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Inspector General
United States
Department of Defense

# Public-Private Partnerships at Air Force Maintenance Depots

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## Acronyms and Abbreviations

| | |
|---|---|
| AFB | Air Force Base |
| AFMC | Air Force Materiel Command |
| ALC | Air Logistics Center |
| BCA | Business Case Analysis |
| BIO | Business Integration Office |
| CITE | Center of Industrial and Technical Excellence |
| DCMA | Defense Contract Management Agency |
| DPA | Depot Partnering Assessments |
| GAO | Government Accountability Office |
| PBL | Performance Based Logistics |
| PPP | Public-Private Partnership |

INSPECTOR GENERAL
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JUN 10 2010

MEMORANDUM FOR COMMANDER, AIR FORCE MATERIEL COMMAND
ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER).
ASSISTANT SECRETARY OF THE AIR FORCE FOR
INSTALLATIONS, ENVIRONMENT AND LOGISTICS

SUBJECT: Public-Private Partnerships at Air Force Maintenance Depots
(Report No. D-2010-067)

We are providing this report for your information and use. We considered management comments on a draft of this report when preparing the final report. The Deputy Chief of Staff for Logistics, Installations and Mission Support, U.S. Air Force, responded for the Air Force, and comments conformed to the requirements of DOD Directive 7650.3; therefore, additional comments are not required. As a result of management comments, we revised and redirected final report Recommendation 1.

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-8866 (DSN 664-8866).

Alice F. Carey
Assistant Inspector General
Readiness, Operations, and Support

# Results in Brief: Public-Private Partnerships at Air Force Maintenance Depots

## What We Did

We evaluated the Air Force management of the public-private partnership arrangements to determine whether the depots have completed business case analyses and established baselines and metrics to measure partnership benefits. We reviewed 40 public-private partnership agreements, comprised of 61 implementation agreements, at 3 Air Logistics Centers that reported $100.3 million of revenue during the first 3 quarters of FY 2009.

## What We Found

The Air Force did not adequately document its public-private partnership decisions for enhancing overall product support and the type of partnership arrangement selected; and did not adequately monitor the partnerships once they were established. Specifically:

- 35 of the 40 partnerships and 49 of 61 implementation agreements reviewed were not supported by business case analyses;
- 51 of 61 implementation agreements reviewed had not established baselines, and 40 of 61 had not established metrics; and
- Air Force Materiel Command did not adequately monitor revenues and expenses on partnership work performed, and the private industry partner owes $3.1 million to Warner Robins Air Logistics Center.

As a result, there is not sufficient assurance that the Air Force's use of partnerships is obtaining best value for its maintenance support decisions and recovering all its expenses. This situation stemmed from prior conflicting Air Force guidance, insufficient Air Force Materiel Command oversight, and partnership decisions made above the Air Logistics Center level for bringing depot maintenance workload back to the depots to satisfy public laws on core capability and 50/50 compliance.

## What We Recommend

We recommend the Assistant Secretary of the Air Force for Installations, Environment and Logistics ensure Air Force policy requires preparation of a business case analysis prior to approval of a public-private partnership and as early in the acquisition cycle as possible; and ensure Air Force policy requires business case analyses to provide sufficient detail, including an analysis of costs/benefits and 50/50 and core workload requirements, that demonstrates the agreement is in the Government's best interest.

For public-private partnerships, we recommend that the Commander, Air Force Materiel Command verify that the Air Logistics Centers or weapon system program managers have completed a business case analysis; verify that baselines and metrics have been established; require Air Logistics Centers to report revenues and expenses and monitor performance to ensure the recovery of workload expenses; and verify that the private industry partner pay the Warner Robins Air Logistics Center the $3.1 million owed in C-17 unfunded workload expenses for FY 2007 through May 2009.

## Management Comments and Our Response

The Air Force Deputy Chief of Staff for Logistics, Installations and Mission Support agreed to update guidance to require that Business Case Analyses show how the Partnerships contributes to the achievement of objectives; aggressively work toward ensuring business cases are prepared; baselines and metrics are established; and recover the $3.1 million in expenses. The Air Force's comments are responsive. Please see the Recommendations Table on the back of this page.

## Recommendations Table

| Management | Recommendations Requiring Comment | No Additional Comments Required |
|---|---|---|
| Assistant Secretary of the Air Force for Installations, Environment and Logistics | | 1.a and 1.b |
| Commander, Air Force Materiel Command | | 2.a, 2.b, 2.c, and 2.d |
| | | |

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# Introduction

## Objectives

We evaluated the management of the public-private partnership (PPP) arrangements entered into by Air Force depots. Specifically, we determined whether the Air Force depots have established baselines and metrics to measure PPP benefits. See the Appendix for a discussion of scope and methodology and prior audit coverage.

We performed this audit pursuant to Public Law 110-417, "The National Defense Authorization Act for Fiscal Year 2009," section 852, "Comprehensive Audit of Spare Parts Purchases and Depot Overhaul and Maintenance of Equipment for Operations in Iraq and Afghanistan." Section 852 requires "thorough audits to identify potential waste, fraud, and abuse in the performance of Department of Defense contracts, subcontracts, and task and delivery orders for (A) depot overhaul and maintenance of equipment for the military in Iraq and Afghanistan; and (B) spare parts for military equipment used in Iraq and Afghanistan."

## Background

Depot-level maintenance is the process of materiel maintenance or repair involving the overhaul, upgrading, rebuilding, testing, inspection, and reclamation (as necessary) of weapon systems, equipment end items, parts, components, assemblies, and subassemblies. Depot-level maintenance also includes all aspects of software maintenance; the installation of parts or components for modifications; and technical assistance to intermediate maintenance organizations, operational units, and other activities. Under a PPP, a depot-level maintenance activity is a specific DOD-owned and DOD-operated facility established, equipped, and staffed to carry out depot-level maintenance.

