Audit Report

OFFICE OF THE INSPECTOR GENERAL

AIR FORCE SHORT RANGE ATTACK MISSILE II PROGRAM

Report Number 92-018

December 12, 1991

This special version of the report has been revised to omit contractor sensitive data.

The following acronyms are used in this report.

CPR.....Cost Performance Report
DAB.....Defense Acquisition Board
SPO.....SRAM II System Program Office
SRAM II.....Short Range Attack Missile II
SRAM T.....Short Range Attack Missile, Tactical

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

December 12, 1991

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

SUBJECT: Audit Report on the Air Force Short Range Attack Missile II Program (Report No. 92-018)

We are providing this final report for your information and use. This report resulted from our Audit of the DoD Use of Contractor Cost and Schedule Control System Data on Major Defense Acquisition Programs. Comments on a draft of this report were considered in preparing the final report.

We appreciate the courtesies extended to the audit staff. If you have any questions on this report, please contact Mr. Russell A. Rau, Program Director, at (703) 693-0186 (DSN 223-0186) or Ms. Patricia A. Brannin, Project Manager, at (703) 693-0392 (DSN 223-0392). The planned distribution of this report is listed in Appendix C. No comments on this final report are required.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Enclosure

cc:
Comptroller of the Department of Defense
Secretary of the Air Force

This special version of the report has been revised to omit contractor sensitive data.

OFFICE OF THE INSPECTOR GENERAL

REPORT NO.
(PROJECT NO. 1AE-5006.02)

December 12, 1991

AUDIT OF THE AIR FORCE SHORT RANGE ATTACK MISSILE II PROGRAM

EXECUTIVE SUMMARY

Introduction. The Short Range Attack Missile II (SRAM II) was to be an improved nuclear air-to-surface missile, capable of penetrating advanced defenses and striking targets from stand-off ranges. In FY 1985, the Air Force initiated the SRAM II Program after an unsuccessful attempt to establish a new production source to replace the existing SRAM A inventory. The Air Force reduced the quantity of missiles to be procured from 1,633 to 700 because of affordability reasons. The estimated program acquisition cost for 700 missiles was $2.2 billion. On September 27, 1991, the President terminated the SRAM II Program in a nuclear arms reduction initiative.

Objective. The SRAM II was one of nine programs included in the Audit of the DoD Use of Contractor Cost and Schedule Control System Data on Major Defense Acquisition Programs. The audit objective was to evaluate the implementation and oversight of cost and schedule control systems and the use of data reported by contractors complying with cost and schedule control system criteria.

Audit Results. The Air Force no longer had a viable acquisition strategy for the continued development and production of the SRAM II Program because of the problems encountered in development. As a result, the contractor was performing to modified schedules that were not contractually defined. Also, production options could have lapsed, resulting in an estimated increase of $275 million in the cost of the missiles. In addition, potential reductions in performance baselines were possible.

Internal Controls. The audit identified material internal control weaknesses, in that controls were not implemented to ensure an updated, viable acquisition strategy for the continued development and production of the SRAM II Program. These internal control weaknesses are further discussed in Part I of the report. The weaknesses are no longer material, given the program's cancellation.

Potential Benefits of Audit. Since the SRAM Program was terminated, the recommendations are not necessary. Therefore, no potential monetary benefits will result from the audit. However, there are lessons to be learned for future acquisition programs.

Summary of Recommendations. As a result of the President's cancellation of the SRAM II Program, we have deleted the recommendations reported in the August 30, 1991, draft report.

Management Comments. We received comments from the Offices of the Director, Defense Research and Engineering, and the Assistant Secretary of the Air Force (Acquisition). The comments, which are included in Part IV of the report, stated that the President canceled the SRAM II Program.

