of Boeing Satellite Systems.

FAR. We did, however, become aware of internal control weaknesses over the source selection process. Recommendations 1., 2., and 3. should help to strengthen those controls.

CMIS Phase II Contract Award

The Air Force did not award the CMIS Phase II contract in accordance with the FAR. Specifically, the SSA for the CMIS Phase II contract award:

- lacked impartiality with respect to the contract award winner, BSS, and
- manipulated complex proposal evaluation ratings to benefit BSS' contract proposal and hinder BATC's contract proposal.

In addition, source selection personnel did not adequately document the evaluation of the offerors' proposals and used undefined and inconsistently applied evaluation ratings in the source selection reporting process. Also, source selection personnel chose significantly more relevant contracts from BATC than relevant contracts from BSS for the past performance evaluation of the source selection process.

These conditions occurred because the Air Force did not ensure the implementation of appropriate FAR and Air Force policies and procedures for: the impartial, fair, and equitable treatment of the contract offerors; sufficient documentation to support actions taken; and precise proposal evaluation reporting. Also, Air Force policy on past performance evaluation methodology does not address when there are significant disparities in past performance experience between offerors. As a result, the Air Force unfairly awarded the \$317 million CMIS Phase II contract to BSS.

CMIS Phase II Source Selection Plan

In accordance with FAR Part 15 and Air Force Federal Acquisition Regulation Supplement (AFFARS) Part 5315, the Air Force prepared and executed requirements set forth in the Source Selection Plan (SSP), "National Polar-Orbiting Operational Environmental Satellite System – Sensor Payload & Algorithm Development Down-Selection for the Conical Microwave Imager/Sounder," January 2, 2001. The SSP listed the CMIS Phase II source selection organization and explained how each offeror's proposal was to be evaluated. See Appendix B for detailed information on the CMIS Phase II source selection plan.

CMIS Source Selection Ratings

The Air Force did not award the NPOESS-CMIS contract in accordance with the FAR. The CMIS Phase II SSA lacked impartiality with respect to the contract award winner, BSS, and manipulated the complex proposal evaluation ratings to benefit the BSS contract proposal and hinder the BATC contract proposal. In

addition, source selection personnel did not adequately document the evaluation of the offerors' proposals and used undefined and inconsistently applied evaluation ratings in the source selection reporting process. Also, source selection personnel chose significantly more relevant contracts from BATC than relevant contracts from BSS for the past performance evaluation of the source selection process.

SSA Impartiality. FAR Part 3, "Improper Business Practices and Personal Conflicts of Interest," states that "government business shall be conducted in a manner above reproach and with complete impartiality and with preferential treatment for none. The general rule is to avoid strictly any conflict of interest or even the appearance of a conflict of interest." However, the SSA lacked impartiality with respect to BSS in the CMIS Phase II source selection. In late 2000, the SSA's daughter and future son-in-law were hired to work at Boeing. In the United States District Court for the Eastern District of Virginia, "Supplemental Statement of Facts," for criminal case #04-150-A, the SSA acknowledged that Boeing's employment of her daughter and future son-in-law was at the SSA's request, and their employment influenced her decisions in matters affecting Boeing. The SSA's daughter and future son-in-law were still employed by Boeing during the CMIS Phase II source selection process. FAR Part 3 also states that the official conduct of Government personnel must be such that they would have no reluctance to make a full public disclosure of their actions. However, the contracting officer did not provide a required signed Conflict of Interest statement and Nondisclosure Agreement for the SSA. In this environment, the SSA could not be relied on to make an objective assessment of the CMIS Phase II source selection.

Changes to Final Evaluation Ratings. The SSA manipulated the final proposal evaluation ratings to benefit the BSS contract proposal and hinder the BATC contract proposal. In late June 2001, the Source Selection Evaluation Team (SSET) completed its final evaluation of the BATC and BSS proposals and prepared the Proposal Analysis Report with the final evaluation matrix (Table 1). The final evaluation matrix for both offerors showed that BATC was rated better in the significantly more important Mission Capability factor, while BSS was rated better in the less important Proposal Risk and Cost factors. Both BATC and BSS were given "Significant Confidence" ratings in the significantly more important Past Performance factor.

