Audit Report

ACQUISITION OF THE ARMY TACTICAL MISSILE SYSTEM
ANTI-PERSONNEL/ANTI-MATERIEL BLOCK IA PROGRAM

Report Number 98-096 March 25, 1998

Office of the Inspector General
Department of Defense

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Acronyms

BAT	Brilliant Antiarmor Submunition
DOT&E	Director, Operational Test and Evaluation
FRP	Full-Rate Production
LRIP	Low-Rate Initial Production
SAR	Selected Acquisition Report
TACMS	Tactical Missile System

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
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March 25, 1998

MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Audit Report on Acquisition of the Army Tactical Missile System Anti-Personnel/Anti-Materiel Block IA Program (Report No. 98-096)

We are providing this audit report for information and use. We considered Army comments on a draft of this report in preparing this final report. As a result of the Army comments, we revised Recommendation A. The comments on the draft report, including Recommendation A., conformed to the requirements of DoD Directive 7650.3. Therefore, we do not require additional comments.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. John E. Meling, Audit Program Director, at (703) 604-9091 (DSN 664-9091) (jmeling@dodig.osd.mil) or Mr. Jack D. Snider, Audit Project Manager, at (703) 604-9087 (DSN 664-9087) (jsnider@dodig.osd.mil). See Appendix E for the report distribution. The audit team members are listed inside the back cover.

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Report No. 98-096 **March 25, 1998**
(Project No. 7AE-0046)

Acquisition of the Army Tactical Missile System Anti-Personnel/Anti-Materiel Block IA Program

Executive Summary

Introduction. The Army Tactical Missile System Anti-Personnel/Anti-Materiel Block IA missile (Block IA) is a ground-launched missile system consisting of a surface-to-surface guided missile with an anti-personnel/anti-materiel warhead. The Block IA is a product improvement to the Block I version of the missile. The Block IA upgrade adds an integrated global positioning system and increases the range of the missile by decreasing the bomblet payload from that of the Block I missile. As reported in the September 30, 1997, Selected Acquisition Report, the Army Tactical Missile System-Brilliant Antiarmor Submunition Project Office (Project Office) plans to acquire 800 missiles for an estimated program cost of $741.6 million. The Army has procured 167 of the 800 missiles under low-rate initial production (LRIP) and plans to make a full-rate production decision in March 1998.

Audit Objectives. The overall audit objective was to evaluate the management of the Block IA Program. Because the program is in the engineering and manufacturing development acquisition phase, our audit determined whether management is cost-effectively developing and readying the upgrade for the production phase of the acquisition process. In addition, we evaluated the management control program as it related to the audit objective.

Audit Results. Overall, the Army was effectively managing the Block IA Program and moving the Block IA from LRIP to full-rate production. In March 1997, the Army slipped the full-rate production decision from March 1997 to March 1998 because it had not demonstrated to the Director, Operational Test and Evaluation (DOT&E), that the Block IA was operationally effective and suitable. Later, the Army demonstrated to DOT&E that the Block IA was operationally suitable and, in March 1998, provided operational test results to DOT&E to use in determining whether the Block IA is operationally effective. In addition to the operational effectiveness issue, the following two areas warrant management attention before the program enters full-rate production.

o The Army did not verify the war-reserve munitions requirement for the Block IA Program. Unless the Office of the Deputy Chief of Staff for Operations and Plans determines the quantity of Block IA missiles required before the scheduled March 1998 full-rate production decision, the Army Acquisition Executive cannot be sure that the planned production quantities are appropriate (Finding A).

o The Army procured at least 31 more Block IA missiles under LRIP than it needed for legitimate LRIP purposes. In addition, the Project Office did not prepare a Selected Acquisition Report for Congress for the quarter that ended on June 30, 1997, showing that the full-rate-production decision for the Block IA Program had slipped more than 6 months and that the LRIP quantity procured exceeded 10 percent of the total Block IA requirements in the acquisition strategy. As a result, the Project Office

spent $20.1 million more on LRIP missiles than it needed to preclude a break in production until the next full-rate-production decision in March 1998. Further, the Army did not advise Congress in a timely manner of its rationale for exceeding 10 percent of the total production quantity in LRIP (Finding B).

The recommendations in this report, if implemented, will improve the procedures for calculating the Block IA war-reserve munitions requirements and for procuring the number of LRIP Block IA missiles needed to prevent a break in production. See Appendix A for details on the management control program.

Summary of Recommendations. We recommend that the Deputy Chief of Staff for Operations and Plans, Office of the Army Chief of Staff, calculate the war-reserve munitions requirement for the Block IA and provide the requirement to the Army Acquisition Executive and the Project Manager to use at the full-rate-production milestone review, and that the Army Acquisition Executive authorize the Project Office to procure only the number of LRIP Block IA missiles needed to prevent a break in production if the Army Acquisition Executive decides at the full-rate production decision in March 1998 that the Block IA is still not ready for full-rate production.

Management Comments. We received comments on a draft of this report from the Office of the Assistant Secretary of the Army (Research, Development, and Acquisition) and the Office of the Army Deputy Chief of Staff for Operations and Plans. The Office of the Deputy Chief of Staff concurred and agreed to calculate a preliminary war-reserve requirement for the Block IA missile by late March 1998 and to furnish the requirement number to the Army Acquisition Executive. The Office of the Assistant Secretary of the Army concurred that the Army Acquisition Executive would authorize the Project Office to procure only the number of LRIP Block IA missiles needed to prevent a break in production if the Block IA is still not ready for full-rate production in March 1998. The Office of the Assistant Secretary of the Army comments also incorporated comments from the Deputy, Program Support, Program Executive Office, Tactical Missiles, and the Project Manager, Army Tactical Missile System-Brilliant Antiarmor Submunition Project Office. See Part I for a summary of management comments to the findings and recommendations and Part III for the complete text of management comments.

Audit Response. As a result of the Office of the Army Deputy Chief of Staff for Operations and Plans comments, we revised our recommendation concerning the war-reserve munitions requirement for the Block IA. The comments from the Office of the Assistant Secretary of the Army (Research, Development, and Acquisition) and the Office of the Army Deputy Chief of Staff for Operations and Plans were responsive to our recommendations. Therefore, no additional comments are required in response to this report.

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Part I - Audit Results

Audit Background

The Army Tactical Missile System (TACMS) Anti-Personnel/Anti-Materiel Block IA missile is a ground-launched missile system consisting of a surface-to-surface guided missile with an anti-personnel/anti-materiel warhead. The Army TACMS Block IA missile is a product improvement to the Block I version of the missile. The Block IA missile upgrade adds an integrated global positioning system and increases the range of the missile by decreasing the bomblet payload from that of the Block I missile. The missile is fired from the Multiple Launch Rocket System modified launcher. As reported in the September 30, 1997, Selected Acquisition Report, the Army Tactical Missile System-Brilliant Antiarmor Submunition Project Office (Army TACMS-BAT Project Office) plans to acquire 800 missiles for an estimated program cost of $741.6 million. The Army has procured 167 of the 800 Block IA missiles under low-rate initial production (LRIP) from Lockheed Martin Vought Systems. Lockheed Martin delivered the first three Block IA missiles in July 1997, 1 month ahead of schedule. Because the Director, Operational Test and Evaluation (DOT&E), concluded that the Block IA missile was not operationally effective and suitable, the Army Acquisition Executive issued an acquisition decision memorandum on April 22, 1997, directing the Army TACMS Block IA Program to remain in LRIP for a second year and to demonstrate that the Block IA missile is operationally effective and suitable before the Army proceeds with its full-rate-production decision. To address operational effectiveness, the acquisition decision memorandum required the Army Deputy for Systems Management and the Program Executive Officer for Tactical Missiles to coordinate Army efforts to:

o demonstrate the ability to consistently detect and locate targets within a required accuracy at the extended range of the Block IA missile and provide the targeting data to the operations coordinator in a timely manner,

o demonstrate the ability to achieve the required level of effects on all of the Block IA specified targets, and

o demonstrate, through modeling, in-flight survivability when attacking specified targets in a realistic operational scenario.

To address operational suitability, the acquisition decision memorandum required the Army Deputy for Systems Management and the Program Executive Officer for Tactical Missiles to coordinate Army efforts to demonstrate that overall reliability of the Block IA missile can be achieved during the life of the system.

As a result of the acquisition decision memorandum, the Army TACMS-BAT Project Office awarded a second LRIP contract to Lockheed Martin, began addressing the concerns of DOT&E, and slipped the Block IA full-rate-production decision to March 1998. Before the Block IA missile enters full-rate production, the Army must demonstrate that the Block IA missile is operationally effective and suitable.

The Under Secretary of Defense for Acquisition and Technology directed the Army TACMS-BAT Project Office to report the Block IA missile upgrade with the Block I version of the missile as an Acquisition Category IC program in the Selected Acquisition and Defense Acquisition Executive Summary Reports. However, in the interest of streamlining and acquisition reform, the Army TACMS Block IA missile upgrade is an Acquisition Category II program for milestone decision purposes, subject to the review process of the Army Systems Acquisition Review Council. Appendix B shows a diagram of the Army TACMS Block IA missile configuration. Appendix C provides definitions of technical terms used in this report.

Audit Objectives

The overall audit objective was to evaluate the management of the Army TACMS Anti-Personnel/Anti-Materiel Block IA Program. Because the program is in the engineering and manufacturing development acquisition phase, our audit determined whether management is cost-effectively developing and readying the upgrade for the production phase of the acquisition process. We followed the critical program management elements approach for the audit and tailored it to the engineering and manufacturing development phase of the acquisition process. We reviewed program definition, program structure, program design, contracting, program assessments and decision reviews, periodic reporting, and the management control program related to the audit objective. The scope and methodology used to accomplish the objective, as well as management controls and prior audit coverage, are discussed in Appendix A. The program management elements that we reviewed during the audit are discussed in Appendix D.