TABLE OF CONTENTS

	Page
TRANSMITTAL MEMORANDUM	1
EXECUTIVE SUMMARY	i
PART I - INTRODUCTION	
Background	1
Objective	2
Scope	2
Internal Controls	2
Prior Audits and Other Reviews	3
PART II - FINDING AND RECOMMENDATIONS	
Acquisition Strategy	5
PART III - ADDITIONAL INFORMATION	
Appendix A - Program Cost and Schedule Status	17
Appendix B - Activities Visited or Contacted	19
Appendix C - Report Distribution	21
PART IV - MANAGEMENT COMMENTS	
Office of the Director, Defense Research and Engineering	25
Office of the Assistant Secretary of the Air Force (Acquisition)	27

This report was prepared by the Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD. Copies of the report can be obtained from the Information Officer, Audit Planning and Technical Support Directorate, (703) 693-0340 (DSN 223-0340).

PART I - INTRODUCTION

Background

The Short Range Attack Missile II (SRAM II) was to be an improved nuclear air-to-surface missile, capable of penetrating advanced defenses and striking targets from standoff ranges. The SRAM II was to have greater range, speed, lethality, and accuracy than the existing SRAM A, which the SRAM II was to replace. The primary carrier aircraft for the SRAM II were to be the B-1B and B-2. The SRAM Tactical (SRAM T), a variant of the SRAM II, was to provide the tactical air forces with a survivable, standoff, nuclear air-to-surface missile. The primary carriers for the SRAM T were to be the F-15E, F-111, and other North Atlantic Treaty Organization aircraft. Major configuration differences between the SRAM II and the SRAM T were limited to the warhead and software. Consequently, the SRAM T Program was dependent upon the successful development of the SRAM II.

The Air Force initiated the SRAM II Program after an unsuccessful attempt at establishing a new production source to replace the existing SRAM A rocket motor. Also, the Air Force was concerned about the potential effects of aging on the motor and the declining SRAM A inventory. The Office of the Secretary of Defense approved the SRAM II Program as a new start in FY 1985 and approved full-scale development in August 1987. The Air Force chose an accelerated acquisition approach for the SRAM II because the Air Force needed an operational system by the early 1990's and because the SRAM II development was considered low risk. Under this acquisition approach, the Air Force bypassed the concept demonstration and validation phase and proceeded directly to full-scale development. The first low-rate initial production decision was scheduled for June 1991, but low-rate initial production was scheduled to be authorized in May 1993.

On April 30, 1987, the Air Force competitively awarded fixed-price-incentive contract F33657-86-C-0012 to Boeing Aerospace and Electronics. The contract was for the development of the SRAM II missile and included priced options for low-rate initial production of 100 missiles and the first full-rate production lot of 300 missiles. As of May 25, 1991, the contract target and ceiling prices for missile development were $311.3 million and $342.3 million, respectively. The estimated price for the 400 option missiles was $284.8 million (Appendix A). On July 18, 1990, the Air Force modified the contract to include the development of the SRAM T and 23 SRAM T test missiles. The target and ceiling prices for the SRAM T were $181.7 million and $199.1 million, respectively.

As of May 25, 1991, the Air Force estimated the program acquisition cost for 700 SRAM II missiles at about $2.2 billion. The original procurement objective for the SRAM II Program was 1,633 missiles at a cost of $2.4 billion. In December 1990, the Air Force reduced the quantity to 700 missiles because of affordability constraints imposed during the formulation of the President's FY 1992 budget.

On September 27, 1991, the President canceled the SRAM II Program as part of his plan for reducing the U.S. nuclear arsenal. Shortly thereafter, a termination notice was sent to the contractor.

Objective

Our overall audit objective was to evaluate the implementation and oversight of contractor cost and schedule control systems and the use of data reported by contractors complying with cost and schedule control system criteria. The SRAM II Program was one of nine major weapon systems included in the overall audit. While conducting the audit, we determined that the Defense Acquisition Board (DAB) had not approved the proposed acquisition strategy for continuing the SRAM II. We reported this issue separately because it did not directly relate to issues to be identified in our overall report and because action was needed on the identified issue before the conclusion of negotiations with the contractor that was planned for November 1991. The audit also evaluated internal management controls applicable to the implementation, oversight, and use of cost and schedule performance data.