Table 1. Final SSET Evaluation Matrix (data obtained from Proposal Analysis Report)										
	BATC (Ball)					BSS (Boeing)				
Subfactors Factors	System Optimization	Sensor Design	Algorithm	SEIT	Program Execution	System Optimization	Sensor Design	Algorithm	SEIT	Program Execution
Past Performance High Confidence, Significant Confidence, Confidence, Little Confidence, No Confidence	Significant Confidence					Significant Confidence				
Mission Capability Blue (Exceptional), Green (Acceptable), Yellow (Marginal), Red (Unacceptable)	Blue*	Blue	Green	Blue	Green	Green*	Green	Green*	Green	Green
Proposal Risk High, Moderate High, Moderate, Low Moderate, Low	Moderate High	Moderate High	Moderate*	Low	Low	Low	Moderate	Low*	Moderate	Low
Cost	Proposed \$308.4M		PC** \$319.9M		Proposed \$309.1M	PC \$316.6M				
			Reasonable	Realism		Reasonable	Realism			
*SSET Ratings chosen and tasked by SSA for SSAC review										
**Probable Cost										

On June 29, 2001, the SSET and Source Selection Advisory Council (SSAC) briefed the SSA on the CMIS Phase II final proposal evaluation ratings documented in the Proposal Analysis Report. At the briefing, the attendees concluded that the BSS and BATC proposals were very close and that there was no consensus winner for the CMIS source selection. The SSA tasked the SSAC to address the basis of five specific SSET subfactor ratings (shaded ratings in Table 1). On July 9, 2001, the SSAC responded in the SSAC Addendum to the Proposal Analysis Report by concurring with the SSET basis on four of the five subfactor ratings and non-concurring with one rating. The SSA reviewed the SSAC response along with the Proposal Analysis Report and SSAC Addendum and made changes to the proposal ratings for both BSS and BATC (Table 2). On July 30, 2001, the SSA made the CMIS Phase II source selection and chose BSS over BATC.

Table 2. SSA Actions on Selected Subfactor Ratings (data obtained from SSAC Addendum to Proposal Analysis Report and Source Selection Decision Document)				
Offeror	Factor/ Subfactor	SSET Conclusion	SSAC Conclusion	SSA Change
1 – BATC	Proposal Risk/ Algorithm	Moderate Risk	Concur	Raised to Moderate-High
2 – BATC	MC*/System Optimization	Blue	Concur	Lowered to Green
3 – BSS	MC/System Optimization	Green	Concur	Raised to Blue
4 – BSS	MC/ Algorithm	Green	Raised to Blue	Accepted Change
5 – BSS	Proposal Risk/ Algorithm	Low Risk	Concur	Accepted
*Mission Capability				

From our analysis of the SSA briefing notes, Proposal Analysis Report, SSAC Addendum to the Proposal Analysis Report, and Source Selection Decision Document, we identified the following examples of how the SSA manipulated the final proposal ratings for both BSS and BATC.

SSAC Analysis of SSET Ratings. The SSA selectively accepted or rejected SSAC conclusions of specific SSET subfactor ratings to improve the BSS proposal or detrimentally affect the BATC proposal. The CMIS sensor is the most complex sensor on the NPOESS satellite. The CMIS SSET subfactor evaluation teams who reviewed the BATC and BSS proposals were headed by non-Government personnel who were members of the Federally Funded Research and Development Corporation. The members of the System Optimization and Algorithm subfactor teams were doctoral-degreed personnel with expertise in the space science field. The SSAC concurred with the SSET basis for four of the five subfactor ratings and non-concurred with one rating. However, in making the source selection decision, the SSA disregarded the advice of both the SSET and SSAC and changed three of the subfactor ratings, even though the SSAC concurred with the basis of the SSET ratings for these subfactors (Table 2, Rows 1-3). In contrast, the SSA accepted a SSAC finding to non-concur with the SSET and raise the BSS Algorithm subfactor rating (Table 2, Row 4). The common theme was that in these four situations, the BSS proposal was improved or the BATC proposal was weakened. On the fifth item, the SSA accepted the SSET and SSAC concurrence on the BSS Algorithm Proposal Risk subfactor rating of low risk (Table 2, Row 5). However, the SSA had stated in the June 29, 2001 decision briefing that the BSS Science Algorithm proposal was a strength, calling into question why the SSA would task the SSAC to address this area in the first place.

