Audit Report

OFFICE OF THE INSPECTOR GENERAL

DEFENSE ACQUISITION BOARD REVIEW PROCESS FOR FY 1994

Report No. 95-138

March 8, 1995

Department of Defense

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Acronyms

CSDP	Chemical Stockpile Disposal Program
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DSARC	Defense Systems Acquisition Review Council
OSD	Office of the Secretary of Defense
USD(A&T)	Under Secretary of Defense for Acquisition and Technology

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
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MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITON AND TECHNOLOGY

SUBJECT: Report on the Defense Acquisition Board Review Process for FY 1994 (Project No. 3AE-0063)

Introduction

We are providing this report for your information and use. The report summarizes our evaluation of the effectiveness of the Defense Acquisition Board (DAB) review process during FY 1994. This report is the seventh in a series of summary reports prepared since 1984 that evaluated the Defense Acquisition Board process.

Audit Results

This summary report is based on our review of three major programs (AV-8B Remanufacture, V-22 Aircraft, and Chemical Stockpile Disposal), addressed in audit reports issued from June through November 1994 with DAB-related findings. While the audit disclosed program-specific findings for the three acquisition programs, we identified no systemic deficiencies in the effectiveness of the DAB review process during FY 1994. The three reports, including findings, recommendations, and management comments, are synopsized in Enclosure 1.

Objectives

The audit objective was to evaluate the effectiveness of the DAB review process. Specifically, we examined the adequacy of documentation the Military Departments and Defense agencies provided to the Defense Acquisition Board in support of major milestones and program reviews. Further, we evaluated compliance with DoD Directive 5000.1, "Defense Acquisition," February 23, 1991; DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991; DoD Manual 5000.2-M, "Defense Acquisition Management Documentation and Reports," February 23, 1991; and congressional direction issued to the Office of the Secretary of Defense (OSD). We also reviewed applicable internal controls.

Scope and Methodology

We performed this program results audit from August 1993 through March 1994 and reviewed data and information dated from May 1986 through February 1994 relating to the three acquisition programs. The acquisition

programs were judgementally selected and, in order of review, were the AV-8B Remanufacture Program, V-22 Aircraft Program, and the Chemical Stockpile Disposal Program (CSDP).

We performed this audit 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 deemed necessary. We did not rely on computer-processed data to support our audit results. However, we performed data testing to confirm the completeness and authenticity of evidence used to support the findings and recommendations related to the three major Defense acquisition programs reviewed.

We performed audit field work related to the DAB review process at OSD and Military Department organizations responsible for the preparation and review of DAB-required documents. We also visited selected contractor facilities. A list of organizations visited or contacted is in Enclosure 4.

Internal Controls

We assessed the implementation of requirements in DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, and the internal management controls used to conduct Defense Acquisition Board reviews and prepare supporting DAB documentation. Those controls and procedures are specified in DoD Directive 5000.1, "Defense Acquisition," and DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991. The audit did not identify any material internal control deficiencies.

Prior Audits and Other Reviews

Since 1984, we have issued six summary audit reports evaluating the DAB and the Defense Systems Acquisition Review Council (DSARC)[1]. The results of those summary reports are presented in Enclosure 2.

Background

The DAB is the senior advisory body to the Under Secretary of Defense for Acquisition and Technology[2] (USD[A&T]) responsible for enforcing policies and procedures governing the operations of the DoD acquisition process. The acquisition process is structured in distinct logical phases separated by major decision points, called milestones. DAB reviews are held at each major milestone decision point in the acquisition process. Each decision point leads to a phase of the acquisition process (Enclosure 3). The reviews ensure that a program is ready to proceed to more advanced stages of development or production before receiving USD(A&T) approval and that proposed program

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[1]The DSARC was renamed the DAB in 1987.
[2]Formerly the Under Secretary of Defense for Acquisition.

plans for subsequent stages are consistent with sound acquisition management practices. When the USD(A&T) feels that issues for acquisition programs should be resolved between milestone reviews, a DAB program review addresses those special issues.

