Audit Report

OFFICE OF THE INSPECTOR GENERAL

CONSULTING SERVICES CONTRACTS FOR OPERATIONAL TEST AND EVALUATION

Report Number 91-115

August 22, 1991

Department of Defense

The following abbreviations and acronyms are used in this report.

AMRAAM.....Advanced Medium Range Air-to-Air Missile
AFOTEC.....Air Force Operational Test and Evaluation Center
Army Board.....U.S. Army Air Defense Artillery Board
Army School.....U.S. Army Air Defense Artillery School
BDM.....BDM International Inc.
Booz-Allen.....Booz-Allen & Hamilton Incorporated
CAAS.....Contracted Advisory and Assistance Services
CAS.....CAS Incorporated
Colsa.....Colsa Incorporated
Development.....Development, Production, or Testing
Director/DOT&E.....Director of Operational Test and Evaluation
FAR.....Federal Acquisition Regulation
GAO.....General Accounting Office
IDA.....Institute for Defense Analysis
MACA.....Management Assistance Corporation of America
McLaughlin.....McLaughlin Research Corporation
MCOTEA.....Marine Corps Operational Test and Evaluation Activity
MILSTAR.....Military, Strategic, Tactical and Relay System
OMB.....Office of Management and Budget
Operational Test.....Operational Test and Evaluation
OPTEC.....Army Operational Test and Evaluation Command
OPTEVFOR.....Navy Operational Test and Evaluation Force
OTEA.....Army Operational Test and Evaluation Agency
Radar.....Over-The-Horizon Backscatter Radar System
SAIC.....Science Applications International Corporation
Services.....Advisory and Assistance Services
Test Agency.....Operational Test Agency
Test Center.....Pacific Missile Test Center
Veda.....Veda Incorporated

INSPECTOR GENERAL
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August 22, 1991

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION
ASSISTANT SECRETARY OF DEFENSE (FORCE MANAGEMENT AND PERSONNEL)
DIRECTOR OF DEFENSE PROCUREMENT
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT)
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL MANAGEMENT AND COMPTROLLER)
DIRECTOR, OPERATIONAL TEST AND EVALUATION

SUBJECT: Audit Report on Consulting Services Contracts for Operational Test and Evaluation (Report No.

This final report is provided for your information and use. The audit was made in response to a request by Representative Barbara Boxer and addresses the advisory and assistance services contractors that participated in the development, production, testing or operational test and evaluation of major Defense systems. Management comments were considered in preparing this report.

The DoD Directive 7650.3 requires all audit recommendations to be resolved promptly. Therefore, all addressees except for the Under Secretary of Defense for Acquisition and the Director of Defense Procurement must provide final comments on the unresolved recommendations and monetary benefits by October 21, 1991. See the "Status of Recommendations" section at the end of each finding for the unresolved recommendations and the specific requirements for your comments.

The DoD Directive 7650.3 also requires that comments indicate concurrence or nonconcurrence in the finding and each recommendation addressed to you. If you concur, describe the corrective actions taken or planned, the completion dates for actions already taken, and the estimated dates for completion of planned actions. If you nonconcur, you must state your specific reasons for each nonconcurrence. If appropriate, you may propose alternative methods for accomplishing desired improvements.

If you nonconcur with the estimated monetary benefits or any part thereof, you must state the amounts you nonconcur with and the basis for your nonconcurrence. Recommendations and potential monetary benefits are subject to resolution in accordance with DoD Directive 7650.3 in the event of nonconcurrence or failure to comment. We also ask that your comments indicate concurrence or nonconcurrence with the internal control weakness highlighted in Part I.

The courtesies extended to the staff are appreciated. If you have any questions on this audit, please contact Mr. Garold E. Stephenson, Program Director, at (703) 614-6275 (DSN 224-6275) or Mr. Henry F. Kleinknecht, Project Manager, at (703) 614-3461 (DSN 224-3461). The planned distribution of this report is listed in Appendix T.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Enclosure

cc:
Secretary of the Army
Secretary of the Navy
Secretary of the Air Force
Director, Defense Acquisition Regulations System

Office of the Inspector General, DoD

AUDIT REPORT NO. 91-115 August 22, 1991
(Project No. 0CH-5009)

CONSULTING SERVICES CONTRACTS FOR OPERATIONAL TEST AND EVALUATION

EXECUTIVE SUMMARY

Introduction. The Director of Operational Test and Evaluation (the Director) is the principal advisor to the Secretary of Defense and the Under Secretary of Defense for Acquisition on Operational Test and Evaluation (operational tests) in DoD. Each DoD Component has one major field Operational Test Agency that is responsible for planning, conducting, and reporting all operational tests for major Defense acquisition programs.

Objectives. The overall objective was to determine whether the same advisory and assistance services (services) contractors that participated in the development, production, or testing (development) of major Defense acquisition systems were also involved in the operational tests of those systems. In addition, we determined whether using services contracts to provide support for operational tests was more cost-effective than developing a capability to perform the work in-house. We also evaluated the effectiveness of applicable internal controls.

Audit Results. The Military Departments' Operational Test Agencies (Test agencies) frequently used the same services contractors to support operational tests for major Defense acquisition systems that participated in the development of the systems. As a result, operational tests did not attain the desired impartiality and independence, test assessments may be biased, and systems may be produced and deployed with unknown performance limitations (Finding A).

The Director and the Test agencies also used repeated and extended services contracts to support operational tests that were not as cost-effective as developing an in-house capability to perform the work. As a result, DoD was dependent on the services contractors for program continuity and the "corporate knowledge" needed to plan, analyze, and report operational tests, and spent over $44 million annually for contractor assistance that was not as cost-effective as developing an in-house capability (Finding B).

Internal Controls. Internal controls were not adequate to prevent the services contractors that had participated in development of major Defense acquisitions systems from supporting operational tests for the systems (Finding A). See internal controls section in Part I of this report for more details.

Potential Benefits of Audit. The audit showed that the Director and the Test agencies could reduce costs by about $26.1 million for FY's 1992 through 1996 by decreasing their services contracts 60 percent and developing an in-house capability to support operational tests (Appendix R).

Summary of Recommendations. We recommended additional procedures, legislative changes, internal controls, and replacing services contractors with in-house civilian employees.

Management Comments. The Director concurred with Finding A recommendations to require program managers to identify services contractors used for development and to develop a standard organizational conflict of interest clause. The Director did not believe there was a need for legislation that would allow Test agencies to obtain waivers to use the same services contractors to support operational tests that participated in development. The Director of Defense Procurement agreed to include the conflict of interest clause in DoD regulations.

The Army, Navy, and Air Force concurred with Finding A recommendations to insert conflict of interest clauses in services contracts and to direct contracting officers to enforce the provisions. The Army did not believe any conflicts of interest had occurred, the Navy agreed to take action to remove existing conflicts of interest, and the Air Force thought that the same contractors should be able to support operational tests and development when "adequate safeguards" were in place.

The Director, the Assistant Secretary of Defense (Force Management and Personnel), and the Navy basically nonconcurred with Finding B recommendations to hire additional civilian personnel and reduce their reliance on services contractors. The Army concurred with the recommendations and the Air Force basically concurred pending an analysis of the costs and benefits.

The DoD Director of Contracted Advisory and Assistance Services (CAAS), commented that its current CAAS definition excluded the contractor services used by the Test agencies.

We request that the Director of Operational Test and Evaluation, the Assistant Secretary of Defense (Force Management and Personnel), the Army Operational Test and Evaluation Command, the Navy Operational Test and Evaluation Force, the Air Force Operational Test and Evaluation Center, and the Director of Contracted Advisory and Assistance Services provide additional comments to the final report by October 21, 1991. The full discussion of the responsiveness of management comments is included in Part II of the report, and the complete text of management comments is included in Part IV of the report.

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This report was prepared by the Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD. Copies of the report can be obtained from the Information Officer, Audit Planning and Technical Support Directorate, (703) 693-0340.

PART I - INTRODUCTION

Background

Operational Test and Evaluation (operational test) is the field test, under realistic conditions, of any item (or key component) of weapons, equipment, or munitions for determining their effectiveness and suitability in combat by typical military users and the evaluation of the results of such tests. The primary purpose of operational tests is to ensure that only operationally effective and suitable systems are delivered to the operating forces.

The Director of Operational Test and Evaluation (the Director) is the principal advisor to the Secretary of Defense and the Under Secretary of Defense for Acquisition within DoD. The Director prescribes policies and procedures for the conduct of operational tests, monitors and reviews operational tests, and coordinates operational tests conducted jointly by more than one Military Department or Defense agency.

In each DoD Component, one major field Operational Test Agency (Test agency) is responsible for planning and conducting all operational tests. In addition, the Test agency conducts operational tests, reports test results, and provides an evaluation of the tested system's operational effectiveness and suitability directly to the appropriate Service chief or Defense agency director. The Test agency is independent from the material developing/procuring agency and the using agency.

The Director oversees operational tests conducted by the four Test agencies within the Services, which include: the Army Operational Test and Evaluation Agency (OTEA), the Navy Operational Test and Evaluation Force (OPTEVFOR), the Air Force Operational Test and Evaluation Center (AFOTEC), and the Marine Corps Operational Test and Evaluation Activity (MCOTEA). In November 1990, the Army's Operational Test Agency was reorganized into the Army Operational Test and Evaluation Command (OPTEC).

Objectives

The overall objective of this audit was to determine whether the same services contractors that participated in the development of major Defense acquisition systems were also involved in the operational tests of those systems. We also evaluated the effectiveness of applicable internal controls. We expanded the scope of our objective during the survey phase to determined whether using services contracts was more cost-effective than developing a capability to perform the work in-house.

Scope

Annual report on operational tests. We initially selected four systems from each Military Department from the Director's FY 1989 Annual Report on Operational Tests. We did not include the Marine Corps in our review because no programs were described in the report. For the Navy, we changed our approach and reviewed two systems and each of the Test agency's services contracts (excluding classified contracts) and determined whether any of the contractors or subcontractors were also supporting development.

Services contracts used in FY's 1989 and 1990. We visited the program management office, development or technical test sites, and the operational test sites to review the services contracts used in FY's 1989 and 1990. We determined the costs of these contracts, the contractors and subcontractors performing the work, and the specific taskings each contractor performed. We also determined the services contractors from earlier fiscal years.

Hourly costs for services contractors. We analyzed costs on 21 services contracts and determined the hourly costs for each of the contractor personnel categories. We compared these hourly costs to the hourly costs of comparable civilian Government employees. The Director and the Test agencies spent over $44 million for services contractors in FY 1990.

Audit period, reason for audit, standards, and locations. This program audit was made from April 1990 through January 1991 at the request of Representative Barbara Boxer who was interested in knowing to what extent contractors involved in the development or production of a weapon system were also hired to consult on the operational tests of those systems, and for what purpose. The audit was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and accordingly included such tests of internal controls as were considered necessary. The implementation of the Federal Managers' Financial Integrity Act by Defense activities to strengthen internal controls did not specifically relate to our audit objectives; therefore, an evaluation was not possible within the scope of our audit. We did not rely on any computer-based data to accomplish the audit objectives. Activities visited or contacted are listed in Appendix S.

Internal Controls

The audit identified material internal control weaknesses as defined by Public Law 97-225, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. Controls were not established or effective to prevent services contractors from

supporting operational tests and development for major Defense acquisition systems. All recommendations to Finding A in this report, if implemented, will correct the weaknesses. We have determined that monetary benefits will not be realized by implementing recommendations to Finding A. A copy of this report will be provided to the senior official responsible for internal controls within the Secretaries of the Army, Navy, and Air Force.

Prior Audits and Other Reviews

General Accounting Office (GAO) reports.

GAO Report No. NSIAD-90-119, (OSD Case 8026-A), "CONSULTING SERVICES: Role and Use in Acquiring Three Weapon Systems," August 20, 1990, stated that GAO reviewed three DoD weapon systems to determine:

- how DoD used consulting services in acquiring these systems;
- how the systems' contractors used consultants;
- whether consultants worked for both the Government and Defense contractors on these systems, and if so, whether any conflicts of interest existed; and
- how well DoD identified and reported its use of consulting services.

GAO found no basis to conclude that conflicts of interest existed in the three instances it identified where consultants worked for both the Government and a Defense contractor on matters related to the same weapon system. GAO's review, however, did highlight key principles to guide the Government's approach to addressing conflicts of interest concerns, among them the need for Government awareness of consultant employment relationships in order to make informed judgment about potential conflicts and the use of appropriate contract clauses to avoid or mitigate identified conflicts. No recommendations were made in this area.

GAO also found that DoD did not accurately identify or report its use of consulting services, due to difficulties in interpreting the definitions of these services or other internal control weaknesses. For this finding, GAO recommended that the Secretary of Defense:

- review and clarify existing guidance on CAAS to preclude differing interpretations among the Services;

o direct the DoD and component CAAS directors to strengthen their review procedures to ensure that the Services accurately report CAAS budget data; and

o direct the Secretaries of the Army, Navy, and Air Force to review, and where necessary, develop or revise their individual instructions and procedures to ensure that CAAS is accurately identified and entered into the accounting system.

DoD concurred with the finding and recommendations and stated that it will develop an "action plan" to strengthen CAAS management and reporting controls.

GAO Report No. NSIAD-91-60, (OSD Case 8382), "TEST AND EVALUATION: The Director, Operational Test and Evaluation's Controls Over Contractors," December 21, 1990, addressed the Director's management of its contracts, controls over conflicts of interest, the appropriateness of the use of the Institute for Defense Analysis, and the Institute's conflict of interest controls over its use of consultants and subcontractors. GAO found that the Director was complying with existing policies and procedures relating to possible conflicts of interest but was concerned about work performed by the Institute. GAO made no recommendations.

GAO Draft Report Code 966408, (OSD Case 8772), "GOVERNMENT CONSULTANTS: Are Contract Consultants Performing Inherently Governmental Functions," July 19, 1991, addressed the issue of determining what functions are inherently Governmental. GAO found that it was difficult to apply the Office of Management and Budget (OMB's) broad definition of inherently Governmental functions objectively to functions not specifically listed in the guidance. GAO also found that regardless of whether the Government carries out activities with its own employees or by contract, it must have the core capability and a sufficient number of trained and experienced staff to properly manage and be accountable for its work. GAO recommended that OMB:

o clarify guidance to agencies on contracting for consulting services,

o compile a short generic list of functions which should never be contracted out, and

o require implementing instructions from each agency.

GAO also recommended that the Senate Committee on Governmental Affairs:

o hold hearings on the revised guidance to ensure that it was consistent with congressional views on the subject, and

o provide agencies with the authority and flexibility to use Government employees for activities that may be considered inherently Governmental in nature.

DoD Office of the Assistant Inspector General-Inspections. Inspection Report No. 91-INS-09, "Operational Test and Evaluation Within the Department of Defense," May 24, 1991. The inspection report found that:

o the present operational test structure was dependent on the acquisition system and should have more independence;

o operational test processes were well designed conceptually, but did not always function optimally because of problems in the operational test structure; and

o DoD had not developed systems for selection, assignment, and continuous training of operational test personnel.

Recommendations were made for changes in legislation, organization, and policy and procedures designed to improve operational tests by addressing the systemic problems identified.

PART II - FINDINGS AND RECOMMENDATIONS

A. SERVICES CONTRACTORS SUPPORTING OPERATIONAL TESTS AND DEVELOPMENT

The Test agencies frequently used the same services contractors to support the operational tests for major Defense acquisition systems that participated in the development of the systems because the internal controls were not adequate. In addition, the services contracts did not always include conflicts of interest clauses that prohibited services contractors from supporting the operational tests and the development. Furthermore, when the contracts did contain the proper clauses, the contractors and subcontractors did not always adhere to the clauses. As a result, operational tests did not attain the required impartiality and independence, test assessments may have been biased, and systems may have been produced and deployed with unknown performance limitations.

DISCUSSION OF DETAILS

Background

10 U.S.C. 2399, as implemented by Public Law 101-189, November 29, 1989, "Operational Test and Evaluation of Defense Acquisition Programs," subsection (e) "Impartial Contracted Advisory and Assistance Services," part (3), states that:

> A contractor that has participated in (or is participating in) the development, production, or testing of a system for a Military Department or Defense Agency (or for another contractor of the Department of Defense) may not be involved (in any way) in the establishment of criteria for data collection, performance assessment, or evaluation activities for the operational test and evaluation.

Army Systems

The same services contractors supported the development and the operational tests for the Pedestal Mounted Stinger system and the Line of Sight-Forward-Heavy system. There were no conflicts of interest relating to the M109A3E2 Howitzer Improvement Program or the Joint Surveillance Target Attack Radar System, Ground Station Module. Details of the two systems with conflicts of interest follow.

Pedestal Mounted Stinger System. The Project Office at the Army Missile Command is responsible for life-cycle management of the system including development, technical test and evaluation acquisition, procurement, and production.

The U.S. Army Air Defense Artillery School (the Army School) at Fort Bliss, Texas, conducts a wide range of test and evaluation, and combat development activities for Army air defense artillery systems, including the Pedestal Mounted Stinger system. The Army School was the independent evaluator for force development test and experimentation phases I and II for the system. The Army Operational Test Agency was the initial operational test evaluator for the system.

Two contractors, Colsa, Incorporated (Colsa) and BDM International, Inc. (BDM) participated in both the development and the operational tests of the system (Appendix A). The tasks performed by the two contractors follow.

Development. The Project Office had a services contract that was awarded to Colsa in November 1987 to provide system engineering and technical assistance during the development phase of the system. The contractor was tasked to attend program meetings; analyze presentations and discussions; provide recommendations; develop data; and perform independent analyses for management, technical, and evaluation support to the Program Manager for the system and all system derivatives. As of September 1990, the total contract price was about $9 million.

The Project Office contracted with BDM to develop a Performance Analysis Database and support concept definition/formulation to support out-year planning for the system. The work was done in direct support of the Army Missile Command's Research, Development, and Engineering Center and was funded by the Project Engineer.

Operational tests. The Concepts and Studies Division of the Army School had a services contract that was awarded to Colsa in September 1987 to provide general technical and analytical services support. The contractor was required to develop air defense artillery technological concepts and simulation/analysis of system performance, tactics, and doctrine associated with current, new, or improved air defense artillery systems. Contract efforts included contributing to the preparation of organizational and operational plans, and test issues and criteria documents. As of September 1990, the contract was funded for about $5.7 million.

The Materiel and Logistics Systems Division of the Army School, Directorate of Combat Developments, had a second services contract that was awarded to Colsa in January 1988 to provide technical support to review and analyze forward area air defense systems requirements and test results. As of September 1990, this contract was funded for about $6.8 million.

The Test and Evaluation Division of the Army School, Directorate of Combat Developments, had a third services contract that was

awarded to Colsa in May 1988 to perform and document studies and analyses in support of Army materiel systems' test and evaluation. Specific tasks required the contractor to prepare the following items for the system: the Critical Issues and Criteria document, the Independent Evaluation Plan for force development test and experimentation phase II, and the Independent Evaluation Report for force development test and experimentation phase I. This contract was funded for about $1.2 million.

The Colsa contracts did not include organizational conflict of interest clauses that addressed the issue of contractors supporting Operational Tests and Development.

The Army Operational Test Agency had a $25 million services contract that was awarded to BDM in July 1988 for a 5-year period. In January 1989, the Army tasked BDM to provide technical services in support of continuous and comprehensive evaluation of the system, at a cost of about $1.1 million. The technical support included reviewing test documentation, performing data analysis in support of operational assessments and the independent evaluation report, and providing technical assistance in preparation of evaluation briefings and reports. BDM used the Management Assistance Corporation of America (MACA) as its major subcontractor.