Program Generally Well Managed

Overall, the Army was managing the Army TACMS Block IA Program and moving the Block IA missile from LRIP to full-rate production effectively. In June 1997, the Army flight tested a Block IA missile to demonstrate to DOT&E that the Block IA missile was operationally suitable. In March 1998, the Army provided operational test results to DOT&E to use in determining whether the Block IA is operationally effective. In addition to operational effectiveness, two areas warrant management attention before the program enters full-rate production. A discussion of the associated findings follows.

Finding A. Program Quantity Requirements

The Army has not verified the war-reserve munitions requirement for the Army TACMS Block IA Program. The war-reserve munitions requirement was questionable because the Office of the Deputy Chief of Staff for Operations and Plans did not calculate the quantity of Block IA missiles needed to meet war-reserve munitions requirements before accepting the procurement objective of the Army Training and Doctrine Command Analysis Center (the Analysis Center) as the war-reserve munitions requirement. The Analysis Center procurement objective may be overstated because the Analysis Center based the procurement objective on a November 1993 analysis of alternatives[1] for the Army TACMS Block IA missile that did not consider alternative systems to the Block IA missile. Unless the Office of the Deputy Chief of Staff for Operations and Plans determines the war-reserve munitions requirement for the Block IA missile before the scheduled March 1998 full-rate production decision, the Army Acquisition Executive cannot be sure that the Army will acquire the optimum number of Army TACMS Block IA missiles that DoD needs to meet warfighting and peacekeeping requirements.

Munitions Requirements and Analysis of Alternatives Guidance

DoD Munitions Requirements Guidance. DoD Instruction 3000.4, "Capabilities-Based Munitions Requirements (CBMR) Process," June 16, 1997[2], implements policy, assigns responsibilities, and prescribes procedures for the capabilities-based munitions requirements. It instructs the Military Departments to establish munitions requirements to support acquisition programs that arm weapon systems and forces to perform to their designed military capability. Those requirements address the operational objectives of the Commanders in Chief of the Combatant Commands against potential threats, consider logistic capabilities, and retain applicable capability for residual readiness forces at the conclusion of any future major theater wars and for strategic readiness forces. The Military Departments and the U.S. Special Operations Command compute the munitions requirements using the capabilities-based munitions requirements process. The process allows military

[1] DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs," March 15, 1996, Section 2.4, "Analysis of Alternatives," uses the term "analysis of alternatives" instead of the term "cost and operational effectiveness analysis."

[2] The instruction superseded DoD Instruction 4100.41, "Capabilities-Based Munitions Requirements (CBMR) Process," July 21, 1995.

planners to base munitions requirements on a given force structure; arm weapon systems and forces to their designed military capability; and, on the estimated quantity of munitions, defeat a specified threat with that force structure. To calculate the procurement objective, the Military Departments add the total munitions requirement to the projected inventory after considering monetary and industrial constraints. The total munitions requirement is composed of the combat; the residual-readiness; the strategic readiness; and the training, testing, and current operational requirements.

DoD Guidance for Analysis of Alternatives. DoD Regulation 5000.2-R, Section 2.4, "Analysis of Alternatives," establishes guidelines for preparing an analysis of alternatives. The analysis is intended to aid and document decisionmaking by showing the relative advantages and disadvantages of the alternative systems and the sensitivity of each alternative to possible changes in key assumptions, such as threat, or variables, such as selected performance capabilities. The analysis helps decisionmakers to judge whether any of the proposed alternatives offer a sufficient military or economic benefit or a combination of both, to be worth the cost. Normally, the DoD Component completes the analysis for Acquisition Category I programs and documents its findings in preparation for a program initiation decision, usually Milestone I, "Approval to Begin a New Acquisition Program." The Milestone Decision Authority may direct updates to the analysis for subsequent decision points, if conditions warrant. However, the Milestone Decision Authority is unlikely to require an analysis of alternatives for Milestone III, "Production or Fielding/Deployment Approval," unless the program or circumstances (for example, threat, alliances, operating areas, or technology) have changed significantly.

Performing an Analysis of Alternatives

The Army has not verified the war-reserve munitions requirement for the Army TACMS Block IA Program. The war-reserve munitions requirement was questionable because the Office of the Army Deputy Chief of Staff for Operations and Plans did not calculate the quantity of Block IA missiles needed to meet war-reserve munitions requirements before accepting the Analysis Center's procurement objective as the war-reserve munitions requirement for the Army TACMS Block IA Program.

The Analysis Center completed an analysis of alternatives in November 1993 to prepare for the Army TACMS Block I Milestone IV, "Major Modification Approval." The analysis of alternatives provided documentation and analytical support for a Milestone IV decision in February 1994 to start a product improvement (Block IA) to the Army TACMS Block I missile. The analysis of alternatives addresses the cost-effectiveness and target-location error of the product improvement to the Block I missile. However, the Analysis Center considered only the Army TACMS Block I missile as an alternative to the Army TACMS Block IA missile even though the study plan for the analysis of alternatives required the analysis to examine systems other than the Block IA missile. Alternatives to the Block IA missile included the Army TACMS

Block I missile; Air Force assets; the Tri-Service Standoff Attack Missile[3]; and attack aviation, such as Army helicopters. Analysis Center personnel stated that they did not consider alternatives to the Block IA missile in the November 1993 analysis of alternatives because of time constraints.

For the full-rate-production milestone decision review that had been planned for March 1997, the Army Acquisition Executive did not require the Analysis Center to update the analysis of alternatives for the Block IA missile that was completed in November 1993.

In November 1993, the Analysis Center calculated a procurement objective of 800 Block IA missiles. The Office of the Deputy Chief of Staff for Operations and Plans, which establishes the official war-reserve munitions requirements for Army programs, accepted the Analysis Center's procurement objective for the Block IA missile without independently determining and documenting the war-reserve munitions requirement. The Office of the Deputy Chief of Staff for Operations and Plans used the Analysis Center procurement objective as the war-reserve munitions requirement instead of calculating its own war-reserve munitions requirement because then-existing models could not project the effect of deep attack systems on the enemy, which would make the war-reserve munitions requirement of 800 missiles questionable. The war-reserve munitions requirement is also questionable based on the results of the Deep Attack Weapons-Mix Study (the Study) that the Joint Staff conducted in early 1997. The Study estimates a much lower war-reserve munitions requirement for the Army TACMS Block IA Program.

The Study assessed the deep attack capabilities within DoD to:

- determine the optimum mix of weapons for deep-attack,
- examine whether DoD possesses redundancies in deep-attack capability, and
- recommend possible force structure cuts if redundant deep-attack capability exists.

Without modeling constraints, the Study selected alternatives to the Block IA missile for deep attack and computed a much lower war-reserve munitions requirement for the Block IA missile than the Analysis Center calculated. The alternatives included:

- Cluster Bomb Units 52, 58, and 71;
- the Wind-Corrected Munitions Dispenser for the Combined Effects Munitions, the Sensor-Fuzed Weapon, and the Gator Mine; and
- the Pathway Laser-Guided Bomb System-12.

[3] The Air Force terminated the Tri-Service Standoff Attack Missile and replaced it with the Joint Air-to-Surface Standoff Missile, which is an air-delivered standoff weapon capable of attacking heavily defended, high-value assets.

The Army Acquisition Executive issued an acquisition decision memorandum on April 22, 1997, that slipped the Block IA full-rate-production milestone decision review from March 1997 to March 1998. To prepare for the March 1998 full-rate-production milestone decision review, the Analysis Center is reevaluating the Block IA missile procurement objective. In November 1997, the Army Training and Doctrine Command System Manager tasked the Office of the Director, Combat Developments, Army Field Artillery School, to compute a total munitions requirement for the Block IA missile. The Office of the Director, Combat Developments, computed a total-munitions requirement of 652 Block IA missiles that included the war-reserve munitions requirement and the training, testing, and current operational requirement. The methodology that the Office of the Director, Combat Developments, used to determine the total-munitions requirement was based on a simple algorithm that incorporated the guidance in DoD Instruction 3000.4 and applied factors for in-flight attrition, target reconstitution, and threat distribution and outyear threat reports. The major computational difference between the total-munitions requirement analysis that the Office of the Director, Combat Developments, computed and the 1993 procurement objective analysis that the Analysis Center computed is the number of targets and the removal of the operations-other-than-war category.[4] The old methodology assumed that the allocation of targets would be either 25 or 37 percent of the total targets in each theater. The Office of the Director, Combat Developments, analysis used the actual allocation from each commander in chief, which reduced the allocation to approximately 6 percent; however, the increase in targets over the last 5 years compensated for the reduced allocation.

The Office of the Deputy Chief of Staff for Operations and Plans tasks the Concepts Analysis Agency to compute the combat portion of the war-reserve munitions requirement for Army systems using DoD Instruction 3000.4 and a series of models that compare Army systems with other alternative systems. The Office of the Deputy Chief of Staff for Operations and Plans provides the war-reserve requirement annually to the Under Secretary of Defense for Acquisition and Technology.

During the first quarter of FY 1998, the Concepts Analysis Agency modeled the Block IA missile for one theater and off-line for another theater to compute the combat-requirement portion of the war-reserve munitions requirement estimate for the Block IA missile. As of March 1998, the Office of the Deputy Chief of Staff for Operations and Plans, in conjunction with the Concepts Analysis Agency, is calculating the war-reserve munitions requirement and comparing it with other estimates for the Block IA missile. After the Office of the Deputy Chief of Staff for Operations and Plans and the Concepts Analysis Agency complete their comparisons, the Office of the Deputy Chief of Staff for Operations and Plans will make a final decision; however, the Office of the Deputy Chief of Staff for Operations and Plans does not plan to finalize and

[4] Operations-other-than-war includes drug interdiction, counterterrorism, peace enforcement, and security measures.

publish the war-reserve munitions requirement for the Block IA missile until May 1998, or 2 months after the Block IA full-rate-production milestone review scheduled for March 1998.