Under 10 U.S.C. §2474, each depot-level activity of the Military Departments and Defense agencies shall be designated as a Center of Industrial and Technical Excellence (CITE) for designated core competencies. CITEs shall serve as recognized leaders in their core competencies throughout the DOD and in the national technology and industrial base. CITEs are encouraged to use PPPs to maximize the utilization of capacity, reduce or eliminate cost of ownership, reduce cost of products, leverage private sector investment in plant and equipment recapitalization and promotion of commercial business ventures, and foster cooperation between the Armed Forces and private industry.

Each DOD-owned and DOD-operated principal depot-level maintenance activity has been designated as a CITE for a specified set of technical competencies required to successfully fulfill assigned core capabilities. In FY 2008, the Air Force expended $10.3 billion on the performance of depot-level maintenance workload, of which 47.6 percent was performed by non-Government personnel. DOD Instruction 4151.21, "Public-Private Partnerships for Depot-Level Maintenance," April 25, 2007, authorizes and encourages each CITE to enter into PPPs comprising its own employees, private

industry, and/or other entities outside the DOD to perform work within its depot-level maintenance core competencies, and/or allow private industry to lease or otherwise use underutilized or unutilized facilities and equipment at the CITE. The Air Force has three CITEs: Ogden Air Logistics Center (ALC), Hill Air Force Base (AFB), Utah; Oklahoma City ALC, Tinker AFB, Oklahoma; and Warner Robins ALC, Robins AFB, Georgia.

## *Public-Private Partnerships*

PPPs for depot-level maintenance are cooperative arrangements between a depot-level maintenance activity and one or more private sector entities to perform DOD or defense-related work, utilize DOD depot facilities and equipment, or both. Other Government organizations, such as program offices, inventory control points, and materiel/systems/logistics commands, may also be parties to such agreements.

A depot maintenance activity's workload shapes how the services develop the approach used for each of their PPPs, including the selection of a PPP type and the division of responsibilities for the performance of logistics functions. Air Force PPPs can be formed through the following types of arrangements.

- Workshare: A partnership in which the buying activity determines the best mix of work capitalizing on each partner's capabilities. The workload is then shared between the contractor and the organic repair entity. The contractor is funded through a contract, and the organic depot is funded through a project order. The partnering arrangement between the contractor and organic repair entity focuses on the roles and responsibilities of each partner. Both work jointly to accomplish the overall requirement.

- Direct sale: An arrangement whereby military and commercial entities enter into a contractual relationship for the use of military depot maintenance facilities and employees to provide the private sector with articles, services, or both. In a direct sale arrangement dollars flow from the Government buying activity directly to the contractor. In turn, the contractor funds the depot by transferring funds to the U.S. Treasury for the goods and services supplied by the depot. Those funds received for work performed in support of a PPP are credited to the depot's working capital fund rather than deposited into a general U.S. fund account. The contractor may also supply materiel to the depots in support of the PPP.

- Lease: An arrangement that allows private industry access to facilities or equipment located at a CITE. Facilities or equipment located at a CITE may be made available to private industry to perform maintenance or produce goods, as long as the arrangement does not preclude the CITE from performing its mission. The goal is to make those Government-owned facilities more efficient and ensure that a workforce with the necessary manufacturing and maintenance skills is available to meet the needs of the Armed Forces.

Air Force PPPs typically consist of three types of documents:

- A strategic partnering agreement, which is not mandatory, is a broad, overarching agreement that describes the weapon system, sets the partnership parameters, and provides organizational commitments necessary to establish specific PPP relationships.

- A partnership agreement establishes the organizational interactions, assumptions, and processes the stakeholders will follow during the partnership. The partnership agreement is coordinated through all stakeholders and signed by the principals involved with the business efforts, typically the ALC Commander (or designee) as the government signatory and an equivalent level of authority representing the industry partner.

- An implementation agreement describes the efforts to be completed as envisioned by the approved partnership agreement. The implementation agreement also describes the specific deliverable line items and associated documents and processes to be used in executing the requirements.

### *Air Force Materiel Command*

Air Force Materiel Command (AFMC) conducts research, development, test and evaluation and provides acquisition management services and logistics support necessary to keep Air Force weapon systems ready for war. AFMC delivers expeditionary capabilities to the warfighter through development and transition of technology, professional acquisition management, exacting test and evaluation, and world-class sustainment of all Air Force weapon systems. AFMC utilizes three unique ALCs for "cradle-to-grave" oversight of aircraft, electronic systems, missiles and munitions; these are also the Air Force-designated CITEs. These centers provide logistics, support, maintenance, distribution, and engineering management for Air Force weapon systems.

## Review of Internal Controls

We found internal control weaknesses in Air Force PPPs as defined by DOD Instruction 5010.40, "Managers' Internal Control (MIC) Program Procedures," January 4, 2006. The Air Force did not have adequate controls in place to ensure baselines and metrics were established and Business Case Analyses (BCAs) were completed for PPPs reviewed. However, AFMC had implemented procedures to address controls for the PPP process. Implementing Recommendations 1 and 2 will improve the controls over the PPP process. We will provide a copy of the report to the senior official responsible for internal controls in the Department of the Air Force.

# Finding. Implementation of Public-Private Partnerships

The Air Force did not adequately document its PPP decisions for enhancing overall product support and the type of partnership arrangement selected; and did not adequately monitor the PPPs once they were established. Specifically, at the ALCs:

- 35 of the 40 PPPs and 49 of 61 implementation agreements reviewed were not supported by BCAs;
- 51 of 61 implementation agreements reviewed had not established baselines, and 40 of 61 had not established metrics; and
- AFMC did not monitor revenues and expenses on work performed on PPPs, and the private industry partner owes $3.1 million to Warner Robins ALC.

This situation stemmed from prior conflicting Air Force guidance, insufficient AFMC oversight, and PPP decisions made above the ALC level for bringing depot maintenance workload back to the depots to satisfy public laws on core capability and 50/50 compliance. Also, the ALCs have not sufficiently reported their PPP revenues and expenses in their quarterly metric submittals. As a result, there is no assurance that the Air Force's use of PPPs is obtaining best value for its maintenance support decisions.