The contract included an organizational conflict of interest clause that required the contractor and its subcontractors to notify the contracting officer of any contracts or subcontracts to support the cognizant DoD program or project manager. In January 1991, BDM notified the Army Operational Test Agency and the contracting officer of a potential conflict of interest relating to the support that BDM provided to the Army Missile Command for the Project Office.

Line of Sight-Forward-Heavy System. The Project Management Office for the system, which is collocated and supported by the Army Missile Command, is responsible for life-cycle management of the system including development, technical test and evaluation, acquisition, procurement, and production.

The U.S. Army Air Defense Artillery Board (the Army Board) is an element of the Test and Experimentation Command whose primary functions are operational testing, evaluation, analyses, and combat development. The Army Board was the force development test and experimentation phase I tester for the system, and the Army Operational Test Agency was the initial operational test evaluator for the system.

One contractor, CAS, Incorporated (CAS) participated in the operational tests and the development of the system (Appendix B). Details of the tasks CAS performed are as follows.

Development. In February 1988, the Project Management Office funded a task order for CAS to provide technical support at a cost of about $1.1 million.

The Project Management Office had a follow-on contract that was awarded to Native American Services Associates in December 1989 to provide technical support in the areas of system integration, logistics, production engineering, and program management in support of the continuing system acquisition process. The contract had a value of about $1.3 million, and CAS was the major subcontractor.

The Army Materiel Test and Evaluation Directorate had a services contract with United International Engineering. In April 1990, the Directorate tasked the contractor to provide system analysis support for Technical Test Phases A, B, and D and also for Operational Tests of missile firing missions. The estimated cost of the task was about $228,000. Again CAS was a major subcontractor providing support.

Operational tests. The Army Board had a services contract that was awarded to MACA in March 1987 for support in performing its mission. General tasks to be performed included support services for analysis, testing, integrated logistics, engineering, operations, management, and for other areas. From March 1987 through September 1990, the contract was funded for about $12.6 million, and CAS was MACA's major subcontractor. Examples of the tasks CAS performed relating to the system included preparing Test Planning reports, Operational Test Readiness Reviews, Force Development Test and Experimentation Phase II results reports, and Early Operational Assessments.

The Army Operational Test Agency tasked BDM to provide support for operational tests of the system under its services contract. Four delivery orders totaling about $2.3 million were issued to support the Army Operational Test Agency with its mission to evaluate the system. BDM used CAS and MACA as its major subcontractors to perform the tasks that included: oversight, data analysis, technical support and status reporting for technical testing; development of a data reduction scheme and an implementation plan for end-to-end data retrieval for the systems initial operational test; and technical services in support of the Army Operational Test Agency's participation in force development test and experimentation phase II and the initial operational tests of the system.

The Army's contract with BDM contained an organizational conflict of interest clause that required the contractor and its subcontractors to notify the contracting officer of any contracts or subcontracts to support the cognizant DoD program or Project Manager. However, neither BDM nor CAS informed the contracting officer that CAS had supported the Project Management Office and the Army Materiel Test and Evaluation Directorate with the development of the system.

Navy Systems

The same services contractor supported the development and the operational tests for the F-14 TOMCAT and Advanced Medium Range Air-to-Air Missile (AMRAAM) systems. There were no conflicts of interest on the other five services contracts used by the Navy Operational Test Agency and reviewed as a part of this audit. Details of the organizational conflicts of interest relating to the F-14 TOMCAT system follow, and the AMRAAM system is discussed under Air Force systems.

F-14 TOMCAT System. The Pacific Missile Test Center (Test Center) performs development, test, evaluation, and follow-on engineering, logistics, and training support for Naval weapons, weapon systems, and related devices. The Naval Air Development Center performs warfare mission analyses, engineering analyses, engineering development for aircraft and avionics systems and subsystems, and the integration of air combat systems into Naval aircraft. Both Centers are under the cognizance of the Naval Air Systems Command. The Navy Operational Test Agency has a detachment located at the Test Center which was assigned responsibility for planning, conducting, and reporting operational tests for the F-14 TOMCAT system.

One contractor, Veda, Incorporated (Veda) participated in the operational tests and the development of the F-14 TOMCAT system (Appendix C). In addition, the same Veda employees worked on both the operational tests and the development of the F-14 TOMCAT system. Details of the tasks Veda performed are as follows.

Development. The Flight Test Division at the Test Center had a Services contract with Veda to provide engineering and technical services for flight test planning, analysis of test data, preparation of test and problem reports, and investigations for system problems. The task order contract was awarded in September 1989, with a base year and 4 option years at a total estimated cost of $15.8 million. Specific systems that may be supported include the F-14, A-6, and F-18 aircraft and SIDEWINDER, SPARROW, PHOENIX, and AMRAAM missiles. The Test Center issued Veda two task orders with a total cost not to exceed $1.2 million to provide engineering development, and test and evaluation support for the F-14 TOMCAT weapons system and tactical software.

The Naval Air Development Center had a services contract with Veda that was awarded in May 1988, with a base year and 2 option years at a total estimated cost of $9.6 million. Specific systems that may be supported included the F-14, A-6, F/A-18, AV-8B, and V-22 aircraft and the AIM-54 Phoenix and AMRAAM missiles. From May 1988 through May 1990, about $2.5 million of the work performed on this contract supported the F-14 TOMCAT system.

Operational tests. The Navy Operational Test Agency's detachment at the Test Center had a services contract with SIMSUM Operational Research to provide analytical support for test planning, project operations, and test analysis. The task order contract was awarded in April 1986, with a base year and 2 option years at a total estimated cost of $2.3 million. Several tests to be supported were Follow-on Operational Test and Evaluation of the F/A-18A aircraft and AIM-54C, AIM-7M, and AIM-9M missiles; and Operational Evaluation of the F-14D aircraft and the AIM-120 missile. Veda was SIMSUM's major subcontractor on the contract.

The Operational Test Agency's detachment had a follow-on services contract with Webster Engineering to provide analytical support in determining the operational effectiveness and suitability of weapons, weapon systems, aircraft and aircraft modifications, and electronic warfare equipment. The task order contract was awarded in August 1989, with a base year and 4 option years at a total estimated cost of $6.3 million. Systems that may require support included the F/A-18A and F-14D aircraft, and the AIM-120, AIM-54C/C+, AIM-7M and 9M missiles. Veda was Webster Engineering's major subcontractor on this contract. The Veda employees who supported the detachment on the operational tests for the F-14A 115A tape, the test planning for the F-14D IIC Test Plan, and the F-14D and AMRAAM Operational Evaluations also supported the Flight Test Division at the Test Center on its Veda contract that provided development support for the F-14 TOMCAT system.

The Webster Engineering contract contained an organizational conflict of interest clause that required the contractor to certify that he and his affiliates (subcontractors) had no interest or involvement in any of the systems that the Operational Test Agency's detachment planned to operationally test during the contract. This clause should have precluded Veda from supporting the Navy Operational Test Agency's detachment. However, Webster Engineering sent the contracting officer a letter stating that neither he nor Veda felt that there was any conflict of interest relevant to the contract. The Webster Engineering letter was based on a Veda letter in which Veda stated that it had reviewed the organizational conflicts of interest clause and that it was in compliance with the clause and would remain in compliance.

Air Force Systems

The same services contractors supported the development and the operational tests for the AMRAAM; Military, Strategic, Tactical and Relay (MILSTAR); and Over-The-Horizon Backscatter Radar (Radar) systems. There was no conflict of interest relating to the Low-Altitude Navigation and Targeting Infrared-for-Night system. Details of the conflicts of interest for the systems follow.

AMRAAM System. The Joint System Program Office, collocated with the Air Force Systems Command, Munitions Systems Division, has acquisition management responsibility for the AMRAAM program. Since the Navy also uses the AMRAAM system, the developmental test and evaluation was partially conducted at the Navy Test Center. The Navy's operational test detachment at the Test Center was assigned responsibility for planning, conducting, and reporting the Navy's operational tests for the AMRAAM system. The Air Force Operational Test Agency was responsible for planning, conducting, and reporting the Air Force's initial operational tests for the AMRAAM system.

Veda and the McLaughlin Research Corporation (McLaughlin) had participated in the development and in the operational tests of the AMRAAM system (Appendix D). Details of the tasks Veda and McLaughlin performed are as follows.

Development. The program office had a services contract with Veda that was awarded in June 1989 to provide technical support for the management, analysis, and interpretation of the AMRAAM test data base. Included in the scope were operation and maintenance of the AMRAAM data base management system; preparation of technical reports and documented performance of the AMRAAM system; designing, coding, developing and testing of enhancements to the management system; and assistance in the preparation of flight test data analysis. The estimated cost of the contract was $3 million

In January 1989, the Navy Test Center contracted with McLaughlin to provide engineering evaluation, analysis, and test support services for the AMRAAM system. The scope included analyzing and evaluating AMRAAM missile flight test/simulation data, preparing system level documentation and flight test reports, providing documentation of specific AMRAAM program elements, and documenting Government test plans for AMRAAM simulation and flight testing. The estimated cost of the contract was $7.1 million.

Operational tests. The Navy Operational Test Agency's detachment at the Test Center contracted with Webster Engineering to provide analytical support services during operational tests of the AMRAAM system. Webster's subcontractor, Veda, Inc., monitored air/launch and AMRAAM captive equipment missions, validated and analyzed missile data, coordinated with Test Center for lethality information, and supplied the effectiveness portion of the final operational test report. We also determined that several Veda employees, who supported the operational tests, also worked on a Veda contract for the AMRAAM program office. The Webster Engineering contract contained an organizational conflict of interest clause that should have prevented Veda from supporting the operational tests because Veda was already supporting the AMRAAM program office. This condition was previously described under the Navy systems.

Using the Navy Test Center's contract with McLaughlin, the Air Force Operational Test Agency tasked the contractor to provide support for the Air Force initial and follow-on operational tests of AMRAAM test firing programs. Tasks included providing technical and analytical expertise for planning, designing, establishing support requirements, and conducting/reporting of operational tests involving the F-16/AMRAAM and the F-15/AMRAAM weapon systems. The McLaughlin contract did not have an organizational conflict of interest clause that related to the contractor not supporting operational tests and development.

MILSTAR System. The MILSTAR Joint Program Office, collocated with the Air Force Systems Command, Space Systems Division, has acquisition and program management responsibility for the satellite and mission control segments of MILSTAR. The Air Force Systems Command, Electronic Systems Division, has responsibility for the Air Force terminal segment. The Army and Navy will procure their own service-unique terminals, and the terminals interoperations will be managed by the Joint Terminal Program Office under the direction of the MILSTAR Joint Program Office. The Air Force Operational Test Agency was responsible for operational tests of the Air Force terminal and mission control segments for the MILSTAR system.

We determined that three contractors: Booz-Allen & Hamilton, Incorporated (Booz-Allen); BDM; and Science Applications International Corporation (SAIC) participated in the development and the operational tests of the MILSTAR system (Appendix E). Details of the tasks the contractors performed are as follows.

Development. The Joint Terminal Program Office has a contract with Booz-Allen that was awarded in November 1986 to provide system engineering, configuration management, integrated logistics, test and evaluation, development and analysis for MILSTAR segments, and MILSTAR terminal interoperability test planning and support. As of October 1990, the total cost of the contract was about $12 million.

The MILSTAR Air Force terminal production contractor, Rockwell International Corporation, subcontracted with BDM in October 1990 to perform Radiation Lot Acceptance Testing on specific parts for the Air Force MILSTAR terminal program at a cost of about $296,000.

The MILSTAR satellite and mission control segment production contractor, Lockheed Missiles and Space Company, subcontracted with SAIC in January 1989 to conduct specified Electromagnetic Pulse Analyses for the MILSTAR mission control element system. As of June 1990, the cost was about $355,000.

Operational tests. The Air Force Operational Test Agency had two service contracts with Booz-Allen that were awarded in February 1986 and May 1989. The agency issued a total of five task orders under these contracts to support the MILSTAR system. The contractor was tasked to develop an Operational Test Nuclear Assessment Plan for the MILSTAR Air Force terminal and mission control element. The tasks were to support the initial operational tests of the system and to execute the initial phase of the operational nuclear survivability assessment plan for the terminal in support of the low-rate initial production decision and the multiservice initial operational tests. In addition, the contractor was to support the survivability portions of the Air Force's early operational assessment and initial operational tests for the mission control and terminal segments. The estimated cost of the MILSTAR task orders on these contracts was $1.4 million.

The Air Force Operational Test Agency also had a services contract with BDM that was awarded in July 1985 to provide technical support to the agency. From 1986 to 1989 the Test agency issued four task orders to BDM in support of the MILSTAR system. BDM was required to provide technical effort to support: the development of the MILSTAR initial operational tests and multiservice test plans; the development of the Air Force Terminal low-rate initial production operational assessment plan and the baseline set of test scenarios for the terminal interoperability initial operational tests; and the development of the terminal operational test event descriptions, flight profiles, and data collection methods used to collect appropriate operational test data. The estimated cost of the MILSTAR tasks on this contract was about $1.34 million.

The Air Force Operational Test Agency also had a services contract with SAIC that was awarded in July 1989 to support the survivability portion of the early operational assessment and the initial operational tests of the MILSTAR Satellite. Specific tasks required SAIC to support MILSTAR test execution, test reporting, methodology development, and special investigations and analyses. The estimated cost of these tasks was $500,000.

The organizational conflict of interest clauses in the three contracts should have precluded these contractors from supporting the Air Force Operational Test Agency in these instances.

Radar System. The System Program Office collocated with the Air Force Systems Command, Electronic Systems Division, has acquisition and program management responsibility for the Radar system. The Air Force Operational Test Agency was responsible for planning, conducting, and reporting initial operational tests for the Radar system.

One contractor, SAIC, participated in the development and the operational tests of the Radar system (Appendix F). Details of the tasks SAIC performed are as follows.

Development. The Radar system's prime contractor, General Electric Company, subcontracted with SAIC in November 1986 to perform an engineering and economic study/ analysis to determine the most cost-effective method of transferring processed radar data from the receive site to the operations center for the West Coast Radar system at a total cost of about $290,000.

Operational tests. The Air Force Operational Test Agency tasked SAIC in December 1989 to provide analytical support for test planning, execution, reporting, software development, and simulation/modeling activities for the Radar system East Coast Radar Station initial operational tests. SAIC was also tasked to maintain a system to reduce and format data collected during initial operational tests for analysis by agency. The total cost of the SAIC tasks was about $1.6 million.

Services Contractors that Participated in Development

Program managers were not required to maintain a list of services contractors that participated in the development of systems. Consequently, contracting officers did not know which services contractors should be excluded from the operational tests, and it was difficult for the Director and the Test agencies to identify when the same services contractors were used for both operational tests and development of the systems.

Waivers For Use of Services Contractors

The audit was based on a strict interpretation of 10 U.S.C. 2399, which prohibits the same services contractor from supporting both operational tests and development of the same system. Some of the instances identified in the report, where the same services contractors were involved in both areas, related to only minor involvement by the contractor in either the operational tests or the development of the system. These violations of the statute probably had no impact on the impartiality or independence of the operational tests. Even though the Director did not request any waivers during FY 1991, the statute does provide that the Director may waive the limitation of the use of services contractors if the Director determines in writing that sufficient steps have been taken to ensure the impartiality of the contractor in providing the services. The Inspector General, DoD, is required to review the Director's waivers and make an assessment in its semiannual report. However, there are no such provisions for the Test agencies to obtain waivers and use the same services contractors under similar conditions.

Organizational Conflicts of Interest

Federal Acquisition Regulation (FAR), subpart 9.5, "Organizational Conflicts of Interest," prescribes responsibilities, general rules, and procedures to identify, evaluate, and resolve organizational conflicts of interest. The FAR also provides examples to assist contracting officers in applying the rules and procedures to individual contracting situations. The regulation states that an organizational conflict of interest exists when the contractor obtains an unfair competitive advantage or when its objectivity would be impaired without some restriction of future activities. However, the organizational conflicts of interest guidance in the FAR does not address the issue of using the same services contractors to support both the development and the operational tests of a system. Our review showed that the Test agency's contracting officers used different conflicts of interest clauses. Furthermore, because there was not a standard organizational conflict of interest clause, the clauses used did not always preclude services contractors from supporting both the development and the operational tests of the same systems.

RECOMMENDATIONS, MANAGEMENT COMMENTS, AND AUDIT RESPONSE

1. We recommend that the Director of Operational Test and Evaluation in conjunction with the Deputy Director, Defense Research and Engineering (Test Evaluation):

a. Amend DoD Directive 5000.2, "Defense Acquisition Management Policies and Procedures" to require program managers to maintain a list of all advisory and assistance services contractors and subcontractors that participated in the development, production, or testing for major Defense acquisition systems.

Director of Operational Test and Evaluation comments. The Director stated that DoD Instruction 5000.2 could be amended to require that each program manager maintain a list of services contractors used during development, production, or testing. Contracting officers for the Operational Test Agencies would then be required to exclude those services contractors from the operational tests.

Audit response. We request that management provide a completion date for this action when responding to the final report. In the draft audit report, we recommended that the Test and Evaluation Master Plan be used to identify the services contractors supporting development and operational tests. Based on managements response, we deleted that portion of the recommendation from the final report.

b. Propose legislation that would allow the Operational Test Agencies to obtain waivers from the Director of Operational Test and Evaluation to use the same advisory and assistance services contractors that participated in the development, production, or testing to also support the operational test and evaluation under justifiable conditions when sufficient steps have been taken to ensure the impartiality of the contractor services.

Director of Operational Test and Evaluation comments. The Director nonconcurred with the recommendation and commented that initiating legislation at this point appeared to be premature because he had not been made aware of any difficulty in obtaining services contractors due to legislative constraint.

Army comments. OPTEC concurred with the recommendation and commented that services contractors, by virtue of their earlier involvement in the development of the program and the highly specialized nature of the services provided, often had the technical knowledge and expertise that could not otherwise be acquired and were sometimes imperative to the operational tests. OPTEC thought they should be able to use the same services contractors in selected instances when the contractors impartiality could be demonstrated and that approval authority for the waivers should reside within the Service requiring the support.

Air Force comments. AFOTEC concurred with the recommendation, supported the proposal for legislation, and thought that legislation to clarify the existing law in this area would be extremely beneficial. AFOTEC also commented that the audit was based on an overly strict interpretation of the use of contractors in operational tests.

Audit response. Based on input from the Army and Air Force, we request that the Director of Operational Test and Evaluation reconsider its position about the provisions for waivers when responding to the final report. The audit was based on a strict interpretation of 10 U.S.C. 2399, which prohibits the same services contractors from supporting both operational tests and development of the same systems. Some of the instances identified in the report, where the same services contractors were involved in both areas, related to only minor involvement by the contractor in either the operational tests or the development of the system. Although these were violations of the statute, they probably had no impact on the impartiality or independence of the operational tests. In addition, there may also be instances where contractors with a certain technical expertise that participated in the development of the system could be beneficial to the operational tests.

c. Develop a standard organizational conflict of interest clause that precludes advisory and assistance services contractors and subcontractors from participating in development, production, or testing and operational test and evaluation for the same systems unless a waiver is obtained.

Director of Operational Test and Evaluation comments. The Director partially concurred with the recommendation and commented that he would work to develop such a clause, but without the provision for a waiver.

Audit response. We request that management provide a completion date for this action when responding to the final report.