Scope

We conducted this program audit of the SRAM II from April through July 1991 and reviewed records dated from 1986 through 1991 related to the SRAM II Program. We also discussed the issues related to the acquisition strategy with Government and contractor personnel involved in the acquisition of the SRAM II. The audit was made in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD, and accordingly included such tests of internal controls as were deemed necessary. A list of the activities visited or contacted is in Appendix B.

Internal Controls

We evaluated the implementation of policies and procedures related to the acquisition strategy for the SRAM II. The audit identified material internal control weaknesses as defined by Public Law 97-255, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. DoD had not planned to conduct

a DAB review of the SRAM II Program, even though significant changes had occurred in cost, schedule, and technical performance baselines. Also, the Air Force had not updated its acquisition strategy to reflect the significant changes in the Program. Recommendations to correct the weaknesses are not part of this report because the program was canceled and the weaknesses are no longer material. Nevertheless, a copy of this report is being provided to the senior officials responsible for internal controls within the Offices of the Secretary of Defense and the Air Force.

Prior Audits and Other Reviews

Since 1986, the General Accounting Office issued four reports that included the SRAM II Program. We did not follow up on the prior audit reports because they contained no findings or recommendations related to our objective.

PART II - FINDING AND RECOMMENDATIONS

ACQUISITION STRATEGY

The Air Force did not have a viable acquisition strategy for the continued development and production of the SRAM II Program. Significant cost overruns, schedule delays, performance problems, and changes in requirements had invalidated the original strategy. When the contractor failed to meet certain contractual delivery requirements and failed to make satisfactory progress, the Air Force did not promptly initiate corrective action. In addition, the DAB had not reviewed the Program and approved a revised acquisition strategy, although piecemeal approval of acquisition program baselines had occurred. Development costs were estimated to exceed the contract ceiling price by up to $265 million, the contractor was performing to schedules that were not contractually binding, production options could have lapsed causing an estimated increase of $275 million in production costs, and potential reductions in performance requirements were possible.

DISCUSSION OF DETAILS

Background

Defense acquisition program plans and strategies are based on objective assessments of a program's status relative to cost, schedule, and performance and the plans for managing risk to achieve the program objectives. The acquisition strategy and associated contracting activities link milestone decision reviews to events and demonstrated accomplishments in development, testing, and initial production. The milestone decision authority for major acquisition programs is the Under Secretary of Defense for Acquisition or the delegated DoD Component.

Contractor Performance and Program Status

On September 10, 1990, the Air Force issued a "Cure Notice"[1/] to Boeing requiring that Boeing submit a "Cure Plan" to correct cost, schedule, and technical performance deficiencies associated with the SRAM II Program. As a result of the "Cure Notice," the

---

1/ Federal Acquisition Regulation 49.4, "Termination for Default," requires that in situations where the contractor is not making progress on the contract so that completion of the contract requirements is questionable, the contracting officer should give the contractor a written notice describing the failure and providing a period in which to cure the failure.

Air Force and Boeing were negotiating a contract change to address critical cost, schedule, and technical problems (Engineering Change Proposal 071, "SRAM II Program Restructure"). The contract cost was estimated to exceed the contract ceiling price by over $265 million, delays slipped the critical initial operational date almost 3 years, and technical problems raised questions about the system's ability to meet performance requirements. Appendix A summarizes the cost and schedule status for the SRAM II contract. In addition, we found that the SRAM II System Program Office (SPO) did not take timely action concerning deficient contractor performance and the deteriorating condition of the Program. Unless otherwise noted, the cost estimates in this report do not include the SRAM T.

