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Contracting Practices at Air Force Laboratory Facilities

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Acronyms

AFMC	Air Force Materiel Command
AFRL	Air Force Research Laboratory
COTR	Contracting Officer Technical Representative
DARPA	Defense Advanced Research Programs Agency
FAR	Federal Acquisition Regulation
MOASP	Management and Oversight of Acquisition of Services Processes
PNM	Price Negotiation Memorandum
QASP	Quality Assurance Surveillance Plan



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

September 28, 2007

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,
TECHNOLOGY, AND LOGISTICS
ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE AIR FORCE
(ACQUISITION)

SUBJECT: Report on Contracting Practices at Air Force Laboratory Facilities
(Report No. D-2007-130)

We are providing this report for review and comment. We received comments on a draft of this report from the Assistant Secretary of the Air Force (Acquisition). The Assistant Secretary's comments on the draft of this report conformed to the requirements of DoD Directive 7650.3. We considered the Assistant Secretary's comments on the draft of this report in preparing the final report.

As a result of the Assistant Secretary's management comments, we revised and redirected report Recommendation B. We request that the Assistant Secretary of the Air Force (Acquisition) comment on the revised Recommendation B. by October 29, 2007.

We request that management provide comments that conform to the requirements of DoD Directive 7650.3. If possible, please send management comments in electronic format (Adobe Acrobat file only) to AUDACM@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 Mr. Benjamin A. Mehlman at (703) 604-9291 (DSN 664-9291) or Mr. Michael E. Simpson at (703) 604-8972 (DSN 664-8972). 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, reading "Richard B. Jolliffe", is positioned above the printed name.

Richard B. Jolliffe
Assistant Inspector General
Acquisition and Contract Management

Department of Defense Office of Inspector General

Report No. D-2007-130

(Project No. D2006-D000AB-0217.000)

September 28, 2007

Contracting Practices at Air Force Laboratory Facilities

Executive Summary

Who Should Read This Report and Why? DoD procurement and contracting personnel involved with contracting at DoD laboratory facilities should read this report. This report discusses the need for contracting personnel to improve the award, administration, and monitoring of contracts at Air Force laboratories.

Background. DoD laboratories are operated and managed by the Military Departments to conduct research and development and to support acquisition. One of the main functions performed by the DoD laboratories is science and technology research. Science and technology research includes basic research, applied research, and advanced technology development. Basic and applied research are broadly stated areas of scientific study. Advanced technology development includes concept and technology demonstrations of components and subsystems or system models. In FY 2006 the DoD budget for science and technology programs totaled \$13.3 billion.

The Air Force Research Laboratory is responsible for planning and executing the Air Force science and technology program budget (\$2.4 billion in FY 2006) including basic research, applied research, and advanced technology development. The Air Force Research Laboratory was formed in 1997 through the consolidation of four former Air Force laboratories and the Air Force Office of Scientific Research. This audit reviewed the management of research and development contracts at Air Force laboratories. We reviewed 20 contracts valued in excess of \$828 million.

Results. The Air Force Research Laboratory did not place adequate emphasis on monitoring contracts at the research labs and did not develop a quality assurance surveillance plan or appoint a contracting officer's technical representative to perform surveillance on any of the 20 research and development contracts we reviewed. While contractors generally submitted project, technical, and fund status reports required by contract, there was no assurance that Government personnel were delegated the authority and responsibility to analyze and act on the contractor reports. The Air Force Research Laboratory had a material internal control weakness regarding oversight and surveillance of the 20 research and development contracts reviewed during this audit. As a result, the laboratories put the Government at risk of spending more than necessary. The Air Force should establish guidance that each Air Force Research Laboratory develop a quality assurance surveillance plan for each contract to reduce the risk of the Government paying more for services than the value received and to ensure surveillance responsibilities are being carried out. In addition, the guidance should clearly define the roles and responsibilities of contracting personnel to include appointing a trained contracting officer's technical representative to monitor laboratory contracts. (See finding A for the detailed recommendations.)

The Air Force Research Laboratory had established adequate internal controls over the research and development contract award process, including compliance with applicable sections of the Federal Acquisition Regulation. Air Force Research Laboratory contract file documents for 18 of 20 contracts we reviewed contained an overview of the source selection identifying the original bidders and explaining how the winner was selected, even though the Air Force Research Laboratory did not have a contracting policy to require documentation of source selection reasoning. Without source selection documentation, an audit trail of the major procuring events is unavailable, resulting in a loss of the history of business judgments and trade-offs made by the Government. The Air Force should revise its Instructions to require that price negotiation memorandums explain the rationale for selecting the winning proposal and business judgments and trade-offs made in connection with the selection in accordance with Federal Acquisition Regulation requirements. (See finding B for the detailed recommendations).

Management Comments and Audit Response. The Assistant Secretary of the Air Force (Acquisition) concurred with the intent of the findings and the recommendation to issue guidance regarding Air Force Research Laboratory quality assurance surveillance and to define the roles and responsibilities of contracting personnel. The Assistant Secretary noted that the primary Air Force Research Laboratory quality assurance guidance will be replaced in favor of a revised Air Force Instruction 63-101, "Acquisition and Sustainment Lifecycle Management," by December 2007. The Assistant Secretary nonconcurred with a draft report recommendation made to the Commander, Air Force Research Laboratory to revise internal laboratory guidance. As a result of the Assistant Secretary's comments, we revised draft report Recommendation B. in the final report and redirected the recommendation to the Assistant Secretary. We request that the Assistant Secretary comment on the revised recommendation by October 29, 2007. See the Findings section 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

Department of Defense laboratories are operated and managed by the Military Departments to conduct research and development and support acquisition. The purpose of a research and development program is to advance scientific and technical knowledge and apply that knowledge to the extent necessary to achieve agency and national goals. Research and development contracts are considered performance-based cost reimbursement service contracts and should include a quality assurance surveillance plan (QASP) that describes how the contractor's performance will be measured against its quality, quantity, and timeliness. DoD laboratories include the Army laboratories, the Navy laboratories, and the Air Force laboratories, and they conduct science and technology research. DoD science and technology research includes basic research, applied research, and advanced technology development. Basic research is systematic study toward greater knowledge without a specific application in mind. Applied research is also systematic study to understand the means to meet a recognized and specific need. Advanced technology development includes concept and technology demonstrations of components and subsystems or system models. The DoD science and technology program was budgeted at approximately \$13.3 billion for FY 2006.