2. We recommend that the Director of Defense Procurement direct the Defense Acquisition Regulations Council to evaluate the conflict of interest clause developed by the Director of Operational Test and Evaluation and take appropriate action to include the clause related to advisory and assistance services support for operational test and evaluation to the Defense Federal Acquisition Regulation Supplement.

Director of Defense Procurement comments. The Director of Defnese Procurement concurred with the recommendation as stated.

3. We recommend that the Commanders of the Military Departments' Operational Test Agencies:

a. Insert organizational conflict of interest clauses in existing and future contracted advisory and assistance services contracts that preclude contractors and subcontractors from participating in development, production, or testing and in operational test and evaluation for the same systems.

b. Direct contracting officers to formally notify contractors of the provisions for impartial contracted advisory and assistance services in 10 U.S.C. 2399.

c. Direct contracting officers to enforce the provisions in 10 U.S.C. 2399 when contractors or subcontractors are participating in the development, production, or testing and in the operational test and evaluation of the same systems.

d. Report the material internal control weakness of using the same advisory and assistance services contractors to support operational test and evaluation that participated in development, production, or testing, and track the status of corrective actions taken until the problems noted are resolved.

Army comments. OPTEC concurred with Recommendations A.3.a., A.3.b., and A.3.c. and commented that contracts currently included a clause as indicated. OPTEC also commented that

contracts transferred to its control as a result of the Test and Evaluation reorganization would be amended to include the clause. OPTEC nonconcurred with Recommendation A.3.d. and commented that the same services contractors were not being used to support two different activities resulting in a conflict of interest.

Audit response. We are providing a detailed response to OPTEC comments to Recommendation A.3.d. as Appendix U. Based on that response, we request that management reconsider its position when responding to the final report.

Navy comments. OPTEVFOR concurred with each of the recommendations and commented it presently had an excellent organizational conflict of interest clause that was included in each analytical support contract. OPTEVFOR stated that its contract specialist would have a conference to formally notify the prospective contractor of the provisions prior to award of all future contracts. In addition, OPTEVFOR commented that they were actively taking action to remove the existing conflict of interest with regards to the Webster Engineering, subcontractor Veda, Inc., and that a new contract would be awarded by August 1992.

Air Force comments. AFOTEC concurred with Recommendations A.3.a., A.3.b., and A.3.c. and commented that instructions would be provided to appropriate contracting activities regarding the specific clause to be used in each contract. AFOTEC also stated that instructions would be provided to appropriate contracting activities to notify contractors of the provisions of 10 U.S.C. 2399 and stated that it is presently taking action to enforce the provisions and will continue to do so.

AFOTEC also concurred with Recommendation A.3.d. and commented that they would report material internal control weaknesses in those cases where they felt adequate safeguards to mitigate conflict of interest could not be ensured. However, AFOTEC did not agree with the concept of reporting all circumstances where the same contractors supported both operational tests and development, when adequate safeguards were in place.

Audit response. Those instances where the same services contractors supported both operational tests and development should be reported as material internal control deficiencies because they are in violation of the law. Unless legislation is passed that permits the Test agencies to obtain waivers to use the same services contractors that supported development under certain justifiable conditions, even those instances where AFOTEC believes adequate safeguards were in place should be reported. We request that management reconsider its position when responding to the final report.

STATUS OF RECOMMENDATIONS

Number	Addressee	Response Should Cover: Concur/ Nonconcur	Proposed Action	Completion Date	Related Issues*
A.1.a.	DOT&E			X	IC
A.1.b.	DOT&E	X	X	X	
A.1.c.	DOT&E			X	IC
A.2.	DDP	No Further Response Required			
A.3.a.	OPTEC	No Further Response Required			
	OPTEVFOR	No Further Response Required			
	AFOTEC	No Further Response Required			
A.3.b.	OPTEC	No Further Response Required			
	OPTEVFOR	No Further Response Required			
	AFOTEC	No Further Response Required			
A.3.c.	OPTEC	No Further Response Required			
	OPTEVFOR	No Further Response Required			
	AFOTEC	No Further Response Required			
A.3.d.	OPTEC	X	X	X	IC
	OPTEVFOR	No Further Response Required			
	AFOTEC	X	X	X	IC

* IC = material internal control weakness

B. COST-EFFECTIVENESS OF SERVICES CONTRACTS

The Director and the Test agencies used repeated and extended services contracts that were not as cost-effective as using in-house civilian staffs to support operational tests for major Defense acquisition systems. This occurred because the Director and the Test agencies lacked sufficient in-house civilian staff to adequately perform their mission. As a result, the Director and the Test agencies depended on services contractors for program continuity and the "corporate knowledge" needed to plan, analyze, and report operational tests; spent over $44 million annually for contractor assistance that was not as cost-effective as developing an in-house capability to perform the work; and used the same contractors to support the operational tests that participated in the development of systems (Finding A). We estimate that the Director and the Test agencies could save about $26.1 million for FY's 1992 through 1996 by reducing their services contracts 60 percent and developing an in-house capability to support operational tests. In addition, the Test agencies did not report or control these services contracts as contracted advisory and assistance services (CAAS).

DISCUSSION OF DETAILS

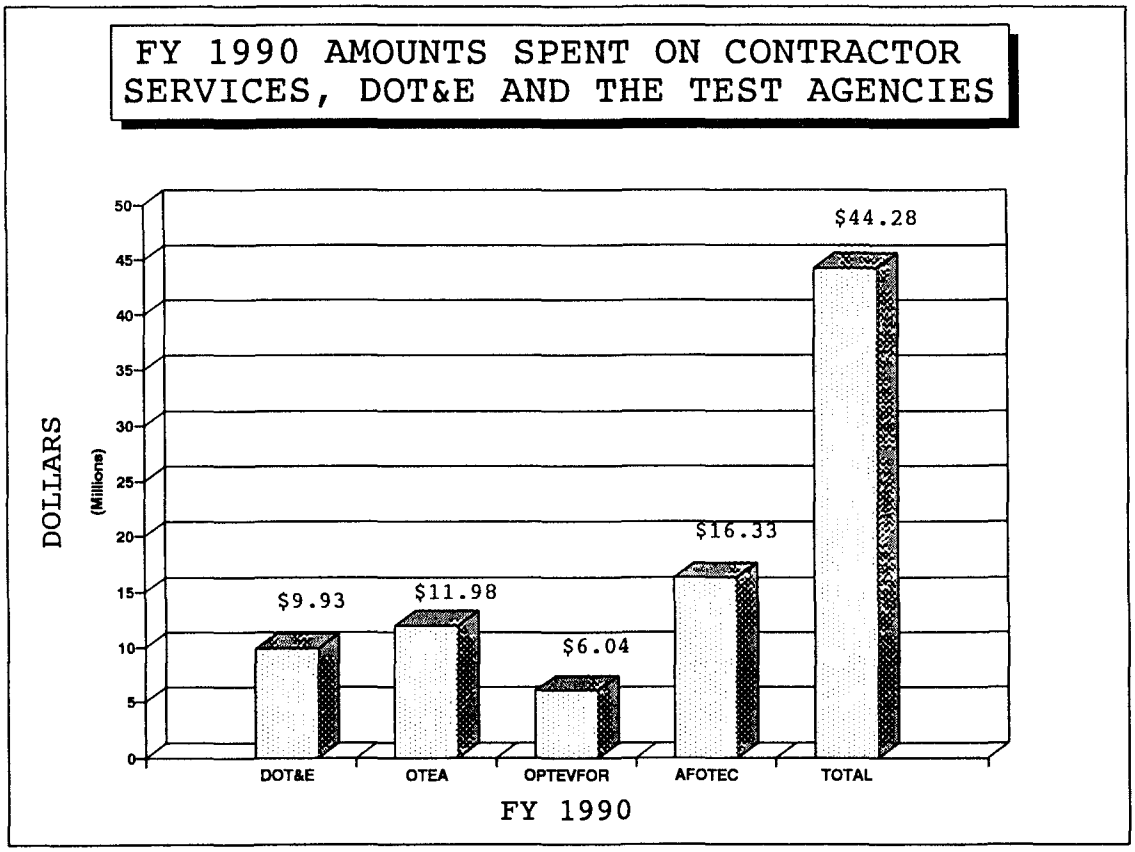
Background

DoD Directive, 4205.2, January 27, 1986, "DoD Contracted Advisory and Assistance Services (CAAS)," establishes policy, assigns responsibilities, and prescribes procedures for planning, managing, evaluating, and reporting services contracts. The Directive defines CAAS as those services acquired directly by DoD from nongovernmental sources to support or improve agency policy development or decision making, or to support or improve the management of organizations or the operation of weapon systems, equipment, and components. There are four CAAS categories: individual experts and consultants; studies, analyses, and evaluations; management support services; and engineering and technical services.

The Directive states that services contracts may be used when suitable in-house capability is unavailable and cannot be developed in time to meet the needs of the DoD Component concerned, or development of an in-house capability would not be cost-effective because the special skills or expertise are not required full time. The directive also states that services shall be obtained on an intermittent or temporary basis, as required, and that repeated or extended services arrangements shall not be entered into except under extraordinary circumstances. The directive prohibits the use of services contracts to bypass or undermine personnel ceilings, pay limitations, or competitive employment procedures.

Repeated and Extended Services Contracts

The Director and the Test agencies used repeated and extended services contracts to support operational tests. We found that the same contractors or contractor personnel were consistently providing support to the Test agencies year after year. For example, Veda had been supporting operational tests of Navy fighter weapon systems since 1971. Consequently, the contractors provided the program continuity and gained the "corporate knowledge" needed to plan, analyze, and report operational tests. The tasks the contractors performed are described in Finding A. The Director and the Test agencies spent over $44 million on services contracts in FY 1990. A breakout of the amounts the Director and the Test agencies spent on these contracts in FY 1990 and a brief summary of the extent of services used over the past few years follow.



The Director spent a total of about $31.1 million for contractor services during FY's 1987 through 1989. About $18.5 million was contracted with private companies, and $12.6 million was contracted with the Institute for Defense Analyses, a DoD Federally Funded Research and Development Center. In FY 1990, the Director spent almost $10 million for support services, with the Institute performing about 90 percent of the work.

The Army Operational Test Agency spent a total of about $28.4 million for contractor services during FY's 1989 and 1990; however, the Army Test Agency was only the evaluator for operational tests. The Command that conducted the operational tests also spent unknown amounts for their own services contractors. For example, the Test and Experimentation Command, Experimentation Center, was the initial operational test and evaluation tester for the Pedestal Mounted Stinger and Line of Sight-Forward-Heavy systems. The Experimentation Center had a services contract awarded in June 1985 with a base year and 4 option years at a total price of about $71.7 million. Under the contract, the Experimentation Center tasked its services contractor to develop portions of the test evaluation plan, detailed test plan, and test report for the initial operational tests of the two systems. The Test and Experimentation Command is now part of the new Army Operational Test and Evaluation Command. Consequently, the Army's newly established Operational Test Agency will spend more for services to support operational tests in FY 1991 and future years than the amounts identified in this report.

The Navy Operational Test Agency spent a total of about $15.3 million for contractor services during FY's 1987 through 1989 and over $6 million during FY 1990.

The Air Force Operational Test Agency spent a total of about $24.8 million for contractor services during FY's 1988 and 1989 and over $16 million during FY 1990.

Services Contracts Were Not Cost-effective

We determined that the services contracts used to support operational tests were not as cost-effective as developing an in-house capability to perform the work. Although it may not be practical to bring 100 percent of these services in-house because of fluctuations in work load, it would be cost-effective to bring a significant amount of the effort in-house. We determined that the Director and the Test agencies were spending an average of between 21.3 percent and 37.9 percent more for contractor personnel than the costs of comparable civilian Government employees (Appendix H). We estimate that the Director and the Test agencies could save about $8 million annually by reducing their services contracts 60 percent and developing an in-house capability to plan, analyze, and report operational tests. Our

total estimated savings of $26.1 million for FY's 1992 through 1996 were based on a gradual yearly reduction of services contracts by 10 percent, 25 percent, 40 percent, 60 percent, and 60 percent, respectively, and replacing those contractor personnel with comparable civilian Government employees.

We developed FY 1990 estimated hourly costs for various grade levels of civilian Government personnel and added additional burdens such as retirement, medicare, health insurance, and fringe benefits to those costs (Appendix I). We compared those costs to the FY 1990 contractor and subcontractor fully burdened hourly costs negotiated on the services contracts. Examples of our analysis of contractor costs and comparable civilian Government costs for the Director and Test agencies are provided as Appendixes J through M, respectively. Further details follow.

o The Director was spending about 31 percent more for contractor services than the cost of performing the work in-house with comparable civilian Government employees. We estimate that the Director can save a total of about $6.1 million during FY's 1992 through 1996 by reducing its services contracts about $19.4 million and spending about $13.3 million for comparable civilian Government employees (Appendix N).

o The Army Operational Test Agency was spending about 22 percent more for contractor services than the cost of performing the work in-house with comparable civilian Government employees. We estimate that the Army can save a total of about $5.1 million during FY's 1992 through 1996 by reducing its services contracts about $23.4 million and spending about $18.3 million for comparable civilian Government employees (Appendix O).

o The Navy Operational Test Agency was spending about 21 percent more for contractor services than the cost of performing the work in-house with comparable civilian Government employees. We estimate that the Navy can save a total of about $2.4 million during FY's 1992 through 1996 by reducing its services contracts about $11.8 million and spending about $9.4 million for comparable civilian Government employees (Appendix P).

o The Air Force Operational Test Agency was spending about 38 percent more for contractor services than the cost of performing the work in-house with comparable civilian Government employees. We estimate that the Air Force can save a total of about $12.5 million during FY's 1992 through 1996 by reducing its services contracts about $31.8 million and spending about $19.8 million for comparable civilian Government employees (Appendix Q).

Eliminate Organizational Conflicts of Interest

As described in Finding A, the same services contractors that supported operational tests also participated in the development of the systems. These services contractors had supported the systems for many years and had provided the program continuity and the "corporate knowledge" needed to plan, analyze, and report the operational tests. However, by bringing the support for operational tests in-house at the Test agencies, DoD would gain valuable knowledge about the systems being tested and also eliminate the potential for any organizational conflict of interest in this area.

Services Contracts Were Not Controlled or Reported as CAAS

The Test agencies did not control or report their services contracts to support operational tests as CAAS. The Test agencies stated that these contracts were exempt from CAAS controls and reporting requirements based on current CAAS exemptions. However, we reviewed the CAAS exemptions and could not find any that in our opinion would exempt these services from being reported and controlled as CAAS. Further, the Director reported and controlled its services contracts as CAAS. Consequently, there were only limited controls over the services contracts used by the Test agencies to support operational tests. Some of the additional CAAS controls include an explanation of what is to be procured; a clear, explicit justification of the need and expected benefit of the services; and review and approval by the DoD Component Director for CAAS.

Office of Management and Budget Guidance

On March 25, 1991, the Office of Management and Budget provided budget guidance to DoD and stated that by September 1991, necessary steps should be taken to ensure that adequate staffing is available for the performance of inherently governmental functions. The guidance further stated that DoD should review its internal instructions to ensure that managers had adequate guidance on which to base decisions to contract for advisory and assistance services and recognize those functions that must be performed by Federal officials and employees. The Office of Management and Budget stated that it would assist DoD in this effort, where appropriate.

RECOMMENDATIONS, MANAGEMENT COMMENTS, AND AUDIT RESPONSE

1. We recommend that the Director of Operational Test and Evaluation and the Commanders of the Military Departments' Operational Test Agencies in conjunction with the Assistant Secretary of Defense (Force Management and Personnel):

a. Determine in-house civilian personnel requirements needed to perform their mission.

b. Make appropriate funding adjustments in budget request to gradually hire the additional civilian personnel.

c. Establish a goal to reduce the use of advisory and assistance services contractors by 60 percent over the next 5 years.

Director of Operational Test and Evaluation and the Deputy Assistant Secretary of Defense (Requirements & Resources) comments. The Director and the Deputy Assistant Secretary concurred with Recommendation B.1.a. and commented that the Office of the Assistant Secretary of Defense (Force Management and Personnel) issues annual guidance to the DoD Components to review all of their manpower requirements. The guidance addresses military and civilian manpower and states that the Department's manpower should represent "the most cost efficient and flexible mix of manpower necessary to support mission accomplishment." This manpower requirements review is accomplished as part of the Department's annual budget review.

The Director and the Deputy Assistant Secretary nonconcurred with Recommendations B.1.b. and B.1.c. and commented that if the annual review of manpower requirements determined that there was a continuing, long-term requirement for additional in-house civilian manpower and that there should be a shift from contractor personnel to in-house Government employees, then the organization's total obligational authority should have sufficient funding to finance these additional in-house personnel. (If funding for contracts goes down, then there will be additional funding available to pay in-house salaries.) The Department uses the in-house and contractor civilian work forces as fungible resources. The Director also commented that the proposed percentage reduction in contractor services was "arbitrary and capricious," with no basis in fact and no consideration of organizational and operational requirements.

Audit response. The Director and Deputy Assistant Secretary concurred with the Recommendation A.1.a., but they did not describe a plan or date when reductions will be initiated. Although we did not review those contractor services procured by the Director prior to FY 1987, the Director has spent about $10 million per year for contractor services in FY's 1988 through 1991. Unless the Director has determined that his mission requirements will be greatly reduced in future years, there appears to be a continuing long-term requirement for contractor support. We request that management provide additional information when responding to the final report and determine the in-house civilian personnel requirements needed to perform its mission.

Based on comments from the Director and the Deputy Assistant Secretary, we revised recommendations B.1.b. and B.1.c. We believe the proposed reduction in contractor services was a reasonable estimate. The Director's budget for FY's 1987 through 1989 was $34.7 million and over 88 percent of it, or $31 million, was spent for contractor assistance. In FY 1990, the Director spent almost $10 million for contractor assistance. We request that management reconsider its position when responding to Recommendations B.1.b. and B.1.c. in the final report.

Army comments. OPTEC concurred with Recommendations B.1.a., B.1.b., and B.1.c. and commented that they were anxious to bring more work in-house, and concurrently become less reliant upon contractor support. However, OPTEC civilian end strength was reduced by 278 spaces in response to DMRD 936, and further reductions are planned for the next fiscal year. Concurrently, the level of test and evaluation activity has remained constant. OPTEC stated that it has been the Command's objective for sometime to reduce the level of contractor support and commented that a reduction of 60 percent in contractual support over the next 5 years was a reasonable goal. However, OPTEC thought it was impossible to speculate whether this reduction would generate the estimated savings.

Audit response. Congress enacted Public Law 98-473 in FY 1985 to remove civilian employment end-strength ceilings, and in FY 1986 DoD adopted a ceiling free management policy. Annual DoD manpower guidance to the DoD Components has stated that civilian workforce levels should be matched to funded work loads and mission requirements. Further, the Navy demonstrated that it is possible to replace contractor support with in-house civilian personnel. Based on a 1988 Navy Inspector General report, the Navy initiated a 6-year effort to recruit 3,178 additional full-time personnel to provide in-house engineering and management support. The estimated savings should be substantiated once the contractor effort is brought in-house.

Navy comments. OPTEVFOR nonconcurred with Recommendations B.1.a., B.1.b., and B.1.c. and commented that its programs do not require continual analytical support. OPTEVFOR stated that there are times when extensive analytical support is required and other times when no analytical involvement is required.