Cost. The SRAM II Program experienced significant contractor cost overruns and program cost increases that resulted in reduced quantities of missiles to be procured. As early as November 14, 1988, a year and a half after contract award, Boeing was projecting a cost overrun exceeding the contract ceiling, which was reflected in the calculation of progress payments to the contractor. The June 1990 Cost Performance Report (CPR) [2/] showed an estimated cost variance at completion of $109.9 million. Based on the contractor's estimate at completion ($378.6 million) and the actual cost ($286.1 million) as of June 1990, we estimated that the contract should have been about 75 percent complete as of June 1990. However, by June 1990, the contractor had failed to deliver four critical contractual requirements: the Critical Design Review data package, which was due on June 15, 1989; the warhead interface test sets, which were due on November 30, 1989; the "Technical Change Technical Order" for modification kits for flight line instrumentation test sets, which were due on March 31, 1990; and the first missile, which was due on June 30, 1990.

However, when the March 1991 CPR was issued, the cost variance at completion had increased to $163.4 million. Based on the contractor's estimate at completion ($445.6 million) and actual cost to date ($378.5 million), the contract should have been about 85 percent complete. In March 1991, the Defense Plant Representative Office estimated the cost at completion to be $597.3 million, for an overrun at completion of $315.1 million. As of May 21, 1991, the Defense Plant Representative Office calculated that the SRAM II development contract was only about 64 percent complete. The negative trend was attributed to problems in the rocket motor development, missile guidance computer design, and software development. On April 30, 1991,

---

2/ The contractor issued CPRs for the SRAM contract each month. The reports summarized current and cumulative cost and schedule performance, an estimate at completion, and variances between planned and actual or estimated performance.

the SPO approved Boeing's request for formal reprogramming to an "Over Target Baseline" of $596.5 million for development of the SRAM II. Boeing was authorized to implement this formal reprogramming in May 1991 and was to incorporate the "Over Target Baseline" in the May CPR, which was due on June 28, 1991. As of May 25, 1991, the program office's estimate at completion was $607.4 million, resulting in an estimate of $265 million over contract ceiling. The Air Force planned to conduct a Baseline Review of Boeing's "Over Target Baseline" implementation during July 1991.

The Air Force stated in its January 1991 Program Deviation Report that there was no increase in the total procurement cost for the SRAM II because of a 57-percent reduction in total missile quantities. However, the program acquisition unit cost increased from $1.4 million to $3.2 million, as reflected in the May 1991 Defense Acquisition Executive Summary report. Because of affordability constraints, the President's FY 1992 budget reflected a reduction in the total missile buy from 1,633 to 700 missiles. This 57-percent reduction in quantity was a primary impetus to the significant increase in the unit cost. Fixed costs and costs driven by such items as support equipment were prorated over a much smaller quantity. In addition, the SPO was estimating production unit cost increases for the missile guidance computer, rocket motor, and flight control system, as well as other navigation/guidance components. Boeing initiated major cost-cutting initiatives focusing on requirements, production hardware, and manufacturing processes, but the impact of these initiatives has not been quantified. The Secretary of the Air Force reported a "Nunn-McCurdy" 3/ program acquisition unit cost breach on the SRAM II Program to Congress on February 13, 1991. On May 3, 1991, the then acting Under Secretary of Defense for Acquisition suspended further obligations of funds on the SRAM II contract. This action was taken in lieu of certification to Congress that the Program was essential to national security, that no alternatives to the Program existed, that new estimates of the Program acquisition unit cost were reasonable, and that the management structure for the Program was adequate. However, a DAB review of the SRAM II Program to provide the basis for such certification had not been scheduled.

Schedule. In addition to cost increases, the scheduled contract completion date and subsequent initial operational capability had slipped. The Critical Design Review slipped 31 months from the initial baseline date of May 1989 to December 1991 as a result of rocket motor and software

---

3/ U.S.C., title 10, sec. 2433, requires that the DoD Component head report breaches of the baseline acquisition unit cost of 15 percent or more to Congress. The breach is commonly called a Nunn-McCurdy Breach.

development problems. Also, the first missile delivery was delayed. In addition, Congress deleted FY 1990/1991 B-1B modification funds for SRAM II integration. The funds were required to begin production for B-1B modifications to meet nuclear certification requirements before First Assets Delivered/Initial Operational Capability, originally scheduled for April 1993. The need to meet the Initial Operational Capability resulted in the original accelerated acquisition approach. However, the April 1993 Initial Operational Capability is no longer achievable but is now scheduled for December 1995.