## Department of Defense Guidance

DOD Instruction 4151.21, April 25, 2007, "Public-Private Partnerships for Depot-Level Maintenance," implements policy, assigns responsibilities, and prescribes procedures for depot-level maintenance PPPs under 10 U.S.C. §2474. "PPPs for depot-level maintenance shall be employed whenever cost-effective in providing improved support to the warfighter, and to maximize the utilization of the Government's facilities, equipment, and personnel at DOD depot-level maintenance activities." Strategies for performance-based logistics implementation shall consider using PPPs to satisfy the core capabilities requirements of 10 U.S.C § 2464 and the limitations on the performance of depot-level maintenance and materiel requirements contained in 10 U.S.C. § 2466. Depot-level maintenance PPPs shall be formed around a depot-level maintenance activity's identified core competencies. Such PPPs should contribute to the implementation of best business practices and to the improvement of operations while sustaining core depot-level maintenance and repair competencies. The decision to enter into a PPP must be supported by a BCA considering costs, benefits, and best use of public and private sector capabilities that demonstrate that it is in the Government's best interest.

### *Air Force Guidance*

AFMC issued "AFMC Public-Private Partnership (PPP) Guidance for Depot Maintenance," January 16, 2009, to replace prior AFMC guidance that had expired in March 2007. The new AFMC guidance is interim guidance, valid until both Air Force Instruction 63-101 (released April 17, 2009) and the AFMC Supplement to that Instruction (not yet issued) are released. The guidance provides policy for existing, draft, and future PPP agreements. It also establishes the requirements for each PPP, including

the partnership agreement, the implementation agreement, and a BCA* for each implementation agreement to be completed by the appropriate party. The BCA establishes the baseline of the expected objectives and benefits resulting from the agreement and should help generate metrics for assessing whether the PPP remains the best value solution for the Air Force. The guidance requires the use of BCAs even if the PPP has been directed by leadership, as they provide the foundation for evaluation of the negotiated PPP's value. Throughout the life of the agreement, PPPs are required to have metrics assessed to track whether they are meeting planned objectives. Guidance also requires the Government partner to report these metrics to AFMC quarterly so each active PPP can track all progress made in obtaining the expected benefits identified in the BCAs. These metrics should include triggers and decision alternatives to assist partners with optimizing PPP outcomes.

As stated previously, the Air Force updated and replaced Air Force Instruction 63-107 with Air Force Instruction 63-101, "Acquisition and Sustainment Life Cycle Management," on April 17, 2009. The new Instruction establishes guidelines, policies, and procedures for Integrated Life Cycle Management for systems, subsystems, end-items, and services procured under DOD Instruction 5000.02, "Operation of the Defense Acquisition System." This Air Force Instruction includes a section on PPPs that updates the old Instruction by establishing the buying authority—for example, the program manager—as a partner in PPPs for depot maintenance, in addition to the depot and private industry partner. Further, the new Instruction requires program managers to consider using PPPs and to include PPPs for the engineering and manufacturing development phase in the acquisition of new weapon systems in the Request for Proposal. Program managers must also proactively consider using organic depots in the PPP strategy for fielded weapon systems that are changing their depot maintenance strategies. These updates should help ensure that the program offices are actively involved with the depots with regard to PPPs.

# Public Law Effects on Public-Private Partnerships

## *Core Logistics Capabilities*

Core logistics capabilities are the logistics-related depot-level maintenance capabilities that serve as the DOD's necessary, ready, and controlled source of technical ability, expertise, and resources as required by title 10 U.S.C. § 2464. Core competencies are the set of depot-level maintenance capabilities necessary to enable the Armed Forces to fulfill the strategic and contingency plans prepared by the Joint Chiefs of Staff, and for which the Military Departments believe the DOD should be a recognized leader in the

* AFI 65-509 "Business Case Analysis," September 19, 2008, defines a business case analysis as a decision support document that identifies alternatives and presents business, economic, risk, and technical arguments for selecting an alternative to achieve organizational or functional missions or goals. BCAs do not replace the judgment of the decision maker, but rather aid that judgment by considering possible alternatives, their costs, benefits, and risks, and the degree to which they meet program objectives, or are either within budget constraints or require additional funding. A BCA can vary in size and scope depending on the requirements of the decision maker or reviewing organization.

national technology and industrial base. Core competencies ensure that DOD depot-level maintenance activities are prepared to, and actually do, execute depot-level maintenance in an effective, efficient, and timely manner. To ensure core capability is maintained, Congress enacted 10 U.S.C. § 2464, which requires, in part, that DOD maintain a core logistics capability that is Government owned and Government operated, and that uses Government personnel, equipment, and facilities. This capability provides a ready and controlled source of technical competence and resources for ensuring effective and timely response to mobilization, national defense contingency situations, and other emergency requirements. Statutory guidance and DOD's implementation guidance help ensure that repair capabilities will be available to meet the Nation's military needs in an emergency situation.

### *Limitations on the Performance of Depot-Level Maintenance of Materiel*

Under 10 U.S.C. § 2466(a), no more than 50 percent of funds made available in a fiscal year to a Military Department or Defense agency for depot-level maintenance and repair may be used to contract for the performance by non-Federal Government personnel of such workload for the Military Departments or the Defense agency. Further, 10 U.S.C. § 2466 requires the Secretary of Defense to submit to Congress a report on the performance of depot-level maintenance and repair by the public and private sectors, and identifying for each of the Armed Services the percentage of funds expended during the preceding fiscal year and projected for the current and ensuing fiscal years.

On May 1, 2009, DOD reported to Congress that of the Air Force funds made available for depot-level maintenance, the Air Force is expected to spend 48.7 percent of its funds during FY 2009 and 49 percent during FY 2010 for performance of depot-level maintenance and repair by non-Government personnel. The report also stated that the Air Force projections indicate that the Air Force, to remain compliant, will be required to manage the distribution of depot-level maintenance and repair workloads.

## Public-Private Partnerships Reviewed

We reviewed documentation for 40 PPPs, comprised of 61 implementation agreements, at the three ALCs. (A single PPP can have multiple implementation agreements.) When reviewing documentation, we looked for partnering agreements, implementation agreements, business case analyses, baselines, and metrics.