This audit was initiated from findings in DoD Inspector General Report No. D-2007-036, "Contracting Practices at the Major Range and Test Facilities Base," December 27, 2006, that contracting officials did not adequately manage 10 contracts at the DoD Major Range and Test Facilities Base locations.¹

The Air Force Research Laboratory (AFRL) has overseen years of critical research efforts for the Air Force and DoD. Congress formalized DoD support for basic research by establishing the Air Force Office of Scientific Research in 1952. AFRL is headquartered at Wright-Patterson Air Force Base, Ohio, and includes facilities consolidated from four former Air Force laboratories and the Office of Scientific Research in 1997. AFRL is responsible for planning and executing the Air Force science and technology program including basic research, applied research, and advanced technology development. The Air Force science and technology program was budgeted at approximately \$2.4 billion for FY 2006.

AFRL's mission is to discover, develop, integrate, and deliver affordable technologies for improved warfighting capabilities for America's aerospace forces. AFRL accomplishes its mission through nine technology directorates located throughout the United States, and the Air Force Office of Scientific Research. We reviewed 10 contracts managed by contract officials at Wright-Patterson Air Force Base and 10 contracts managed by contract officials located at Kirtland Air Force Base, New Mexico.

¹ The 10 Major Range and Test Facilities Base contracts reviewed did not have adequate contract administration or surveillance, and contractors had no incentive to control costs.

Objective

Our overall audit objective was to review the management of contracts at DoD laboratories. This report reviewed the management of research and development contracts at Air Force laboratories. Specifically, the review consisted of the adequacy of the contract award process and oversight of contracts and contractor personnel to determine whether the contracts comply with applicable sections of the Federal Acquisition Regulation (FAR). See Appendix A for a discussion of the scope and methodology and for prior coverage related to the objective.

Review of Internal Controls

We identified material internal control weaknesses for AFRL as defined by DoD Instruction 5010.40, "Managers' Internal Control (MIC) Program Procedures," January 4, 2006. AFRL controls for contract surveillance were not adequate to ensure that surveillance or monitoring of contracts was maintained. AFRL policy does not require that contract officials develop a QASP or appoint a contracting officer technical representative (COTR) to conduct surveillance on any of the contracts we reviewed. Recommendation A., if implemented, will improve AFRL contract surveillance procedures with additional oversight to reduce the risk of the Government paying more than the value of services incurred. A copy of the report will be sent to the senior official responsible for the internal controls in AFRL.

A. Contract Surveillance at Air Force Research Laboratory Facilities

AFRL did not place adequate emphasis on monitoring contracts at the research labs and did not develop QASPs for any of the 20 research and development contracts we reviewed. In addition, AFRL contracting officers did not appoint COTRs for any of the 20 contracts. This occurred because Air Force policy for surveillance is ambiguous and is based on past AFRL practices. Although contractors generally submit project, technical, and fund status reports, this is not an adequate substitute for Air Force surveillance. As a result, the AFRL put the Government at risk of increased research and development costs and technical risk.

Government Contract Surveillance Guidance

Quality Assurance Surveillance Requirements. FAR Subpart 4.8, “Government Contract Files,” provides requirements for establishing, maintaining, and disposing of contract files. FAR 4.803 (b), “Contract Administration Office,” states that production surveillance records and quality assurance records should be a part of the contract file. FAR Part 16, “Types of Contracts,” discusses the types of contracts that may be used in acquisition. FAR 16.301-3(a)(2), “Limitations,” states that cost reimbursement contracts may be used only when appropriate Government surveillance during performance will provide reasonable assurance that efficient methods and effective cost controls are used. FAR 46.103, “Contracting Officer Responsibilities,” states that contracting offices are responsible for receiving technical requirements and any specifications for inspection, testing, and other contract quality essential to ensure the integrity of the supplies or services. The activity responsible for technical requirements also is responsible for prescribing contract quality requirements, such as inspection and testing of service contracts. FAR 46.401(a), “Government Contract Quality Assurance,” states that a QASP should be prepared in conjunction with the preparation of the statement of work.

COTR Requirement. Defense Federal Acquisition Regulation Supplement Section 201.6, “Contracting Authority and Responsibilities,” states that contracting officers may designate qualified personnel as their authorized representatives to assist in either technical monitoring or administration of a contract. To assist in administrative duties, contracting officers are authorized to designate qualified personnel as COTRs.² The designated COTRs must act as the eyes and ears for the contracting officer. COTRs must be properly trained, designated in writing, and maintain contract surveillance files. Designation letters signed by the contracting officer should specify the extent and limitations of the COTR authority to act on behalf of the contracting officer.

The primary role of a COTR is to provide technical clarification and to monitor contract performance closely to ensure the Government pays only for the services and materials under the contract. To avoid misunderstandings, disagreements, unnecessary

² COTRs are also referred to as contracting officer representatives.

costs, and to maintain proper control of the contract and maintain adequate file documentation, the Government should ensure that all COTR technical directions are in writing.