The DAB is supported by three committees: the Strategic Systems Committee; the Conventional Systems Committee; and the Command, Control, Communications and Intelligence Systems Committee. The cognizant DAB Committee has several responsibilities. Each Committee conducts planning meetings to establish program document requirements and documentation reviews to ensure that all exit criteria and the minimum required accomplishments of the phase preceding the milestone are complete. The meetings and reviews also provide the basis for the preparation of the integrated program assessment of the program for presentation to the DAB. The DAB Committees identify the issues to be addressed at the DAB review and make key recommendations for USD(A&T) action.

After Committee review, the DAB conducts the milestone review focusing on four questions for approving a program to proceed to the next acquisition phase:

- Where is the program (versus where should it be)?
- Where is the program going (and how will it get there)?
- What risks exist (and how will those risks be managed)?
- Is the plan for the program affordable?

After a full discussion at the DAB review of the issues, trade-offs, baselines, exit criteria, and proposed acquisition strategy, the USD(A&T) determines the actions to be taken. Decisions resulting from DAB reviews are presented in an acquisition decision memorandum, signed by the USD(A&T).

Discussion

Implementation of the February 1991 revisions to the DoD 5000 series of acquisition regulations has resulted in significant improvement in the quality of documentation used in the DAB process. Overall, DAB documentation was well-prepared and met requirements. Our audit of the effectiveness of the DAB review process was based on the evaluation of three acquisition programs scheduled for DAB reviews in FY 1994. Conditions identified in the final reports for the three programs follow.

The AV-8B Remanufacture Program. The Navy's proposed acquisition strategy for the AV-8B Remanufacture Program did not include specific plans to use multiyear procurement for acquisition of 58 remanufactured aircraft during FYs 1997 through 2000. While Navy analysis showed that savings of $553 million were achievable through remanufacture, the Navy risked the loss of additional potential savings of as much as $123 million and $33.7 million by not applying multiyear procurement to the remanufacture of AV-8B airframes and the production of new 408A engines, respectively.

The V-22 Aircraft Program. The DAB review process had not been properly used for the V-22 Program. The V-22 Program entered the Engineering and Manufacturing Development phase without proper authorization, a DAB review, a validated requirement, or a valid acquisition program baseline. Also, the Navy made major program decisions without either formal review by the Office of the Secretary of Defense or documented approval by the Defense acquisition executive.

The Chemical Stockpile Disposal Program. The CSDP could significantly benefit from disciplined program management provided in accordance with DoD acquisition policies. The DoD management did not consider the CSDP to be an acquisition program, but rather an on-going chemical destruction program principally involved with building facilities for the incineration of chemical agents. However, the CSDP meets the prerequisites for the major Defense acquisition program designation. In particular, disciplined program management through the DAB review process would ensure that alternatives for meeting disposal requirements were considered through formal cost and operational effectiveness analysis, a formal development and operational test program was established, an acquisition program baseline was approved, and contractor cost and schedule control was improved. Further, the CSDP had not met the limited program documentation requirements, criteria, and baselines the Army established for the program.

Management Comments

We provided a draft of this report to the addressees on January 31, 1995. Because we made no recommendations, no official comments were required and none were received. This report does not claim monetary benefits.

We appreciate the courtesies extended to the audit staff. If you have questions on this Memorandum, please contact Mr. John A. Meling, Program Director, at (703) 604-9091 (DSN 664-9091) or Mr. Brian M. Flynn, Project Manager, at (703) 604-9076 (DSN 664-9076). Enclosure 5 lists the distribution of this report.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Enclosures

Synopses of System Audit Reports of the Defense Acquisition Board Process

From June through November 1994, the Inspector General, DoD, issued three audit reports involving acquisition programs with DAB-related findings.

Report No. 95-045, "The Chemical Stockpile Disposal Program," November 29, 1994. The Chemical Stockpile Disposal Program (CSDP) could significantly benefit from disciplined program management provided in accordance with DoD acquisition policies. The DoD management did not consider the CSDP to be an acquisition program, but rather an on-going chemical destruction program principally involved with building facilities for the incineration of chemical agents. However, the CSDP met the prerequisites for the major Defense acquisition program designation.