**Public-Private Partnerships and Implementation Agreements Reviewed**

| Air Logistics Center | Partnership Agreements | Implementation Agreements | Year To Date Revenue Reported as of 30 June 2009 (in millions) |
|---|---|---|---|
| Warner Robins | 15 | 27 | $63.2 |
| Oklahoma City | 10 | 9 | $13.6 |
| Ogden | 15 | 25 | $23.5 |
| **Total** | **40** | **61** | **$100.3** |

Of the 40 PPPs, 28 were direct sales agreements, 9 were workshare agreements, and 3 were lease agreements. The PPPs reported revenues ranging from $15,000 to $50.6 million during the first three quarters of FY 2009. The C-17 ($50.7 million) and F-22 ($8.4 million) PPPs were two of the largest revenue-generating PPPs. Both of these weapon systems use a Performance Based Logistics (PBL) support strategy, with the C-17 private industry partner retaining total system support responsibility. PBL is a strategy for weapon system life cycle sustainment that links product support to weapon system performance and is the DOD's preferred approach for implementing product support.

## *Completion of Business Case Analyses*

Of the 40 PPPs reviewed at the ALCs, 35 were not supported by a BCA to determine the best value support alternative. Also, of the 61 implementation agreements we reviewed, 49 were not supported by BCAs. On January 30, 2002, DOD issued a memorandum on "Public-Private Partnerships for Depot Maintenance" establishing interim policy. Specifically, it stated "the decision to enter into a PPP must be supported by a BCA demonstrating that it is in the best interest of the government." However, in March 2006, AFMC issued a policy memorandum on AFMC PPP Guidance for Depot Maintenance which only highly encouraged that BCAs be developed to evaluate PPP support strategy. This memorandum expired in March 2007, and was eventually replaced in January 2009 by new AFMC guidance requiring the completion and approval of a BCA prior to the performance of any PPP workload.

## Partnership Agreements

Although DOD Instruction 4151.21 requires a BCA, 35 of the 40 PPPs had no BCA. For 35 PPPs, the Air Force did not provide a BCA or analysis of alternatives as to why it established PPPs or why it used particular types of partnership agreements. In some cases we found that PPPs were established in part to satisfy core requirements and to aid the Air Force's 50/50 posture. An Air Force 50/50 review team chartered by the Deputy Assistant Secretary (Logistics), Deputy Assistant Secretary (Acquisition Integration), and the Air Force Deputy Chief of Staff, Installations and Logistics, Directorate of Maintenance conducted program portfolio reviews at all product centers and ALCs to evaluate 50/50 reporting methods, as well as current and future decisions to use contract or organic maintenance. The team briefed the Secretary of the Air Force on the results.

On February 5, 2007, the Air Force issued a memorandum identifying maintenance workloads that should be accomplished through PPPs to assist in preventing a future breach to title 10 U.S.C. § 2466 (50/50). None of the PPPs we reviewed that were entered into based on the memorandum were supported by a BCA. However, BCAs should be completed prior to entering into PPPs and should consider costs, benefits, and best use of public and private sector capabilities to ensure the best interests of the Government.

The ALCs have essential national defense capabilities which the Air Force must maintain organically. Selected C-17 weapon system depot-level maintenance and repair support requirements shall be directed to these ALCs. These depot-level logistics requirements are identified as core work and are covered under the C-17 direct sales partnering agreement. The C-17 weapon system PPP, the largest reported revenue generator, was not supported by a BCA when established. In addition, the C-17 sustainment support was awarded under a PBL contract. ALC PPP workload funding for weapon systems maintenance flows through the private industry partner. The Air Force's decision to award total system support responsibility was not based on a BCA, as documented in DOD Office of Inspector General—Report No. D-2006-101, "Procurement Procedures Used for C-17 Globemaster III Sustainment Partnership Total System Support," July 21, 2006. The report determined that:

> Air Force officials did not use an appropriate methodology for making the acquisition decision to procure contractor total system support for the C-17 aircraft. Specifically, the Air Force decision to award total system support responsibility was not based on a BCA. This occurred because senior Air Force officials directed the C-17 program office to focus efforts solely on a partnership with the contractor without fully considering additional sustainment strategies. As a result, the Air Force awarded an $871 million long-term contract (with a potential value of almost $5 billion) without proper and necessary support and did not make fully informed sustainment strategy decisions. These decisions will impact future options for sustaining the C-17 when aircraft production is complete. Furthermore, unless the Air Force develops and completes a thorough BCA, it will increase the risk of implementing for the life of the aircraft a sustainment strategy that does not achieve best value.

Unless the Air Force analyzes all alternatives before awarding a PBL contract, there is no assurance the Air Force received best value under this partnership agreement.

The F-22 PPP supports Air Force core capability decisions ensuring compliance with statutory requirements and supports source of repair assignment process decisions. One of the partnering objectives is to ensure that depot maintenance workload designated as "core" is reserved for performance by organic resources. To support this requirement, in 2005, the F-22 system program office directed an 8-month fact-finding effort to determine whether to use a direct sales or workshare partnership agreement for the F-22 PPP. The team was a joint effort among the system program office, the ALCs, and the private industry partners. The team concluded, as documented in the contractor-prepared Depot Partnering whitepaper, that, compared with a workshare partnership agreement, the direct sales partnership agreement would add an estimated 6 percent cost to the annual depot-level reparable and heavy maintenance workload. The private industry

partners believed that more financial flexibility and accountability exists with a direct sales partnership agreement, but the ALCs disagreed and preferred the workshare partnership agreement. We requested the supporting data but they were unable to provide the data. However, in 2005 the Aeronautical Systems Center requested Warner Robins ALC to conduct an in-depth analysis of the Depot Partnering whitepaper submitted by the private industry partner team, assessing the merits of a direct sales agreement over a workshare approach to depot maintenance partnering for the F-22 sustainment. Warner Robins ALC concluded, based on a qualitative assessment of the whitepaper, "that a workshare partnering approach for sustainment of the F-22 system provides a substantial cost savings to the program, and the taxpayer while allowing greater flexibility in managing funds with equal accountability and responsibility in performance of organic depot provided services." Some of the issues cited in Warner Robins ALC's analysis of the whitepaper's supporting data included that the required level of workshare oversight or subcontract management was not consistently applied across all workloads; the impact of software maintenance workload was not included in the analysis even though it has the potential to be a significant portion of the depot workload; and contrary to the whitepaper, a direct sales agreement would provide less flexibility in moving funds obligated under a contract than a workshare partnership. Ultimately, the Air Force used the direct sales partnership agreement.