AFRL Internal Contract Policy. Air Force Instruction 63-124, “Performance-Based Services Acquisition,” August 1, 2005, section 1.4.5, states that “performance metrics are to be used to track contractor progress towards meeting stated performance objectives. The multi-functional team in assessing contractor performance validates that the performance metrics align with the performance-based work statement and overall mission supports objectives.” The AFRL applies principles from Air Force Instruction 63-124 to its research and development Management and Oversight of Acquisition of Services Processes (MOASP) guidance.

The National Defense Authorization Act for Fiscal Year 2002, section 2330, “Procurement of services; management structure,” December 2001, discusses contracting responsibilities of designated officials to ensure the services procured are in the best interest of DoD and are managed in compliance with applicable statutes, regulations, directives, and other requirements.

AFRL Contract Surveillance

In the 20 contracts reviewed that were valued in excess of \$828 million, AFRL used a generic policy for contract surveillance that was based on past AFRL practices. AFRL did not tailor each contract to the specific needs of each research and development service contract.

AFRL Contract Surveillance Process. The Air Force Materiel Command (AFMC) February 11, 2004, MOASP guidance states that research and development contract oversight is accomplished via contractor periodic reporting requirements included in a Contract Data Requirements List. However, the MOASP guidance is a generic document and does not specify how surveillance tasks are to be completed. For example, the MOASP guidance does not indicate how the data in the Contract Data Requirements List, such as funds/man-hour reports, final reports, and status reports, would be assessed by the program manager or technical manager. It also doesn’t address surveillance that would be necessary beyond reviewing and analyzing reports provided by the contractor.

The MOASP guidance states that AFRL Project Management Reviews, Technical Management Reviews, and Government/contractor interaction support research and development contract oversight. But the MOASP guidance provides no requirements for the performance of the management reviews. The MOASP guidance lists documents that could be gathered to perform a surveillance review, but makes no mention of the process used to validate data or support conforming or nonconforming observations. The MOASP guidance also does not indicate the types or frequency of reviews of contractor-incurred cost. Without the detail as required by a QASP prepared by the requiring activity, neither contracting nor oversight officials can determine whether contract monitoring efforts are sufficient.

Air Force officials noted that other AFRL internal guidance required a laboratory management review process to rapidly identify potential problems and assure that appropriate management level have accurate, timely, and pertinent information.

Air Force officials also stated that the other AFRL guidance requires semi-annual baseline reviews on all research and development contracts covering program status over manning, cost, schedule, technical performance and deliverables, funding, and contracting. Air Force officials stated that the laboratory management reviews and baseline reviews are used in lieu of a QASP process.

The AFRL MOASP guidance does not instruct contracting officials to prepare a QASP as required by FAR 46.401(a). We concluded that the MOASP guidance was inadequate to perform AFRL surveillance efforts. An adequate surveillance plan provides the foundation for a comprehensive and systematic monitoring of contractor performance and a standard against which actual surveillance efforts can be measured. The lack of a surveillance plan subjects the Government to greater risk that the contractor may not be performing all contractual requirements in accordance with the contract terms.

AFRL COTRs. While AFRL contracting officials verbally assigned technical representatives to monitor and provide oversight of cost-type research and development contracts, there was no letter of designation of the COTR appointment as required by Defense Federal Acquisition Regulation Supplement Section 201.6 in the contract files. Contracting officials at AFRL appointed a multifunctional team to manage and provide oversight for each contract. However, the duties and responsibilities of the multifunctional team were not clearly stated. AFRL did not appoint COTRs because it was not addressed by the AFRL MOASP guidance.

AFRL Surveillance Plans. AFRL officials did not develop a QASP for research and development contracts and do not require a surveillance plan to be a part of the contracting file. AFRL contracting officials stated that the MOASP guidance substituted for the QASP and assured adequate contractor reporting, oversight, and monitoring of progress and performance. AFRL contracting officials stated that the QASP would duplicate reporting and oversight requirements already included by contract or inherent in AFRL operations.

We do not believe that the MOASP guidance meets monitoring of contractor performance as required by FAR 16.301-3(a) (2) and FAR 46.401(a). AFRL should prepare QASPs in conjunction with the statement of work and indicate which work requires surveillance and which type of surveillance will be performed.

AFRL Oversight of Acquisition of Services Policy

AFRL Policy. The National Defense Authorization Act for Fiscal Year 2002 (Section 801 of Public Law 107-107) directs each Military Service to establish a designated official and management structure for services contracts, and required DoD to establish sound management and oversight processes for service contracts. On June 3, 2003, the Assistant Secretary of the Air Force (Acquisition) issued a memorandum to AFMC to implement the Section 801 requirement for services acquisitions at each Air Force major command through a formalized service contract management and oversight process. On March 8, 2004, the Air Force Materiel Command Commander issued a memorandum to the Air Force Materiel Center Commanders noting that the MOASP guidance would be effective as policy for Section 801 implementation for research and development service contracts. On May 13, 2004, the Air Force Program Executive Officer for Combat and Mission

Support issued a memorandum that gave AFRL Center Commanders authority to act as the designated official for management and oversight of all services acquisitions within the AFRL. The memorandum also stated AFRL would work with AFMC to amend the MOASP guidance to include AFRL specific procedures.

On July 19, 2004, the AFRL Commander issued a memorandum to all AFRL activities stating that AFRL, AFMC, and Air Force Program Executive Officer Combat and Mission Support had jointly determined that Air Force research and development contracting fell under the purview of the Section 801 definition of services. Section 801 requires that acquisitions of services within DoD are based on clear, performance-based requirements and that required outcomes are identified and measurable, and that acquisitions are properly planned and administered to achieve the intended results. The AFRL memorandum also stated that the MOASP guidance was the AFRL policy for Section 801 pre- and post-award management and oversight of research and development contracts. We believe that the Air Force use of the MOASP guidance to implement Section 801 for Air Force research and development contracting effectively side-stepped the intent of Section 801 by grandfathering existing AFRL oversight practices that are not based on performance-based requirements and outcomes.