In addition to delays in critical development milestones, the schedule delay could have resulted in an increase in contract option prices of up to $275 million. The contract included priced options for 100 low-rate initial production and 300 full-rate production missiles totaling $284.8 million that must be exercised by September 30, 1993. The production options for 375 of the 400 missiles were likely to lapse under the proposed schedule in the Cure Plan. The Plan proposed that 25 of the 100 low-rate initial production missiles be authorized in May 1993. However, authorization of the remaining 75 low-rate and 300 full-rate production missiles was not planned until February 1994 and September 1994, respectively. Those planned dates were beyond the September 30, 1993, expiration date stated in the contract.

*
*
*
*
*
*

* The Government estimate for the increase in price resulting from loss of priced production options for 400 missiles was $200 million to $275 million.

Performance. In addition to cost and schedule overruns, the missile's ability to meet critical operational requirements was questionable. The SPO reported degradations in range, accuracy, and reliability. For example, the propulsion changes necessary to solve rocket motor cracking and insulation problems resulted in a breach of the Acquisition Program Baseline for missile range. In addition, recent wind tunnel tests showed greater than anticipated angle-of-attack constraints that may further restrict missile maneuverability and range, which can affect accuracy. Ways of minimizing the loss of range were being analyzed, and the results should be baselined by the Critical Design Review scheduled for December 1991. According to the SPO, changes in reliability and maintainability parameters from the December 14, 1988, baseline reflect differences between the Systems Operational Requirements Document and the specifications.

---

* Contractor confidential or proprietary data has been deleted.

The accelerated acquisition strategy was based, in part, on the assumption that the development was low risk, and thus significant problems in meeting operational requirements would not have been encountered. According to Boeing, meeting the full performance requirements might not have been realistic, with compliance resulting in a production missile that was neither cost nor schedule effective. Therefore, as part of its restructure proposal, Boeing proposed certain changes to the performance requirements. We considered this evidence of potential degradation of system performance that must be assessed by the Joint Requirements and Oversight Council in support of our recommended DAB program review.

Action by the SPO. The Air Force did not modify the contract, either bilaterally or unilaterally, when it anticipated that contractual milestones would not be met or when milestones were in fact missed. Although the Air Force had informed Boeing of its concerns about missing milestones and technical problems, the Air Force did not issue a "Cure Notice" to Boeing until September 10, 1990. At that time, the Air Force determined that Boeing would miss three contractual milestones by a wide margin. However, Boeing had already missed the three milestones. Specifically, Boeing failed to make the delivery of the Critical Design Review in June 1989, 15 months before the "Cure Notice" was issued. Also, Boeing failed to meet the contractual deliveries of the warhead interface test sets in November 1989 and the first missile in June 1990. Thus, since June 1989, Boeing has been proceeding with contract performance without contractually revised milestones. Boeing and the Government would have been managing to a schedule not contractually agreed to by both parties until the proposal for Engineering Change Proposal 071 was definitized. The definitization was not projected to occur until November 1991.

*
*
*
*
*
*
*
*
*
*
*
*
*
*
*

* Contractor confidential or proprietary data has been deleted.

In the "Cure Notice," the Air Force told Boeing to include in its proposal consideration to the Government for the delay in completing the Program. *

*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*

OSD Oversight

The DAB has not formally reviewed the SRAM II Program since the August 1987 decision to proceed with full-scale engineering development (now engineering and manufacturing development in accordance with the revised DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991)[4/]. However, in August 1988, the Strategic Systems Committee, an arm of the DAB, met to review and discuss the development status and the implications of major configuration changes to the SRAM II Program. A Strategic Systems Committee review of the SRAM Program was scheduled for September 24, 1991. However, because of the problems associated with this Program, we believe a DAB program review, in addition to the planned Committee review, was needed. According to DoD Directive 5000.1, "Defense Acquisition," February 23, 1991, the Strategic Systems Committee is strictly advisory in nature and does not have authority to issue programmatic direction. The Committee membership does not include all of the DAB principals, and is not chaired by the milestone decision authority. The SRAM program baseline originally required a DAB review in July 1991, before exercising the first low-rate initial production option to the SRAM II contract. Program slippage has extended the planned exercise date for the low-rate initial production option into the

---

4/ The DAB made Milestone 0, I, and II decisions for the SRAM T in August 1988, September 1988, and November 1989, respectively.