Other SSET Ratings. The SSA did not address the basis of an SSET subfactor rating for BSS with significant weaknesses that could have led to a detrimental ratings change for BSS. The SSET stated in the Proposal Analysis

Report that BSS had two significant weaknesses in the Systems Engineering, Integration, and Testing (SEIT) subfactor—one significant weakness was in an area that BSS did not adequately explain and the other significant weakness was in an area that BSS incompletely characterized because it did not seem to understand the particular requirements of the SEIT subfactor. The SSET also stated that BSS had a third, though not significant, weakness in SEIT. The SSET gave BSS a “Moderate” Proposal Risk rating for SEIT. Yet, the SSA did not task the SSAC to address the basis for the SSET’s “Moderate” rating instead of possibly a “Moderate-High” rating in light of the significant weaknesses. In contrast, the SSA tasked the SSAC to question the basis of the SSET’s rating for BSS’ Science Algorithms subfactor with only two insignificant weaknesses (Table 2, Row 5). At the SSA decision briefing, the SSA stated that BSS’ Science Algorithm subfactor was a strength.

Past Performance Evaluation. The SSA did not address an SSET concern about the disparity in number of contracts reviewed in the CMIS Phase II Past Performance evaluation. The Proposal Analysis Report included a statement that BATC had significantly more “highly relevant” contract experience, “leading to more areas for the Government to find problems” with BATC’s past performance. The SSA did not address this concern with either the SSET or SSAC. In making the source selection decision, the SSA lowered BATC’s Past Performance rating from “Significant Confidence” to “Confidence” primarily on the basis of what the SSET called a slight ratings difference between BSS and BATC in the Science Algorithm area of the Past Performance evaluation.

Source Selection Plan Requirements. The SSA misinterpreted requirements in the SSP that benefited the BSS proposal. The SSP stated that in rating the offerors’ proposals, the Mission Capability Factor was to be significantly more important than the Proposal Risk Factor. However, in making the source selection decision, the SSA concluded that BSS had a better overall sensor design than BATC because the advantage of BSS over BATC (Moderate versus Moderate-High risk) in the sensor design Proposal Risk Factor offset the advantage of BATC over BSS (blue versus green) in sensor design Mission Capability Factor. This logic contradicts proposal evaluation instructions set forth in the SSP.

The SSA decisions made regarding the SSET’s final proposal ratings appear to favor BSS over BATC and call into question the SSA’s impartiality with respect to the CMIS Phase II source selection process. Table 3 shows an evaluation matrix after the SSA’s changes.

Table 3. Evaluation Matrix after SSA Changes (data obtained from Source Selection Decision Document)										
Subfactors Factors	BATIC (Ball)					BSS (Boeing)				
	System Optimization	Sensor Design	Algorithm	SEIT	Program Execution	System Optimization	Sensor Design	Algorithm	SEIT	Program Execution
Past Performance High Confidence, Significant Confidence, Confidence, Little Confidence, No Confidence	Confidence					Significant Confidence				
Mission Capability Blue (Exceptional), Green (Acceptable), Yellow (Marginal), Red (Unacceptable)	Green	Blue	Green	Blue	Green	Blue	Green	Blue	Green	Green
Proposal Risk High, Moderate-High, Moderate, Low Moderate, Low	Moderate High	Moderate High	Moderate High	Low	Low	Low	Moderate	Low	Moderate	Low
Cost	Proposed \$308.4M		PC \$319.9M			Proposed \$309.1M		PC \$316.6M		
			Reasonable		Realism			Reasonable		Realism

Supporting Documentation. Source selection personnel did not adequately document evaluation results in the source selection reporting process. FAR Part 4, Subpart 4.801(b) states that, “documentation in the contract files shall be sufficient to constitute a complete history of the transaction for the purpose of providing a complete background as the basis for informed decisions at each step in the acquisition process and supporting actions taken.” SSET and SSAC personnel prepared the Proposal Analysis Report to document the results of the evaluations and comparative analysis of offerors’ proposals. Although supporting documentation was available in the CMIS Phase II contract files, we were unable to trace the final proposal evaluation ratings in the Proposal Analysis Report back to supporting documentation in the contract files because of the lack of a clear audit trail. Also, the SSA documented the contract award selection of BSS in the Source Selection Decision Document, but did not provide specific support for why she changed three of the subfactor ratings—ratings that both the SSAC and SSET agreed on.