Conclusion

AFRL contracting officials did not prepare a QASP on any of the 20 contracts reviewed. To provide reasonable assurance of quality performance on service contracts AFRL should create a QASP while developing the statement of work. To ensure the Government receives good value, specific attention is required on cost reimbursement contracts. In addition, contracting officials did not appoint a COTR. Failure to appoint a COTR on research and development service contracts subjects the Government to greater risk of unnecessary costs and inadequate technical administration on contract performance. Also, because of the technical complexity specifically on research and development service contracts, contracting officials should prepare a designation letter tailored to the needs of each specific contract addressing the responsibilities of the requirement. Oversight and monitoring of contractor performance is vital in protecting the interest of the Government.

The FAR authorizes the use of cost reimbursement contracts only when appropriate Government surveillance during performance will provide reasonable assurance that efficient methods and effective cost controls are used. AFRL contracting officials should update the MOASP guidance to require each AFRL directorate to develop a QASP for each contract and appoint in writing trained contracting officials to ensure surveillance duties and responsibilities are clearly defined on service contracts.

Management Comments on the Finding and Audit Response

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) concurred with the finding, noting that the Air Force has increased emphasis on defining requirements to ensure surveillance duties are adequately performed. The Assistant Secretary noted that AFRL used the MOASP to ensure adequate surveillance performance. The Assistant Secretary agreed that Air Force Instruction 63-124 directs

performance-based procedures for developing requirements, but also allows acquisition strategies (such as the MOASP) to deviate from use of a Performance Plan or QASP as long as the deviations are documented in the contract file. Such MOASP deviation documentation applied to all AFRL research and development contracts and task orders. The Assistant Secretary of the Air Force (Acquisition) concurred with the finding, noting that the Air Force has increased emphasis on defining requirements to ensure surveillance duties are adequately performed.

The Assistant Secretary noted that AFRL manages contracted and in-house scientific research and development in accordance with Air Force Policy Directive 61-1, "Management of Science and Technology" and AFRL Instruction 61-202, "AFRL Laboratory Management Review (LMR) Process," and other AFRL guidance to assure management has appropriate, timely, and pertinent information through baseline reviews and reports on contractor cost, schedule, and technical milestones. Program managers or project engineers review the baseline reviews with contractors. The Assistant Secretary noted that such reviews are used by AFRL in lieu of a QASP or a performance plan. The Assistant Secretary also noted that AFRL program managers and project engineers are the "ad hoc appointed COTRs" on AFRL research and development contracts.

Audit Response. Based on the Air Force comments, we expanded discussion in the final report regarding AFRL internal guidance and the AFRL contract surveillance process. However, we continue to conclude that the AFRL surveillance process falls short of the detail as required by a QASP process and that AFRL guidance does not meet the standard to monitor contractor performance as required by FAR 16.301 3(a) (2) and FAR 46.401(a). The lack of a surveillance plan subjects the Government to greater risk that the contractor may not be performing all contractual requirements in accordance with the contract terms. AFRL should prepare QASPs in conjunction with the statement of work and indicate which work requires surveillance and which type of surveillance will be performed. Use of the program managers and project engineers as ad hoc COTRs falls short of DoD requirements for contracting officers to appoint COTRs to conduct contract surveillance.

Recommendation and Management Comments

A. We recommend that the Assistant Secretary of the Air Force (Acquisition) require the Air Force Research Laboratory to revise the Management and Oversight of Acquisition Services Processes to include guidance that each Air Force Research Laboratory develop a quality assurance surveillance plan for each contract to reduce the risk of the Government paying more for services than the value received and to ensure that surveillance responsibilities are being carrying out. In addition, the guidance should clearly define the roles and responsibilities of contracting personnel to include appointing a trained contracting officer's technical representative to monitor technical service performance contracts.

Air Force Comments on the Recommendation. The Assistant Secretary of the Air Force (Acquisition) concurred with the recommendation. The Assistant Secretary noted that the AFRL MOASP will be removed in favor of a revised Air Force Instruction 63-101, "Acquisition and Sustainment Lifecycle Management," by December 2007. The Assistant Secretary restated that AFRL utilizes unique

oversight procedures such as program management reviews, contract data requirements, and technical management reviews to ensure quality. The Assistant Secretary also noted that the uncertain nature of research and development precludes the development and application of objective criteria for performance assessment.

B. Air Force Research Laboratories Research and Development Contracts Source Selection Process

AFRL established adequate internal controls over the research and development contract award process and compliance with applicable sections of the FAR. AFRL contract file documents for 18 of 20 contracts we reviewed contained an overview of the source selection identifying the original bidders and explaining how the winner was selected, even though AFRL did not have a contracting policy to require documentation of source selection reasoning. Without source selection documentation, an audit trail of the major procuring events is unavailable, resulting in a loss of the history of business judgments and trade-offs made by the Government, including benefits associated with additional costs to the acquisition.

AFRL Contract Award Procedures

AFRL Proposal Evaluation Process. The AFRL “Broad Agency Announcement Industry Guide,” May 2006, directs that research and development proposals be evaluated based on the criteria published in the announcement by a Government technical evaluation team or, when the necessary expertise cannot be found, outside consultants may be included in the technical evaluation team. AFRL technical evaluations classify bidder proposals into three categories. Proposals rated Category I are recommended for acceptance and normally will be displaced only by other Category I proposals. Category II proposals are rated at a lower priority than Category I but can be recommended for acceptance, subject to available funds. Category III proposals are determined by AFRL to not be technically sound or judged not to meet agency needs.