Independently Determining and Documenting Requirement

Unless the Office of the Deputy Chief of Staff for Operations and Plans calculates the war-reserve munitions requirement portion of the procurement objective for the Block IA missile, the Army Acquisition Executive cannot be sure that the Army will acquire the optimum number of Block IA missiles that DoD needs to meet warfighting and peacekeeping requirements.

As of December 1997, the Army TACMS-BAT Project Office has procured 167 LRIP Block IA missiles and plans to procure an additional 466 missiles after the full-rate-production (FRP) decision in March 1998 for a total of 633 Block IA missiles through FY 2001.

Table 1. Block IA Low-Rate Initial Production and Planned Full-Rate Production Procurements

	Fiscal Year of Contract Award						
Procurement	1996	1997	1998	1999	2000	2001	Cumulative Total
LRIP I	70	--	--	--	--	--	70
LRIP II	--	97	--	--	--	--	167
FRP I	--	--	160	--	--	--	327
FRP II	--	--	--	96	--	--	423
FRP III	--	--	--	--	110	--	533
FRP IV	--	--	--	--	--	100	633

After the Office of the Deputy Chief of Staff for Operations and Plans calculates the war-reserve munitions requirement portion of the procurement objective, the Army may be able to reduce Block IA missile procurement funding requirements.

Conclusion

The Office of the Deputy Chief of Staff for Operations and Plans should calculate the war-reserve munitions requirement for the Block IA missile to ensure that the Army will acquire the optimum number of missiles that DoD needs to meet warfighting and peacekeeping requirements. The Office of the Deputy Chief of Staff for Operations and Plans needs to complete this calculation before the full-rate-production milestone review, which is currently scheduled for March 1998.

Although the Office of Assistant Secretary of the Army (Research, Development, and Acquisition) believes that the Block IA missile is a viable system and has worth on the battlefield, the Office of Assistant Secretary agreed that the Office of the Deputy Chief of Staff for Operations and Plans should reevaluate the number of Block IA missiles that the Army TACMS-BAT Project Office should acquire in light of the Deep Attack Weapons-Mix Study against specific target sets.

Recommendation, Management Comments, and Audit Response

Revised Recommendation. As a result of management comments, we revised Recommendation A. to also recommend that the Deputy Chief of Staff for Operations and Plans provide its war-reserve munitions requirement for the Block IA missile to the Army Acquisition Executive and the Project Manager, Army TACMS-BAT Project Office, for their use at the full-rate-production milestone review.

A. We recommend that the Deputy Chief of Staff for Operations and Plans, Office of the Army Chief of Staff, calculate the war-reserve munitions requirement for the Block IA missile in accordance with DoD Instruction 3000.4, "Capabilities-Based Munitions Requirements (CBMR) Process," June 16, 1997, and provide the requirement to the Army Acquisition Executive and the Project Manager, Army Tactical Missile System-Brilliant Antiarmor Submunition Project Office, to use at the full-rate-production milestone review.

Management Comments. The Chief, Combat Support, Combat Service Support, Common Systems Division, Office of the Army Deputy Chief of Staff for Operations and Plans, concurred with the finding and recommendation. He stated that the Office of the Army Deputy Chief of Staff for Operations and Plans will:

o have a preliminary war-reserve munitions requirement for the Block IA missile by late March 1998,

o furnish the preliminary war-reserve munitions requirement to the Army Acquisition Executive to use at the full-rate-production milestone review in March 1998, and

o publish the final war reserve munitions requirement in May 1998.

He recommended that we revise the recommendation to have the Army Acquisition Executive and the Project Manager, Army TACMS-BAT Project Office, use the Army Deputy Chief of Staff for Operations and Plans approved war-reserve munitions requirement for the Block IA missile. The complete text of those comments is in Part III.

Audit Response. We revised the recommendation and advised the Office of the Assistant Secretary of the Army (Research, Development, and Acquisition) that the Office of the Army Deputy Chief of Staff for Operations and Plans will provide a preliminary war-reserve munitions requirement for the Block IA missile by late March 1998 to use at the full-rate-production milestone review.

Finding B. Missile Procurement and Related Congressional Reporting

The Army TACMS-BAT Project Office procured at least 31 more Block IA missiles under low-rate initial production (LRIP) than it needed for the purposes for which LRIP is intended. The Project Office procured more LRIP missiles than needed because it procured the number of LRIP missiles originally planned as the first full-rate-production buy instead of considering operational testing missile requirements, initial production base requirements, increased production rates, and the minimum number of production units needed to prevent a break in production. In addition, the Project Office did not prepare a Selected Acquisition Report (SAR) for Congress for the quarter that ended on June 30, 1997, showing that the full-rate-production decision for the Army TACMS Block IA Program had slipped more than 6 months and that the LRIP quantity procured exceeded 10 percent of the total Block IA missile requirements in the acquisition strategy. The Project Office did not submit the quarterly SAR to Congress because of an unintentional omission. As a result, the Project Office spent $20.1 million more on LRIP missiles than it needed to preclude a break in production until the planned full-rate-production decision in March 1998. Further, the Army did not advise Congress in a timely manner of its rationale for the Army exceeding 10 percent of the total-production quantity in LRIP.

Low-Rate Initial Production and Congressional Reporting Requirements

Low-Rate Initial Production Requirements. DoD Regulation 5000.2-R, Section 1.4.4.1, "Low-Rate Initial Production," mandates that the objective of LRIP is to produce the minimum quantity necessary to provide production configured or representative articles for operational tests, establish an initial production base for the system, and permit an orderly increase in the production rate sufficient to lead to full-rate production when operational testing is successfully completed. The regulation also requires DoD Components to minimize the LRIP quantities and for the milestone decision authority to determine the LRIP quantity as part of the engineering and manufacturing development approval process. The regulation then requires the DoD Component to report the approved LRIP quantity and the rationale for quantities exceeding 10 percent of the total production quantity documented in the acquisition strategy in the next SAR. Further, the regulation requires the milestone decision authority to approve any future increase in the LRIP quantity. The regulation requires the milestone decision authority to assess the cost and benefits of a break in production compared with annual buys when approved quantities are expected to be exceeded because the program has not yet demonstrated readiness to proceed to full-rate production.

Selected Acquisition Reporting Requirements. DoD Regulation 5000.2-R, Section 6.2.4, "Selected Acquisition Reports," requires DoD Components to prepare and submit a SAR to Congress for each major Defense acquisition program. The SAR provides the total program cost, schedule, and performance, as well as program unit cost and unit-cost breach information. The annual SAR is submitted for the quarter ending December 31. DoD must submit quarterly SARs for March 31, June 30, and September 30 to Congress on an exception basis for programs when the following occurs:

o a 15-percent or more increase in the current estimate of the program-acquisition unit cost compared to the currently approved program-acquisition unit cost in the acquisition program-baseline, or

o a 15-percent or more increase in the current estimate of the average procurement unit cost compared to the currently approved average procurement unit cost in the acquisition program-baseline, both in base year dollars, or

o a 6-month or greater delay in the current estimate of any scheduled milestone since the current estimate reported in the previous SAR.

Earlier Acquisition Quantities

On March 4, 1994, the Army Acquisition Executive authorized the Army TACMS-BAT Project Office to award a contract in the second quarter of FY 1996 for 100 LRIP Block IA missiles and to conduct a full-rate-production decision review in FY 1997. The Army Acquisition Executive also delegated authority to the Program Executive Officer, Tactical Missiles, to award the LRIP contract. The Program Executive Officer approved the award of the LRIP contract on May 21, 1996. Because of budget constraints, the Army TACMS-BAT Project Office procured 70 instead of 100 LRIP Block IA missiles.

The Army TACMS Block IA Production Acquisition Plan, September 10, 1996, provided for procurement of 800 Block IA missiles. The strategy called for the awarding of the first full-rate production buy of 97 missiles in April 1997 after conducting the initial full-rate production decision review in March 1997. The review would be followed by the award of a multi-year contract for 633 Block IA missiles covering FYs 1998 through 2001. During preparation for the initial full-rate production decision review, the Army Acquisition Executive canceled the Army Systems Acquisition Review Council review and kept the Block IA missile program in LRIP for a second year. The Army Acquisition Executive canceled the review because:

o the Army Operational Test and Evaluation Command briefed the Block IA overarching integrated product team in February 1997 that it was assessing the Block IA missile as marginally effective, and

o the Office of the Director, Operational Test and Evaluation (DOT&E), briefed the Block IA overarching integrated product team in February and March 1997 that it was assessing the Block IA missile as not operationally effective and not operationally suitable.

Because of the testers' concerns, the Army Acquisition Executive issued an acquisition decision memorandum on April 22, 1997, that:

o approved a contract award in April 1997 for 97 Block IA missiles as a second LRIP quantity,

o rescheduled the full-rate production decision until March 1998 to allow the Army to respond to the effectiveness and suitability concerns, and

o approved the award of a long-lead-time items contract before the rescheduled full-rate production decision.

Block IA Missiles Procured Under LRIP

The Army TACMS-BAT Project Office procured at least 31 more Block IA missiles under LRIP than it needed for the purposes for which LRIP is intended. The Project Office procured more LRIP missiles than needed because it procured the number of LRIP missiles originally planned as the first full-rate production buy instead of considering operational testing missile requirements, initial production base requirements, increased production rates, and the minimum number of production units needed to prevent a break in production.