Source Selection Reporting. Source selection personnel also used undefined and inconsistently applied evaluation ratings in the source selection reporting process. For example, the SSAC used an undefined color code rating to rate a subfactor in the SSAC Addendum to the Proposal Analysis Report. As stated in the SSP, the color codings for the subfactor evaluation ratings for the Past Performance and Mission Capability factors were: “Blue,” “Green,” “Yellow,” and “Red.” However, the SSAC gave BSS a “High Green” to rate a subfactor in the SSAC Addendum to the Proposal Analysis Report. In reviewing lessons learned from the CMIS source selection, the Air Force acknowledged that the use

of shades of colors could cause problems in interpreting proposal conclusions. In another example, the SSET made an inconsistent statement in summarizing the BSS proposal in the Proposal Analysis Report. The SSET gave BSS “Green” or acceptable ratings for each of the System Optimization and Algorithm subfactors. However, in the Proposal Analysis Report summary, the SSET stated that BSS was rated “Blue” or exceptional for the same subfactors.²

Past Performance. Source selection personnel chose significantly more relevant contracts from BATC than relevant contracts from BSS for the past performance factor evaluation of the source selection process. The SSET Chairperson appointed the Performance Risk Assessment Group (PRAG) to evaluate relevant current and past performance to assess confidence in the ability of each offeror to meet the requirements of the source selection. In total, the PRAG chose 33 BATC and BATC subcontractor contracts, compared to 13 BSS and BSS subcontractor contracts for the past performance evaluation (see Table 4).

Table 4. Quantity of Contracts Chosen for Past Performance Evaluation (BATC had seven subcontractors and BSS had five subcontractors considered for the CMIS project)			
Offeror	Prime	Sub-Contractor	Total
BATC	13	20	33
BSS	8	5	13

The Proposal Analysis Report included a statement that the significant disparity in past contract experience led “to more areas for the Government to find problems” with BATC’s past performance. Auditors were unable to determine the intent of the statement because of a lack of supporting documentation. In addition, SSET personnel interviewed could not recall specifics about the statement. While auditors saw no evidence that the significant disparity in past contract experience was prejudicial to BATC’s past performance evaluation ratings, such disparities could be prejudicial to contract offerors in other closely matched source selections. In making the CMIS source selection decision, the SSA downgraded BATC’s entire Past Performance evaluation rating from “Significant Confidence” to “Confidence” primarily on the basis of what the SSET called a slight ratings difference in the Science Algorithm area (see Table 3).³

² These two BSS subfactor ratings were also changed by the SSA from “Green” to “Blue” after the source selection briefing.

³ The CMIS Past Performance evaluation covered six areas: the five Mission Capability subfactors (System Optimization, Sensor Design, Science Algorithm, SEIT, and Program Execution) and Cost Performance.

Air Force Implementation of Policies and Procedures

The Air Force did not ensure the implementation of appropriate FAR and Air Force policies and procedures for the impartial, fair, and equitable treatment of contract offerors; sufficient documentation to support actions taken; and precise proposal evaluation reporting. In addition, Air Force policy on past performance evaluation for source selections does not provide a methodology to address when there are significant disparities in past performance experience between offerors.

Treatment of Contract Offerors. The Air Force did not ensure the implementation of policies and procedures for the fair, impartial, and equitable treatment of contract offerors. FAR Part 1, Subpart 602-2, “Contracting Officer Responsibilities,” states that contracting officers are responsible for ensuring performance of all necessary actions for effective contracting and for safeguarding the interests of the United States in its contractual relationships. In order to perform these responsibilities, contracting officers should be allowed wide latitude to exercise business judgment and shall:

- ensure that all requirements of law, executive orders, regulations, and all other applicable procedures, including clearances and approvals, have been met before a contract shall be entered into;
- ensure that contractors receive impartial, fair, and equitable treatment; and
- request and consider the advice of specialists in audit, law, and other fields, as appropriate.

However, the CMIS contracting officer did not invoke FAR Part 1 to investigate the following circumstances that could have provided the basis to call into question the SSA’s impartiality with respect to the CMIS Phase II source selection.

- The SSA did not complete a Conflict of Interest Statement or Non-Disclosure Agreement.
- The SSA changed specific evaluation ratings to benefit one offeror over the other.
- The position of the SSA’s immediate superior, Assistant Secretary of the Air Force for Acquisition and Management, was vacant during the final 2 months of the source selection process, and thus the SSA was acting in that role.