AFRL Award Process. Once AFRL completes the technical evaluation, it negotiates the most appropriate cost and technical arrangement with the offerors selected for award. The types of awards include contracts, grants, or cooperative agreements. AFRL awards are usually made to Category I proposals prior to awards made to any Category II proposals. Occasionally, the Air Force may buy only a certain portion of a proposal depending on available funding from AFRL divisions.

Criteria

FAR criteria addresses source selection decisions in several different sections. FAR 4.8, “Government Contract Files,” prescribes the requirements for establishing and maintaining the contract files. The guidance directs that the documentation should constitute a complete history of the transaction and a complete background as a basis for supporting informed decisions at each step of the acquisition process. FAR 4.803, “Contents of Contract Files,” lists examples of records in the contracting office files and includes source selection documentation as one of the items. FAR 15.308, “Source Selection Decision,” states that the source selection decision shall be

documented and the documentation shall include the rationale for any business judgments and trade-offs made regarding contract cost, economy, and efficiency.

FAR Part 35, "Research and Development Contracting," describes policies and procedures specific to research and development contracting. Specifically, FAR 35.016, "Broad Agency Announcement," describes procedures for the acquisition of basic and applied research not related to the development of a specific system, and where the agency anticipates proposals with varying technical or scientific approaches. Air Force Materiel Command FAR Supplement Part 5335, "Research and Development Contracting," describes the receipt and evaluation of proposals into Category I, II, or III. The National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107) requires the Secretary of Defense to establish a management structure for the procurement of services for DoD. It was determined within the Air Force that research and development falls under the category of services. In May 2004, the AFRL MOASP guidance established policy for management and oversight of research and development services contracts.

AFRL Source Selection Decisions

Results of Source Selection Information Analysis. While AFRL established and maintained the research and development contract award files that were generally well-organized and complete, the AFRL contract files and negotiation memorandums did not always contain an overview of the source selection process identifying the original bidders and explaining how the winner was selected. The AFRL source selection process was documented in two ways, via the technical evaluation and also in the price negotiation memorandum (PNM).³ AFRL technical evaluations generally contained detailed analyses of required elements of each bidder proposal. However, AFRL PNMs only briefly summarize the source selection decisions resulting from the technical evaluations in a sentence or two. In two instances, the number and identity of proposals and resulting source selection decisions were not disclosed in the PNM.

- For contract FA9453-05-C-0220, valued at \$13.4 million, the PNM did not disclose the competing proposals and the basis for selecting the winning proposal over the other bidders. However, the technical evaluation included a detailed narrative that summarized the scientific/technical strengths and weaknesses of each of four proposals including the recommended winner. The technical evaluation noted that proposed costs for all bidders were reasonable but provided no elaboration.
- For contract modification F29601-03-C-0061 P00014, valued at \$6 million, the PNM for the basic contract did not identify the other three proposals nor explain why the winning proposal was selected. The technical evaluation explained that the proposed technical approach for the winner was relatively sound and that the proposal provided adequate cost information. But the technical evaluation did not identify or address any other proposal. This contract was completed in June 2006 and closed out in August 2006.

³ AFRL also referred to the "price negotiation memorandum" as the "price competition memorandum."

For the two contracts, AFRL PNMs did not provide the source selection information with respect to other bidder proposals nor discuss the basis on which the winning proposal was selected.

AFRL as Agent for Defense Advanced Research Projects Agency Procurements.

AFRL acted as the procurement agent for the Defense Advanced Research Projects Agency (DARPA) for 3 of the 20 AFRL contracts reviewed. DARPA solicited, funded, and performed all acquisition planning and source selection activities related to the three contracts. For contracts FA8650-04-C-7146 and FA8650-04-C-7108, DARPA furnished a memorandum to the AFRL contracting officer describing the basis used to select the winning proposal, including overall scientific and technical merit, relevance to the DARPA mission, and adequate cost documentation. Contract FA8650-05-C-7214 included an AFRL technical evaluation and PNM summarizing DARPA source selection determinations and AFRL evaluated technical and cost aspects. AFRL contract officers coordinated with DARPA in the contract award process and adequately documented the contract files to support the contract award.

AFRL Contract Award Policy

AFRL did not establish or maintain contracting policy to require source selection in the PNM or contract file addressing unsuccessful proposals or the rationale for the selection decisions. AFRL relies heavily on the MOASP guidance and the Broad Agency Announcement Industry Guide for its contract management policy. The MOASP guidance is written at a very general level and does not address such specifics as evaluation for award.

AFRL contracting officials stated their acquisitions are not formal source selections and therefore are not subject to the specific process and documentation requirements in FAR Part 15. We disagree in that FAR 15.308 states that the source selection decision shall be documented and the documentation shall include the rationale for any business judgments and trade-offs made. While FAR Part 35 discusses a revised negotiation process for research and development contracts, it also references FAR Part 15 for negotiated research and development contract actions. AFRL contracting officials stated that the existing AFRL Broad Agency Announcement Industry Guide and MOASP technical evaluation process substitutes for a formal source selection decision document. We believe that AFRL should continue to use the Broad Agency Announcement Industry Guide and MOASP guidance but revise them to require documentation of source selection decisions in accordance with FAR 15.308 and FAR 4.803.

Conclusion

AFRL established and maintained research and development contract award files that were generally well-organized and complete. However, AFRL contract files and PNMs did not always contain an overview of the source selection process identifying the original bidders and explaining how the winner was selected. AFRL research and development acquisitions are subject to FAR Part 15 regarding disclosure of source selection requirements and AFRL guidance should direct that PNMs contain more complete disclosure of the competing proposals and the basis for selecting the winning

proposal over the others. Without source selection documentation, an audit trail of the major procurement events is unavailable resulting in a loss of the history of business judgments and trade-offs made, including the rationale when higher-priced proposals were selected.