Operational Testing. The Army did not need additional LRIP units for operational tests. The testing community concluded operational tests in June 1997 with a missile produced under the engineering and manufacturing development contract. The Project Office and DOT&E did not plan additional flight tests and reserved two contingency Block IA missiles from the engineering and manufacturing development contract if they were needed for additional tests.

Initial Production Base for the System. With the first LRIP buy of 70 Block IA missiles in June 1996, the contractor established an initial production base for the system, demonstrated by delivery of the first three Block IA missiles, in July 1997, 1 month ahead of schedule.

Orderly Increase in the Production Rate. The Army TACMS-BAT Project Office had already established an orderly increase in the production rate through the Block I missile production contracts because the Block IA missile has parts and component commonality of 90 percent with the Block I missile. The primary differences are that the Block IA missile has an improved missile guidance system, a global-positioning-system technology, and a smaller bomblet payload than the Block I missile. During production of the Block I missile from March 1990 through July 1997, the contractor ramped up from an annual production rate of 47 missiles in LRIP to more than 300 missiles in full-rate

production, before annual production rates declined in FYs 1995, 1996, and 1997, the last 3 production years. However, the production rate for the Block IA missile increased in FY 1998 because the Project Office procured 72, 41, and 111 foreign-military sales export variants of the Block I missile in FYs 1996, 1997, and 1998, respectively. The few configuration differences enabled the contractor to produce the foreign-military sales export variant and the Block I missile using the same production line. Specifically, the foreign-military sales export variant differs in that the warhead electron beam is welded to the solid rocket motor case, and the improved missile guidance system does not have the global positioning system. Contractor production rates should remain at increased levels because the Block IA missile and the foreign-military sales export variant use the same contractor facilities, manufacturing processes, and majority of vendors.

Precluding a Break in Missile Production. The Army TACMS-BAT Project Office designed the acquisition plan to avoid a break in production among the various versions of the Army TACMS missile. The Project Office is using the Block IA missile production process as a bridge between the Block I and the Block II versions of the missile. When the Project Office determined the production quantities and the schedule needed to meet minimum-sustaining-production rates, it did not include the foreign-military-sales. The export variant missiles under contract should be included in calculations to determine the number of Block IA missiles needed to maintain the contractor's minimum-sustaining-production rates. In addition to the foreign-military-sales contract that it awarded in June 1996, the Project Office awarded another foreign-military-sales contract for Greece in March 1997 for 41 Block I export-variant missiles. The Greek contract was awarded before the Army Acquisition Executive decided to approve a second Block IA LRIP buy of 97 missiles in April 1997. The Greek foreign-military-sales contract required the contractor to produce the Greek export-variant missiles concurrently with the Block IA missiles from August through December 1998. If the Army TACMS-BAT Project Office had considered missile quantities under the concurrent foreign-military-sales contract, it could have reduced the Block IA LRIP quantity by 31 Block IA missiles. Such a reduction would have maintained the contractor's minimum-sustaining production rate of 10 missiles per month.

Table 2. Scheduled Production Quantities

	1998					
Contracts	August	September	October	November	December	Total
Block IA	8	8	8	8	8	40
Block I (Greece)	4	8	12	16	1	41
Total	**12**	**16**	**20**	**24**	**9**	**81**
Minimum sustaining production rate	(10)	(10)	(10)	(10)	(10)	(50)
Difference	**2**	**6**	**10**	**14**	**(1)**	**31**

In October 1997, the Army TACMS-BAT Project Office awarded a third foreign-military-sales contract (111 Block I missiles over 14 months for export to Korea) that has the potential to further affect quantities needed for the next production buy of the Block IA missile. If the Army TACMS-BAT Project Office is not successful in demonstrating to the operational test and evaluation community that the Block IA missile is ready to proceed to full-rate production in March 1998 and the Army Acquisition Executive keeps the program in LRIP, the Project Office should consider the Block I missiles that are under foreign-military-sales contracts when it determines the minimum number of Block IA missiles required in LRIP to meet the contractor's minimum-sustaining-production rate.

Congressional Reporting

The Army TACMS-BAT Project Office did not prepare the required exception SAR for the quarter that ended on June 30, 1997, showing that the full-rate production decision for the Army TACMS Block IA Program had slipped more than 6 months and that the LRIP quantity procured exceeded 10 percent of the total Block IA missile requirements in the acquisition strategy. However, the Army provided a memorandum to Congress that addressed the production decision slippage but not the LRIP quantities. The Project Office did not submit the quarterly SAR to Congress because of an unintentional omission.

Schedule Slippage. Although the Army TACMS-BAT Project Office did not submit the SAR reporting the 1-year delay of the full-rate production milestone to Congress for the quarter that ended on June 30, 1997, the Army Acquisition Executive notified Congress in a May 2, 1997, memorandum of the schedule slippage. The memorandum stated that the Block IA missile would remain in LRIP for a second year; that the Army TACMS-BAT Project Office had revised the Block IA acquisition strategy to preclude the planned multi-year procurement; and that the operational test and evaluation community believed that the Block IA missile required additional modeling and testing in the areas of target acquisition, missile performance, bomblet lethality, and in-flight survivability to fully demonstrate the Block IA performance.

Low-Rate Initial Production Quantity. The Army awarded the second LRIP contract in April 1997 for 97 Block IA missiles, bringing the total Block IA missiles under contract to 167, or about 21 percent of the stated program requirement.[5] As a result, the LRIP quantity exceeded 10 percent of the reported program quantity. The Army Acquisition Executive also stated in the April 22, 1997, acquisition decision memorandum that the Army would include an explanation for the LRIP increase in the next SAR submitted to Congress.

[5] As of December 1997, the Army Training and Doctrine Command's preliminary analyses showed a revised production requirement of 652 Block IA missiles, which would make the LRIP quantity of 167 missiles about 26 percent of the revised program requirement.

Selected Acquisition Report. In October 1997, the Office of the Assistant Secretary of the Army (Research, Development, and Acquisition) requested the Army TACMS-BAT Project Office to prepare a SAR for the quarter that ended on September 30, 1997, to report the schedule slippage and to provide an explanation of the LRIP quantity. In response, the Project Office prepared the SAR. On November 12, 1997, DoD submitted the SAR to Congress. Therefore, this audit report makes no recommendation addressing the congressional reporting requirement.

Impact on Missile Procurement and Congressional Awareness

Because it did not calculate and procure the minimum number of production units needed, the Army TACMS-BAT Project Office spent $20.1 million ($648,482 per missile x 31 Block IA missiles) more on Block IA missiles under LRIP than it needed to preclude a break in production until the full-rate production decision planned for March 1998. Further, by not preparing a SAR for Congress for the quarter that ended on June 30, 1997, the Army did not advise Congress in a timely manner of its rationale for exceeding 10 percent of the total-production quantity in LRIP.

Conclusion

If the Army is not successful in demonstrating to the operational test and evaluation community that the Block IA missile is operationally effective and ready to proceed into full-rate production in March 1998 and the Army Acquisition Executive keeps the program in LRIP, the Army TACMS-BAT Project Office should plan to procure only the number of Block IA missiles needed to prevent a break in contractor production before the Army Acquisition Executive approves the program for full-rate production. The Project Office should include Block I missile quantities under foreign-military-sales contracts in its calculations when determining the minimum number to procure.

Management Comments on the Finding and Audit Response

Management Comments. The Director, Missile Systems, Office of the Assistant Secretary of the Army (Research, Development, and Acquisition) commented on the Army Acquisition Executive approval of the Army TACMS Block IA Missile Program entering the second LRIP and the unintentional omission of an exception SAR. The complete text of those comments is in Part III.

Army Acquisition Executive Approval. The Director, Missile Systems, commented that the Army Acquisition Executive approved 97 Block IA missiles for the second LRIP decision in March 1997 to:

o maintain program stability as the Army makes preparations for the full-rate-production decision in March 1998;

o preclude executing a partial contract termination for convenience, deobligating funds associated with long-lead-time items, and renegotiating contract costs; and

o maintain a viable program at the supplier level.

Exception Selected Acquisition Report. The Director, Missile Systems, acknowledged that the Army notified Congress in a May 2, 1997, memorandum concerning the 1-year delay of the full-rate production milestone and that DoD submitted an exception SAR for the quarter ending on September 30, 1997.

Audit Response. During the audit and when we staffed the draft report finding, the Army did not bring to our attention those three listed reasons for the Army Acquisition Executive approving 97 Block IA missiles for the second LRIP decision in March 1997. As indicated in our report, the Army Acquisition Executive had adequate justification for authorizing the production of an additional 66 Block IA missiles at the second LRIP decision to prevent a break in production. However, those three listed reasons do not necessarily justify authorizing 31 Block IA missiles more than the 66 Block IA missiles needed to prevent a break in production. The program had a viable and stable program before the LRIP decision in March 1997. Further, the September 30, 1997, SAR stated that the acquisition decision memorandum for the second LRIP decision in March 1997 approved the award of long-lead-time items, which obligated additional funds. As required in DoD Regulation 5000.2-R, the Army Acquisition Executive should have prepared a cost and benefits analysis that assessed the effect of a partial contract termination for convenience, deobligating funds associated with long-lead-time items, and renegotiating contract costs in addition to assessing the cost impact of a break in production to justify increased LRIP quantities. The Army Acquisition Executive did not prepare that analysis to support the need for increased LRIP quantities.

Further, in making the second LRIP decision in March 1997, the Army Acquisition Executive did not address in the April 22, 1997, acquisition decision memorandum or the exception SAR for the quarter ending on September 30, 1997, those three listed reasons for approving 97 Block IA missiles for the second LRIP decision in March 1997. The two documents state that the Block IA Program would remain in LRIP for a second year to allow the Army time to respond to effectiveness and reliability issues that the operational test and evaluation community raised before the Army Systems Acquisition Review Council.