The largest percentage of reported revenues generated from PPPs is associated with PBL contracts. To ensure best value, BCAs or analyses of alternatives that address core capability, 50/50 requirements, and type of PPP arrangement should occur early in the acquisition cycle for new weapon systems and prior to award of sustainment contracts for current weapon systems. These analyses should evaluate all alternatives and the resulting decisions should be in the best interest of the Government.

## Implementation Agreements

New AFMC guidance, issued in January 2009, requires BCAs for all implementation agreements. Of the 61 implementation agreements we reviewed, 49 were not supported by BCAs. Four of the implementation agreements were supported by adequate BCAs. The remaining eight implementation agreements were supported by an analysis of alternatives, called Depot Partnering Assessments (DPAs), which were developed jointly by the prime contractor and the Air Force. The DPAs complied with BCA requirements in Air Force Manual 65-510, "Business Case Analysis Procedures," September 22, 2008. Each of the DPAs compared non-recurring (startup) costs and recurring costs of contractor maintenance, PPP maintenance (with direct sales agreement), and traditional organic maintenance. The DPAs also considered other issues, such as core capability and 50/50 benefits for the Air Force. Although contractor support was almost always the least costly option, all of the DPAs recommended the direct sale partnership approach, often because of the core capability and 50/50 benefit to the Air Force. However, the F-22 system support office could not provide any documentation used in the development of the supporting data for the DPAs' conclusions and recommendations. Also, one scenario not analyzed in the DPAs was a workshare agreement partnership because the decision to use direct sales was made at a higher level. Without a valid BCA or analysis

of all alternatives, there is no assurance the Air Force is using the best PPP approach for maintaining the F-22 weapon system.

## *Establishment of Baselines and Metrics*

Of the 61 implementation agreements and associated documentation, 51 had not established baselines, and 40 had not established PPP metrics. Baselines and metrics are used to measure PPP benefits. A baseline serves as the starting point for measuring progress in the quality or quantity of work or performance related to either a product or a service. The baseline indicates a condition at a certain point in time; the result of work or performance from that point onward shows whether conditions are improving, staying even, or getting worse. Metrics measure the efficacy of the PPP for the Air Force and AFMC. It is important to establish both baselines and metrics for the partnerships. For example, in the partnering agreement for the Low Altitude Navigation and Targeting Infrared for Night PPP, the baseline is established as the average repair time before the PPP took place, and metrics are measured in the form of turnaround time in days. Without baselines and metrics, the ALCs cannot measure the relative value of the PPP or the improvement in performance. As noted in an April 2003 Government Accountability Office (GAO) Report[†] that reviewed DOD participation in PPPs, "DOD has a limited ability to measure the overall success of its partnering efforts because it has not yet developed measurable goals for the expected outcomes of the effort, and the metrics that it has developed sometimes will not provide the data needed to fully assess the partnerships." The January 2009 AFMC memorandum guidance requires BCAs to establish the baselines of expected objectives and benefits resulting from the agreement and to assist in the generation of metrics to be used to assess whether the PPP remains the best viable solution. The principal Government partner in the business activities must establish and track metrics to measure achievement of the objectives.

## *Oversight of Revenues and Expenses on PPP Workload*

The ALCs were not adequately monitoring and reporting revenues and expenses on work performed on PPPs. DOD Financial Management Regulation 7000.14-R, Volume 11B, Chapter 11, requires depot maintenance activities to receive funding in advance and recover all expenses of work performed.

We contacted Defense Contract Management Agency (DCMA) personnel to discuss expenses for the C-17 direct sales PPP. The C-17 PPP is a direct sales partnering agreement under a PBL contract. During the discussion, DCMA personnel stated that the C-17 PPP had not yet recovered all of its workload expenses. Warner Robins ALC contracting personnel subsequently confirmed this statement. As of July 2009, Warner Robins ALC had not recovered from the private industry partner all costs of the C-17 PPP workload dating back to FY 2007. Depot personnel at Warner Robins ALC had identified the issue and attempted to recover unfunded costs from the private industry partner. When the two parties did not resolve discrepancies, the DCMA Administrative

[†] "Public-Private Partnerships Have Increased, but Long-Term Growth and Results Are Uncertain," (Report No. GAO-03-423), April 10, 2003.

Contracting Officer was brought into the discussions. The Administrative Contracting Officer agreed with the Warner Robins ALC that the private industry partner owed the ALC funding. According to a depot contracting officer at Warner Robins ALC, unfunded expenses amounted to approximately $4.3 million for C-17 PPP workload from FY 2007 through May 2009. Warner Robins ALC had resubmitted a request for reimbursement to the private industry partner. As of October 19, 2009, the Warner Robins ALC contracting officer reported that the amount of unreimbursed costs was reduced by $1.2 million, and the contracting officer eventually expects to receive the remaining unreimbursed costs. More timely communication between all Government parties could have prevented this situation.