Audit response. We agree that there are fluctuations in the amount of analytical support required and that any given program may not require continual support; however, there appears to be a continual need for a baselevel amount of analytical support. This baselevel support is needed to provide the program continuity and "corporate knowledge"

needed to plan, analyze, and report operational tests. For example, OPTEVFOR's detachment at the Pacific Missile Test Center must rely on contractor support to help plan, analyze, and report operational tests because it has no civilian staff to perform this function. These contractor employees work on multiple programs and are providing what amounts to continual support. We recommend that management reconsider its position when responding to the final report.

Air Force comments. AFOTEC concurred with Recommendation B.1.a. and recommended an in-depth analysis of the costs and benefits associated with reduced levels of contractor dependence. AFOTEC further commented that its extended services contracts were technical and scientific-type contracts that provided its functional elements specialized expertise.

AFOTEC nonconcurred with Recommendations B.1.b. and B.1.c. pending further analysis of the costs and benefits associated with reduced levels of contractor dependence.

Audit response. We recognize that some of AFOTEC's specialized technical and scientific-type work may be more effectively performed by specialized services contractors. However, in-house civilian employees can also effectively perform tasks in these areas and in general work areas such as concept development, test planning, test execution, data management, modeling/simulation, and survivability analysis. AFOTEC did not state when it would initiate the analyses of the cost and benefits associated with contractor support. We request that AFOTEC provide this information in response to the final report.

2. We recommend that the DoD Director of Contracted Advisory and Assistance Services, in conjunction with the Comptroller of the Department of Defense:

a. Include the use of services contracts to support operational test and evaluation in the ongoing revision to the definition for contracted advisory and assistance services.

b. Provide guidance that requires the Military Departments' Operational Test Agencies to report and control their advisory and assistance services contracts to support operational test and evaluation as contracted advisory and assistance services.

Director of DoD Contracted Advisory and Assistance Services comments. The Director of DoD CAAS nonconcurred with the recommendation and commented that he could not require that Test agencies report those advisory and assistance services efforts that were currently exempted/excluded from the definition of CAAS. The current definition provides specific exclusions that can be reasonably applied to contractor support used by the Test

agencies. However, there are ongoing initiatives to strengthen the management, identification, and reporting of CAAS. A major task was to develop an "easier to apply CAAS definition" and ensure that it was consistently applied throughout DoD. The improved definition of CAAS will be included in the revised DoD Directive 4205.2, by October 1, 1991.

Audit response. Based on comments from the Director of DoD CAAS, we revised Recommendation B.2. For many years Congress has been interested in the DoD Components' use of CAAS, an area often perceived as vulnerable to abuses such as conflict of interest, favoritism, and unreasonable costs. Further, the issue of an organizational conflicts of interest involving the operational tests and development of a major Defense acquisition system is critical. The audit concluded that there were organizational conflicts of interests and unreasonable costs associated with the services contractors used by the Test agencies. Consequently, we believe the improve definition of CAAS must not exempt/exclude these advisory and assistance services used by the Test agencies. Therefore, based on the improved definition of CAAS, we request that management reconsider its position when responding to the final report.

STATUS OF RECOMMENDATIONS

		Response Should Cover:			
Number	Addressee	Concur/ Nonconcur	Proposed Action	Completion Date	Related Issues*
B.1.a.	DOT&E	X	X	X	M
	ASD(FM&P)	X	X	X	M
	OPTEC	No Further Response Required			
	OPTEVFOR	X	X	X	M
	AFOTEC			X	M
B.1.b.	DOT&E			X	M
	ASD(FM&P)	X	X	X	M
	OPTEC	No Further Response Required			
	OPTEVFOR	X	X	X	M
	AFOTEC	X	X	X	M
B.1.c.	DOT&E	X	X	X	M
	ASD(FM&P)	X	X	X	M
	OPTEC	No Further Response Required			
	OPTEVFOR	X	X	X	M
	AFOTEC	X	X	X	M
B.2.a.	DCAAS	X	X	X	IC
B.2.b.	DCAAS	X	X	X	IC

* M = monetary benefits; IC = material internal control weakness

PART III - ADDITIONAL INFORMATION

Appendix A - Services Contractors Supporting the Pedestal Mounted Stinger System

Appendix B - Services Contractors Supporting the Line of Sight-Forward-Heavy System

Appendix C - Services Contractors Supporting the F-14 TOMCAT System

Appendix D - Services Contractors Supporting the AMRAAM System

Appendix E - Services Contractors Supporting the MILSTAR System

Appendix F - Services Contractors Supporting the Radar System

Appendix G - Listing of Acronyms and Abbreviations

Appendix H - Summary of Cost Difference in using Services Contracts Versus In-House Civilian Resources

Appendix I - Estimated Costs for Civilian Government Employees

Appendix J - Comparison of Contractor Costs Versus In-House Costs for IDA Contract MDA903-89-C-0003

Appendix K - Comparison of Contractor Costs Versus In-House Costs for BDM Contract MDA903-88-D-0018

Appendix L - Comparison of Contractor Costs Versus In-House Costs for Webster Engineering Contract N00123-89-D-0039

Appendix M - Comparison of Contractor Costs Versus In-House Costs for SAIC Contract F29601-89-C-0070

Appendix N - Director of Operational Test and Evaluation, Projected Savings From Performing Work In-House For FY's 1992-1996

Appendix O - Army Operational Test and Evaluation Agency, Projected Savings From Performing Work In-House For FY's 1992-1996

Appendix P - Navy Operational Test and Evaluation Force, Projected Savings From Performing Work In-House For FY's 1992-1996

Appendix Q - Air Force Operational Test and Evaluation Center, Projected Savings From Performing Work In-House For FY's 1992-1996

PART III - ADDITIONAL INFORMATION (Cont'd)

Appendix R - Summary of Potential Monetary and Other Benefits Resulting from the Audit

Appendix S - Activities Visited or Contacted

Appendix T - Report Distribution

Appendix U - Detailed Audit Responses to Army Comments

APPENDIX A: SERVICES CONTRACTORS SUPPORTING THE PEDESTAL MOUNTED STINGER SYSTEM

	PRIME CONTRACTORS (P) AND SUBCONTRACTORS (S)*						
DEVELOPMENT, PRODUCTION OR TESTING*	COLSA	BDM	DSC	CAS	MACA	PRC	IDA
AMC/MICOM/Project Office (Development and Production)	P	P					
AMC/TECOM/ARMTE (Technical Tests)			P				
OPERATIONAL TEST AND EVALUATION*							
TRADOC/TEXCOM/ADABD (FDT&E I, Tester)				S	P		
TRADOC/ADASCH (FDT&E I, Evaluator)	P						
TRADOC/TEXCOM/TEC (FDT&E II, Tester)						P	
TRADOC/ADASCH (FDT&E II, Evaluator)	P						
TRADOC/TEXCOM/TEC (IOT&E, Tester)						P	
AMC/TECOM/ARMTE (IOT&E, Tester)							
OTEA (IOT&E, Evaluator)		P		S	S		
DOT&E (Evaluator)							P

* See APPENDIX G for list of acyronyms.

APPENDIX B: SERVICES CONTRACTORS SUPPORTING THE LINE OF SIGHT-FORWARD-HEAVY SYSTEM

	PRIME CONTRACTORS (P) AND SUBCONTRACTORS (S)*							
DEVELOPMENT, PRODUCTION OR TESTING*	CAS	NAS	UIE	PRC	BDM	COLSA	MACA	IDA
AMC/MICOM/Project Office (Development and Production)	P, S	P						
AMC/TECOM/ARMTE (Technical Tests)	S		P					
OPERATIONAL TEST AND EVALUATION*								
TRADOC/TEXCOM/ADABD (FDT&E I, Tester)	S						P	
TRADOC/ADASCH (FDT&E I, Evaluator)						P		
TRADOC/TEXCOM/TEC (FDT&E II, Tester)				P				
TRADOC/ADASCH (FDT&E II, Evaluator)						P		
TRADOC/TEXCOM/TEC (IOT&E, Tester)				P				
AMC/TECOM/ARMTE (IOT&E Tester)	S		P					
OTEA (IOT&E, Evaluator)	S				P		S	
DOT&E (Evaluator)								P

* See APPENDIX G for listing of acyronyms.

APPENDIX C: SERVICES CONTRACTORS SUPPORTING THE F-14 TOMCAT SYSTEM

	PRIME CONTRACTORS (P) AND SUBCONTRACTORS (S)*			
DEVELOPMENT, PRODUCTION OR TESTING*	RAVEN	VEDA	SIMSUM	WEBSTER
NAVAIR/Project Office (Development and Production)	P			
NAVAIR/PMTC (Developmental Testing)		P		
NAVAIR/NADC (Developmental Testing)		P		
OPERATIONAL TEST AND EVALUATION*				
OPTEVFOR/VX-4 (OT&E Tester)		S	P	P

* See APPENDIX G for listing of acyronyms.

APPENDIX D: SERVICES CONTRACTORS SUPPORTING THE AMRAAM SYSTEM

PRIME CONTRACTORS (P) AND SUBCONTRACTORS (S)*

DEVELOPMENT, PRODUCTION OR TESTING*	VEDA	SVERDRUP	DYNETICS	MRC	BDM	ASI	WEBSTER	IDA
AFSC/MSD/JSPO (Development and Production)	P	P	P					
NAVAIR/PMTC (Navy Developmental Testing)				P				
OPERATIONAL TEST AND EVALUATION*								
AFOTEC (IOT&E Tester)				P	P			
TAC (FOT&E Tester)						P		
OPTEVFOR/VX-4 (Navy OT&E Tester)	S						P	
DOT&E (Evaluator)								P

* See APPENDIX G for listing of acyronyms.

APPENDIX E: SERVICES CONTRACTORS SUPPORTING THE MILSTAR SYSTEM

	PRIME CONTRACTORS (P) AND SUBCONTRACTORS (S)*						
DEVELOPMENT, PRODUCTION OR TESTING*	SAIC	LMSC	BOOZ-ALLEN	BDM	ROCKWELL	ATI	ESSEX
AFSC/SSD/MILSTAR Joint Program Office (Development and Production)	S	P					
Joint Terminal Program Office (Terminal Interoperability)			P				
AFSC/ESD/Terminal Program Office (Development and Production)				S	P		
OPERATIONAL TEST AND EVALUATION*							
AFOTEC (IOT&E Tester)	P		P	P		P	S

* See APPENDIX G for listing of acryonyms.

APPENDIX F: SERVICES CONTRACTORS SUPPORTING THE RADAR SYSTEM

	PRIME CONTRACTORS (P) AND SUBCONTRACTORS (S)*					
	SAIC	GE	BDM	VERAC/BALL	ENTEK	PSL
DEVELOPMENT, PRODUCTION OR TESTING*						
AFSC/ESD/System Program Office (Development and Production)	S	P				
OPERATIONAL TEST AND EVALUATION*						
AFOTEC (IOT&E Tester)	P, S		P, S	P, S	P	S

* See APPENDIX G for listing of acyronyms.

APPENDIX G: LISTING OF ACRONYMS AND ABBREVIATIONS

ADABD.....Army Air Defense Artillery Board
ADASCH.....Army Air Defense Artillery School
AFOTEC.....Air Force Operational Test and Evaluation Center
AFSC.....Air Force Systems Command
AMC.....Army Materiel Command
ARMTE.....Army Materiel Test and Evaluation Directorate
ASI.....ASI Systems International
ATI.....Advanced Technology Incorporated
BOOZ-ALLEN.....Booz, Allen & Hamilton Incorporated
BDM.....The BDM Corporation
CAS.....CAS Incorporated
COLSA.....COLSA Incorporated
DOT&E.....Director of Operational Test and Evaluation
DSC.....Dynaspan Services Company
DYNETICS.....Dynetics Incorporated
ENTEK.....Entek Corporation
ESSEX.....Essex Corporation
ESD.....Electronic Systems Division
FDT&E.....Force Development Test and Evaluation
FOT&E.....Follow-on Operational Test and Evaluation
GE.....General Electric Company
IDA.....Institute for Defense Analysis
IOT&E.....Initial Operational Test and Evaluation
JSPO.....Joint System Program Office
JTPO.....Joint Terminal Program Office
LMSC.....Lockheed Missiles & Space Company
MACA.....Management Assistance Corporation of America
MICOM.....Army Missile Command
MRC.....McLaughlin Research Corporation
MSD.....Munitions Systems Division
NADC.....Naval Air Development Center
NAS.....Native American Services Associates
NAVAIR.....Naval Air Systems Command
OPTEVFOR.....Navy Operational Test and Evaluation Force
OT&E.....Operational Test and Evaluation
OTEA.....Army Operational Test and Evaluation Agency
PMTC.....Pacific Missile Test Center
PRC.....Planning Research Corporation
PSL.....Physical Science Laboratory
RAVEN.....Raven Incorporated
ROCKWELL.....Rockwell International Corporation
SAIC.....Science Applications International Corporation
SIMSUM.....SIMSUM Incorporated
SPO.....System Program Office
SSD.....Space Systems Division
SVERDRUP.....Sverdrup Technology Incorporated

APPENDIX G: LISTING OF ACRONYMS AND ABBREVIATIONS (Cont'd)

TAC.....Tactical Air Command
TEC.....TEXCOM Experimentation Center
TECOM.....Army Test and Evaluation Command
TEXCOM.....Army Test and Experimentation Command
TRADOC.....Army Training and Doctrine Command
UIE.....United International Engineering
VEDA.....Veda Incorporated
VERAC/BALL.....Ball Systems Engineering
VX-4.....Air Test and Evaluation Squadron Four
WEBSTER.....Webster Engineering

APPENDIX H: SUMMARY OF COST DIFFERENCE IN USING SERVICES CONTRACTS VERSUS IN-HOUSE CIVILIAN RESOURCES

Operational Test Agency	Contractor	Percentage Cost Difference: Government Site	Percentage Cost Difference: Contractor Site	Percentage Cost Difference: Average	Obligated Contract Amount for FY 1990	Estimated Potential Savings
DOT&E	IDA	*	*	*	$ 8,840,000	
	Others#	*	*	*	1,089,000	
	Total			*	$ 9,929,000	$ *
OTEA	ATI	*	*	*	$ 2,768,331	
	BDM	*	*	*	3,508,503	
	PRC/ORI	*	*	*	4,609,736	
	VRC	*	*	*	1,096,957	
	Total			*	$11,983,527	$ *
OPTEVFOR	BDM	*	*	*	$ 60,000	
	RCI	*	*	*	1,368,603	
	SRS	*	*	*	169,000	
	Summit Research	*	*	*	195,000	
	Tracor Flight Systems	*	*	*	586,671	
	Webster Engineering	*	*	*	1,072,956	
	Classified Contracts#	*	*	*	2,587,000	
	Total			*	$ 6,039,230	$ *
AFOTEC	ATI	*	*	*	$ 3,117,870	
	Calspan	*	*	*	48,742	
	SAIC	*	*	*	6,362,427	
	Veda	*	*	*	8,557	
	Entek	*	*	*	264,358	
	Verac/Ball	*	*	*	228,615	
	Correa	*	*	*	354,483	
	SEA	*	*	*	55,559	
	BDM	*	*	*	4,996,432	
	Booz-Allen & Hamilton	*	*	*	892,130	
	Total	*		*	$16,329,173	$ *
Total					$44,280,930	
Estimated dollar savings with 100 percent reduction in services contracts						$13,376,358
Estimated dollar savings with 60 percent reduction in services contracts						$ 8,025,815

#These contracts were not reviewed.

*Proprietary Data Deleted

APPENDIX I: ESTIMATED COSTS FOR CIVILIAN GOVERNMENT EMPLOYEES

Grade/ Step	CY 1990 Annual Salary	Additional Personnel Burdens: Retirement at 21.70 Percent	Medicare at 2.17 Percent	Life/ Health at 4.70 Percent	Fringe Benefits at 1.70 Percent	Office Space at $28 Sq. Ft.	Other Misc. Costs	Total Annual Burdened Cost	Basic Hourly Salary	Burdened* Hourly Costs: With Office Space	Without Office Space
GM-15/5	$67,112	$14,563	$1,456	$3,154	$1,141	$5,600	$1,400	$94,426	$32.16	$51.01	$47.99
GM-14/5	57,054	12,381	1,238	2,682	970	5,040	1,400	80,765	27.34	43.63	40.91
GS-15/5	67,112	14,563	1,456	3,154	1,141	3,640	1,200	92,266	32.16	49.85	47.88
GS-14/5	57,054	12,381	1,238	2,682	970	3,640	1,200	79,165	27.34	42.77	40.80
GS-13/5	48,281	10,477	1,048	2,269	821	2,520	1,000	66,416	23.13	35.88	34.52
GS-12/5	40,601	8,810	881	1,908	690	2,520	1,000	56,410	19.45	30.48	29.11
GS-11/5	33,875	7,351	735	1,592	576	2,520	1,000	47,649	16.23	25.74	24.38
GS-09/5	28,001	6,076	608	1,316	476	2,520	1,000	39,997	13.42	21.61	20.25
GS-07/5	22,887	4,966	497	1,076	389	2,520	1,000	33,335	10.97	18.01	16.65
GS-06/5	20,598	4,470	447	968	350	2,520	1,000	30,353	9.87	16.40	15.04
GS-05/5	18,481	4,010	401	869	314	2,520	1,000	27,595	8.86	14.91	13.55

* Burdened hourly costs were determined by taking the total annual burdened cost and dividing it by 1,851 hours [2,087 total yearly hours, less 156 annual leave hours, less 80 administrative leave hours (training, sick leave, other) equals 1,851 hours].