Recommendation and Management Comments

B. We recommend that the Army Acquisition Executive authorize the Project Manager, Army Tactical Missile System-Brilliant Antiarmor Submunition Project Office, to procure only the number of low-rate initial production Block IA missiles needed to prevent a break in contractor production if the Army Acquisition Executive decides at the full-rate production decision in March 1998 that the Block IA missile is still not ready for full-rate production.

Management Comments. The Director, Missile Systems, Office of the Assistant Secretary of the Army (Research, Development, and Acquisition), answering for the Army Acquisition Executive, concurred with the recommendation. Comments from the Director, Missile Systems, incorporated comments from the Deputy, Program Support, Program Executive Office, Tactical Missiles, and the Project Manager, Army TACMS-BAT Project Office.

Part II - Additional Information

Appendix A. Audit Process

Scope and Methodology

We conducted this program audit from June through December 1997 and reviewed documentation dated from April 1980 through December 1997. To accomplish the audit objective, we reviewed the following elements: program definition, program structure, program design, contracting, program assessments, decision reviews, periodic reporting, and management controls related to the audit objective, in accordance with the Inspector General critical program management elements approach. See Appendix D for the audit results of those program elements reviewed. We interviewed and obtained documentation from the staffs of the Assistant Secretary of the Army (Research, Development, and Acquisition); the Director, Operational Test and Evaluation; the Deputy Under Secretary of the Army (Operations Research); the Commander, Army Operational Test and Evaluation Command; the Commander, Army Training and Doctrine Command Analysis Center; the Deputy Chief of Staff for Operations and Plans; the Program Executive Officer, Tactical Missiles; the Army TACMS-BAT Project Office; the Letterkenny Army Depot; the Defense Contract Management Command; the General Accounting Office; the Institute for Defense Analyses; and Lockheed Martin Vought Systems.

Auditing Standards. We conducted this program audit in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We included such tests of management controls as we deemed necessary. We did not rely on computer-processed data to develop conclusions on this audit. The Associate Deputy General Counsel from the Office of General Counsel, DoD, and technical experts from the Quantitative Methods Division of the Analysis, Planning, and Technical Support Directorate, Inspector General, DoD, assisted in the audit.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD, the General Accounting Office, the Institute for Defense Analyses, and Lockheed Martin Vought Systems. Further details are available upon request.

Management Control Program

The DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, requires DoD managers to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

Scope of Review of Management Control Program. In accordance with DoD Directive 5000.1, "Defense Acquisition," March 15, 1996, and DoD Regulation 5000.2-R, acquisition managers are to use program cost, schedule, and

performance parameters as control objectives to implement the requirements of DoD Directive 5010.38. Accordingly, we limited our review to management controls directly related to the critical program management elements of the Block IA missile acquisition.

Adequacy of Management Controls. We identified material management control weaknesses concerning the war-reserve munitions requirement, low-rate initial production procurement, and Selected Acquisition Reporting, as defined by DoD Directive 5010.38.

War-Reserve Munitions Requirement. The Office of the Deputy Chief of Staff for Operations and Plans management controls for determining war-reserve munitions requirements did not ensure that the war-reserve munitions requirement for the Army TACMS Block IA missile was independently determined. Recommendation A., if implemented, will improve the procedures for calculating the Block IA war-reserve munitions requirement and will ensure that the Army acquires the optimum number of Block IA missiles that DoD needs to meet warfighting and peacekeeping requirements.

Low-Rate Initial Production Procurement. The Army TACMS-BAT Project Office management controls for procuring LRIP missiles did not ensure that the optimum number of LRIP missiles was procured to provide production configured missiles for operational testing, to establish an initial production base for the system, to permit an orderly increase in the production rate to lead to full-rate production, and to preclude a break in Block IA missile production. Recommendation B., if implemented, will ensure that the Army TACMS-BAT Project Office procures only the number of LRIP Block IA missiles needed to prevent a break in contractor production if the Army Acquisition Executive decides at the full-rate production decision in March 1998 that the Block IA missile is still not ready for full-rate production.

Selected Acquisition Reporting. The Army TACMS-BAT Project Office management controls for reporting SAR exceptions did not ensure that the SAR for the quarter that ended on June 30, 1997, showed that the full-rate production decision for the Block IA Program had slipped by more than 6 months and that the LRIP quantity procured exceeded 10 percent of the total Block IA missile requirements in the acquisition strategy. The audit report makes no recommendation to address the congressional reporting requirement because the Army TACMS-BAT Project Office prepared a SAR for the quarter that ended on September 30, 1997, to report the schedule slippage and to provide an explanation of the LRIP quantity.

We will provide a copy of this report to the senior official responsible for management controls in the Army.

Adequacy of Management's Self-Evaluation. The Office of the Deputy Chief of Staff for Operations and Plans identified the Force Development Directorate of the Office of the Deputy Chief of Staff for Operations and Plans as an assessable unit. The Office of the Deputy Chief of Staff for Operations and Plans used a checklist to assess the Force Development Directorate; however, the checklist did not specifically identify war-reserve munitions requirements

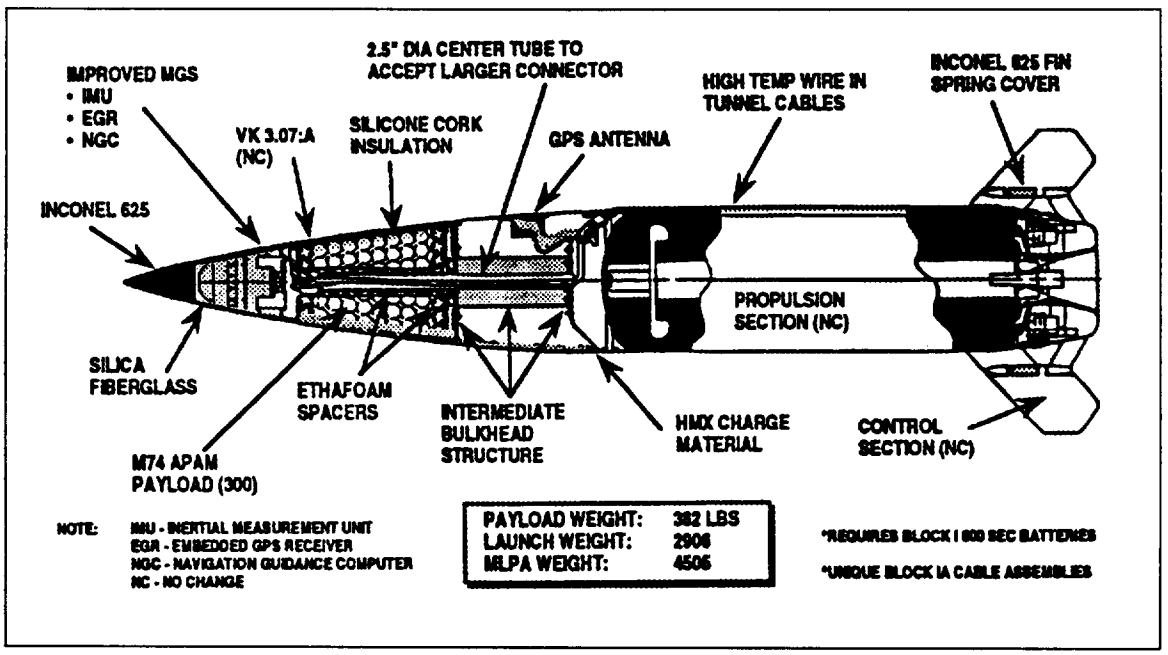
during the assessment. Therefore, the Office of the Deputy Chief of Staff for Operations and Plans did not identify or report the material management control weakness found by the audit. The Army TACMS-BAT Project Office did not identify LRIP procurement and Selected Acquisition Reporting as assessable units. The Project Office conducted vulnerability assessments by division or area of responsibility and not by the program management elements relating to the audit objective. The assessments did not detect any management control problems that the Project Office considered to be material weaknesses.

Summary of Prior Coverage

During the last 5 years, the Inspector General, DoD, and the Military Department audit agencies have not issued reports specifically addressing the Block IA missile acquisition; however, the General Accounting Office has issued a report that, in part, addresses the Block IA missile.

General Accounting Office Report No. GAO/C-NSIAD-94-13 (Office of the Secretary of Defense Case No. 9599-X), "Brilliant Antiarmor Submunition: Army's Justification and Acquisition Strategy Need Revision," April 7, 1994, states that the existing cost and operational effectiveness analyses did not adequately justify the continued development of the Brilliant Antiarmor Submunition. The Army drafted a new cost and operational effectiveness analysis for the Army Tri-Service Standoff Attack Missile, the Brilliant Antiarmor Submunition, and the Army TACMS and is also preparing a separate analysis of the Army TACMS product improvement (Block IA). However, the analyses did not adequately justify the Brilliant Antiarmor Submunition program because the Army considers only Army artillery alternatives to the Brilliant Antiarmor Submunition. The report recommended that the Secretary of Defense direct the Army to prepare a combined cost and operational effectiveness analysis for the Brilliant Antiarmor Submunition and its product improvement, the Army TACMS and its product improvement (Block IA), and the Multiple Launch Rocket System Rocket. DoD agreed that the Army needed a more encompassing analysis. However, DoD preferred to conduct a series of cost and operational effectiveness analyses rather than just one single comprehensive analysis. The General Accounting Office continued to maintain that the Army needed a single comprehensive analysis. In response, DoD stated that it still planned to conduct a series of cost and operational effectiveness analyses. However, as discussed in Finding A, the analysis of alternatives for the Army TACMS Block IA missile was questionable because it did not analyze alternatives to the Block IA missile.