Training contracting officers to ensure familiarity with their responsibilities and authority will help them be alert to suspicious circumstances in source selection actions.

Documentation of Supporting Actions. The Air Force did not ensure the implementation of policies and procedures for sufficient documentation to support actions taken by source selection personnel. Although there appeared to be

supporting documentation available in the CMIS Phase II contract files, we were unable to validate the final proposal evaluation ratings in the Proposal Analysis Report by tracing final evaluation data back to supporting documentation because of the lack of a clear audit trail. The lack of a clear audit trail calls into question the validity of information provided in the Proposal Analysis Report and used by the SSA to document the source selection decision for the CMIS Phase II contract award. Incorporating guidance into Air Force policy to require an audit trail that will support source selection findings will help to ensure a complete history of the source selection process.

Evaluation Reporting. AFFARS 5315, Part 5315.304, Air Force Informational Guidance 5315.305, “Proposal Evaluation,” July 6, 2000, states that the Proposal Analysis Report narrative assessment of the offerors’ proposal evaluations must be precise. However, the CMIS Phase II Proposal Analysis Report and SSAC Addendum to the Proposal Analysis Report included undefined and inconsistently applied color ratings. These types of errors could lead to evaluation interpretation problems and mislead the SSA when making source selection decisions. Implementing an independent quality review of relevant source selection documents will help to minimize evaluation reporting errors.

Past Performance Methodology. Air Force policy on past performance evaluation for source selections does not provide a methodology to address situations when there are significant disparities in past performance experience between offerors. In total, the PRAG chose 33 BATC and BATC subcontractor contracts, compared to 13 BSS and BSS subcontractor contracts for the CMIS Phase II past performance evaluation. The Proposal Analysis Report included a statement that the significant disparity led “to more areas for the Government to find problems” with BATC’s past performance. We did not identify Air Force procedures that take into account situations when a disparate number of contracts are chosen for past performance evaluations of offerors. However, in a source selection as close as the CMIS Phase II source selection, significant disparities in past performance experience can lead the SSA to prejudicially rate an offeror for past performance. Adding methodology to Air Force policy to address situations when there are any significant disparities between offerors will help to ensure a fair and balanced past performance evaluation in the source selection process.

Summary

The Air Force did not award the CMIS Phase II contract in accordance with the FAR. The Air Force did not ensure implementation of appropriate FAR and Air Force policies and procedures for: the impartial, fair, and equitable treatment of contract offerors; sufficient documentation to support actions taken; and precise proposal evaluation reporting. In addition, Air Force policy on past performance evaluation for source selections does not provide a methodology to address situations when there are significant disparities in past performance experience between offerors. As a result, the Air Force unfairly awarded the \$317 million CMIS Phase II contract to Boeing Satellite Systems.

Recommendations, Management Comments, and Audit Response

We recommend that the Assistant Secretary of the Air Force (Acquisition and Management):

1. Establish a source selection oversight process that will ensure:

a. Contracting officers' familiarity with their authority and responsibilities set forth in FAR Part 1, Subpart 1.6.

Management Comments. The Military Deputy, Office of the Assistant Secretary of the Air Force (Acquisition) concurred and stated that in response to previous audits and recommendations of the Defense Science Board Task Force, the Air Force has updated contract clearance procedures to ensure additional oversight and independent review of contract actions. This oversight will always be at least one level above the contracting officer to ensure that the procedures in FAR Part 1, Subpart 1.6, as well as all other relevant contracting policies are being followed. These procedures were updated in Air Force Acquisition Circular (AFAC) 2005-0810 on August 10, 2005.

Audit Response. Management comments are responsive. AFAC 2005-0810, effective September 10, 2005, updated Air Force procedures.

b. Independent qualitative review of relevant source selection documents.

Management Comments. The Military Deputy, Office of the Assistant Secretary of the Air Force (Acquisition) concurred and stated that in addition to the clearance process changes addressed in response to Recommendation 1.a., the Air Force recently updated legal review responsibilities to ensure the participation of supporting legal offices to provide advice and coordination for source selection decisions, and to review key documents, including those involving source selection. This change to the legal review procedures was issued in AFAC 2006-0329 on March 29, 2006.