APPENDIX J: COMPARISON OF CONTRACTOR COSTS VERSUS IN-HOUSE COSTS FOR IDA CONTRACT MDA903-89-C-0003

Labor Category	Hourly Cost of Contractor Services	Equivalent Government Grade	Hourly Cost of Government Employees	Difference Between In-House Costs and Contracted Services	Percentage Difference Between In-House Costs and Contracted Services
Management	$ *	GM-15/5	$ 51.01	$ *	*
Research Staff Member	*	GS-14/5	42.77	*	*
Editors and Miscellaneous	*	GS-13/5	35.88	*	*
Graduate Students, Research Assistants, and Program Analysts	*	GS-09/5	21.61	*	*
Support Staff	*	GS-05/5	14.91	*	*
Total	$ *		$166.18	$ *	*

Calculation of Hourly Costs for Contractor Services

Labor Category	Hourly Rate	Overhead Rate at * Percent	Fringe Benefits at * Percent	General and Administrative at * Percent	Profit at * Percent	Burdened Hourly Cost
Management	$ *	$ *	$ *	$ *	$ *	$ *
Research Staff Member	*	*	*	*	*	*
Editors and Miscellaneous	*	*	*	*	*	*
Graduate Students, Research Assistants, and Program Analysts	*	*	*	*	*	*
Support Staff	*	*	*	*	*	*

*Proprietary Data Deleted

APPENDIX K: COMPARISON OF CONTRACTOR COSTS VERSUS IN-HOUSE COSTS FOR BDM CONTRACT MDA903-88-D-0018

Labor Category	Contractor Grade	Hourly Cost For Contractor Services: Prime	Hourly Cost For Contractor Services: Subctr.	Equivalent Government Grade	Hourly Cost For Government Employees	Difference Between In-House Costs and Contracted Services: Prime	Difference Between In-House Costs and Contracted Services: Subctr.	Percentage Difference Between In-House Costs and Contracted Services: Prime	Percentage Difference Between In-House Costs and Contracted Services: Subctr.
Systems Engineer/ Project Leader	Sr	$ *	$ *	GM-15/5	$ 51.01	$ *	$ *	*	*
	MidLev	*	*	GM-14/5	43.63	*	*	*	*
	Jr	*	*		-	*	*	*	*
Operations Research Analyst	Sr	*	*	GS-15/5	49.85	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Test Designer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Data Manager	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
RAM Data Manager	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Systems Engineer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Aeronautical Engineer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Electronics Engineer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Communications Systems Engineer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Test Engineer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
RAM Engineer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*

* Proprietary Data Deleted

APPENDIX K: COMPARISON OF CONTRACTOR COSTS VERSUS IN-HOUSE COSTS FOR BDM CONTRACT MDA903-88-D-0018 (Cont'd)

Labor Category	Contractor Grade	Hourly Cost For Contractor Services: Prime	Hourly Cost For Contractor Services: Subctr.	Equivalent Government Grade	Hourly Cost For Government Employees	Difference Between In-House Costs and Contracted Services: Prime	Difference Between In-House Costs and Contracted Services: Subctr.	Percentage Difference Between In-House Costs and Contracted Services: Prime	Percentage Difference Between In-House Costs and Contracted Services: Subctr.
Safety Engineer	Sr	$ *	$ *	GS-14/5	$ 42.77	$ *	$ *	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Engineering Psychologist	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Human Factors Analyst	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Automotive Engineer	Sr	*	*	GS-15/5	49.85	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Program Systems Analyst	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Software System Designer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Software Program Analyst	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Software Test Specialist	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Computer Programmer	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Threat Specialist	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Mathematician	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*

* Proprietary Data Deleted

APPENDIX K: COMPARISON OF CONTRACTOR COSTS VERSUS IN-HOUSE COSTS FOR BDM CONTRACT MDA903-88-D-0018 (Cont'd)

Labor Category	Contractor Grade	Hourly Cost For Contractor Services: Prime	Hourly Cost For Contractor Services: Subctr.	Equivalent Government Grade	Hourly Cost For Government Employees	Difference Between In-House Costs and Contracted Services: Prime	Difference Between In-House Costs and Contracted Services: Subctr.	Percentage Difference Between In-House Costs and Contracted Services: Prime	Percentage Difference Between In-House Costs and Contracted Services: Subctr.
Logistics Specialist	Sr	$ *	$ *	GS-14/5	$ 42.77	$ *	$ *	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Tactical Communications	Sr	*	*	GS-14/5	42.77	*	*	*	*
Interoperability	MidLev	*	*	GS-13/5	35.88	*	*	*	*
Specialist	Jr	*	*	GS-09/5	21.61	*	*	*	*
Configuration Manager/	Sr	*	*	GS-14/5	42.77	*	*	*	*
Data Manager	MidLev	*	*	GS-13/5	35.88	*	*	*	*
Specialist	Jr	*	*	GS-09/5	21.61	*	*	*	*
Equipment Specialist	Sr	*	*	GS-13/5	35.88	*	*	*	*
	MidLev	*	*	GS-09/5	21.61	*	*	*	*
	Jr	*	*	GS-07/5	18.01	*	*	*	*
OT&E Specialist	Sr	*	*	GS-14/5	42.77	*	*	*	*
	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Instrumentation	Sr	*	*	GS-14/5	42.77	*	*	*	*
Specialist	MidLev	*	*	GS-13/5	35.88	*	*	*	*
	Jr	*	*	GS-09/5	21.61	*	*	*	*
Data Reducer	Sr								
	MidLev	*	*	GS-07/5	18.01	*	*	*	*
	Jr	*	*	GS-05/5	14.91	*	*	*	*
Data Collector	Sr								
	MidLev	*	*	GS-07/5	18.01	*	*	*	*
	Jr	*	*	GS-05/5	14.91	*	*	*	*
Technical Writer	Sr								
	MidLev	*	*	GS-09/5	21.61	*	*	*	*
	Jr	*	*	GS-07/5	18.01	*	*	*	*
Administrative Support	Sr								
	MidLev	*	*	GS-05/5	14.91	*	*	*	*
	Jr	*	*	GS-05/5	14.91	*	*	*	*
Total		$ *	$ *		$2,926.34	$ *	$ *	*	*
Average (Prime and Subcontractor)								*	

* Proprietary Data Deleted

APPENDIX L: COMPARISON OF CONTRACTOR COSTS VERSUS IN-HOUSE COSTS FOR WEBSTER ENGINEERING CONTRACT N00123-89-D-0039

Labor Category	Hourly Cost of Contractor Services	Equivalent Government Grade	Hourly Cost of Government Employees	Difference Between In-House Costs and Contracted Services	Percentage Difference Between In-House Costs and Contracted Services
Contractor:					
Program Manager	$ *	GM-15/5	$ 51.01	$ *	*
Senior Analyst	*	GS-13/5	35.88	*	*
Project Analyst	*	GS-12/5	30.48	*	*
Illustrator	*	GS-07/5	18.01	*	*
Clerk Typist	*	GS-05/5	14.91	*	*
Subcontractor:					
Program Manager	*	GS-15/5	49.85	*	*
Senior Analyst	*	GS-13/5	35.88	*	*
Project Analyst	*	GS-12/5	30.48	*	*
Contract Administrator	*	GS-09/5	21.61	*	*
Illustrator	*	GS-12/5	30.48	*	*
Security Administrator	*	GS-09/5	21.61	*	*
Clerk Typist	*	GS-05/5	14.91	*	*
Total	$ *		$355.11	$ *	*

Calculation of Hourly Costs for Contractor Services

Labor Category	Hourly Rate	Overhead Rate at Percent	General and Administrative at * Percent	Profit at 7.5 Percent	Add-on General and Administrative at * Percent	Add-on Profit at $ * /Hour	Burdened Hourly Cost
Contractor:							
Program Manager	$ *	$ *	$ *	$ *	$ *	$ *	$ *
Senior Analyst	*	*	*	*	*	*	*
Project Analyst	*	*	*	*	*	*	*
Illustrator	*	*	*	*	*	*	*
Clerk Typist	*	*	*	*	*	*	*
Subcontractor:							
Program Manager	*	*	*	*	*	*	*
Senior Analyst	*	*	*	*	*	*	*
Project Analyst	*	*	*	*	*	*	*
Contract Administrator	*	*	*	*	*	*	*
Illustrator	*	*	*	*	*	*	*
Security Administrator	*	*	*	*	*	*	*
Clerk Typist	*	*	*	*	*	*	*

* Proprietary Data Deleted

APPENDIX M: COMPARISON OF CONTRACTOR COSTS VERSUS IN-HOUSE COSTS FOR SAIC CONTRACT F29601-89-C-0070

Labor Category	Hourly Cost of Contractor Services	Equivalent Government Grade	Hourly Cost of Government Employees	Difference Between In-House Costs and Contracted Services	Percentage Difference Between In-House Costs and Contracted Services
Contractor:					
Senior Project Engineer/Manager	$ *	GM-15/5	$ 51.01	$ *	*
Senior Analyst/Engineer	*	GS-13/5	35.88	*	*
Analyst/Engineer	*	GS-12/5	30.48	*	*
Technician	*	GS-07/5	18.01	*	*
Clerical	*	GS-05/5	14.91	*	*
Subcontractor (Dyncorp):					
Senior Project Engineer/Manager	*	GS-15/5	49.85	*	*
Senior Analyst/Engineer	*	GS-13/5	35.88	*	*
Analyst/Engineer	*	GS-12/5	30.48	*	*
Technician	*	GS-07/5	18.01	*	*
Clerical	*	GS-05/5	14.91	*	*
Subcontractor (Nichols):					
Senior Project Engineer/Manager	*	GS-15/5	49.85	*	*
Senior Analyst/Engineer	*	GS-13/5	35.88	*	*
Analyst/Engineer	*	GS-12/5	30.48	*	*
Technician	*	GS-07/5	18.01	*	*
Clerical	*	GS-05/5	14.91	*	*
Subcontractor (SRS):					
Senior Project Engineer/Manager	*	GS-15/5	49.85	*	*
Senior Analyst/Engineer	*	GS-13/5	35.88	*	*
Analyst/Engineer	*	GS-12/5	30.48	*	*
Technician	*	GS-07/5	18.01	*	*
Clerical	*	GS-05/5	14.91	*	*
SRS Interdivisional Transfer					
Senior Analyst/Engineer	*	GS-13/5	35.88	*	*
Analyst/Engineer	*	GS-12/5	30.48	*	*
Clerical	*	GS-05/5	14.91	*	*
Total	$ *		$678.95	$ *	*

* Proprietary Data Deleted

APPENDIX N: DOT&E PROJECTED SAVINGS FROM PERFORMING WORK IN-HOUSE FOR FY'S 1992 THROUGH 1996

	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	Total
Proposed Reduction Schedule:						
Estimated Amount Spent on Contractor Services (Based on FY 1990 Actuals)	$9,930,000	$9,930,000	$9,930,000	$9,930,000	$9,930,000	
Reduce Contractor Services By:	10 Percent	25 Percent	40 Percent	60 Percent	60 Percent	
Estimated Reduction in Contractor Services	$ 993,000	$2,482,500	$3,972,000	$5,958,000	$5,958,000	$19,363,500
Projected Savings:						
Estimated Reduction in Contractor Services	$ 993,000	$2,482,500	$3,972,000	$5,958,000	$5,958,000	$19,363,500
Less Estimated Costs if Contractor Services are Converted to In-House Civilian Employees (Based on an estimate of 31.25 percent more for contractor services, the cost of In-House Civilian Employees would be 68.75 percent)	682,688	1,706,719	2,730,750	4,096,125	4,096,125	13,312,407
Net Savings	$ 310,312	$ 775,781	$1,241,250	$1,861,875	$1,861,875	$ 6,051,093

APPENDIX O: OTEA PROJECTED SAVINGS FROM PERFORMING WORK IN-HOUSE FOR FY'S 1992 THROUGH 1996

	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	Total
Proposed Reduction Schedule:						
Estimated Amount Spent on Contractor Services (Based on FY 1990 Actuals)	$11,984,000	$11,984,000	$11,984,000	$11,984,000	$11,984,000	
Reduce Contractor Services By:	10 Percent	25 Percent	40 Percent	60 Percent	60 Percent	
Estimated Reduction in Contractor Services	$ 1,198,400	$ 2,996,000	$ 4,793,600	$ 7,190,400	$ 7,190,400	$23,368,800
Projected Savings:						
Estimated Reduction in Contractor Services	$ 1,198,400	$ 2,996,000	$ 4,793,600	$ 7,190,400	$ 7,190,400	$23,368,800
Less Estimated Costs if Contractor Services are Converted to In-House Civilian Employees (Based on an estimate of 21.70 percent more for contractor services, the cost of In-House Civilian Employees would be 78.30 percent)	938,347	2,345,868	3,753,389	5,630,083	5,630,083	18,297,770
Net Savings	$ 260,053	$ 650,132	$ 1,040,211	$ 1,560,317	$ 1,560,317	$ 5,071,030

APPENDIX P: OPTEVFOR PROJECTED SAVINGS FROM PERFORMING WORK IN-HOUSE FOR FY'S 1992 THROUGH 1996

	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	Total
Proposed Reduction Schedule:						
Estimated Amount Spent on Contractor Services (Based on FY 1990 Actuals)	$6,040,000	$6,040,000	$6,040,000	$6,040,000	$6,040,000	
Reduce Contractor Services By:	10 Percent	25 Percent	40 Percent	60 Percent	60 Percent	
Estimated Reduction in Contractor Services	$ 604,000	$1,510,000	$2,416,000	$3,624,000	$3,624,000	$11,778,000
Projected Savings:						
Estimated Reduction in Contractor Services	$ 604,000	$1,510,000	$2,416,000	$3,624,000	$3,624,000	$11,778,000
Less Estimated Costs if Contractor Services are Converted to In-House Civilian Employees (Based on an estimate of 21.28 percent more for contractor services, the cost of In-House Civilian Employees would be 78.72 percent)	475,469	1,188,672	1,901,875	2,852,813	2,852,813	9,271,642
Net Savings	$ 128,531	$ 321,328	$ 514,125	$ 771,187	$ 771,187	$ 2,506,358

APPENDIX Q: AFOTEC PROJECTED SAVINGS FROM PERFORMING WORK IN-HOUSE FOR FY'S 1992 THROUGH 1996

	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	Total
Proposed Reduction Schedule:						
Estimated Amount Spent on Contractor Services (Based on FY 1990 Actuals)	$16,330,000	$16,330,000	$16,330,000	$16,330,000	$16,330,000	
Reduce Contractor Services By:	10 Percent	25 Percent	40 Percent	60 Percent	60 Percent	
Estimated Reduction in Contractor Services	$ 1,633,000	$ 4,082,500	$ 6,532,000	$ 9,798,000	$ 9,798,000	$31,843,500
Projected Savings:						
Estimated Reduction in Contractor Services	$ 1,633,000	$ 4,082,500	$ 6,532,000	$ 9,798,000	$ 9,798,000	$31,843,500
Less Estimated Costs if Contractor Services are Converted to In-House Civilian Employees (Based on an estimate of 39.12 percent more for contractor services, the cost of In-House Civilian Employees would be 60.88 percent)	994,170	2,485,426	3,976,682	5,965,022	5,965,022	19,386,322
Net Savings	$ 638,830	$ 1,597,074	$ 2,555,318	$ 3,832,978	$ 3,832,978	$12,457,178

APPENDIX R: SUMMARY OF POTENTIAL MONETARY AND OTHER BENEFITS RESULTING FROM THE AUDIT

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
A.1.a.	Internal Control. Requires Program Management Offices and Test Agencies to maintain a list of services contractors for each system.	Nonmonetary.
A.1.b.	Program Results. DOT&E propose Legislation to allow Test Agencies to obtain waivers to use the same contractors that supported Development to Support Operational Tests	Nonmonetary.
A.1.c.	Internal Control. DOT&E develop a standard organizational conflicts of interest clause for advisory and assistance services contracts for Operational tests.	Nonmonetary.
A.2.	Compliance with Regulations and Laws. Revises the DFARS to require the addition of the standard organizational conflicts of interest clause in all contracts for Operational tests.	Nonmonetary.
A.3.a.	Internal Control. Requires the Test Agencies to include a conflicts of interest clause in each advisory and assistance services contract for Operational tests	Nonmonetary.
A.3.b.	Internal Control. Requires Test Agencies to modify existing contracts and notify contractors of existing clauses.	Nonmonetary.

APPENDIX R: SUMMARY OF POTENTIAL MONETARY AND OTHER BENEFITS RESULTING FROM THE AUDIT (Cont'd)

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
A.3.c.	Internal Control. Requires Test Agencies to enforce existing conflicts of interests clauses when contractors do not adhere to the contract conditions.	Nonmonetary.
A.3.d.	Internal Control. Requires the Test Agencies to report the material internal control weakness of using the same contractors to support Operational tests that supported development.	Nonmonetary.
B.1.a.	Program Results. DOT&E and the Test Agencies determine civilian personnel requirements needed to perform their mission.	Funds put to better use of $26.1 million (DOT&E $6.1 million, Army $5.1 million, Navy $2.4 million, and Air Force $12.5 million) for FY's 1992 through 1996.
B.1.b.	Program Results. DOT&E and the Test Agencies request funding to hire the additional personnel.	Benefits included in Recommendation B.1.a.
B.1.c.	Program Results. DOT&E and Test Agencies reduce the use of contractor services to support Operational tests 60 percent over the next 5 years.	Benefits included in Recommendation B.1.a.
B.2.	Internal Control. Requires the Test Agencies to control and report contractor services to support Operational tests as CAAS.	Nonmonetary.

APPENDIX S: ACTIVITIES VISITED OR CONTACTED

Office of the Secretary of Defense

Director, Operational Test and Evaluation, Washington, DC

Department of the Army

U.S. Army Operational Test and Evaluation Command, Alexandria, VA
U.S. Army Missile Command, Redstone Arsenal, AL
U.S. Army Communications and Electronics Command, Fort Monmouth, NJ
U.S. Army Ammunitions and Munitions Command, Picatinny Arsenal, NJ
U.S. Army Test and Evaluation Command, Aberdeen Proving Grounds, MD
U.S. Army Training and Doctrine Command, Fort Monroe, VA
U.S. Army White Sands Missile Range, White Sands Missile Range, NM
U.S. Army Air Defense Artilery School, Fort Bliss, TX
U.S. Army Field Artilery School, Fort Sill, OK
U.S. Army Air Defense Artilery Board, Fort Bliss, TX
U.S. Army Field Artilery Board, Fort Sill, Ok
U.S. Army Test and Experimentation Center, Fort Ord, CA

Department of the Navy

Navy Operational Test and Evaluation Force, Norfolk, VA
Chief, Naval Operations Washington, DC
Naval Air Systems Command, Washington, DC
Naval Space and Warfare Command, Washington, DC
Naval Regional Contracting Center Detachment, Long Beach, CA
Naval Air Development Center, Warminister, PA
Naval Weapons Center, China Lake, CA
Pacific Missile Test Center, Point Mugu, CA
Air Test and Evaluation Site 1, Patuxent River, MD
Air Test and Evaluation Site 4, Point Mugu, CA
Air Test and Evaluation Site 5, China Lake, CA

Department of the Air Force

Air Force Operational Test and Evaluation Center, Kirtland AFB, NM
Air Force Systems Command, Andrews Air Force Base, MD
Tactical Air Command, Langley Air Force Base, VA
Aeronautical Systems Division, Wright-Patterson Air Force Base, OH
Electronic Systems Division, Hanscom Air Force Base, MA
Munitions Systems Division, Eglin Air Force Base, FL
Space Systems Division, Los Angeles Air Force Base, CA
USAF Tactical Air Warfare Center, Eglin Air Force Base, FL

APPENDIX S: ACTIVITIES VISITED OR CONTACTED (Cont'd)

Department of the Air Force (Cont'd)

USAF Tactical Fighter Weapons Center, Nellis Air Force Base, NV
Air Force Flight Test Center, Edwards Air Force Base, CA
57TH Fighter Weapons Wing, Nellis Air Force Base, NV
554th Operations Support Wing, Nellis Air Force Base, NV
AFOTEC Detachment 2, Eglin Air Force Base, FL
AFOTEC Detachment 3, Nellis Air Force Base, NV
AFOTEC Detachment 5, Edwards Air Force Base, CA
Special Management Office (LANTIRN), Langley AFB, VA
Joint Terminal Program Office (MILSTAR), Arlington, VA

OTHER

Institute for Defense Analysis, Alexandria, VA

APPENDIX T: REPORT DISTRIBUTION

Office of the Secretary of Defense

Under Secretary of Defense For Acquisition
Comptroller, Department of Defense
Assistant Secretary of Defense (Force Management and Personnel)
Director of Defense Procurement
Director of Operational Test and Evaluation
Director of Contract Advisory and Assistance Services
Director, Defense Acquisition Regulations System

Department of the Army

Secretary of the Army
Assistant Secretary of the Army (Financial Management)
Commander, Army Operational Test and Evaluation Command

Department of the Navy

Secretary of the Navy
Assistant Secretary of the Navy (Financial Management)
Commander, Navy Operational Test and Evaluation Force

Department of the Air Force

Secretary of the Air Force
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Commander, Air Force Operational Test and Evaluation Center

Non-DoD Activities

Office of Management and Budget
General Accounting Office, NSIAD, Technical Information Center

Congressional Committees:
- Senate Subcommittee on Defense, Committee on Appropriations
- Senate Committee on Armed Services
- Senate Committee on Governmental Affairs
- Senate Ranking Minority Member, Committee on Armed Services
- House Committee on Appropriations
- House Subcommittee on Defense, Committee on Appropriations
- House Ranking Minority Member, Committee on Appropriations
- House Committee on Armed Services
- House Committee on Government Operations
- House Subcommittee on Legislation and National Security, Committee on Government Operations

APPENDIX T: REPORT DISTRIBUTION (Cont'd)

Other

The Honorable Harry Reid, United States Senate
The Honorable Barbara Boxer, House of Representatives
The Honorable Robert J. Lagomarsino, House of Representatives
The Honorable Elton Gallegly, House of Representatives

APPENDIX U: DETAILED AUDIT RESPONSES TO ARMY COMMENTS

Army comment. OPTEC commented that the involvement of CAS in contractual support to the program office as well as to the independent operational tester for the Line of Sight-Forward-Heavy system appears to offer, at least the perception of an organizational conflict of interest. OPTEC stated the observation was based entirely on information provided in the audit report, which they were not able to independently confirm or disprove. Further, three of the four OTEA task orders for support were awarded before the effective date of the legislation.