* Contractor confidential or proprietary data has been deleted.

second quarter of FY 1992. However, the Air Force no longer included the DAB review in its program baseline because the Air Force determined that a DAB review and approval were no longer required at low-rate initial production decision points by the new DoD Instruction 5000.2. The SRAM II Program does not have a scheduled DAB review until the Milestone III production and deployment milestone decision point to enter full-rate production in February 1995.

The Under Secretary of Defense for Acquisition approved the SRAM II Program Baseline Change Request and Deviation Report on April 12, 1991, without the benefit of either a DAB program review or a Strategic Systems Committee review. DoD Manual 5000.2-M, "Defense Acquisition Management Documentation and Reports," February 23, 1991, provides that the milestone decision authority may hold a program review before approving a recommended baseline change, but the Manual does not require a review for a baseline change. Additionally, DoD Instruction 5000.2 provides that changes to acquisition program baselines should only occur as a result of subsequent milestone or program reviews, or with the approval of the acquisition decision authority as a response to an unrecoverable baseline deviation. The Air Force reported that the SRAM II changes were necessary as a result of unrecoverable baseline deviations; therefore, a DAB program review was not a formal requirement.

While the Under Secretary of Defense for Acquisition may approve new acquisition program baselines without a DAB program review under DoD acquisition policy, we believed a DAB program review was needed. Specifically, the Air Force SRAM II Program Deviation Report indicates that the cost and schedule baseline information provided is preliminary pending Government approval of the Boeing Cure Plan, and cost information is based on unofficial budget numbers. Additionally, certain revised operational performance baselines were not provided, although breaches of parameters are referenced, pending update of the System Operational Requirement Document by Strategic Air Command. In addition, the impact of the SRAM II Program baseline changes on the SRAM T Program has not been formally considered in the revision process. Also, in the April 12, 1991, approval document, the Under Secretary of Defense for Acquisition requested that contract specifications for all applicable SRAM II Program baseline parameters be provided within 30 days. However, contract negotiations had not been completed on the Boeing Cure Plan and therefore the Air Force had not yet provided this information.

In our opinion, the baseline revisions reported and referenced as potentially required were of sufficient magnitude to warrant review of the combined SRAM II and SRAM T programs rather than continue with further "piecemeal" approvals of baseline breaches as the Air Force reports them. The DAB would have conducted this

review upon receipt of contract specification information but before contract modification approval. Of particular importance was the need to update Program documentation, such as the Integrated Program Summary, the Cost and Operational Effectiveness Analysis, the Test and Evaluation Master Plan, and the life-cycle cost estimates to reflect revisions to acquisition baselines in order for the impact of the revisions to be properly assessed. Based on the results of such a DAB review, the Under Secretary of Defense for Acquisition could have rendered a decision on the future direction of the Programs and granted authority to proceed with the SRAM II contract modification. Because of the Program termination, a DAB review was no longer warranted.

Conclusion

As the Air Force stated in its "Cure Notice" to Boeing, "the massive cost growth . . . may ultimately doom the program to cancellation as too costly to be justifiable." Because of the significant cost overruns and schedule delays, along with changes in the specifications and requirements, we believed that the DAB should have held a program review to assess the SRAM II Program's viability before the contract was modified as a result of negotiation of Engineering Change Proposal 071, planned for November 1991. The review would have included an assessment of program affordability in view of cost growth, schedule delays, performance degradations, funding for needed modifications to carrier aircraft, and quantity reductions. In addition, the review would have included the SRAM T and impact of SRAM II cost, schedule, and technical problems on the SRAM T development effort. The results of the review would have included a determination of whether to proceed with the Program, approval of a revised acquisition strategy, and establishment of exit criteria to be met before low-rate initial production would have begun. Specific direction for assessment, by personnel within the Office of the Secretary of Defense, of attainment of exit criteria for low-rate initial production would have been provided, including as a minimum a Strategic Systems Committee review.