In the first quarterly report to AFMC headquarters for FY 2009, only Ogden ALC reported actual expenses incurred. The report showed four PPPs with expenses higher than revenues, indicating possible losses. We looked further into the larger two: a $6.2 million dollar loss on the secondary power systems PPP, and a $5.1 million loss on the F-22 heavy maintenance PPP. According to depot personnel, two factors account for the loss on the secondary power systems PPP. First, the ALC was recording expenses for indirect materials even though they were provided by the private industry partner at no charge. The private industry partner was not billed for these costs, so there were no revenues to offset the costs. Second, the depot adjusted overhead application rates across all depot workload, generating additional costs for the PPP. Neither of the costs was an actual PPP expense and neither should have been reported as such. For the F-22 heavy maintenance PPP, the depot was uncertain of the reason for the reported loss, offering various explanations. We eventually received a thorough explanation, but only after an in-depth review by depot personnel as a result of our audit. The reported loss was caused by overhead application rates. Had the ALC been monitoring the PPP more carefully, they would have more accurately reported revenues and expenses in the quarterly report to AFMC. Neither Oklahoma City ALC nor Warner Robins ALC reported expenses at all. As a result, there was no assurance that the Air Force was recovering all costs related to PPPs.

## Air Force Actions

The Air Force recognized that improvements were needed in the PPP process and took action to improve it. The AFMC Commander directed the standup of a centralized office to improve and standardize the Air Force way of doing business. This decision came after a series of GAO reports detailed deficiencies in DOD and Air Force business practices. On January 31, 2008, the AFMC Commander approved the creation of the AFMC Business Integration Office (BIO). Its mission is to shape AFMC's best business practices; provide insight into proposed and existing AFMC business PPPs; serve as the single entry-point for industry and Government business partners; serve as the marketing and business development office for AFMC; integrate business practices across AFMC with counterparts in the Office of the Secretary of Defense and Air Force; and execute AFMC governance of business partnerships, ensuring sufficiency, acceptability, and standardization of practices.

The AFMC BIO has discussed potential improvements in the PPP process with AFMC leaders, ALC Commanders, and ALC Center Business Offices. The BIO has created templates for PPP strategic partnering agreements and partnership agreements for the ALCs. The ALCs now send PPP documentation, such as the overarching partnership agreement, implementation agreements and BCAs to the BIO for review prior to finalizing.

AFMC issued a policy memorandum on January 16, 2009, providing guidance to the ALCs on depot maintenance PPPs. The memorandum standardizes PPP business practices across the ALCs, mandating BCAs for all implementation agreements. The BCAs are to establish baselines of expected benefits and assist in generation of metrics to track benefits. As required by the AFMC policy memorandum, once PPPs are established, program managers will capture quantifiable and measureable cost data related to PPPs, such as direct labor, overhead, and general and administrative expenses. The memorandum also requires that the ALCs report quarterly to the BIO on metrics for all active PPPs and track PPP benefits. AFMC started collecting PPP metrics, including revenues and expenses, in 2009 following the release of their PPP policy memo. The policy memorandum is in effect until the issuance of both Air Force Instruction 63-101, which was released in April 2009, and the AFMC Instruction supplement, which has not yet been issued.

## Conclusion

Although the Air Force has since taken action to improve the PPP process, it needs to do more. The Air Force was inadequately supporting decisions to establish PPPs, as well as decisions on the type of partnership arrangements used, and they were not adequately monitoring the established PPPs. The Air Force is utilizing PPPs as a way to bring maintenance workload back to the depots to satisfy public laws concerning core capabilities and 50/50 regulations. Although BCAs are required, most PPPs have not completed BCAs nor have they established metrics and baselines to measure results. Without BCAs that analyze costs, benefits, and the best use of public and private sector capabilities, the Air Force cannot be sure that these PPPs are the best value support alternative and in the best interest of the Government. In these analyses, the Air Force needs to consider the costs and benefits of workshare agreements versus direct sales agreements when entering into PPPs. In addition, the Air Force needs to ensure that core capability and 50/50 law issues are addressed early in both the weapon system's acquisition and the sustainment strategy planning. Also, the Air Force must require the appropriate offices to complete BCAs and establish metrics and baselines to measure performance. Without established baselines and metrics, the Air Force cannot track whether the PPPs meet the planned objectives, obtain the expected benefits, and remain the best viable solution. To ensure that all PPP expenses are recovered in a timely manner, AFMC should reemphasize to the ALCs the requirement to report PPP revenues and expenses in their quarterly reports to the AFMC. The AFMC must emphasize the importance of timely, accurate, and consistent reporting of PPP performance.

# Management Comments on the Finding and Our Response

The Air Force provided the following comments for consideration.

## *F-22 Depot Partnering Assessment Documentation*

The AFMC disagreed that the F-22 System Support Office could not provide documentation supporting the conclusions and recommendations for the DPAs since the office did demonstrate substantial rationale. In addition, they disagreed with the assertion that the F-22 System Support Office did not adequately analyze a workshare agreement scenario. The AFMC maintained that the Air Force and the Office of the Secretary of Defense approved the use of the F-22 Acquisition strategy to use the direct sales agreement approach, deeming it in the best interest of the Air Force at that point in time.

### *Our Response*

We agree that the F-22 System Support Office provided documentation in the form of detailed cost comparisons for the DPAs; however, they were unable to provide adequate support for how they developed that data. We agree that the decision to use direct sales was made at a higher level which precluded the need for an analysis of a workshare agreement during the development of the DPAs. We reworded the appropriate section to take into account the AFMC comments.

# Recommendations, Management Comments, and Our Response

## *Revised and Redirected Recommendation*

As a result of management comments, we revised and redirected Recommendation 1 as follows.

**1. We recommend the Assistant Secretary of the Air Force for Installations, Environment and Logistics:**

**a. Ensure Air Force policy requires preparation of a business case analysis prior to approval of a public-private partnership and as early in the acquisition cycle as possible.**

**b. Ensure Air Force policy requires a business case analysis to provide sufficient detail, including an analysis of costs/benefits and 50/50 and core workload requirements, that demonstrates the agreement is in the Government's best interest.**

## *Management Comments*

The Deputy Chief of Staff for Logistics, Installations and Mission Support, U.S. Air Force in coordination with the office of the Assistant Secretary of the Air Force for Installations, Environment and Logistics agreed with the intent of our recommendation but recommended that we revise and redirect the recommendation to the Assistant Secretary of the Air Force for Installations, Environment and Logistics. In addition, the Deputy Chief of Staff stated that Air Force Instruction 63-101, "Acquisition and Sustainment Life Cycle Management," will be updated to incorporate language from AFMC guidance that requires BCAs for all PPPs and implementation of the revised Recommendation 1 actions. The estimated completion date for update to Air Force Instruction 63-101 is July 2010.