Management Comments on the Finding and Audit Response

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) concurred with the finding, agreeing that documentation of the source selection process in accordance with FAR Part 15, or documentation of the peer or scientific reviews in accordance with FAR 35.016, is required in the contract file. The Assistant Secretary noted that AFRL did not provide additional policy on selection documentation and price reasonableness due to existing Air Force and AFMC guidance. The Assistant Secretary noted that evaluation of proposals received under broad agency announcements are not necessarily evaluated against each other since they are not submitted in accordance with a common work statement. The Assistant Secretary agreed that contract F29601-03-C-0061 did not contain adequate documentation but noted that there was no systemic problem across AFRL. The Assistant Secretary noted that the need for inclusion of documentation would be included in training for all contracting officers and negotiators.

Audit Response. Based on our review of the 20 research and development contracts, we found no evidence of a systemic contract documentation problem at AFRL. Proposals evaluated under broad agency announcements may or may not be based on a common work statement. To the extent they are not based on a common work statement, the proposals must be evaluated based on varying technical or scientific approaches.

Recommendation, Management Comments, and Audit Response

Revised and Redirected Recommendation. As a result of Assistant Secretary of the Air Force (Acquisition) comments, we revised draft report Recommendation B. in the final report and redirected the recommendation to the Assistant Secretary.

B. We recommend that the Assistant Secretary of the Air Force (Acquisition) revise Air Force Instruction 63-101, “Acquisition and Sustainment Lifecycle Management,” to require that price negotiation memorandums explain the rationale for selecting the winning proposal and business judgments and trade-offs made in connection with the selection in accordance with Federal Acquisition Regulation 15.308 and 4.803 requirements.

Air Force Comments on the Recommendation. The Assistant Secretary non-concurred with a draft report recommendation that the Commander, AFRL revise the MOASP guidance and Broad Agency Announcement Industry Guide to require that PNMs should explain the rationale for selecting the winning proposal and business judgments and trade-offs made in connection with the selection in accordance with FAR 15.308 and 4.803 requirements. The Assistant Secretary stated that the MOASP will be incorporated into a revised version of Air Force Instruction 63-101, “Acquisition and Sustainment Lifecycle Management,” by December 2007. The

Assistant Secretary also noted that the AFRL Broad Agency Announcement Industry Guide does not direct or place contracting requirements on Government personnel. In addition, the Assistant Secretary stated that Air Force major commands are discouraged from further supplementing DoD and Air Force FAR Supplements as those documents adequately cover the source selection process to include documentation.

Audit Response. We request further comments from the Assistant Secretary of the Air Force (Acquisition) on the revised Recommendation B. by October 29, 2007.

Appendix A. Scope and Methodology

We performed this audit from June 2006 to July 2007 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on the audit objectives.

We reviewed 20 AFRL cost-type research and development contracts (see Appendix B for a listing of the 20 contracts). The 20 contracts, valued in excess of \$828 million, were judgmentally selected from 120 FY 2005 contracts, each exceeding \$5 million, awarded by AFRL technology directorates using broad agency announcement solicitation methods.

We visited the two AFRL sites (Wright-Patterson Air Force Base, Ohio; and Kirtland Air Force Base, New Mexico) that included 72 percent (86 of the 120) of the FY 2005 AFRL contract actions exceeding more than \$5 million each. We interviewed contract officials at Wright-Patterson and Kirtland to gain a better understanding of the major events related to the contract award and contract management activities. We interviewed selected contractor and AFRL research and development program officials and visited selected AFRL laboratory facilities where research and development work is conducted. We examined the contracting procedures AFRL officials used in awarding and monitoring research and development contracts for compliance with applicable sections of statute, the FAR, and the Defense Federal Acquisition Regulation Supplement. We reviewed Government contract file and program office documentation including (but not limited to) basic contracts, broad agency announcements, statements of work, PNMs, technical evaluations, legal reviews, award fee plans, contract award announcements, and contract modifications. We visited and interviewed management at AFRL Headquarters activities that oversee AFRL operations. We also reviewed AFRL internal control programs as they related to management of AFRL research and development contracts.

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 “DoD Contract Management” high-risk area.

Prior Coverage

During the last 5 years, the Government Accountability Office and the DoD Inspector General have issued two reports discussing research and development contracting and surveillance issues. Unrestricted GAO reports can be accessed over the Internet at <http://www.gao.gov>. Unrestricted DoD Inspector General reports can be accessed at <http://www.dodig.mil/audit/reports>.

General Accountability Office

General Accountability Office Report No. GAO-05-274, "Opportunities to Improve Surveillance on DoD Service Contracts," March 17, 2005

DoD Inspector General

DoD Inspector General Report No. D-2007-036, "Contracting Practices at the Major Range and Test Facilities Base," December 27, 2006