Audit Response. Management comments are responsive. The implementation of the revised guidance began on May 1, 2006.

2. Update Air Force policy to require an audit trail to support source selection findings.

Management Comments. The Military Deputy, Office of the Assistant Secretary of the Air Force (Acquisition) concurred and stated that, as discussed in Recommendation 1.a., AFAC 2005-0810 incorporated several changes to the source selection process. The changes included a requirement for the source selection evaluation team (SSET) to provide a source selection recommendation to the source selection authority (SSA). Other changes included the retention of all relevant records supporting the SSET recommendation to ensure there is an audit trail of source selection evaluations after the information is presented in any form to the SSA.

Audit Response. Management comments are partially responsive. AFAC 2005-0810 added the retention of records requirement to AFFARS Mandatory Procedures 5315.3. However, this requirement does not address the need for a sufficient audit trail. We request that the Air Force add a statement to AFFARS Mandatory Procedures 5315.3 requiring that an audit trail exist between source selection conclusions and their supporting records.

3. Update past performance evaluation guidance to include methodology to address when there are significant disparities in past performance experience between offerors.

Management Comments. The Military Deputy, Office of the Assistant Secretary of the Air Force (Acquisition) nonconcurred and stated that:

In this case, the audit team found no such evidence, nor has any difficulty of this type been reported to SAF/AQC on other source selections. Regardless of the quantity of specific past performance experiences a contractor may have, the evaluation is based on contractor past performance as a whole, and not by comparing specific quantities of performance experiences for individual contractors.

Audit Response. Management comments are partially responsive. We agree that the evaluation of source selections should be based upon contractor performance as a whole. We also agree that, in this case, we found no evidence of prejudice in the past performance evaluation based on the number of contract experiences considered. However, in other source selections, significant disparities in past performance experiences could lead the SSA to prejudicially rate an offeror for past performance. For example, using the current methodology, offeror A could be detrimentally affected in a source selection where offeror A was found to have two significant weaknesses in 33 past contracts reviewed compared to offeror B, who was found to have one significant weakness in 13 past contracts reviewed. In an otherwise even source selection evaluation, the SSA could conclude that offeror B was the better offeror because it had only one significant weakness compared to two significant weaknesses for offeror A in past performance. Past performance evaluation methodology needs to consider the impact of past performance strengths and weaknesses in proper proportion to the population of past performance experiences reviewed.

In addition, the Air Force statement that no difficulties with past performance evaluations have been reported to SAF/AQC on other source selections provides little assurance that the difficulties would be identified in the absence of an independent source selection review process (the Air Force addressed procedures to improve the review process in response to Recommendations 1.a. and 1.b.). Thus, we request that the Air Force reconsider its position and provide additional comments on the final report.

Appendix A. Scope and Methodology

We reviewed CMIS Phase I and Phase II source selection documentation as well as CMIS Phase II protest documentation contained in files located at the Air Force Space and Missile Systems Center (SMSC) in Los Angeles, California. Specifically, we reviewed and analyzed SSA changes made to the SSET and SSAC evaluation ratings of the prospective offerors, Boeing Satellite Systems and Ball Aerospace, and Technologies Corporation. Further, we interviewed available CMIS Phase II SSET and SSAC representatives located at the SMSC and IPO, as well as Defense Contract Management Agency representatives.

We performed this audit from April 2005 through February 2006 in accordance with generally accepted government auditing standards. Our scope was limited in that we did not include tests of management controls because the Under Secretary of Defense requested that we specifically review the NPOESS-CMIS contract.

Use of Computer-Processed Data. We did not use computer-processed data to perform this audit.

Government Accountability Office High-Risk Area. The Government Accountability Office has identified several high-risk areas in DoD. This report provides coverage of the contract management high-risk area.

Prior Coverage

During the last 5 years, the Government Accountability Office (GAO) and the Defense Contract Management Agency have issued two reports and one memorandum related to NPOESS. In addition, the Office of the Secretary of Defense has issued one report related to management oversight of the acquisition process. Unrestricted GAO reports can be accessed over the Internet at <http://www.gao.gov>.