We recommended that the USD(A&T) designate the Chemical Stockpile Disposal Program an Acquisition Category ID major Defense acquisition program; schedule a Defense Acquisition Board Milestone III, Production Approval, Review; and require a dedicated phase of initial operational test and evaluation. To support that decision, we recommended a formal cost and operational effectiveness analysis of chemical agent destruction alternatives and validation of the contractor cost and schedule control systems. In response to the report, the Principal Deputy Under Secretary of Defense for Acquisition and Technology informed the Inspector General, Department of Defense, that he did not intend to add the Chemical Demilitarization Program to the Major Defense Acquisition Program list but the Deputy Secretary of Defense had asked that the Defense Acquisition Board periodically conduct Defense Executive Reviews of the Chemical Demilitarization program in the same manner that the Defense Acquisition Board reviewed the non-major Defense acquisition Biological Defense program. The Deputy Secretary's direction was responsive to the intent of the recommendations and determined to be sufficient alternative corrective action. However, upon continuing review of the program, the USD(A&T) designated the Chemical Demilitarization Program a Major Defense Acquisition Category 1D Program.

Report No. 94-131, "Review of the V-22 Aircraft Program," June 14, 1994. The DAB review process was not properly used for the V-22 Program. The V-22 Program entered the Engineering and Manufacturing Development phase without proper authorization, a DAB review, a validated requirement, or a valid acquisition program baseline. Also, the Navy made major program decisions without either formal review by the Office of the Secretary of Defense or documented approval by the Defense Acquisition Executive (DAE). Although the time allowed to prepare for the Milestone II-Plus DAB review was limited, documentation the DAE required for the review was reasonable and the review had the potential to correct deficiencies noted in this report, including a lack of current program documentation. On December 8, 1993, the DAE postponed the Milestone II-Plus review scheduled for the next day and later rescheduled it for September 1994.

We recommended that the Assistant Secretary of the Navy (Research, Development and Acquisition) postpone definitizing the V-22 Engineering and Manufacturing Development contract and limit obligation of contract funding to no more than FY 1993 and prior appropriations until the DAB Milestone II-Plus review was held and the DAE chose the V-22 as the alternative to meet validated requirements. The Assistant Secretary did not concur. However, the Assistant Secretary proposed alternative corrective actions that included obtaining DAE approval to definitize the contract; soliciting concurrence of the Vice Chairman, Joint Chiefs of Staff, with definitization; and ensuring the Government's financial commitment was appropriately limited. The Navy definitized the contract, with approval of the DAE, as a cost-plus-award-fee contract on May 3, 1994. We considered the alternative corrective actions as meeting the intent of the report recommendations.

Report No. 94-118, "The AV-8B Remanufacture Program as Part of the Audit of the Defense Acquisition Board Review Process--FY 1994," June 3, 1994. The Navy submitted well-prepared documentation to the Defense Acquisition Board. However, the Navy's proposed acquisition strategy for the AV-8B Remanufacture Program did not adequately consider using multiyear procurement for acquisition of 58 remanufactured aircraft during FYs 1997 through 2000. We recommended the use of multiyear procurement for the airframe and engine contracts planned for FYs 1997 through 2000. The Assistant Secretary of the Navy (Research, Development, and Acquisition) responded that she agreed with the use of multiyear procurement when it made economic sense but did not agree that our recommendation for multiyear procurement could be implemented for the FY 1996 budget preparation cycle. She indicated that the risk and cost data needed to support the multiyear decision would not be available for a year and that the minimum savings of 10 percent required for multiyear procurement possibly cannot be achieved. As a result, she stated that the earliest the Navy would consider multiyear procurement would be FY 1998, after a thorough review of program risks and program costs. She further stated that the review would have to occur in a timely manner to allow the FY 1997 budget to be adjusted to include long-lead procurement in FY 1997. We accepted the Navy's plan to implement multiyear procurement in FY 1998, with long-lead procurement in FY 1997, as meeting the intent of our recommendation.

Synopses of Prior Defense Acquisition Board Summary Audit Reports

Since 1984, we have issued six summary audit reports evaluating the DAB and the Defense Systems Acquisition Review Council (the predecessor to the DAB) processes.