Audit response. As stated in the audit report, CAS provided technical support to the program manager for the Line of Sight-Forward-Heavy system. The technical support had been ongoing since at least February 1988, in the areas of system integration, logistics, production engineering, and program management in support of the continuing system acquisition process.

Although 3 of the 4 OTEA task orders were awarded before the effective date of the legislation, OTEA delivery order 28 was issued on February 8, 1990, to obtain technical services in support of OTEA's participation in the initial operational test and evaluation of the Line of Sight-Forward-Heavy system. The contractor was required to provide technical support to the independent operational evaluator in several areas, review test documentation, manage and analyze data in support of the operational assessment and independent evaluation report, and provide technical assistance in preparation of evaluation briefings and reports. The total cost of the delivery order issued to BDM was about $1.6 million; however, CAS, as a subcontractor to BDM, provided about $500,000 of the effort. Using CAS to support the program manager during development of the system and to support the operational tests for the same system, represents an organizational conflict of interest and a violation of 10 U.S.C. 2399.

Army comment. OPTEC nonconcurred that any organizational conflict of interest occurred when COLSA provided contractual support to the program manager and the TRADOC ADASCH in the conduct of FDT&E activities for the Pedestal Mounted Stinger system. OPTEC contends that FDT&E often involves (a surrogate) system rather than the system to be fielded and is relied upon to verify logistics supportability, doctrine, concepts and organization. This testing is distinctly different from operational testing and evaluation as defined in 10 U.S.C. 2399. OPTEC further comments that the law was intended to prevent contractor involvement in the Initial Operational Test and

Evaluation of a system since it normally supports a production or low-rate production of a system (See Appendix G for acronyms)

Audit response. The TRADOC ADASCH prepared the independent evaluation plan and the independent evaluation reports for FDT&E phases I and II of the Pedestal Mounted Stinger system. After thoroughly reviewing these reports, we concluded that FDT&E was basically early operational tests. Further, the Test and Evaluation Master Plan for both the Pedestal Mounted Stinger system and the Line of Sight-Forward-Heavy system identified FDT&E as an operational test. Consequently, using the same services contractor that supported the program manager to support FDT&E does appear to be an organizational conflict of interest.

As described in the independent evaluation plan, the purpose and scope of FDT&E phase II was to develop, refine, and validate selected operational concepts, critical to the deployment and use of the Pedestal Mounted Stinger system. The operational concepts must be finalized and certified as ready for test prior to advancing to the Initial Operational Test and Evaluation. The initial operational test effectiveness and suitability measures of performance were assessed to provide objective data to support the evaluation of the FDT&E phase II issues and criteria.

The Critical Operational Issue tested during FDT&E phase II was whether the Pedestal Mounted Stinger system provide low-altitude air defense for mobile and stationary critical assets while operating outside direct fire and observed indirect fire ranges. Other operational evaluation or suitability issues included whether representative soldiers perform their operator, maintainer, and tactical tasks; whether reliability, availability, and maintainability of the system support the line-of-sight rear component operational mission profile; and whether the planned logistics support concept for the system was adequate to support operational requirements. FDT&E phase II also utilized production fire units.

We compared the operational evaluation and suitability issues tested during FDT&E phase II, to the issues tested during the initial operational test of the Pedestal Mounted Stinger and found that they were almost identical.

Army comments. OPTEC commented that BDM was awarded OTEA delivery order 12 on January 6, 1989, and that the work was completed on November 26, 1989. BDM was also awarded a contract

to develop the Performance Analysis Data Base by the developer on December 27, 1989, and the work was completed on November 26, 1990. OPTEC stated that this work did not conflict with the work performed on OTEA delivery order 12.

BDM was also awarded OTEA delivery order 40 on September 21, 1990, to support the Stinger system. The intended subcontractor was Coleman Research Corporation (Coleman Research) who reported a possible conflict of interest in accordance with the terms of the contract. BDM in turn reported this to the contracting officer servicing OPTEC. The contracting officer formally notified BDM by correspondence on November 28, 1990, that a possible conflict did exist with its subcontractor and disallowed Coleman Research involvement. BDM formally notified the contracting officer that BDM could not perform the work on January 6, 1991.

Audit response. BDM was issued OTEA delivery order 12 to provide technical support to the independent operational evaluator for the Pedestal Mounted Stinger system. The technical support included the review of test documentation, data analysis in support of the operational assessment and the independent evaluation report, and technical assistance in the preparation of evaluation briefings and reports. The total cost of the delivery order was over $1 million. Even though BDM used a subcontractor to perform the majority of the work, BDM had overall responsibility for the work performed. This delivery order was completed before 10 U.S.C. 2399 was enacted; however, there was still the potential for an organizational conflict of interest if BDM was also supporting the developer of the Pedestal Mounted Stinger system.

The Army Ballistic Missile Defense Organization (developer) issued a task order to BDM on November 27, 1989, to provide system analysis and development effort, which included test planning and test support activities; data analysis and technical advisory responsibilities; and systems integration/performance analysis activities. The systems integration/performance analysis activities included further analysis of subsystem preplanned product improvements for the Pedestal Mounted Stinger. The task stated that Stinger missile and other components of the Pedestal Mounted Stinger system had been examined for system improvements and new subsystem integration under a previous task. The new task sought to expand on what had been accomplished and further analyze threat targets and their impact on system development improvements. The previous task was awarded to BDM on June 22, 1988, for Pedestal Mounted Stinger noncooperative target recognition analysis and integration support. The total cost of this task was about $1.4 million.

Consequently, BDM was working on this development task prior to, and during its support of the operational tests for the Pedestal Mounted Stinger system. This support created an organizational conflict of interest.

On November 1, 1990, Coleman Research advised BDM that it had received a task to support the Stinger Program Office, which created an organizational conflict of interest relating to the work required for OPTEC on delivery order 40.

On November 16, 1990, the contracting officer determined that Coleman Research had a potential conflict of interest and could not work on delivery order 40. However, the organizational conflict of interest relating to the support BDM had provided to the developer was never discussed.

On January 8, 1991, BDM also notified the contracting officer that it had a potential conflict of interest relating to the work required on delivery order 40. BDM stated its Huntsville office had supported the Stinger Project Office in two general categories: the Stinger Performance Analysis Database and the concept definition/formulation to support out year planning for Pedestal Mounted Stinger product improvement proposals and preplanned product improvement. BDM also stated the concept definition work had been going on for sometime, and was specifically related to the Pedestal Mounted Stinger. Consequently, both BDM and Coleman Research had an organizational conflict of interest. Therefore, BDM should never have accepted delivery order 40 or billed the Government for about $8,000 of work before the remaining funds were deobligated.

Army comment. OPTEC commented that the report concluded that MACA had an organizational conflict of interest since it supported FDT&E and IOT&E of the Pedestal Mounted Stinger system.

Audit response. The audit concluded that FDT&E and IOT&E were both operational tests, therefore, MACA could support both tests without any conflict of interest.

Army comment. OPTEC commented that the report concluded that services contractors had an organizational conflict of interest since they supported FDT&E and IOT&E for the Line of Sight-Forward-Heavy system.

Audit response. Again, the audit concluded that FDT&E and IOT&E were both operational tests, therefore, the same contractors could support both of these tests without any conflict of interest.

Army comment. OPTEC commented that contrary to what the report concluded, with regard to organizational conflicts of interest, independent testers and evaluators have made major strides in learning to work in compliance as well as enforce the new legislation. Contractors are carefully screened to preclude any perception of conflict. In the case of the Line of Sight-Forward-Heavy system, both Coleman Research and Martin Marietta were excluded from competition for this reason.

Audit response. As previously described, the contractors could not have been carefully screened if CAS, COLSA, and BDM supported both development and the operational tests for the Line of Sight-Forward-Heavy system or the Pedestal Mounted Stinger system.

PART IV - MANAGEMENT COMMENTS

Director of Operational Test and Evaluation

Office of the Assistant Secretary of Defense (Force Management and Personnel)

Director of Defense Procurement

Department of the Army

Department of the Navy

Department of the Air Force

Director of DoD Contracted Advisory and Assistance Services

OPERATIONAL TEST
AND EVALUATION

OFFICE OF THE SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1700

26 JUN 1991

MEMORANDUM FOR INSPECTOR GENERAL (CONTRACT MANAGEMENT DIRECTORATE)

SUBJECT: Draft Audit Report on Consulting Services Contracts for Operational Test and Evaluation (Project No. OCH-5009)

Pursuant to your request, subject report has been reviewed by this office. Specific comments on the recommendations addressed to DOT&E are attached.

Renuse Gottschalk, for
Robert C. Duncan
Director

Attachments:
As stated

1. We recommend that the DOT&E, in conjunction with the DDDR&E

a. Require Program Mananement offices and OTA's to identify all advisory and assistance services contractors and subcontractors that participate in the development, production, or testing and in the operational test and evaluation for major Defense acquisition systems in the system's TEMP.

DOT&E RESPONSE: Partially Concur. DOT&E recognizes the need to preclude potential conflicts of interest. However, inasmuch as the Test and Evaluation Master Plan is only updated at milestones, we feel that the requirement could be more appropriately satisfied by amending DODD 5000.2. It should require that each program manager maintain a list of advisory assistance service contractors used during development, production, or testing. Operating test agency Contracting Officers would then be required to ensure that those advisory and assistance services contractors are excluded from operational testing, to preclude any conflict of interest, whether real or apparent.

b. Propose legislation that would allow OTA's to obtain waivers from the DOT&E to use the same advisory and assistance services contractors that participated in the development, production or testing to also support the operational T&E under justifiable conditions when sufficient steps have been taken to ensure the impartiality of the contractor services.

DOT&E RESPONSE: Nonconcur. Initiating legislation at this point appears to be premature. There is insufficient data to support changing the present law, insofar as DOT&E has not been made aware of any difficulty in obtaining CAAS due to this legislative constraint.

c. Develop a standard organizational conflict of interest clause that precludes advisory and assistance contractors and subcontractors from participating in development, production or testing, and OT&E for the same systems unless a waiver is obtained.

DOT&E RESPONSE: Partially Concur. DOT&E will work to develop such a clause, but without a provision for waivers.

2. We recommend that the DOT&E and the Commanders of the Military Departments OTA's in conjunction with the ASD (Force Management and Personnel):

a. Determine in-house civilian personnel requirements needed to perform their mission.

DOT&E RESPONSE: Concur. The Office of the Assistant Secretary of Defense (Force Management & Personnel) issues annual guidance to the DoD components to review all of their manpower requirements. This guidance addresses military and civilian manpower and states that the Department's manpower should represent "the most cost efficient and

flexible mix of manpower necessary to support mission accomplishmnet." This manpower requirements review is accomplished as part of the Department's annual budget review.

b. Request funding to gradually hire the additional civilian personnel:

DOT&E RESPONSE: Nonconcur. If the annual review of manpower requirements determines that there is a continuing, long term requirement for additional in-house civilian manpower and that there should be a shift from contractor personnel to in-house government employees, then the organization's total obligational authority (TOA) should have sufficient funding to finance these additional in-house personnel. (If funding for contracts goes down, then there will be additional funding available to pay in-house salaries.) The Department uses the in-house and contractor civilian work forces as fungible resources.

c. Reduce the use of Advisory and Assistance Service Contractors by 60 percent over the next five years.

DOT&E RESPONSE: Nonconcur. This proposed percentage reduction is arbitrary and capricious, with no basis in fact and no consideration of organizational and operational requirements. The Director Operational Test and Evaluation can best determine if a civilian manpower space should be filled by an in-house employee or by a contractor, using long standing DoD policy that the work force should reflect the most cost efficient mix of manpower necessary to support mission accomplishment. The Department does not want to incur the long term financial obligations associated with additional in-house personnel unless there is a long term need for these people. For short term requirements, contractor support may be a better bargain.

MANAGEMENT COMMENTS: OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (FORCE MANAGEMENT AND PERSONNEL)

THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON D C 20301-4000

FORCE MANAGEMENT AND PERSONNEL

01 JUL 199

MEMORANDUM FOR DIRECTOR, CONTRACT MANAGEMENT DIRECTORATE, DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Draft Audit Report on Consulting Services Contracts for Operational Test and Evaluation (Project No. OCH-5009)

The above referenced draft audit report addressed three DoDIG recommendations for corrective actions that the Director for Operational Test and Evaluation and the respective Military Service commanders should take in coordination with the Office of the Assistant Secretary of Defense (Force Management & Personnel). I offer the following comments on those recommendations:

DoDIG Recommendation:

a. Determine in-house civilian personnel requirements needed to perform their mission.

FM&P Comment:

Concur. The Office of the Assistant Secretary of Defense (Force Management & Personnel) issues annual guidance to the DoD components to review all of their manpower requirements. This guidance addresses military and civilian manpower and states that the Department's manpower should represent "the most cost efficent and flexible mix of manpower necessary to support mission accomplishment." This manpower requirements review is accomplished as part of the Department's annual budget review.

DoDIG Recommendation:

b. Request funding to gradually hire the additional civilian personnel.

FM&P Comment:

Nonconcur. If the annual review of manpower requirements determines that there is a continuing, long-term requirement for additional in-house civilian manpower and that there should be a shift from contractor personnel to in-house government employees, then the organization's total obligational authority (TOA) should have sufficient funding to finance these additional in-house personnel. (If funding for contracts goes down, then there will be additional funding available to pay in-house salaries.) The Department uses the in-house and contractor civilian work forces as fungible resources.

DoDIG Recommendation:

c. Reduce the use of advisory and assistance service contractors by 60 percent over the next 5 years.

FM&P Comment:

Nonconcur. This proposed percentage reduction is arbitrary and capricious, with no basis in fact and no consideration of organizational and operational requirements. The Director of Operational Test and Evaluation can best determine if a civilian manpower space should be filled by an in-house employee or by a contractor, using long-standing DoD policy that the work force should reflect the most cost efficient mix of manpower necessary to support mission acomplishment. The Department does not want to incur the long-term financial obligations associated with additional in-house personnel unless there is a long-term need for these people. For short-term requirements, contractor support may be a better bargain.

Carl J. Dahlman
Deputy Assistant Secretary
(Requirements & Resources)

MANAGEMENT COMMENTS: DIRECTOR OF DEFENSE PROCUREMENT

OFFICE OF THE UNDER SECRETARY OF DEFENSE
WASHINGTON, DC 20301

ACQUISITION

JUL 2 / 1991

DP/CPA

MEMORANDUM FOR THE OFFICE OF THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Draft Audit Report on Consulting Services Contracts for Operational Test and Evaluation (Project No. OCH-5009)

My staff has reviewed your draft audit report on consulting services contracts for operational test and evaluation. As a result of that review, the following comment is offered.

Recommendation 2: We recommend that the Director of Defense Procurement direct the Defense Acquisition Regulatory Council to evaluate the conflict of interest clause developed by the Director of Operational Test and Evaluation and take appropriate action to include the clause related to advisory and assistance services support for operational test and evaluation to [sic] the Defense Federal Acquisition Regulation Supplement.

DDP Position: **Concur**. When the Director of Operational Test and Evaluation has submitted a draft of a new Organizational Conflict of Interest clause to my office, I will forward it to the Defense Acquisition Regulation Staff for review. I cannot establish a time for the completion of that review until the draft of the new clause is received.

I appreciate the opportunity to comment on this draft report.

Eleanor Spector

Eleanor R. Spector
Director, Defense Procurement

DEPARTMENT OF THE ARMY
OFFICE OF THE UNDER SECRETARY
WASHINGTON DC 20310 0102

27 JUN 1991

SAUS-OR

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Draft Audit Report on Consulting Services Contracts for Operational Test and Evaluation (Project No. 0CH-5009)

The subject draft audit report has been reviewed within the Army. We do not concur with a number of the conclusions and recommendations resulting from the audit.

We do not concur that the Army Operational Test and Evaluation Command compromised desired impartiality and independence by using the same service contractor to support operational tests who participated in the development of the system. There is no evidence to suggest that test assessments were biased or that systems were produced and deployed with unknown performance limitations. Enclosures 1 and 2 detail the specific basis for our nonconcurrence.

The Test and Evaluation Master Plan is not a proper vehicle for establishing an internal control mechanism for managing contractor support. Enclosure 2 provides the rationale for this position.

Although we agree with the recommendation to reduce contractor support and pursue the development of in-house capability, we see this to be in opposition to the ongoing efforts to reduce personnel strength in the Department of the Army and Defense as a whole. However, we intend to continue efforts to strike a proper balance. This area is further discussed in enclosure 3.

We nonconcur in the recommendation to establish operational test support services contracts under the auspices and reporting requirements of the Contract Advisory and Support Services (CAAS) guidelines. It is our opinion that this would be inconsistent with the FAR. The basis for this position can be found in enclosure 4.

-2-

SAUS-OR
SUBJECT: Draft Audit Report on Consulting Services Contracts for Operational Test and Evaluation (Project No. 0CH-5009)

We appreciate the opportunity to review the draft report and trust that our concerns will receive due consideration. Questions can be directed to my action officer for this reply, LTC Walter Kaminski, USATEMA, ATTN: DASC-TE, Rm 3C571 Pentagon, (703) 695-8995.

Walter W. Hollis
Deputy Under Secretary of the Army
(Operations Research)

Encl

CF:

DA OIG ATTN: SAIG-PA
DOT&E
DDDRE(TE)
ASA(RDA) ATTN: SFRD-KP
CDR OPTEC ATTN: CSTE-OP
CDR AMC ATTN: AMCIR-A
DIR MISMA ATTN: SFUS-MIS

Service Contractors Supporting Operational Tests and Development

Comments on Organizational Conflict of Interest

1. The audit addressed four major Army programs. The amount of contract activity was considerable, and the audit was apparently in some detail. However, the situation described in 2.c. below appears the only possibility where even the perception an OCI might have occurred. The facts do not support the auditors overall conclusion that test "did not attain the desired impartiality and independence, test assessments may be biased, and systems may be produced and deployed with unknown performance limitations."

2. Part II of the report discusses test agencies using the same service contractors to support operational test and evaluation for major defense acquisitions that participated in systems development. Appendixes A and B of the report illustrate instances of alleged organizational conflict of interest. We find, however, that:

a. Six of the nine indicated contractors were involved in Force Development Test and Evaluation (FDTE) and either systems development or OT&E activities. However, neither combination of activities constitutes an organizational conflict of interest (OCI) as defined in 10 U.S.C. Section 2399 (See para 1a, attachment 1).

b. One OCI was attributed to the fact that BDM supported the program office for the Stinger Missile System as well as the operational test and evaluation agency for the same weapon system. However, after reviewing circumstances, it seems apparent that an OCI did not occur. (See para 1.b., attachment 1).

c. One additional OCI situation was associated with the Line of Sight Forward Heavy Air Defense System. CAS Corporation provided contractual services to the program office as well as to the operational tester. It appears an OCI may have occurred. However, the auditors should have taken into consideration that all the work, with the exclusion of a single task order was on contract prior to the effective date of the legislation (see para 1.e., attachment 1).