## *Our Response*

We agree with the redirection of and revision to the recommendation. Establishing Air Force policy requiring BCAs with sufficient detail to include analysis of cost/benefits, and 50/50 and core workload requirements as early in the acquisition cycle as possible should improve the PPP process to ensure the Government's best interest. In addition, incorporating the revised recommendation into Air Force Instruction 63-101, "Acquisition and Sustainment Life Cycle Management," will define roles and responsibilities to ensure adequate BCAs are prepared for PPPs. The policy will also address the impact on 50/50 and core requirements. This revised recommendation meets the intent of our original recommendation. No further comments are required.

**2. We recommend that for each public-private partnership the Commander, Air Force Materiel Command:**

**a. Verify that the Air Logistics Centers or weapon systems program managers have completed a business case analysis commensurate with expected revenues.**

**b. Verify that baselines and metrics have been established.**

**c. Require Air Logistics Centers to report revenues and expenses quarterly and monitor performance to ensure the recovery of workload expenses.**

**d. Verify that the private industry partner pays the Warner Robins Air Logistics Center for the remaining $3.1 million in C-17 unfunded work expenses for FY 2007 through May 2009.**

## *Management Comments*

The Deputy Chief of Staff for Logistics, Installations and Mission Support, U.S. Air Force in coordination with AFMC agreed with the recommendation. AFMC has established new procedures and guidance to ensure completion of BCAs and

establishment of baselines and metrics prior to PPP approval. It will identify metrics in the BCAs for all new PPPs. AFMC will continue to update and improve existing policies and procedures to report PPP revenues and expenses quarterly. It will implement a review process to monitor performance and ensure recovery of workload expenses.

## *Our Response*

Air Force comments to the draft recommendations were fully responsive. No further comments are required.

# Appendix. Scope and Methodology

We conducted this performance audit from January 2009 through February 2010, 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 finding and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We reviewed PPPs at the three Air Force ALCs: Hill AFB, Utah; Tinker AFB, Oklahoma; and Robins AFB, Georgia. We reviewed 40 partnerships as well as their 61 implementation agreements open during FY 2009. At each ALC we reviewed the partnering agreements, implementation agreements, and other available documentation to determine whether BCAs had been completed and whether baselines and metrics had been established to track partnership performance.

We contacted officials at the Office of the Under Secretary of Defense for Logistics and Materiel Readiness and the U.S. Air Force (Logistics, Installation and Mission Support) to obtain an overview of PPPs and determine their oversight roles. We visited AFMC to understand its role in the PPP process, oversight, and the latest policy guidance. We met with personnel at all three ALCs. We met with the C-17 Program Office. In addition, we contacted the DCMA C-17 Administrative Contract Officer about responsibilities for managing C-17 PPP arrangements entered into by Air Force depots. We met with personnel from the F-22 System Support Office, Ogden, Utah to discuss DPAs, as well as the advantages and disadvantages of workshare versus direct sale agreements.

To perform the audit we reviewed Federal, DOD, and Air Force guidance that provides direction and procedures on the management of PPPs.

## Use of Computer-Processed Data

We did not use computer-processed data to perform this audit.

## Prior Coverage

During the last 6 years, the GAO, and the Army Audit Agency have issued three reports discussing PPPs. Unrestricted GAO reports can be accessed over the Internet at http://www.gao.gov. Unrestricted Army reports can be accessed from .mil and gao.gov domains over the Internet at https://www.aaa.army.mil/.

### *GAO*

GAO Report No. 08-902R, "Depot Maintenance: DOD's Report to Congress on Its Public-Private Partnerships at Its Center of Industrial and Technical Excellence (CITEs) Is Not Complete and Additional Information Would Be Useful," July 1, 2008

GAO Report No. 03-423, "Public-Private Partnerships Have Increased, but Long-Term Growth and Results Are Uncertain," April 10, 2003

## *ARMY*

Army Audit Agency report No. A-2008-0058-ALM, "Benefits of Public-Private Partnerships," Deputy Chief of Staff, G-4, February 7, 2008

# Office of the Deputy Chief of Staff for Logistics, Installations and Mission Support, U.S. Air Force Comments

**DEPARTMENT OF THE AIR FORCE**
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, DC

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL, READINESS, OPERATIONS AND SUPPORT DIRECTORATE

FROM: HQ USAF/A4/7
1030 Air Force Pentagon
Washington, DC 20330-1030

SUBJECT: Public-Private Partnerships at Air Force Maintenance Depots (Project No D2009-D000LD-0110.000) (reference your memo 19 Feb 10)

Per your request, comments to the subject draft report are provided at Attachment 1. These comments were coordinated with the Deputy Chief of Installations, Environmental and Logistics and Vice Commander Air Force Materiel Command.

Our POC is Leo Sears, AF/A4LM, DSN 425-1662.

FOR LOREN M. RENO
Lieutenant General, USAF
DCS/Logistics, Installations & Mission Support

1 Attachment
1. Air Force Comments to Project No D2009-D000LD-0110.000

cc:
SAF/IEL
HQ AFMC/A4

**ATTACHMENT 1**

**Air Force Comments to Draft "Public-Private Partnerships at Air Force Maintenance Depots" (Project No D2009-D000LD-0110.000)**

DODIG Recommendation #1:

Concur with intent with the following change in wording recommended:

1. We recommend the Assistant Secretary of the Air Force for Installations, Environment and Logistics:

a) Ensure AF level policy is in place that requires a Business Case Analysis (BCA) is prepared prior to approval of a Public-Private Partnership (PPP) as early in the acquisition cycle as possible.

b) Ensure AF level policy is in place requiring BCAs provide sufficient detail that demonstrates the agreement is in the best interest of the Government. As a minimum, the BCA should include the analysis of costs/benefits, and 50/50 and Core workload requirements."