Appendix B. Army Tactical Missile System Block IA Missile Configuration



Source: Army Tactical Missile System Block IA Cost Analysis Requirements Description

Appendix C. Definitions of Technical Terms

Acquisition Category. An acquisition category is an attribute of an acquisition program that determines the program's level of review, decision authority, and applicable procedures. The acquisition categories consist of I, major Defense acquisition programs; IA, major automated information systems; II, major systems; and III, all other acquisition programs.

Acquisition Executive. The acquisition executive is the individual within DoD and the DoD Components who is charged with overall acquisition management responsibilities within his or her respective organizations. The Under Secretary of Defense for Acquisition and Technology is the Defense Acquisition Executive responsible for all acquisition matters within DoD. The Component Acquisition Executives, or designees, are responsible for all acquisition matters within their respective DoD Components.

Acquisition Program Baseline. The acquisition program baseline embodies the cost, schedule, and performance objectives for a program.

Analysis of Alternatives. An analysis of alternatives is an analysis of the estimated costs and operational effectiveness of alternative materiel systems to meet a mission need and the associated program for acquiring each alternative.

Average Procurement Unit Cost. The average procurement unit cost is the amount equal to the total of all funds programmed to be available for obligation for procurement for the program divided by the number of fully-configured end items to be procured.

Combat Requirements. Combat requirements are the quantity of munitions required to equip a specified force structure to its designed military capability and to meet Commanders in Chief requirements for decisive defeat of the enemy, including munitions needed for operational flexibility during a conflict.

Computer Resources Life-Cycle Plan. A computer resources life-cycle plan is a program management document that describes the development, acquisition, test, and support plans for computer resources integral to, or used in, direct support of systems.

Configuration Management. Configuration management is technical and administrative direction and surveillance actions taken to identify and document functional and physical characteristics of an item; to control changes to an item and its characteristics; and to record and report the change processing and implementation status.

Constant Dollars. Constant dollars is a method of relating dollars in several years by removing the effects of inflation and showing all dollars at the value they would have in a selected base year.

Cost and Operational Effectiveness Analysis. A cost and operational effectiveness analysis is an analysis of the costs and operational effectiveness of alternative materiel systems to meet a mission need and the associated program for acquiring each alternative.

Full-Rate Production. Full-rate production is production of economic quantities following stabilization of the system design and prove-out of the production process.

Low-Rate Initial Production. Low-rate initial production is the production of a system in limited quantity to provide articles for operational test and evaluation, to establish an initial production base, and to permit an orderly increase in the production rate sufficient to lead to a full-rate production upon successful completion of operational testing.

Major Defense Acquisition Program. A major Defense acquisition program is an acquisition program that the Under Secretary of Defense for Acquisition and Technology designated as a major Defense acquisition program or that the Under Secretary of Defense for Acquisition and Technology estimated to require an eventual total expenditure for research, development, test, and evaluation of more than 355 million in FY 1996 constant dollars or, for procurement, of more than 2.135 billion in FY 1996 constant dollars.

Minimum-Sustaining Production Rate. The minimum-sustaining production rate is the minimum number of missiles that the project office, in conjunction with the prime contractor, has determined are necessary for the prime contractor and its suppliers to produce to avoid a break in production and to qualify new suppliers.

Operational Effectiveness. Operational effectiveness is the overall degree of mission accomplishment of a system when representative personnel use the system in the environment planned or expected for operational employment of the system considering organization, doctrine, tactics, survivability, vulnerability, and threat.

Operational Requirements Document. The operational requirements document states the user's objectives and minimum acceptable requirements for the operational performance of a proposed concept or system.

Operational Suitability. Operational suitability is the degree to which a system can be placed satisfactorily in field use with consideration being given to availability, compatibility, transportability, interoperability, reliability, wartime usage rates, maintainability, safety, human factors, manpower supportability, logistics supportability, natural environmental effects, and documentation and training requirements.

Procurement Objective. The procurement objective is the quantity of munitions for acquisition that the Military Departments calculate by combining both total-munition requirements and projected inventory after considering monetary and industrial constraints.

Appendix C. Definitions of Technical Terms

Product Improvement. Product improvement is an effort to incorporate a configuration change involving engineering and testing efforts on end items and depot-repairable components or changes on other than developmental items to increase system or combat effectiveness or extend useful military life.

Production Readiness Review. The production readiness review is a formal examination of a program to determine whether the design is ready for production and the producer has resolved production engineering problems and accomplished adequate planning for the production phase.

Program Acquisition Unit Cost. The program acquisition unit cost is the amount equal to the total cost for development and procurement of the acquisition program, including system-specific military construction cost, divided by the number of fully configured end items to be produced for the acquisition program.

Residual Readiness Requirement. The residual readiness requirement is the quantity of munitions necessary to provide a post major theater war combat capability for forces committed to specified scenarios.

Selected Acquisition Report. A Selected Acquisition Report is a standard, comprehensive, summary status report on a major Defense acquisition program required for periodic submission to Congress. The report includes key cost, schedule, and technical information.

Strategic Readiness Requirement. The strategic readiness requirement is the quantity of munitions needed to arm forces not committed to support combat operations in the assigned major-theater war.

Systems Engineering Management Plan. The systems engineering management plan includes plans for verification, risk alleviation, analysis, and simulation of the system requirements.

Test and Evaluation Master Plan. The test and evaluation master plan is an overall plan designed to identify and integrate objectives, responsibilities, resources, and schedules for all test and evaluation to be accomplished before the subsequent key decision points.

Total Munitions Requirement. The total munitions requirement is the sum of the war-reserve munitions requirements and training, testing, and current operational requirements.

Training, Testing, and Current Operational Requirement. The training, testing, and current operational requirement is the munitions requirement to train the force and to support Military Department programs to ensure that weapons and platforms deliver the intended effectiveness.

War-Reserve Munitions Requirement. The war-reserve munitions requirement is the sum of combat requirements, residual readiness requirements, and strategic readiness requirements.

Appendix D. Audit Results for Program Management Elements Reviewed

Program Definition

Requirements. In November 1993, the Army Training and Doctrine Command Analysis Center (Analysis Center) prepared the Analysis of Alternatives for the Army TACMS Block I Milestone IV decision. The Analysis of Alternatives specified that the Army needed 800 Block IA missiles to meet warfighting and peacekeeping requirements. The Army Training and Doctrine Command System Manager; the Army Operational Test and Evaluation Command; and the Office of the DOT&E disagreed about the effectiveness of the Block IA missile against targets listed in the operational requirements document; however, all three organizations agreed that the Block IA missile was not effective against one target. Consequently, in September 1997, the Analysis Center revised the operational requirements document to remove the one target and changed the number of Block IA missiles needed to meet the requirements of the revised operational requirements document. As of March 1998, the Analysis Center validated the number of Block IA missiles needed to meet the requirements of the revised operational requirements document using revised threat and target data. The Army Deputy Chief of Staff for Operations and Plans will have calculated a preliminary war-reserve munitions requirement for the Block IA missile by late March 1998.

Affordability. The Army FY 1998 Budget Estimate Submission for the Block IA missile showed an estimate of $590.5 million to fund 647 Block IA missiles at an average unit cost of $913,000. However, the Analysis Center computed and validated a requirement for 652 Block IA missiles. As of March 1998, the Office of the Army Deputy Chief of Staff for Operations and Plans stated that funding was available for 573 Block IA missiles and that Congress had mandated a reprogramming factor of $43.7 million for an additional 60 missiles, which would increase the total funded Block IA missiles to 633. However, Congress had not yet granted final approval for the additional funding. Even if the Army receives the funding for 633 Block IA missiles, a potential shortfall of about $17.3 million may exist if the Army procurement requirement remains at 652 missiles. Until the Army determines the actual quantities required for the Block IA missile and the Block IA Program is fully funded, program affordability will remain an open program issue.

Program Structure

Acquisition Planning. The Army TACMS-BAT Project Office established an event-driven strategy that linked program decisions to demonstrated accomplishments in development, testing, contracting, initial production, and life-cycle cost as specified in the DoD 5000 series of documents. The Project Office established a Component Breakout Committee that meets at least annually

to review and recommend Block IA components for direct purchase from the component manufacturer instead of from the prime contractor, Lockheed Martin Vought Systems. In October 1997, the Component Breakout Committee began to update its study to determine potential candidates for breakout. The committee plans to complete the study in March 1998 and issue a final report in June 1998.

Risk Management. The Army TACMS-BAT Project Office prepared a risk assessment plan for the Block IA missile acquisition. The Project Office provided Lockheed Martin Vought Systems with a draft solicitation of the engineering and manufacturing development contract and incorporated Lockheed Martin's comments in the proposal, as appropriate, which reduced potential technical and cost risk for the Government. During the engineering and manufacturing development phase, the Project Office managed the program performance, costs, and schedule risks through risk management plans.

Cost Performance. The Army TACMS-BAT Project Office effectively monitored the cost performance of Lockheed Martin Vought Systems under the engineering and manufacturing development contract through cost/schedule status reports and periodic program review meetings with the contractor. Since October 1995, the Defense Contract Management Command, the contractor, and the Defense Contract Audit Agency have conducted joint surveillance reviews of the earned-value management system of the contractor.

The contractor's plan is to complete the engineering and manufacturing development contract by March 31, 1998. The Project Office and the contractor estimate that the contractor will complete the contract within the target price.

Test and Evaluation. The Block IA missile engineering-and-manufacturing-development test program consisted of four separate phases: production prove-out testing, preproduction qualification testing, operational testing, and live-fire test and evaluation. Most of the Block IA missile hardware is identical to the Block I missile and, therefore, did not require the extensive development and qualification that is generally necessary with new systems. The test program consisted of ground and flight tests, modeling, and simulations. The Project Office is funding additional ground tests, analyses, and modeling to address the concerns of the Army Operational Test and Evaluation Command and the Office of the DOT&E about the operational effectiveness of the Block IA missile.