3. Testers and evaluators have made major strides in complying with, as well as enforcing the new legislation. The contracting officer is also enforcing it, and has included OCI clauses in all OPTEC contracts as recommended by the auditors in subject report. The contractors give every indication they are monitoring their activities as well as the activities of their subcontractors.

Enclosure 1

1. ORGANIZATIONAL CONFLICT OF INTEREST

a. The DODIG report contends that COLSA Corporation had an organizational conflict (OCI) because COLSA provided contractual support to the PM and subsequently supported the TRADOC/TEXCOM/ADABD and the TRADOC ADASCH in the conduct of FDT&E activities.

(1) This command non-concurs with any conclusion or suggestion that the situation described above involves OCI. FDTE is distinctly different from operational testing and evaluation as defined in Title 10, United States Code, Section 2399. FDTE is relied upon to verify logistics supportability, doctrine, concepts and organization. FDTE provides information critical to the materiel fielding process, and the sustainability of the system after fielding; it does not support a materiel fielding decision. Rather it can occur at anytime in the materiel development process, and often involves (a surrogate) system rather than the system to be fielded.

(2) The law is intended to prevent contractor involvement in the Initial Operational Test and Evaluation (IOTE) of a System since the IOTE normally supports a production or low rate production of a system. The contractor clearly was not involved in the IOTE. The actions of both the contractor and the Army were well within the spirit and intent of pertinent public laws.

b. The DODIG report contends BDM had a conflict of interest because they supported the PM in the development of a Performance Analysis Data Base, and also supported OPTEC during the operational evaluation of Pedestal Mounted Stinger.

(1) Following is a clearer description of the contractors involvement with the government.

a. BDM was awarded OTEA Delivery Order 12 to support OPTEC on 6 January 1989. The work was completed 26 November 1989.

b. BDM was awarded the contract to develop the Performance Analysis Data Base on 27 December 1989 by the developer. The work was completed on November 26, 1990. The work was titled: "Sensor Suite Analysis for Integration and test support for Theatre Missile Defense Operations". The work was in support of Army Space Defense Command. BDM is a CITA contractor for Army Space Defense Command. This work did not conflict with the work performed on delivery order 12 described above.

c. BDM was awarded OTEA Delivery Order 40 on 21 September 1990. They were to provide contractual support to OPTEC on Stinger RMP. The intended subcontractor was Coleman Research. Coleman reported a possible conflict of interest in accordance with the terms of their contract with BDM. BDM in

ATTACHMENT 1 to Enclosure 1

turn reported accordingly to the contracting officer servicing OPTEC. The contracting officer formally notified BDM by correspondence on 28 November 1990 that a possible conflict did exist and disallowed Coleman involvement. BDM formally notified the contracting officer that BDM could not perform the work on 6 January 1990.

(2) The circumstances outlined in 2.b. above serve to illustrate two very important points:

a. A conflict of interest never occurred as indicated in the DODIG report.

b. A conflict of interest clause is contained in the contract as the DODIG acknowledged. The contract contains a second clause that requires the OCI to be flowed down to subs intact. Neither the prime or his sub ignored the OCI provisions. On the contrary, both reported the possibility of a perceived OCI thus allowing the contracting officer to take appropriate action.

c. The DODIG report concludes that MACA had an OCI since MACA supported the TRADOC/TEXCOM/ADABD during FDT&E, and OPTEC during IOT&E of PMS. This is not a conflict of interest situation for the same reasons discussed in paragraph 1.a.(1) and (2) above. FDT&E is not the test of a system, it does not support a production decision, and MACA was not employed by the contractor responsible for developing PMS. Similarly, the DODIG report concludes COLSA Corporation had a conflict of interest situation because COLSA provided contractual support to the TRADOC/ADASCH during both FDT&E 1 and FDT&E 11. A conflict of interest situation does not exist. Both T&E programs supported a single Army activity involved in the materiel fielding process. The legislation does not, and should not inhibit the contractors involvement in this situation. Neither an OCI nor the appearance of an OCI exists.

d. The DODIG report draws similar conclusions with regard to service contracts supporting the LINE OF SIGHT FORWARD HEAVY SYSTEM. COLSA Corporation supported FDT&E 1 and 11, MACA Corporation supported FDT&E 1 and IOT&E, and PRC Corporation supported FDT&E 11 and IOT&E. It is the contention of this organization that an OCI condition did not occur for reasons already discussed. It appears the DODIG has improperly interpreted the legislation or does not fully understand the test and evaluation process.

e. The involvement of CAS Corporation in contractual support to the program office as well as to the independent operational tester appears to offer, at least the perception of an OCI. This observation is based entirely on information provided in the DODIG report which we were neither able to independently confirm or disprove. BDM was the Prime Contractor in this instance. Their contract with the government contained a conflict of interest clause. The contract contains a second clause requiring

the OCI clause to be flowed down in-tact to all subs. The clause was flowed down to CAS, who was the sub in this instance, however the potential for a conflict was never reported. The DODIG correctly points out that the Sub Contractor did not adhere to the clause. However, the DODIG should take into consideration that the PM Office award to CAS occurred in February 1988, and December 1989. The award to the test board was in March 1987. Legislation prohibiting contractor involvement in system development, and operational test and evaluation was added to the FY 90 Defense Authorization Act with an effective date of 29 November 1989. Three of the four OTEA task orders were also awarded before the effective date of the legislation.

f. Contrary to what is concluded in the DODIG Report, with regard to OCI and the circumstance described in 1.e. above, independent testers and evaluators have made major strides in learning to work in compliance as well as enforce the new legislation. Contractors are carefully screened to preclude any perception of OCI. In the case of Line of Sight Forward Heavy both Coleman Research and Martin Marietta were excluded from competition for this reason. The OCI clauses contained in all OPTEC contracts is working effectively, and the contractors are policing their own activities as well as those of their subs. The Prime in this instance has reported three potential OCI in the past year; these included KE ASAT, CCTT and FAADS. The contracting officer acted immediately to prohibit their involvement in each instance.

2. Nonconcur with DODIG statement contained in the report that:

a. "Military Departments' Operational Test Agencies used the same service contractors to support operational test for major defense acquisition system that participated in the development of the systems".

b. "Operational test did not attain the desired impartiality and independence, test assessments may be biased, and systems may be produced and deployed with unknown performance limitations".

c. "Test Agencies are not in compliance with 10 U.S.C. section 2399, Impartial Contracted Advisory Assistance and Services.

Service Contractors Supporting Operational Test and Development

Recommendations for Corrective Action

ADDRESSEE	RECOMMENDATION	CONCUR NONCONCUR	COMPLETION DATE	COMMENT
DOT&E	Require all CAAS services involved in system development & operational test be identified in the TEMP.	Nonconcur	N/A	ATTACH 1, PARA 1a
DOT&E	Propose legislation allowing waivers to use CAAS contractors who participated in development to also participate in OT&E.	Concur w/cmt	N/A	ATTACH 1, PARA 1b
DOT&E	Develop standard OCI clause that prohibits CAAS contractors from participating in both activities unless waiver is obtained.	Concur	N/A	ATTACH 1, PARA 1c
DIR, DEF Procurement	Direct FAR council to evaluate OCI clause and take action to include in DFAR.	Concur	N/A	N/A
Commanders Mil Dept OT&E Cdrs	Insert OCI clause in existing and future CAAS contracts.	Concur	Action Complete	ATTACH 1, PARA 2a
Commanders Mil Dept OT&E Cdrs	Direct contracting offices to formally notify contractors of CAAS provisions in 10 U.S.C. 2399.	Concur	30 Jun 91	N/A
Commanders Mil Dept OT&E Cdrs	Direct contracting officers to enforce provisions of 10 U.S.C.	Concur	30 Jun 91	N/A
Commanders Mil Dept OT&E Cdrs	Report materiel internal control weakness of using same CAAS contractors to support OT&E that participated in development and production of a system.	Nonconcur		ATTACH 1, PARA 2b

Enclosure 2

RECOMMENDATIONS FOR CORRECTIVE ACTION

1. The Director of Operational Test and Evaluation in conjunction with the Deputy Director, Defense Research and Engineering (Test and Evaluation):

a. Require program management offices and Operational Test Agencies to identify all advisory and assistance services contractors and subcontractors that participate in the development, production, or testing and in the operational test and evaluation for major defense acquisition systems in the system's Test and Evaluation Master Plan (TEMP).

OPTEC COMMENT:

Nonconcur. The TEMP is a planning document for Test and Evaluation. The staffing and approval process is already lengthy and involved. The process need not be made more cumbersome by causing the Services to rely upon the TEMP as an internal control document for contract support activities.

Requiring program offices and test and evaluation activities to identify all contractors and subcontractors in the TEMP offers no assurance against the involvement of a contractor in the development as well as the Operational Test and Evaluation of a particular system. It can only negatively impact the currency, relevancy and utility of the TEMP as a planning document for Test and Evaluation.

Enforcing compliance with public law governing procurement operations should reside with those officials and organizations responsible for their administration. This can be accomplished through the application of appropriate contract clauses, increased awareness, oversight and internal audits as required.

AMC COMMENT:

Nonconcur. The TEMP is a master plan. It is not a detailed test planning document. The TEMP should primarily be identifying the overall test strategy for a program and how the proposed T&E will support the acquisition milestones. A detailed list of contractors and subcontractors is out of place in such a document. The TEMP, as the principal T&E planning document, is required to be developed prior to MS I, program initiation, prior to appointing a PM for the program. At the time the TEMP is written, there are no program contracts because the program has not yet started. The TEMP is only required to be updated at program milestones or when a major change in the program T&E strategy has occurred. For that reason, the TEMP is not the most suitable place to maintain a record of the different service contracts are are awarded through the life of a program. Lastly, the list of contractors and subcontractors can be enormous, numbering in the hundreds when the entire developmental effort is taken into account. The TEMP preparer should not be expected to determine this list or be held accountable for its completeness or accuracy.

Attachment 1 to Enclosure 2

b. Propose legislation that would allow the Operational Test Agencies to obtain waivers from the Director of Operational Test and Evaluation to use the same advisory and assistance service contractors that participated in the development, production or testing to support the Operational Test and Evaluation under justifiable conditions when sufficient steps have been taken to ensure the impartiality of the contractors services.

OPTEC COMMENT:

Concur with Comment. Operational Test and Evaluation activities should be permitted to obtain the services from the same contractor, in selected instances when the contractors impartiality can be demonstrated. Contractors, by virtue of their earlier involvement in the program, the highly specialized nature of the services provided, and the technical knowledge and expertise that cannot be otherwise acquired are sometimes imperative to the efficient and cost effective transfer of technical knowledge and skills associated with a weapon system. The same contractors involvement may also be desirable when cost consideration mandates the same instrumentation be used for both technical and operational testing.

Approval authority should reside within the Service requiring the support, with periodic reporting requirement to the director of Operational Test and Evaluation. The DOT&E cannot be expected to assess the merit of such request, and should not be accountable for the approval/disapproval determination. He is able to ensure the arrangement is not being abused by monitoring the frequency of such request, and the contractors and programs involved.

c. Develop a standard organizational conflict of interest clause that precludes advisory and assistance services contractors and subcontractors from participating in development, production, or testing and Operational Test and Evaluation for the same systems unless a waiver is obtained.

OPTEC COMMENTS:

Concur with comment. OPTEC contracts include an OCI clause which we believe is effective. A second standard clause requires the prime contractors to flow down the OCI clause to their subcontractors intact. We believe the clauses are working as intended, and potential conditions for OCI are being reported. However, this does not preclude efforts on the part of DOD to develop a more effective clause.

2. Commanders of the Military Departments' Operational Test Agencies:

a. Insert organizational conflict of interest clauses in existing and future contracted advisory and assistance services contracts that preclude contractors and subcontractors from participating in development, production, or test and Operational Test and Evaluation of the same system.

OPTEC COMMENT: Concur. OPTEC contracts currently include the clause as indicated. Contracts transferred to OPTEC for

administration, as a result of the Test and Evaluation reorganization will be amended to include the clause consistent with the provisions of subpart 9.5 of the Federal Acquisition Regulation.

b. Report the material internal control weakness of using the same advisory and assistance services contractors to support Operational Test and Evaluation that participated in development, production, or testing, and track the status of corrective action taken until the problems noted are resolved.

OPTEC COMMENT: This command does not concur with the finding that the same advisory and assistance services contractors are being used to support the two different activities resulting in a conflict of interest.

Final Report
Page No.

Cost Effectiveness of Services Contracts

1. The auditors concluded that reliance upon services contracts to support operational test and evaluation was not as cost effective as developing an in-house capability to perform the work. They recommended services contracts be reduced by 60 percent and an in-house capability be developed. OPTEC endorses the recommendation. It has been an OPTEC objective for some time to reduce the level of contractual effort, and place greater reliance upon in-house resources. However, the following must be considered in determining the appropriate level of contract support:

a. OPTEC has sustained significant reductions in personnel strength over the past year; further reductions are imminent. Concurrently, significant increases in mission responsibility have been assigned.

b. A reduction of 60 percent in contractual support over the next five years is a reasonable goal. However, it is impossible to speculate whether this reduction will generate the estimated savings. Contractual support is a flexible tool for the tester and evaluator, and to some extent offers a considerable economic advantage to the government. The best balance between in-house capability and the level of contract support is yet to be determined.

2. Page 41, first paragraph implies that test and evaluation activities are contracting out functions that are the inherent responsibility of the government. DODD 4205.2 defines basic Governmental functions as, "planning; policy development, interpretation, and enforcement; program and budget decision making, and finance accountability. 27

a. OPTEC is not/has not entered into contractual arrangements to receive these or similar categories of services. Neither does OPTEC permit the independent evaluators functions to be performed by contract. These functions are regarded as inherently government responsibilities. Published policy and a rigorous review process are in place to enforce this standard. However, OPTEC does contract in many areas to support the evaluators efforts. Examples of conditions justifying contract support include:

1. Transfer of engineering and technical knowledge pertinent to the particular program.

2. Special knowledge and skills.

3. When a suitable in-house capability does not exist.

4. Support of the contractors instrumentation if it is the sole source of instrumentation.

Enclosure 3

b. Under no circumstances is support obtained under contract unless it is economically advantageous to the government, (represents a cost effective solution) the capability does not reside within the government, and task completion is mission essential).

c. OPTEC, in addition to 1a(1)-(4) above, does contract for additional personnel to accommodate fluctuations in requirements, and the cyclic nature of operational test and evaluation. This has proven to be a cost effective solution; it is not to circumvent personnel ceilings or pay limitations. The intensity with which OT&E fluctuates, in terms of schedule, categories of system undergoing test, system technology and program urgency is considerable and program slips and delays are commonplace. It is not feasible to staff for all contingencies; neither is it feasible for our contractor to do so, and explains their reliance on subcontractors, particularly in high specialized areas of testing technology.

3. The report concludes OPTEC is obtaining services support on a repeated or extended arrangement (in violation of 4205.2).

OPTEC has a fixed price indefinite delivery contract. Task orders are awarded, under that contractor on a time and materiel basis. Each task order has a fixed price and a fixed period of performance. Each task order clearly describes the work to be performed and the item to be delivered. Each task order is carefully screened (internally) to ensure compliance with DODD 4205.2. This is a legitimate application of contract support. It represents an efficient and cost effective application of DOD resources.

Cost Effectiveness of Services Contracts
Recommendations for Corrective Action

ADDRESSEE	RECOMMENDATION	CONCUR NONCONCUR	COMPLETION DATE	COMMENT
DOT&E ASD(FM&P) OPTEC OPTECFOR AFOTEC	Determine in-house Civilian requirements needed to perform mission	Concur	DEC 91	
DOT&E ASD(FM&P) OPTEC OPTECFOR AFOTEC	Request funding to gradually hire additional civilian personnel.	Concur	FEB 92	
DOT&E ASD(FM&P) OPTEC OPTECFOR AFOTEC	Reduce the use of CAAS contractors by 60% over next 5 years.	Concur w/cmt		DISCUSSION AT ATTACH 1
DOT&E ASD(FM&P) OPTEC OPTECFOR AFOTEC	Require Military Department Operational Test Agencies, to report and control their advisory and assistance services contracts to support operational test and evaluation as contracted advisory and assistance services.	Nonconcur		See ATTACH 2 & 3

Enclosure 4

COST EFFECTIVENESS OF SERVICES CONTRACTS

1. The DODIG report concluded that operational test and evaluation agencies were using repeated and extended service contracts to support operational tests that were not as cost effective as developing an in-house-capability to perform the same work. They estimated that the DOT&E and the services test agencies could save 8 million annually by reducing service contracts by 60 percent and developing an in-house capability to plan, analyze and report operational test. They recommended the DOT&E and the Commanders of the military departments' operational test agencies in conjunction with ASD (Force Management and Personnel):

a. Determine in-house personnel requirements needed to perform their mission.

b. Request funding to gradually hire additional civilian personnel.

c. Reduce the use of advisory and assistance services contractors by 60 percent over the next five years.

OPTEC COMMENT:

1. This command strongly endorses the DODIG's Recommendations. We are anxious to bring more work in-house, and concurrently become less reliant upon contract support. However, prior to full implementation of the DODIG recommendations, the following must be taken into consideration:

a. The OPTEC civilian end strength has been reduced by 278 spaces in response to DMRD 936, implemented in October 1990. Reductions were to be off-set through economies and efficiencies achieved through the consolidation of organizations and mission responsibilities. Further reductions are planned for the next fiscal year. Concurrently, the level of test and evaluation activity has remained constant.

b. New mission responsibilities are currently being assigned. The most significant of these, in the near term, is the test and evaluation of all IMA programs.

ATTACHMENT 1 to Enclosure 4

2. OPTEC share of the $8,000,000 program annual savings is $1,560,317 according to annexes provided with the DODIG report. This allows $5,630,083 for personnel salaries to offset the 60 percent reduction in services support, or the addition of 125 personnel spaces to the TDA. The 125 spaces assumes a distribution of grade and salary level comparable to that of personnel currently assigned (the number would be reduced to approximately 80 if the command were to focus on more highly skilled personnel). $4,793,600 would remain for contract support, or 40 percent of the current level.

a. The current contractual arrangement permits considerable flexibility in an environment that mandates the same. Services support can be quickly tailored to surge for requirements over a broad range of skills, to include low density skills, and over an equally broad range of functional areas. The requirement may be for a large number of semi skilled data collectors, or a subject matter engineering expert in air defense. Additionally, support arrangements can be quickly reconfigured or even terminated in response to the dynamics of the test environment. The government pays only for those services rendered, whatever the circumstance.

b. Paragraph 2.a. above is not to negate the advantages associated with the DODIG finding and recommendation. The advantages of bringing more work in-house are apparent, and it is one of the high priority objectives of this organization. Paragraph 2.a. above is intended to emphasize that speculating on the best mix of contractor support and in-house capability is more difficult that the DODIG report suggest.