AFI 63-101 is being updated to incorporate language from AFMC/CC Guidance Memo, "AFMC Public-Private Partnership (PPP) Guidance for Depot Maintenance", dated 16 Jan 2009. The new language will require BCAs for PPPs. It will require the BCA to state how the PPP contributes to the achievement of its objectives, reasons why the PPP is in the best interests of the government, why the particular type of PPP was selected (e.g., work share versus direct sale), the metrics that will be used to evaluate the effectiveness of each solution and the performance expectations for the PPP expressed in terms of the proposed metrics. The BCA will also address the impact the PPP will have on AF Core and 50/50 posture. Estimated completion date of update to 63-101 is July 2010."

DODIG Recommendation #2:

Concur with DODIG's second recommendation with the following comments:

2a. New procedures and guidance that ensures the completion of a Business Case Analysis (BCA) prior to the approval of a PPP were in place prior to the initiation of the DoD/IG audit as published in the 16 Jan 2009 AFMC PPP Guidance Memo. AFMC is aggressively working towards compliance for all PPPs.

2b. The 16 Jan 2009 AFMC PPP Guidance Memo also requires all PPPs to establish baselines and metrics that support the PPP goals prior to PPP approval. AFMC is aggressively working towards compliance for all PPPs. Metrics for new PPPs will be identified in the respective BCA.

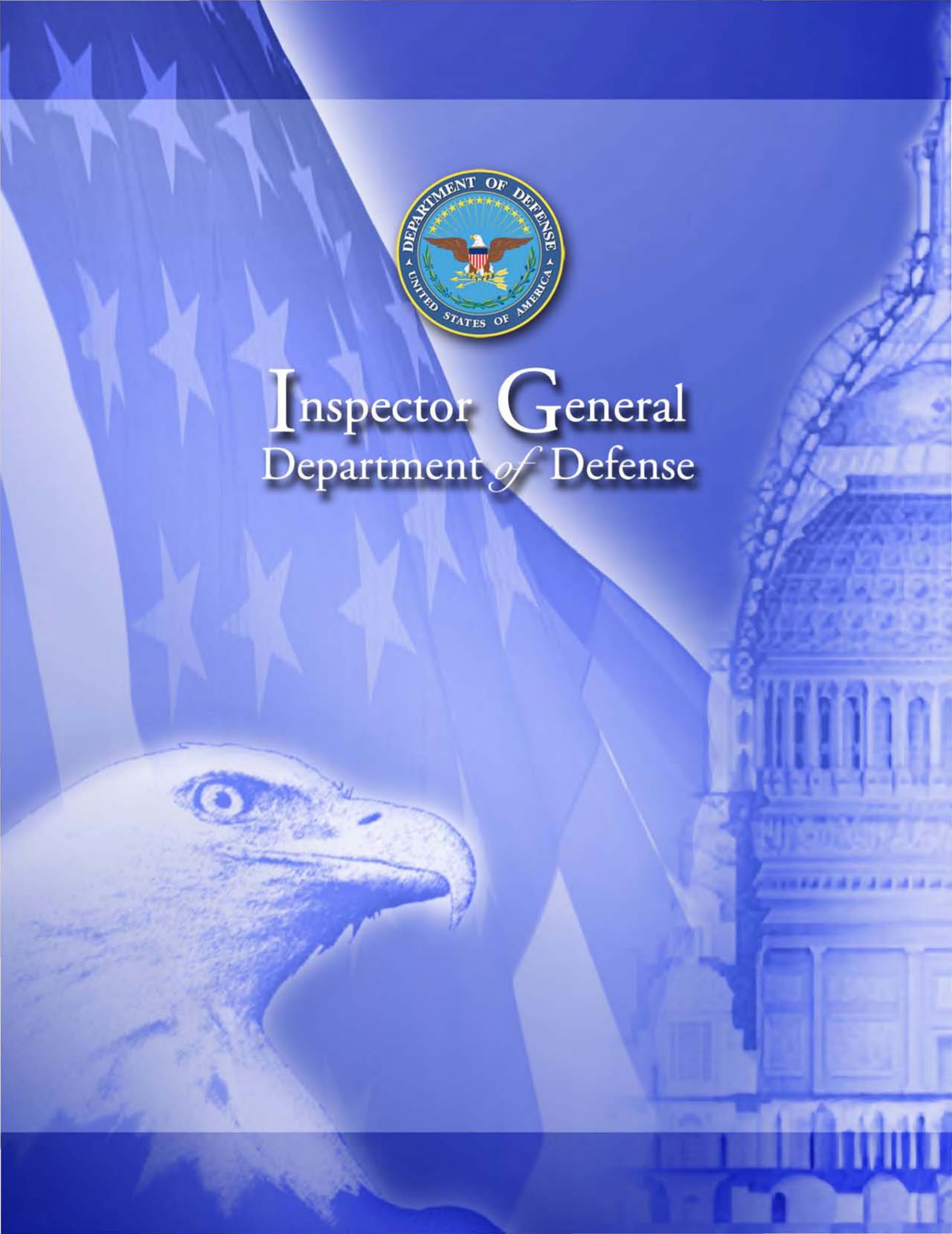
2c. AFMC will update and implement policy and procedures requiring Air Logistics Centers to report quarterly PPP revenues and expenses. In addition, AFMC will implement a review process that monitors performance to ensure the recovery of workload expenses for PPPs.

2d. AFMC will aggressively assist and monitor the recovery of $3.1 million in C-17 unfunded work expenses for the Warner Robins Air Logistics Center.

Other Report Comments:

Disagree with the reference that the F-22 system support office could not provide documentation supporting the Depot Partnering Assessments (DPA) conclusions and recommendations since the DPAs have substantial quantitative and qualitative rationale for their activate/not activate recommendations.

Disagree with the assertion that the F-22 SSO did not adequately analyze a work-share agreement scenario. The F-22 Acquisition Strategy was approved by the AF and OSD and the F-22 SPD made the decision that direct sales was in the best interest of the program and the Air Force at the point in time.


Inspector General
Department of Defense