Appendix B. Contract Issues

Contract Number	Contract Type *	Name of Contractor	Dollar Value	Source Selection Negotiation Memo	COTR Appointed	Surveillance Plan
1) FA9451-05-C-0257	CPAF	Boeing LTS, Inc.	\$223,768,539	YES	NO	NO
2) FA9453-05-C-0241	CPFF	Honeywell International Inc.	26,395,461	YES	NO	NO
3) FA9451-06-D-0118 Task Order 0001	CPFF	Boeing-SVS, Inc.	26,381,443	YES	NO	NO
4) FA9453-05-C-0177	CPAF	Scientific Research Corporation	22,421,975	YES	NO	NO
5) FA9453-05-D-0251	CPAF/FFP	Millennium Space Systems, Inc.	20,300,000	YES	NO	NO
6) FA9453-05-C-0165	CPFF	Boeing Satellite Systems, Inc.	19,529,072	YES	NO	NO
7) FA9451-04-D-0399 Task Order 0002	CPFF	Schafer Corporation	17,855,489	YES	NO	NO
8) FA9453-05-C-0220	CPAF	Raytheon Company	13,359,364	NO	NO	NO
9) FA9451-05-D-0004 Task Order 0001	CPFF	Science Applications International	8,732,328	YES	NO	NO
10) F29601-03-C-0061 Modification P0014	CPFF	Northrop Grumman Space & Mission	6,025,379	NO	NO	NO
11) FA8650-05-D-6502	CPFF	L-3 Communications Corporation	240,900,000	YES	NO	NO
12) F33615-03-D-2354 Task Order 0009	CPFF	Pratt & Whitney	38,556,484	YES	NO	NO
13) FA8650-04-C-7146	CPFF	Raytheon Company	26,863,120	YES	NO	NO

* See acronym list at the end of this Appendix.

Contract Number	Contract Type	Name of Contractor	Dollar Value	Source Selection Negotiation Memo	COTR Appointed	Surveillance Plan
14) FA8650-05-D-6633	CPFF	Northrop Grumman Information Technology, Inc.	24,900,000	YES	NO	NO
15) F33615-03-D-2352 Task Order 0007	CPFF	General Electric Company	23,683,600	YES	NO	NO
16) FA8650-04-C-7108 Modification P00013	CPFF	Lockheed Martin Corporation	21,981,777	YES	NO	NO
17) F33615-03-C-5508 Modification P00008	Cost Sharing	Superpower, Inc.	10,697,440	YES	NO	NO
18) FA8650-05-D-5052	Cost Sharing	University of Dayton	20,000,000	YES	NO	NO
19) FA8650-05-C-7214 Modification P00011	CPFF	Rockwell Collins, Inc.	19,000,000	YES	NO	NO
20) FA8650-04-D-5233	CPFF	UES, Inc.	17,186,000	YES	NO	NO
Total			\$828,537,471			

Acronyms

CPAF	Cost-Plus-Award-Fee
CPFF	Cost-Plus-Fixed-Fee
FFP	Firm-Fixed-Price

Appendix C. Report Distribution

Office of the Secretary of Defense

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

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Assistant Secretary of the Air Force (Acquisition)
Commander, Air Force Materiel Command
Commander, Air Force Research Laboratory
Air Force Program Executive Officer, Combat and Mission Support
Auditor General, Department of the Air Force

Non-Defense Federal Organization

Office of Management and Budget

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Homeland Security and Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Oversight and Government Reform
House Subcommittee on Government Management, Organization, and Procurement,
 Committee on Oversight and Government Reform
House Subcommittee on National Security and Foreign Affairs,
 Committee on Oversight and Government Reform

Department of the Air Force Comments



OFFICE OF THE ASSISTANT SECRETARY

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

SEP 05 2007



MEMORANDUM FOR DEPUTY INSPECTOR GENERAL FOR AUDITING
OFFICE OF THE INSPECTOR GENERAL
DEPARTMENT OF DEFENSE

FROM: SAF/AQ

SUBJECT: DoD Draft Audit Report Contracting Practices at Air Force Laboratory Facilities
(9 Jul 07), Project No. D2006-D000AB-0217,000

I appreciate the opportunity to review and comment on your draft report of audit concerning Contracting Practices at Air Force Research Laboratory (AFRL) facilities. I concur with intent on the findings and recommendations of the subject draft report.

Adequate emphasis needs to be placed on service contracts to protect the interests of the Government. The Air Force has increased the emphasis on defining the surveillance requirements, in the form of Air Force Instructions (AFI) and Management and Oversight of Acquisition Services Programs (MOASP) policy, to ensure appropriate surveillance of all contracts, including research and development contracts.

The AF Program Executive Officer for Combat and Mission Support (AFPEO/CM) is working with my acquisition policy division incorporating the Acquisition Services Chapter within the 63-series instructions. It is my intention to replace the USAF MOASP policy with this new policy guidance. I expect the revised AFI 63-101 to be published in December 2007.

The SAF/AQ point of contact for this audit is Maj Montler, AFPEO/CM, at (703) 588-7192.

SUE C. PAYTON
Assistant Secretary of the Air Force
—(Acquisition)—

Attachments:
Management Comments

Management Comments, Project No. D2906-D000AB-0217.000

1. DoD Audit Finding A, Contract Surveillance at Air Force Research Laboratory Facilities: *AFRL did not place adequate emphasis on monitoring contracts at the research labs and did not develop QASPs for any of the 20 research and development contracts reviewed. In addition, AFRL contracting officers did not appoint COTRs for any of the 20 contracts. This occurred because Air Force policy for surveillance is ambiguous and is based on past AFRL practices. Although contractors generally submit project, technical, and fund status reports, this is not adequate substitute for Air Force surveillance. As a result, the AFRL put the government at risk for increased research and development costs and technical risk.*

Management Comments.