GAO

Report No. GAO-06-249T, "Polar-Orbiting Operational Environmental Satellites: Technical Problems, Cost Increases, and Schedule Delays Trigger Need for Difficult Trade-off Decisions," November 16, 2005

Report No. GAO-01-1054, "Polar-Orbiting Environmental Satellites – Information on Program Cost and Schedule Changes," September 30, 2004

Office of the Secretary of Defense

Defense Science Board Task Force Report, "Management Oversight in Acquisition Organizations," March 2005

Defense Contract Management Agency

Anomaly Memorandum, "National Polar-Orbiting Operational Environmental
Satellite System – Conical Microwave Imager/Sensor," March 2005

Appendix B. CMIS Phase II Source Selection Plan

The CMIS Phase II source selection was conducted in accordance with the CMIS Source Selection Plan (SSP), “National Polar-Orbiting Operational Environmental Satellite System – Sensor Payload & Algorithm Development Down-Selection for the Conical Microwave Imager/Sounder,” on February 22, 2001 and approved by the SSA. The source selection team used FAR Part 15 and AFFARS Part 5315 as guidance throughout the acquisition process.

Organization. The CMIS Phase II source selection organization consisted of the following:

- SSA. Official designated to make the source selection decision and document the decision in the Source Selection Decision Document.
- Source Selection Advisory Council (SSAC). A group of senior Government personnel who provided counsel during the source selection process and prepared a comparative analysis of the SSET’s evaluation results in the Proposal Analysis Report.
- SSET. A group of Government and non-Government personnel who evaluated proposals and prepared the Proposal Analysis Report to report findings to the SSAC and the SSA. SSET personnel represented the various functional disciplines relevant to the acquisition.
- Non-Government Personnel. Non-Government advisory organizations that participated in the source selection. The expertise of personnel from these organizations – members of the Federally Funded Research and Development Corporation were required to support the evaluation of the various functional disciplines associated with the evaluation factors and evaluation concepts.

Evaluation of Proposals. The SSET evaluated the offerors based on the following evaluation factors.

- Past Performance (Factor 1). Relevant current and past performance to consider the demonstrated record of performance of the offeror’s team in supplying products and services that meet users’ needs, including cost and schedule.
- Mission Capability (Factor 2). Offeror’s ability to satisfy the Statement of Objectives through a comprehensive and sound program approach.
- Proposal Risk (Factor 3). Risk associated with the offeror’s proposed approach in accomplishing the requirements of the SSP.

-
- Cost (Factor 4). Realism of the compatibility of the proposed cost with the proposal scope and efforts, ground rules and assumptions, and schedule. Reasonableness of the offeror's proposal.

Factor 1 was of equal importance to Factor 2, and Factor 3 was of equal importance to Factor 4. Factors 1 and 2 were significantly more important than Factors 3 and 4.

In addition, the SSET evaluated the following subfactors within Factors 1, 2, and 3:

- System Optimization (Subfactor 1). Compatibility with the offeror's Integrated Master Plan, Integrated Master Schedule, and the Government's budget estimate profile, and the projected performance of the offeror's system (sensor and algorithms) in meeting assigned Environmental Data Records.
- Sensor Design (Subfactor 2). Offeror's ability to build an instrument that will meet the requirements described in its performance specification.
- Science Algorithm and Associated Research Grade Code Development (Science Algorithm) (Subfactor 3). Offeror's compliance with the Sensor Requirements Document and derived EDR sensor inputs.
- System Engineering, Integration, and Test (SEIT) (Subfactor 4). Soundness of the offeror's approach to SEIT.
- Program Execution (Subfactor 5). Offeror's ability to identify and balance performance, cost, schedule, and risk mitigation efforts for the detailed design and fabrication phase.

The SSET Performance Risk Assessment Group (PRAG) evaluated offerors' past performance relevancy at the five subfactor levels, as well as cost performance for the Past Performance Factor (Factor 1) evaluation. The SSET Mission Capability and Proposal Risk Factor teams evaluated and rated the five subfactors separately within the Mission Capability Factor (Factor 2), and assessed a Proposal Risk Factor (Factor 3) rating that characterized the risk associated with the offeror's proposed approach in accomplishing the requirements of the SSP. The SSET Cost Factor (Factor 4) evaluators assessed the offerors' proposed cost based on realism and reasonableness. Subfactors 1 and 2 were equal and most important. Subfactors 3, 4, and 5 were of equal importance and were individually less important than subfactors 1 and 2.