Report No. 95-068, "Defense Acquisition Board Review Process," December 30, 1994. This report summarized the results of reviews of seven major Defense acquisition programs selected for the FYs 1992 and 1993 audits of the DAB review process. It also summarized information from audits of the C-17 Aircraft and Short Range Attack Missile II programs that included findings involving the DAB review process. The audit disclosed that implementation of the February 1991 revisions to the DoD 5000 series of acquisition regulations resulted in significant improvement in the quality of documentation used in the DAB process. Overall, DAB documentation was well-prepared and met requirements. However, the audit identified a systemic deficiency in cost and operational effectiveness analyses. The Military Departments did not always perform adequate cost and operational effectiveness analyses. Additionally, user involvement in the cost and operational effectiveness analysis process could be improved. Consequently, program alternatives and the impact of acquisition program baseline breaches were not properly considered in making program decisions. Management comments on the final report have not yet been received. Management comments on the draft report indicated general concurrence with our recommendations. However, management nonconcurred with a recommendation that cost and operational effectiveness analyses be reviewed and updated, if needed, when a breach in acquisition program baseline occurred. Pending discussion of the matter with the Joint Requirements Oversight Council, management partially concurred with recommendations that the Joint Requirements Oversight Council assess the alternatives to use in cost and operational effectiveness analyses and the adequacy of the analyses performed. In response to the final report, we requested that management reconsider its nonconcurrence and estimate a date for coordination with the Joint Requirements Oversight Council.

Report No. 91-032, "Summary Report on the Audit of the Effectiveness of the Defense Acquisition Board Process--FY 1988," January 25, 1991. This report summarized the results of audits covering five systems but did not contain systemic findings or recommendations. The report stated that actions had been taken regarding the recommendations in the reports on the individual systems. Also, OSD and Congress took numerous actions after the issuance of the system reports that impacted the acquisition process.

Report No. 87-193, "Summary Report on the Audit of the Effectiveness of the Defense Systems Acquisition Review Council (DSARC) Process--FY 1986," July 17, 1987. This report summarized the results of audits covering seven individual systems but did not find new systemic issues and, therefore, did not contain new findings and recommendations. However, it did

reaffirm prior observations that more rigorous enforcement of existing acquisition policy was needed and that recommendations contained in prior summary reports remained valid and unaccomplished.

Report No. 87-166, "Summary Report on the Audit of the Effectiveness of the Defense Systems Acquisition Review Council (DSARC) Process--Phase III," June 3, 1987. This report summarized the results of audits covering six systems and presented two summary findings based on systemic conditions noted during the review. The first finding, "Operational Thresholds," reported that program managers had to provide adequate operational performance thresholds at the Milestone II decision point to serve as overall operational objectives to be met before receiving production approval from the Secretary of Defense. The second finding, "Major Changes to Acquisition Programs," reported that the Navy and the Air Force restructured the acquisition strategies for two major programs without obtaining the permission of the Secretary of Defense.

Report No. 85-104, "Summary Report on the Audit of the Effectiveness of the Defense Systems Acquisition Review Council (DSARC) Process--Phase II," July 28, 1985. This report summarized the results of audits covering 10 systems and presented 2 summary findings based on the systemic conditions. The first finding, "Acquisition Strategy," reported that required Milestone I reviews were not held or planned for 6 of the 10 major systems in the audit. The second finding, "Justification for a Major System New Start Document," reported that the new start documents for five major systems did not adequately present all necessary information, as the 5000 series of DoD Directives required.

Report No. 85-009, "Summary Report on the Audit of the Effectiveness of the Defense Systems Acquisition Review Council (DSARC) Process," October 22, 1984. This report summarized the results of audits covering six systems and presented two summary findings based on the systemic conditions. The first finding, "DSARC Documentation," reported that required documentation was not always prepared and provided to the DSARC within established time frames. The second finding, "Impact of Funding Issues," reported that the Military Departments had not adequately identified either the source or the amount of funding required to accomplish the system development objectives for the six systems reviewed.

Summary of Milestone Decision Points and Acquisition Phases

The milestone decision process starts with the identification of broadly stated mission needs that cannot be satisfied by nonmateriel solutions.

Milestone 0. Concept Studies Approval marks the initial formal interface between broadly stated requirements and acquisition management systems. For potential programs passing this decision point, studies of alternative material concepts are conducted to identify the most promising solutions to valid user needs.

Milestone I. Concept Demonstration Approval marks the start of a new acquisition program. At this decision point, the concept baseline containing initial program cost, schedule, and performance objectives is established. Programs passing this decision point enter the Demonstration and Validation phase in which technologies critical to the most promising concepts are demonstrated and incorporated into system design.