Planning. In February 1995, DOT&E approved the test and evaluation master plan for the Block IA missile that provided for an end-to-end evaluation of the Block IA missile target acquisition, command and control, launch, missile flight, dispensing of bomblets, and the bomblets' effects on targets. The operational test and evaluation strategy based the end-to-end evaluation on a discrete event methodology through a series of separate tests of portions of the system independent of other components. The DOT&E and the Army Operational Test and Evaluation Command planned to evaluate the target acquisition portion of the system using operational test results from targeting systems such as the Joint Surveillance Target Attack Radar System, unmanned aerial vehicles, and satellites; however, because of the nonavailability of the

Joint Surveillance Target Attack Radar System, the planned operational test results were not available to evaluate the Block IA missile system. Further, the operational test data from the unmanned aerial vehicles and the satellites did not confirm the capabilities of the targeting systems to support the Block IA missile. The DOT&E and the Army Operational Test and Evaluation Command also evaluated the fire support and command and control portion of the system, using data from the Multiple Launch Rocket System Family of Munitions Force Development Test and Experimentation and the Operational Block IA ground test.

From February through October 1996, the Army TACMS-BAT Project Office conducted 10 flight tests of the Block IA missile delivery system that included the pre-flight, missile flight, dispensing of bomblets, and final impact on targets using actual missile firings. The test and evaluation master plan did not provide for a demonstration of the interoperability of the target acquisition, command and control, and delivery systems during operational testing because it would have been unnecessarily expensive.

Independent Testers. In the Army Operational Test and Evaluation Command report, "Test and Evaluation Report of the Army Tactical Missile System Block IA, Initial Operational Test and Evaluation," February, 14, 1997, the testers assessed the overall performance of the Block IA missile as suitable but marginally effective. In the combined operational and live-fire test and evaluation report, "Report on the Army Tactical Missile System, Block IA," April 16, 1997, DOT&E concluded that the Block IA missile was not operationally effective and not operationally suitable. To answer the concerns of the Army Operational Test and Evaluation Command and DOT&E, the Army conducted additional ground tests, analyses, and modeling of target acquisition, missile performance, bomblet lethality, and in-flight survivability. In June 1997, the Army flight tested a Block IA missile, which demonstrated to DOT&E that the Block IA missile was operationally suitable. To demonstrate to DOT&E that the Block IA missile was operationally effective, the Army flight tested another Block IA missile in December 1997. On March 4, 1998, the Army Operational Test and Evaluation Command provided the results of the December 1997 flight-test and its evaluation to DOT&E to use in determining whether the Block IA is operationally effective.

Program Design

Engineering and Manufacturing. During the Block IA missile engineering and manufacturing development phase, the Army TACMS-BAT Project Office and Lockheed Martin Vought Systems successfully managed the development phase and started the LRIP of the Block IA missile.

System Engineering. Lockheed Martin Vought Systems provided the Army TACMS-BAT Project Office with a systems engineering management plan that adequately translated the operational requirements of the Army into a

system solution that included the design, manufacturing, test and evaluation, and support processes. The Project Office established a Block IA missile production baseline and used it to contract for Block IA LRIP quantities.

Work Breakdown Structure. The Army TACMS-BAT Project Office adopted a work breakdown structure that managed the engineering and manufacturing development phase of the Block IA missile adequately.

Reliability and Maintainability. The Army TACMS-BAT Project Office and Lockheed Martin Vought Systems managed and conducted a competent reliability and maintainability process for the Block IA missile to achieve program reliability and maintainability goals. The Project Office translated the Block IA missile reliability and maintainability requirements into contractual requirements for the contractor to conduct the maintainability program in accordance with MIL-STD-470B, "Maintainability Program for Systems and Equipment," June 12, 1995. The contractor is required to prepare and update the maintainability/testability program plan, perform a maintainability analysis, and plan and conduct a maintainability demonstration for new designs and redesigns. The Project Office and contractor established a maintainability data collection analysis and corrective action system. The Failure Review Board reviews all test and missile maintenance failures.

The operational requirements document for the Block IA missile requires a missile in-flight reliability threshold of 91 percent. Through March 1998, the Army TACMS-BAT Project Office has demonstrated an in-flight reliability of 83.33 percent based on 10 out of 12 successful Block IA missile launches. The Project Office stated that a test program to demonstrate in-flight reliability of 91 percent during the development program is too expensive and is also unnecessary because of the hardware and software commonality of the Block I and Block IA missiles. The Project Office predicts that the Block IA missile reliability requirements will be demonstrated as part of the quality assurance test program based on the demonstrated results of the Block I missile flight program, which has a 93.3 percent overall reliability.

Computer Resources. On March 29, 1995, the Army TACMS-BAT Project Office updated the Block I Computer Resources Life-Cycle Plans to include the Block IA missile. The plan required Lockheed Martin Vought Systems to use the Ada computer language to add global positioning system guidance software to the Block IA system. The Block IA software trouble report associated with the plan did not contain any open action items that would preclude a full-rate-production decision.

Human Systems Integration. The Army TACMS-BAT Project Office effectively addressed two issues associated with human system integration of the Block IA missile. The first issue involved excessive canister tilting during launcher loading and unloading operations resulting from the Block IA missile-center-of-gravity location. The second issue involved correcting a connector obstruction problem between the Block IA missile container's global positioning system cable connection and the missile launcher. The Project Office resolved both issues.

The Project Office did not require or plan any increase in force structure requirements to support fielding the Block IA missile system. The Army Deputy Chief of Staff for Personnel assessed the Block IA missile and concluded, with regard to human factors engineering, that the program was ready to transition to full-rate production.

Survivability. In December 1997, the Army TACMS-BAT Project Office had determined that the Block IA missile receiver card, a nondevelopmental item encased within the global positioning system module, will require a design analysis to determine its survivability or a design margin waiver. The receiver card is a proprietary item, and the manufacturer has estimated that it would cost $250,000 to conduct the design analysis. The Project Office intends to have White Sands Missile Range conduct the analysis at an estimated cost of $25,000. As of March 1998, the White Sands Missile Range had not completed its analysis.

Producibility. The Army TACMS-BAT Project Office and Lockheed Martin Vought Systems have demonstrated the producibility of the Block IA missile by delivering the first three Block IA missiles under the LRIP contract in July 1997. The Project Office and contractor completed the producibility program; however, the production readiness review identified two action items that remained unresolved as of March 1998. The two unresolved issues are a piece-parts reliability issue and a parts-obsolescence issue that involve substituting inexpensive plastic encapsulated parts for unavailable or unaffordable ceramic encapsulated parts. As of March 1998, the Block IA Project Office was working on closure of the issues.

Logistics. The Army TACMS Project Manager had adequately addressed the issues relating to logistics requirements as detailed in the Integrated Logistics Support Plan.

Integrated Logistics Support. The Army TACMS-BAT Project Office established the Block IA missile maintenance and support system as detailed in the Integrated Logistics Support Plan, June 1996. The plan provides for successful acquisition and development of logistics requirements for the Block IA missile. The Army performs Block IA missile and launcher assembly maintenance on the general support level and depot maintenance level. Letterkenny Army Depot and Weilerbach, Germany, perform the depot maintenance. Lockheed Martin Vought Systems modified the depots' test equipment and software to support fielding the Block IA missile. Lockheed Martin also redesigned the general support test equipment and associated software to support fielding the Block IA missile. The redesign included an improved, built-in test capability that the depots and field support units use to evaluate the guided missile and launching-assembly components.

The Army TACMS-BAT Project Office conducted an analysis of used launch containers that showed the presence of hazardous materiel residue. In November 1997, the Safety Office, Army Aviation Missile Command, determined that the levels of the materiel residue were insignificant. The Project Office sent the results to the Surgeon General, Army Materiel Command, for inclusion in his health hazard assessment.

Configuration Management. The Army TACMS-BAT Project Office and Lockheed Martin Vought Systems implemented effective configuration management procedures in the development of the Block IA missile. Specifically, the Project Office tracked and resolved open items from functional and physical configuration audits, used an approved configuration management plan, and tracked engineering changes to enhance configuration visibility and accounting. As of March 1998, the Project Office had resolved and closed all 302 action items that resulted from the configuration audits.

Demilitarization and Disposal. DoD Regulation 5000.2-R, Section 1.4.6, "Demilitarization and Disposal," mandates that, at the end of a system's useful life, the project manager must ensure that the system is demilitarized and disposed. The Project Office did prepare a demilitarization plan for the Block IA missile; however, the plan was incomplete because it addressed the disposal of the Block IA missile's end items and tools but not the disposal of the equipment the contractor used to manufacture the missile. In November 1997, the Army TACMS-BAT Project Office began revising the plan to address the disposal of the manufacturing equipment. Because the life of the program is expected to last well into the 21st century, the Project Office had not yet identified costs associated with demilitarization and disposal of the Block IA missiles and related equipment.

Contracting

Engineering Manufacturing and Development Contract. On March 31, 1994, the Army TACMS-BAT Project Office awarded the engineering and manufacturing development contract, totaling $52,850,000, for the Block IA missile. On January 22, 1997, the Army modified the contract to extend the performance period through October 22, 1997, and modified the requirements for interface with the M-270 missile launcher. The Army uses the launcher for the Block IA missile. Through the modification, the Army required the contractor to develop, test, validate, and document an upgrade to the M-270 launcher's Block IA navigation-guidance-computer operational-flight software. In December 1997, the Project Office and the contractor signed a contract modification at a not-to-exceed cost-plus-incentive-fee price of about $412,000, increasing the total cost-plus-incentive fee to about $53,450,000. The modification also extended the contract completion date to December 31, 1997. On March 11, 1998, the Project Office and the contractor signed another contract modification that extended the contract completion date to March 31, 1998, at no increase in contract cost.