DEPARTMENT OF THE ARMY
OFFICE OF THE UNDER SECRETARY
WASHINGTON DC 20310 0102

June 25, 1991

SFUS-MIS

MEMORANDUM FOR DIRECTOR, TEST AND EVALUATION MANAGEMENT AGENCY

SUBJECT: Draft Audit Report on Consulting Service Contracts for Operational Test and Evaluation (Project No. OCH-5009)

We nonconcur with recommendation 2, Part B, which was that the auditor's "recommend that the DoD Director of Contracted Advisory and Assistance Services, in conjunction with the Comptroller of the Department of Defense, require the Military Departments, Operational Test Agencies to report and control their advisory and assistance services contracts to support operational test and evaluation as contracted advisory and assistance services." According to the Federal Acquisition Regulation, Section 37.204 Exclusions, paragraph (i) "Those support services of a managerial or administrative nature performed as a simultaneous part of, and nonseparable from specific development, production, or operational support activities", are excluded from the definition of advisory and assistance services. Based on this interpretation of the definition and the information provided in the audit we do not believe that the services identified in this audit should be reported or controlled as Contracted Advisory and Assistance Services (CAAS).

William D. Barr, Chief,
Study Management Branch, Model
Improvement and Study Management Agency

ATTACHMENT 2 to Enclosure 4

The DODIG report recommends that the DOD Director of Contracted Advisory and Assistance Services, in conjunction with the Comptroller of the Department of Defense, require the military departments operational test agencies to report and control advisory and assistance services contracts to support operational test and evaluation as contracted advisory and assistance services.

OPTEC COMMENT: NONCONCUR.

1. The Congress has specifically identified and legitimized a category of contract activity, that otherwise may be considered "Personal Services" in nature and therefore in violation of the Federal Acquisition Regulation (FAR) unless specifically authorized by statute. This category of contracts, titled: Advisory and Assistance Services" (CAAS) is defined in the FAR as "services to support or improve agency policy development, decision making, management, and administration, or to support or improve the operation of management systems".

2. It is not the intent of the Congress to preclude contractor involvement in support of the materiel acquisition process, knowing his involvement is fundamental to that same process. Rather the intent is to acknowledge the necessity for a specific category of service available only from the public sector while maintaining the integrity of federal laws and statutes, subject to a set of specific conditions.

3. CAAS provides a legitimate necessary means to improve government services and operations by "obtaining outside information, points of view, advice, opinions, recommendations to enhance understanding" etc. The intent of the Congress is to acknowledge the necessity for these kinds of services while enforcing stringent prohibitions against personal services contracting as outlined in the FAR OPTEC may contract for these services but very infrequently, and only when special circumstances prevail.

4. OPTEC contracts for engineering and technical services provided by engineering service contractors to support operational test and evaluation (T&E). T&E is a fundamental imperative to final government acceptance of a complete hardware system; it is mandated by public law, and a function of the research, development, production and procurement process. Engineering services contracts in support of materiel acquisition are specifically excluded from this category of CAAS contracts by the Federal Acquisition Regulation (FAR 37.203d).

ATTACHMENT 3 to Enclosure 4

5. Contracts for technical services provided after government acceptance of a complete hardware system are also excluded where they are procured to increase the original design performance capabilities of a new or existing system, and have been formally reviewed and approved in the acquisition planning process. It is reasonable to conclude from the above discussion that OPTEC contracts relied upon to support "Army User Testing" as defined in Army Regulations; and DOD Publications are not "Advisory, Assistance and Services" contracts.

DEPARTMENT OF THE NAVY

COMMANDER OPERATIONAL TEST AND EVALUATION FORCE

NORFOLK, VIRGINIA 23511-6388

5040
Ser 02/ 1061
JL 5 1991

From: Commander, Operational Test and Evaluation Force
To: Inspector General

Subj: DRAFT AUDIT REPORT ON CONSULTING SERVICES CONTRACTS FOR OPERATIONAL TEST AND EVALUATION (PROJECT NO. OCH-5009)

1. Recommendations 1a - 1c - Do not concur. Generally, COMOPTEVFOR programs do not require continual analytical support. In a program, there are times when extensive analytical support is required. However at other times, no analytical involvement is required. Therefore, contractors are only used when there is an analytical requirement and not on a continual basis. COMOPTEVFOR is involved with numerous programs that require various types of specific technical expertise. This makes it infeasible to ensure that there are sufficient in-house analysts with a specific specialty to adequately provide the necessary analytical support. Contractors have access to personnel with various backgrounds and levels of expertise. Given the cyclical nature of the analytical requirements coupled with the varying technical expertise required, the discontinuation of contractor support in favor of maintaining an in-house staff of analysts is not justified.

2. Recommendation 3a - Concur in principle. COMOPTEVFOR presently has an excellent organizational conflict of interest clause that is a part of each analytical support contract. This clause will be incorporated into the revised analytical support instruction to be completed in July 1991.

3. Recommendation 3b and 3c - Concur. COMOPTEVFOR's Contract Specialist will have a conference with the prospective contractor to formally notify the contractor of the provisions for impartial contracted advisory and assistance services in 10 U.S.C. 2399, prior to the award of all future contracts.

4. Recommendation 3d - Concur. COMOPTEVFOR is actively taking action to remove the existing conflict of interest with regards to Webster Engineering, subcontractor Veda, Inc. and a new contract will be awarded by August 1992.

J. A. MARSHALL
Deputy Commander
and Chief of Staff

Copy to:
CNO (OP-913)

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC 20330-1000

OFFICE OF THE ASSISTANT SECRETARY

28 JUN 1991

MEMORANDUM FOR SAF/FMP

SUBJECT: DoD(IG) Draft Audit Report On Consulting Services Contracts Operational Test and Evaluation (Project No. OCH-5009).

We have reviewed the subject audit report and concur with most of the recommendations. Specific comments from HQ AFOTEC, the Air Force Operational Test Agency (AF OTA), are attached.

GENERAL COMMENTS

While interpretation of the law as it pertains to contractor involvement have been difficult to obtain, we feel the audit is based on an **overly strict interpretation** of the use of contractors in OT&E. Section 2399 of 10 U.S.C. does exclude individual persons, however contractors are only excluded from being "involved (in any way) in the establishment of criteria for data collection, performance assessment, or evaluation activities for the OT&E". HQ AFOTEC found no instances where these excluded activities were performed by the AF contractors cited in the report.

We oppose action to implement the findings on cost-effectiveness of service contracts until a more thorough analysis can be conducted.

An absolutely clear interpretation of the law governing the use of contractors is needed We also wholeheartedly concur in the recommendation to establish DOT&E waiver authority to allow the use of contractors by the service OTAs when adequate safegurards can be established.

Point of contact for this action is Major Stephen M DeFrank Jr, who can be reached at DSN 227-1165.

1 Attachment
AFOTEC Comments

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Deputy Director
Test and Evaluation

AFOTEC MANAGEMENT COMMENTS

REPORT OF AUDIT PROJECT NO. OCH-5009

Following are management comments on the Draft Audit Report Part II - Findings and Recommendations:

a. Services Contractors Supporting Operational Tests and Development:

(1) The AMRAAM System--The discussions pertaining to Veda, Inc. and Webster Engineering do not pertain to the Air Force, since these contracts only supported Navy activities. The Air Force did use the Navy's contract with McLaughlin for some test support, but according to our dialogues with Point Mugu, the contract did include an organizational conflict of interest clause by reference. We do not believe a conflict of interest occurred.

(2) The MILSTAR System--The report states that "The...conflict of interest clause (for the three MILSTAR contractors) should have precluded the contractors from supporting (our OT&E)....: The following comments support our position that there was/is no conflict of interest and we provided effective management to eliminate potential conflicts of interest.

(a) Milstar is a multibillion dollar development program which has employed and continues to employ a large number of contractors and subcontractors. We are primarily limited to a small pool of contractors who have negotiated contracts with AFOTEC. In the case of Milstar, choosing contractors who have no involvement in the Milstar development program and who have the expertise to assist in our operational evaluations is not practical without revising how the DoD lets contracts. This has traditionally been a problem with our nuclear survivability support in general. We were aware of all the situations concerning Milstar cited in the report with the exception of the BDM case. We have examined and documented these situations periodically and concluded there was no conflict of interest in each case.

(b) The subject report states that BDM was involved in both a Milstar developmental contract and an AFOTEC Milstar contract. While this is true, AFOTEC's subtask with BDM was completed prior to the initiation of BDM's developmental contract. The report states that the Rockwell International Corporation subcontracted with BDM in October 1990 to perform Radiation Lot Acceptance Testing on specific parts of the Air Force Milstar terminal program. The report also states that AFOTEC issued BDM four task orders from 1986 and 1989 to support the Milstar system. In fact, the AFOTEC BDM Milstar subtask terminated 27 Dec 89, 9 months prior to BDM's involvement in the Milstar developmental program. There was clearly no conflict of interest in this case.

(c) The subject report states that BAH was involved in both a Milstar developmental contract and an AFOTEC Milstar contract. While this is true, due to the limitations of the two contracts, and the additional restrictions we put on BAH, there were no conceivable situations where BAH would evaluate their own work. The report states that the Joint Terminal Program Office (JTPO) contracted with BAH in October 1990 to provide system engineering, configuration management, integrated logistics, test and evaluation, development and analysis for Milstar segments, and Milstar terminal interoperability test planning and support. The report also states BAH contracted with AFOTEC in 1986 and 1989 to support the terminal and mission control element (MCE) nuclear survivability portion of the assessment of the Milstar satellite. We were aware of the situation and felt

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that BAH's involvement with the JTPO would not influence their nuclear assessment of the Milstar ground segment. The BAH AFOTEC Milstar support is strictly limited to examining the nuclear survivability aspects of the Milstar terminals and MCEs. To preclude any potential conflict of interest, we additionally established guidelines in 1987 for the conduct of the two BAH offices supporting Milstar.

(d) The subject report states that SAIC was involved in both a Milstar developmental contract and an AFOTEC Milstar contract. While this is true, the two contracts were directed at two different segments of Milstar. The report states that Lockheed subcontracted with SAIC in January 1989 to conduct specific EMP Analyses for the Milstar MCE. The report also states that SAIC contracted with AFOTEC in 1989 to support the survivability portion of the assessment of the Milstar satellite. We were aware of this situation and felt that SAIC's involvement with the ground based MCE would not influence their evaluation of the satellite. The MCE and satellite are two distinct development efforts. We chose a separate contractor, BAH, to support our survivability assessment of the MCE.

(3) The Radar System--The report states there is a conflict of interest involving SAIC's work for the OTH-B prime contractor, GE and their performance as a General Support Contractor on an on-going subtask for the IOT&E of OTH-B. We do not believe there is/was a conflict of interest for two reasons: first, the SAIC subcontract for GE was begun in December 1986 and completed in March 1987. This was approximately 2.5 years prior to award of the AFOTEC GSC to SAIC in August 1989. This was an ongoing subtask passed from BDM to SAIC with the GSC. Second, the work performed for GE was specific to the West Coast OTH-B system. AFOTEC is not scheduled to conduct OT on this radar.

(4) Test and Evaluation Master Plans--We agree that TEMPs should be reviewed prior to contracting for OT&E, to ensure measures of performance, test event or scenario descriptions, resource requirements, and test limitations are understood by contracting personnel. However, we see no requirement to include identification of services contractors in TEMPs, and disagree that test agencies have no means to identify those contractors who participated in system development.

(5) Waivers For Use of Service Contractors--This section of the audit claims 10 U.S.C. 2399 states the Director of OT&E has waiver authority on the limitation of the use of services contractors. 10 U.S.C. 2399(e)(2) states the Director of OT&E has such authority, but only for contracts he has negotiated for advisory and assistance services. It makes no provision for waivers for contractors participating in testing for the military departments. Furthermore, the audit points out "there are no provisions for the test agencies to use the same services contractors under similar conditions." If sufficient steps have been taken to ensure the impartiality of the contractor in providing services, which subsection (2) requires, then this point is moot.

(6) Organizational Conflict of Interest--The thrust of this section of the audit is that the lack of a standardized conflict of interest clause among the service test agencies did not always preclude potential conflict of interest situations. We don't believe the audit has established facts to support this contention. However, we have no objection to the concept of a standardized conflict of interest clause.

(7) Recommendation 1:

(a) Partially Concur. We have no objection to identifying all contractors and subcontractors who participate in OT&E in the TEMP. However, identifying contractors who participated in development, production, or development testing would be of limited utility to the OT&E community since the TEMP is updated infrequently. We would not refer to the TEMP for this information.

(b) Concur. We believe legislation to clarify existing law in this area would be extremely beneficial, and we support the proposal for legislation as phrased in the audit.

(c) Concur. AFOTEC has no objection to a standardized organizational conflict of interest clause.

(8) Recommendation 2--Concur with the recommendation as written.

(9) Recommendation 3:

(a) Concur. Instructions will be provided to appropriate contracting activities regarding the specific clause to be used in each contract.

(b) Concur. Instructions will be provided to appropriate contracting activities to make this notification.

(c) Concur. AFOTEC presently takes action to enforce the provisions of 10 U.S.C. 2399 and all other pertinent legislation regarding conflict of interest through contracting agencies, and will continue to enforce these provisions.

(d) Concur with comments. AFOTEC will report material internal control weaknesses in those cases where we feel adequate safeguards to mitigate conflict of interest cannot be assured. However, we disagree with the concept of such reporting for all circumstances where contractors supporting OT&E activities had involvement with development, production, or testing, when adequate safeguards are in place.

b. Cost-Effectiveness of Services Contracts:

(1) General Comments: Several reasons exist for using extended services contracts to support operational testing and evaluation. AFOTEC support contracts are technical- and scientific-type contracts which provide our functional elements specialized expertise. Specialized expertise is needed to structure an effective OT&E on the complex weapon systems being acquired to counteract the sophisticated threats of the future. General work areas include concept development, test planning, test execution, data management, modeling/simulation, and survivability analysis. Our support is usually provided through long-term (2-5 years) level-of-effort contracts with a broad scope, general work areas, and subtask statement provisions. These contracts have been extremely effective because of uncertainty of our work load and the need for quick reaction support when unexpected requirements arise. On certain OT&E programs, we have issued contracts to accomplish specific tasks for that program. These contracts are pursued when we have solid requirements in sufficient time to support the procurement lead times. Furthermore, AFOTEC specifically contracted for companies with differing specialties in the operational and testing area. These companies were asked to state the capabilities in terms of meeting surge requirements. AFOTEC believes we can only get limited expertise in-house whether civil servant or military. The general and special support contracts allow

for the use of entire companies to respond to highly technical issues on an as-needed basis. *If we don't need the work done, we don't pay.* We would disagree that the expertise, experience and quality is available through the military or civilian personnel system. Physicist, scientist, statisticians, engineers, etc. of this caliber are often paid well for their work, and we do not believe that we could attract and maintain a stable force without major changes in the pay system.

(2) Background: This section of the audit synopsizes pertinent sections of DoD Directive 4205.2, "DoD Contracted Advisory and Assistance Services (CAAS)." There are basically four categories of CAAS services, and contractor support for OT&E is not covered in categories A., B., or C. Category D., which covers engineering and technical services contracts, does not clearly include contractor support to operational testing; in fact, in our view contract support to OT&E is not covered. In our opinion, the definition of CAAS does not apply to these services at all.

(3) Repeated and Extended Services Contracts: Repeated and extended use of a services contract is only a problem if the contract falls into the category of CAAS.

Through the use of options on general and special support contracts, AFOTEC guarantees adequate protection to the Government for termination of contract services when warranted, while providing minimal disruption in mission support through continuity of the contractor work force. It would not be mission responsive or cost effective to contract in a "start and stop" manner for ongoing areas of technical expertise required by multiple OT&E programs.

(4) Services Contracts were not cost-effective. We strongly disagree with this statement. The contracts used by AFOTEC are only used on an as-needed basis. We only pay if we need support that is covered in the scope of either the general or special support contracts. If congress, DoD, or the Air Force elects to cut back spending in any area under which AFOTEC has a contract, very few people are affected compared to a reduction in force. In addition, the contractors are not promised anything more than the cost of establishing an office in the local area. If our funds are cut by millions of dollars, then testing will cease, and programs will be placed on hold until such time as funding is available. This arrangement, considering the state of the economy, is the best situation we could possible be in. With such an arrangement, termination costs are minimal. If that becomes necessary, no one from the government side is laid off, and virtually all employment risk rests with the contractor.

(5) Eliminate organizational conflicts of interest: We disagree that organizational conflict of interest exists today. The allegation that the corporate knowledge needed to plan, analyze, and report operational tests resides with the contractor work force is only partially correct. The Air Force believes that an appropriate balance between contractor and government participation on OT&E activities exists today. The allegation that the potential for organizational conflict of interest can be eliminated, which this section of the audit maintains, would only be true if all contractor services were eliminated for OT&E in favor of in-house capability. This extreme is clearly unwarranted and not cost effective.

(6) Service contracts to support operational tests were not controlled or reported as CAAS: Because we do not agree that our support contracts for OT&E qualify as CAAS, the question of CAAS reporting is moot. This section illustrates the difference of opinion

that exists between the Air Force and the DoDIG regarding the proper definition of CAAS. This points up again the need for clear interpretation of governing legislation.

(7) Office of Management and Budget Guidance: No comments.

(8) Recommendation 1:

(a) Concur. AFOTEC recommends an in depth analysis of the costs and benefits associated with reduced levels of contractor dependence, and supports this recommendation in that context.

(b) Nonconcur. This recommendation is premature pending the completion of the analysis cited in paragraph (a) above.

(c) Nonconcur. AFOTEC disagrees with actions to adjust contracting levels or funding pending the results of the in depth analysis. AFOTEC nonconcurs with the estimated monitory benefits cited in this section and illustrated in Appendix Q of the audit, based on our belief the audit analysis of these savings is incomplete.

(9) Recommendation 2: Concur with comments. AFOTEC supports efforts to clarify the definition and scope of CAAS contracts. If the decision is made that general and special support contracts supporting OT&E indeed fall under the definition of CAAS, then we would concur with this recommendation.

MANAGEMENT COMMENTS: DIRECTOR OF DOD CONTRACTED ADVISORY AND ASSISTANCE SERVICES

OFFICE OF THE UNDER SECRETARY OF DEFENSE
WASHINGTON, DC 20301

ACQUISITION
(AP&PI)

11 July 1991

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Draft Audit Report on Consulting Services Contracts for Operational Test and Evaluation (Project No. 0CH-5009)

This memorandum responds to your request for comments on subject draft report.

Recommendation B.2. The audit recommends that the Director, DoD Contracted Advisory and Assistance Services, and the Comptroller, DoD, require the Military Departments' Operational Test Agencies to report and control their advisory and assistance services contracts to support operational test and evaluation as contracted advisory and assistance services (CAAS).

Nonconcur. We cannot require that the test agencies report those advisory and assistance services efforts that are currently exempted/excluded from the definition of CAAS. The current definition provides specific exclusions that can be reasonably applied to contractor support used by the test agencies. For example, enclosure (3), paragraph A, DoD Directive 4025.2 "DoD Contracted Advisory and Assistance Services", excludes from the scope of CAAS studies, analyses and evaluation, "system specific engineering studies". Subpart 37.204 of the Federal Acquisition Regulation excludes "engineering studies related to specific physical or performance characteristics of existing or proposed systems." However, there are ongoing initiatives to strengthen the management, identification and reporting of CAAS. A major task is to develop an easier to apply CAAS definition and ensure that it is consistently applied throughout DoD. We plan to publish and have in place the improved definition in the revised DoD Directive 4205.2, by October 1, 1991. We believe this will help to resolve the uncertainty of what is or not CAAS.

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