Milestone II. Development Approval establishes the development baseline containing refined program cost, schedule, and performance objectives. Programs passing this decision point enter the Engineering and Manufacturing Development phase in which the most promising design approaches developed in the preceding phase are translated into stable, producible, and cost-effective design systems.

Milestone III. Production Approval establishes a production baseline containing refined program cost, schedule, and performance objectives. Programs passing this decision point enter the Production and Deployment phase in which a stable, efficient production and support base is established. An operational capability that satisfies the mission need must also be achieved during this phase.

Milestone IV. Major Modification Approval determines whether major modification of a system already in production is warranted. Programs passing this decision point enter the Operations and Support phase in which systems are monitored to ensure that they continue to provide the capabilities required to meet mission needs and that identified shortcomings are corrected.

Organizations Visited or Contacted

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology, Washington, DC
  Deputy Under Secretary of Defense for Environmental Security, Washington, DC
  Assistant Secretary of Defense for Economic Security, Washington, DC
  Assistant to the Secretary of Defense for Atomic Energy, Washington, DC
  Director, Defense Procurement, Washington, DC
  Director, Acquisition Program Integration, Washington, DC
  Director, Strategic and Tactical Systems, Washington, DC
  Director, Test and Evaluation, Washington, DC
Under Secretary of Defense (Comptroller), Washington, DC
  Deputy Comptroller, Management Systems, Washington, DC
  Deputy Comptroller, Program and Budget, Washington, DC
  Director, Program Analysis and Evaluation, Washington, DC
Director, Operational Test and Evaluation, Washington, DC

Department of the Army

Assistant Secretary of the Army (Installations, Logistics and Environment), Chemical Demilitarization Office, Washington, DC
Assistant Secretary of the Army (Research, Development and Acquisition), Washington, DC
Commander, U.S. Army Materiel Command, Alexandria, VA
U.S. Army Chemical Materiel Destruction Agency, Aberdeen Proving Grounds, MD
Chemical Demilitarization Program Office, Aberdeen Proving Grounds, MD
Tooele Chemical Demilitarization Facility, Tooele, UT
U.S. Army Corps of Engineers, Sacramento District, Tooele, UT

Department of the Navy

Assistant Secretary of the Navy (Financial Management), Washington, DC
Assistant Secretary of the Navy (Research, Development and Acquisition), Washington, DC
  Deputy Assistant Secretary of the Navy (Air Programs), Washington, DC
    Program Executive Officer, Air Anti-Submarine Warfare, Assault and Special Mission Programs, Arlington, VA
Deputy Chief of Staff for Aviation, U.S. Marine Corps, Arlington, VA
Naval Air Systems Command, Arlington, VA
  AV-8B Program Office, Arlington, VA
  Medium-Lift Replacement Program Office, Arlington, VA

Department of the Navy (Continued)

V-22 Program Office, Arlington, VA
Chief of Naval Research, Arlington, VA
Counsel, Office of the Comptroller of the Navy, Washington, DC
Naval Aviation Depot, Cherry Point, NC
Naval Center for Cost Analysis, Arlington, VA

Defense Agencies

Defense Logistics Agency, Alexandria, VA
- Defense Contract Management Command, Defense Plant Representative Office, Boeing Helicopters, Philadelphia, PA
- Defense Contract Management Command, Defense Plant Representative Office, McDonnell Douglas Aerospace-East, St. Louis, MO

Other Defense Organization

The Joint Staff, Washington, DC

Non-Defense Federal Organization

National Research Council of the National Academy of Sciences, Washington, DC

Non-Governmental Organizations

Boeing Helicopters, Philadelphia, PA
McDonnell Douglas Aerospace-East, St. Louis, MO

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Chairman and Ranking Minority Member of Each of the Following Congressional Committees and Subcommittees:
- Senate Committee on Appropriations
- Senate Subcommittee on Defense, Committee on Appropriations
- Senate Committee on Armed Services
- Senate Committee on Governmental Affairs
- House Committee on Appropriations
- House Subcommittee on National Security, Committee on Appropriations
- House Committee on Government Reform and Oversight
- House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
- House Committee on National Security

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