Concur with Comment

a. The Air Force has increased the emphasis on defining the requirements to ensure surveillance duties and responsibilities are adequately performed and documented. Air Force Instruction (AFI) 63-124, directs performance-based procedures for developing requirements, acquiring services, and managing service acquisitions within the Air Force. AFI 63-124, Paragraph 1.8 allows the multifunctional team to develop an acquisition strategy that deviates from the instruction as long as it meets the spirit and intent of the requirements of the AFI. However, the requirement to document their decision to deviate from the requirements in the Performance Plan or Quality Assurance Surveillance Plan must be documented in the contract file. As such, AFRL used the AFRL MOASP to ensure surveillance duties and responsibilities were adequately performed and documented.

b. The purpose of the AFRL MOASP is to implement USAF and AFMC MOASPs for review and approval of all R&D service acquisitions within AFRL, apply AFI 63-124 principles to the unique R&D services environment, and establish AFRL R&D services management and oversight processes. This document applies to all AFRL contract or task orders for R&D and therefore serves as documentation of AFRL compliance with AFI 63-124 and Management and Oversight of Acquisitions of Services Processes (MOASP) applicable until NDAA 2006 change.

c. AFRL manages their contracted and in-house scientific research and development in accordance with AFPD 61-1, Management of Science and Technology, and AFRLI 61-202, AFRL Laboratory Management Review (LMR) Process. The LMR process ensures the appropriate management levels have accurate, timely, and pertinent information upon which to make sound and timely decisions. The LMR is designed to rapidly surface potential problems with the goal of maximizing the return on invested resources. The LMR establishes and reports on cost, schedule, and technical milestones for R&D efforts to include an assessment of funding levels, funds status, and cost performance to determine if the objectives of the contract are being met. In addition, AFRL Guidance Memorandum (GM 61-02-2006) Program Baseline Development (PBD) requires semi-annual baseline reviews on all R&D contracts. The Program Baseline Reviews (PBR) cover the program health and status regarding cost, schedule, technical performance, systems engineering, program risk, funding, facilities, manning, contracting, deliverables, and technology transition plans. The program managers or project engineers review these PBRs with the contractors and this includes the delivery of reports using Contract Data Requirement Lists (CDRLs). The LMR and PBR assessments are used in lieu of a

standardized quality assurance surveillance plan (QASP) or performance plan. Also, the program managers/project engineers are the ad hoc appointed COTRs on AFRL R&D contracts. Individuals will be appointed in writing and the documentation will be placed in the contract file.

2. DoD Audit Finding A Recommendation: *We recommend that the Assistant Secretary of the Air Force (Acquisition) require the Air Force Research Laboratory to revise the Management and Oversight of Acquisition Services Processes to include guidance that each Air Force Research Laboratory develop a quality assurance surveillance plan for each contract to reduce the risk of the government paying more for services than the value received and to ensure surveillance responsibilities are being carried out. In addition, the guidance should clearly define the roles and responsibilities of contracting personnel to include appointing a trained Contracting Officer's Technical Representative to monitor technical service performance contracts.*

Management Comments.

Concur with Comment

a. A draft AFI 63-101, Acquisition and Sustainment Lifecycle Management, is being coordinated within the Air Staff. Chapter 3, Acquisition of Services, will replace the USAF MOASP policy. The estimated date for the approval of the revised AFI 63-101 is December 2007.

b. AFRL utilizes unique oversight procedures such as Program Management Reviews (PMRs), LMRs, Technical Management Reviews (TMRs) and review of contractor generated data such as reports required by the CDRLs and other deliverable reports to ensure quality. Progress toward objectives is measured through periodic review of contractor cost, schedule and technical performance. The uncertain nature of R&D precludes development and application of objective criteria for performance assessment used with traditional service contracts.

3. DoD Audit Finding B, Air Force Research Laboratories Research and Development Contracts Source Selection Process: *AFRL established adequate internal controls over the research and development contract award process and compliance with applicable sections of the FAR. AFRL contract file documents for 18 of 20 contracts we reviewed contained an overview of the source selection identifying the original bidders and explaining how the winner was selected, even though AFRL did not have a contracting policy to require documentation of source selection reasoning. Without source selection documentation, an audit trail of the major procuring events is unavailable resulting in loss of the history of business judgments and trade-offs made by the government, including benefits associated with additional cost to the acquisition.*

Management Comments.

Concur

a. I agree that documentation of the source selection process for Request for Proposal (RFP) in accordance with FAR Part 15 or documentation of the peer or scientific review in the case of a Broad Agency Announcement (BAA) in accordance with FAR 35.016, is required and must be included in the contract file. Proposals received as a result of the BAA are evaluated in accordance with evaluation criteria specified in the announcement through a peer or scientific

review process. Written evaluation reports on individual proposals are accomplished, but proposals are not necessarily evaluated against each other since they are not submitted in accordance with a common work statement.

b. Due to existing AFFARS and AFMC guidance, AFRL does not require additional policy instructions for selection documentation and price reasonableness determinations.

c. I concur that contract F29601-03-C-0061 did not contain adequate documentation of the selection decision in either the technical evaluation or negotiation memorandum; however, this is an isolated incident, and there is no systemic problem across AFRL. This contract is completed; however, the need for inclusion of documentation on the acquisition process will be included in training for all contracting officers/contract negotiators.

4. DoD Audit Finding B Recommendation: *We recommend that the Commander, Air Force Research Laboratory revise the Management and Oversight of Acquisition of Services Processes guidance and Broad Agency Announcement Industry Guide to require that negotiation memorandums should explain the rationale for selecting the winning proposal and business judgments and trade-offs made in connection with the selection in accordance with Federal Acquisition Regulation 15.308 and 4.803 requirements.*

Management Comments.

Non-concur

a. The Management and Oversight of Acquisition Services Process (MOASP) will be incorporated in the next version of AFI 63-101 which is currently in coordination. Once the AFI is published, the USAF MOASP will no longer exist.

b. In addition, the "Broad Agency Announcement Industry Guide" is a guide and is offered for information to contractors and, as a guide, does not direct or place requirements on government contracting personnel. There are no requirements to provide additional guidance at the AFRL level. The MAJCOMs are discouraged from supplementing AFFARS since the FAR, DFARS, AFFARS, and AFMCFARS adequately cover the source selection process, to include documentation.

Revised and
Redirected

Team Members

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