Appendix C. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
Director, Acquisition Resources and Analysis
Under Secretary of Defense (Comptroller)/Chief Financial Officer
Deputy Chief Financial Officer
Deputy Comptroller (Program/Budget)
Director, Program Analysis and Evaluation
Director, Defense Procurement and Acquisition Policy
Assistant Secretary of the Army (Financial Management and Comptroller)

Department of the Navy

Naval Inspector General
Auditor General, Department of the Navy
Commander, Marine Corps Logistics Command

Department of the Air Force

Assistant Secretary of the Air Force (Acquisition)
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Department of the Air Force

Combatant Command

Inspector General, U.S. Joint Forces Command

Other Defense Organizations

Director, Defense Contract Management Agency

Non-Defense Federal Organization

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Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Reform
House Subcommittee on Government Efficiency and Financial Management, Committee on Government Reform
House Subcommittee on National Security, Emerging Threats, and International Relations, Committee on Government Reform
House Subcommittee on Technology, Information Policy, Intergovernmental Relations, and the Census, Committee on Government Reform

Department of the Air Force Comments



OFFICE OF THE ASSISTANT SECRETARY

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

30 MAY 2006

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL
ATTN: DEPUTY INSPECTOR GENERAL FOR AUDITING

FROM: SAF/AQ

SUBJECT: Draft Audit Report, Dated 20 Apr 06, Project No. D2005-D000FE-0168
Source Selection for the National Polar-Orbiting Operational Environmental
Satellite System – Conical Microwave Imager/Sounder (NPOESS-CMIS)

Thank you for the time and effort your team invested in examining the NPOESS-CMIS source selection. I also appreciate their willingness to meet with my staff to discuss the draft report. Our comments are as follows:

a. Recommendation 1(a) - Concur. In response to previous audits and recommendations of the Defense Science Board Task Force, we have updated our contract clearance procedures to ensure additional oversight and independent review of contract actions. This oversight will always be at least one level above the contracting officer to ensure procedures in Federal Acquisition Regulation (FAR) Part 1, Subpart 1.6, as well as all other relevant contracting policies are being followed. These procedures were updated via Air Force Acquisition Circular (AFAC) 2005-0810 on 10 Aug 05.

b. Recommendation 1(b) - Concur. In addition to the clearance process changes addressed in response to 1(a) above, we recently updated our legal review procedures to ensure legal participation and review of key documents including all source selection documentation. This change to our legal review procedures was issued via AFAC 2006-0329 on 29 Mar 06.

c. Recommendation 2 - Concur. As discussed in the first recommendation, AFAC 2005-0810 made several changes to the source selection process. The changes included a requirement for the source selection evaluation team (SSET) to provide a source selection recommendation to the source selection authority (SSA). Other changes included the retention of all relevant records supporting the SSET recommendation to ensure there is an audit trail of source selection evaluations after the information is presented in any form to the SSA.

d. Recommendation 3 - Non-concur. The basis for this recommendation is unclear and it appears to be speculative. The recommendation seems to be based on a single statement in the proposal analysis report (PAR) that a significant disparity in past contract experience led "to more areas for the Government to find problems" with Ball Aerospace and Technologies Corporation's past performance. In particular the audit stated that: a) the auditors could not determine the intent of the PAR provision; b) SSET personnel could not recall any specifics about such provision; and c) the auditors found no evidence that the disparity in past performance experience was prejudicial to past performance ratings or the evaluation. However, having identified no prejudice in the past performance evaluation based on the number of contract experiences considered, the audit goes on to suggest that perhaps significant disparities in past contract experience could lead to a prejudicial evaluation. In this case, the audit team found no such evidence, nor has any difficulty of this type been reported to SAF/AQC on other source selections. Regardless of the quantity of specific past performance experiences a contractor may have, the evaluation is based on contractor past performance as a whole, and not by comparing the number received or obtained for individual contractors. The goal is to obtain and evaluate relevant and recent past performance and this is what our guidance describes. Please refer to our Past Performance Evaluation Guide dated July 05 located at <https://134.205.252.194/saf/aq/contracting/guides/#P>.

The SAF/AQ staff stands ready to assist in any way to ensure all concerns are addressed prior to the final report publication. My point of contact is Lt Col Julian Thrash, and he may be reached at either julian.thrash@pentagon.af.mil or 703-588-7075.



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