Low-Rate Initial Production Contract. On June 14, 1996, the Army exercised an option on the LRIP contract for delivery of 70 Block IA missiles from August 1997 through April 1998. On April 23, 1997, the Army exercised a second LRIP option for delivery of 97 Block IA missiles from May 1998 through April 1999.

Full-Rate-Production Contract. The full-rate-production contract will contain options for annual buys and will use performance specifications. In April 1998,

the Army plans to award and exercise the first two full-rate-production contract options for a total of 160 Block IA missiles to be delivered from May 1999 through February 2000.

Program Assessments and Decision Reviews

Program Assessments. In February 1994, the Army Systems Acquisition Review Council assessed whether the Block IA missile was ready to proceed into engineering and manufacturing development. The Army Systems Acquisition Review Council assessed the program structure, life-cycle cost estimates, acquisition strategy, program risks, environmental impacts, affordability, and opportunities for cooperative development with major allies. However, the Block IA missile analysis of alternatives that the Analysis Center provided to the Army Systems Acquisition Review Council was limited in scope as discussed in Finding A.

In May 1996, the Commanding General, U.S. Army Field Artillery School, and the Program Executive Officer, Tactical Missiles, assessed whether the Block IA program was ready to enter LRIP. The Army Operational Test and Evaluation Command and Army Materiel Systems Analysis Activity conducted operational and technical assessments that verified that the Army had met the LRIP exit criteria for the Block IA missile.

Decision Reviews. At the Milestone IV, "Major Modification Approval," in March 1994, the Army Acquisition Executive gave approval for the Block IA missile program to enter the engineering and manufacturing development phase, authorized an LRIP contract in the second quarter of FY 1996 to be followed by a full-rate-production decision in FY 1997, and approved the exit criteria for both the LRIP and the engineering and manufacturing development phases.

In May 1996, the Program Executive Officer, Tactical Missiles, approved the Project Office's award of an LRIP contract and long-lead-time-items contract to Lockheed Martin Vought Systems.

During preparation for the March 1997 full-rate-production decision review, the Army Acquisition Executive canceled the review by the Army Systems Acquisition Review Council and kept the Block IA missile in LRIP for a second year because:

- the Army Operational Test and Evaluation Command briefed the Block IA overarching integrated product team in February 1997 that it was assessing the Block IA missile as marginally effective; and

- the Office of DOT&E briefed the Block IA overarching integrated product team in February and March 1997 that it was assessing the Block IA missile as not operationally effective and not operationally suitable.

Because of the concerns, the Army Acquisition Executive issued an acquisition decision memorandum on April 22, 1997, that:

o approved the contract award in April 1997 for 97 Block IA missiles as a second LRIP quantity;

o rescheduled the full-rate-production decision until March 1998 to allow the Army to respond to the effectiveness and suitability concerns; and

o approved the long-lead-time-items contract award before the March 1998 full-rate-production decision.

Periodic Reporting

DoD Regulation 5000.2-R describes mandatory reports that DoD Components must prepare periodically to provide acquisition executives and Congress with adequate information to oversee the acquisition process and to make necessary decisions. Mandatory reports include the Defense Acquisition Executive Summary Report and the Selected Acquisition Report.

Defense Acquisition Executive Summary Reports. In accordance with the DoD 5000 series of documents, the Army TACMS-BAT Project Office prepared adequate and accurate Defense Acquisition Executive Summary Reports that provided combined information for the Block I and Block IA missile programs. The Project Office began reporting on the Block IA missile together with the Block I missile in May 1994. The reports highlighted potential and actual program problems to the Under Secretary of Defense for Acquisition and Technology before the problems became significant. The quarterly reports realistically reported the Block I and Block IA missile program status, including program assessments, unit costs, current estimates of the acquisition program baseline parameters, status reporting of exit criteria and contract costs, and management control assessments on the Block I and Block IA missile programs.

Selected Acquisition Reports. In accordance with the DoD 5000 series of documents, the Army TACMS Block IA Project Office began combined reporting of the Block I and the Block IA missile programs in the December 1993 Selected Acquisition Report. The annual Selected Acquisition Reports realistically reported information on total program cost, schedule, and performance; program unit cost; and unit cost breaches. However, the Project Office did not submit a quarterly exception Selected Acquisition Report to Congress for the quarter that ended on June 30, 1997, because of the unintentional omission discussed in Finding B.

Secretary of Defense Annual Report. Section 2220 of title 10, United States Code, "Performance Based Management: Acquisition Programs," requires DoD to assess each acquisition program to determine whether DoD breached more than 10 percent of the program's total cost, schedule, and performance parameters and to report those exception programs in the Secretary of Defense Annual Report to Congress. Section 6.2.7, "Assessing Program Performance for ACAT [Acquisition Category] I Programs," of the DoD Regulation 5000.2-R bases the assessments on the program status as of the end of the fiscal

year. As of September 30, 1997, the Block IA program did not have any of its cost, schedule, and performance parameters in a breach status and, therefore, it will not be reported as an exception program in the annual report.

Appendix E. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
Assistant Secretary of Defense (Public Affairs)
Director, Operational Test and Evaluation

Joint Staff

Director for Force Structure, Resources and Assessment (J-8)

Department of the Army

Assistant Secretary of the Army (Financial Management and Comptroller)
Assistant Secretary of the Army (Research, Development, and Acquisition)
  Program Executive Officer, Tactical Missiles
    Project Manager, Army Tactical Missile System-Brilliant Antiarmor Submunition Project Office
Deputy Under Secretary of the Army (Operations Research)
Commander, Army Operational Test and Evaluation Command
Commander, Army Training and Doctrine Command Analysis Center
  Commandant, Army Field Artillery School
Auditor General, Department of the Army
Deputy Chief of Staff for Operations and Plans

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
Auditor General, Department of Navy

Department of the Air Force

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

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
  Inspector General, National Security Agency
Inspector General, Defense Intelligence Agency

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division, General Accounting Office

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 Government Management, Information, and Technology, 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

Part III - Management Comments

Office of the Assistant Secretary of the Army (Research, Development, and Acquisition) Comments

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
RESEARCH DEVELOPMENT AND ACQUISITION
103 ARMY PENTAGON
WASHINGTON DC 20310-0103

REPLY TO
ATTENTION OF

SARD-SM

3 [redacted] MAR 1998

MEMORANDUM FOR IG, DOD (Auditing), ATTN: MR. JOHN MELING

SUBJECT: Army Response to the DOD IG Report, "Audit Report on Acquisition of the Army Tactical Missile System Anti-Personnel/Anti-Material Block IA Program (Project No. 7AE-0046)," Dated January 8, 1998.

1. As requested by the DoD IG memorandum dated January 8, 1998, the Army has reviewed the subject DoD IG draft report. The Army position on the draft report is we concur with the recommendation of Finding B with comment.

2. The Army Acquisition Executive approved the ATACMS Block IA entering Low Rate Initial Production (LRIP) II for 97 missiles for the following reasons:

a. Maintain program stability as preparations are made for the Full-Rate Production Decision in March 1998.
b. Preclude having to execute a partial contract termination for convenience, and to deobligate funds associated with the Long Lead Time Items contract award.
c. Preclude renegotiating contract costs which would impact the LRIP II and Foreign Military Sales contract and require repricing the Letter of Offer and Acceptance (LOA) with Greece.
d. Maintain a viable program at the supplier level for the Global Positioning System and Improved Missile Guidance Set (IMGS) component vendors.

3. The Army concurs with comment on the finding of an unintentional omission in submitting the exception SAR in the quarter ending June 1997. As noted by the investigators, the Army did notify the Congress by memorandum on 2 May 1997, following the Acquisition Decision Memorandum of 22 April 1997. Also, it should be noted that an exception SAR for the quarter ending September 1997 was submitted, and there was no recommendation associated with the Congressional reporting requirement.

4. Finally, the Army concurs with the recommendation "the Army Acquisition Executive authorize the Project Manager, Army Tactical Missile System – Brilliant Anti-armor Submunition to procure only the number of low-rate initial production Block IA missiles needed to prevent a break in contractor production

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if the Army Acquisition Executive decides at the Full-Rate Production Decision in March 1998 that the Block IA missile is still not ready for full-rate production."

5. The Army point of contact is MAJ Paul Myrick, (703) 604-7216, e-mail: myrickp@sarda.army.mil.

for Dennis L. Patrick
COLONEL, GS
Director, Missile Systems

Office of the Army Deputy Chief of Staff for Operations and Plans Comments

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS
400 ARMY PENTAGON
WASHINGTON DC 20310-0400

REPLY TO
ATTENTION OF

DAMO-FDL

12 MAR 1998

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL (DODIG), ATTN: ACQUISITION MANAGEMENT DIRECTORATE

SUBJECT: Response to Audit Report on Acquisition of the Army Tactical Missile System Anti-Personnel/Anti-Materiel Block IA Program (Project No. 7AE-0046)

1. Concur with general findings and recommendations of the subject report concerning Deputy Chief of Staff for Operations and Plans (DCSOPS) in that an independent war reserve requirement calculation should be determined by DCSOPS in accordance with Capabilities-Based Munitions Requirements (CBMR). Recommend adding the following comment to the recommendation:

> "We recommend the Acquisition Executive/PM use DCSOPS/CAA approved requirements for acquisition objective for the block IA."

2. As you already know, DCSOPS is in the process of implementing the recommendation and will have preliminary war reserve requirement numbers by late March 1998. Final war reserve requirement numbers will be published in May 1998. These requirements will be furnished to the acquisition executive.

3. POC, Maj Eric Belcher, 703-697-8681.

JESSE L. BROKENBURR
COL, GS
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The Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report.

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