We have deleted the proposed recommendations to have a formal DAB review of the SRAM Program from this report because the President canceled the Program on September 27, 1991. Therefore, the recommendations in our August 30, 1991, draft report are no longer applicable. We have issued this report for information only.

MANAGEMENT COMMENTS AND AUDIT RESPONSE

The Deputy Director, Defense Research and Engineering, Strategic and Theater Nuclear Forces, Office of the Secretary of Defense, stated in his comments that some of the recommendations were

being partially implemented. Specifically, the response stated that the planned Strategic Systems Committee, scheduled for September 1991, was prepared to recommend a DAB review if necessary, but the President's decision to cancel the Program obviated the need.

The Deputy Chief, Strategic, SOF and Airlift Programs, Office of the Assistant Secretary of the Air Force (Acquisition), acknowledged that, during the program restructure, there was no viable acquisition strategy. However, the Air Force stated that the report failed to recognize the Air Force's on-going efforts to develop an acquisition strategy and have a DAB review when the critical design review had been completed. In the report, we recognized the efforts being made to restructure the program and specifically recognized the Strategic Systems Committee review that had been planned for September 1991. We also recognized in the report that the Air Force had provided DoD management with information on the cost, schedule, and performance problems. However, we believed that the significant changes in cost, schedule, and performance warranted a full review of the Program by the DAB. The Air Force also stated that a combined Strategic Systems Committee and DAB review would have been held as early as February 1992 for the SRAM II and SRAM T, once the critical design review was completed. Although the critical design review was scheduled for December 1991, the contract was to be restructured because of the significant cost, schedule, and technical problems in November 1991. Given that the Strategic Systems Committee review was already planned, we saw little, if any, additional documentation needed for the full DAB review and continue to believe that the DAB should have reviewed the Program before the restructure.

PART III - ADDITIONAL INFORMATION

Appendix A - Program Cost and Schedule Status
Appendix B - Activities Visited or Contacted
Appendix C - Report Distribution

APPENDIX A: PROGRAM COST AND SCHEDULE STATUS

Cost

Category	Amount (millions)
Contract F33657-86-C-0012	
Basic development contract price	
Target price	$311.3
Ceiling price	$342.3
Program Manager's Estimate at Completion (as of May 25, 1991)	$607.4
Low-Rate Initial Production (100 missiles) (contract priced option)	$117.5
Lot I (300 missiles) (contract priced option)	$167.3
Total Program Costs, including Development and Procurement for 700 missiles	$2,234.6

Schedule

Milestones	Development Estimate	Current Estimate
Critical Design Review	May 1989	Dec. 1991
First Live Launch	Sep. 1990	Apr. 1992
First Assets Delivery (FAD)/Initial Operational Capability (IOC)	Apr. 1993	Dec. 1995
Milestone II	Aug. 1987	Aug. 1987
Milestone III	Oct. 1992	Feb. 1995

APPENDIX B: ACTIVITIES VISITED OR CONTACTED

Office of the Secretary of Defense

Office of the Deputy Director for Strategic and Theater Nuclear Forces, Office of the Director Defense Research and Engineering, Washington, DC

Air Force

Office of the Director for Strategic/SOF/Airlift Programs, Office of the Assistant Secretary of the Air Force (Acquisition), Washington, DC

SRAM II System Program Office, Aeronautical Systems Division, Wright-Patterson Air Force Base, OH

Other DoD

Defense Plant Representative Office, Boeing Aerospace and Electronics, Seattle, WA

Defense Contract Audit Agency, Boeing Aerospace and Electronics, Seattle, WA

Non-DoD

Boeing Aerospace and Electronics, Seattle, WA

APPENDIX C: REPORT DISTRIBUTION

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition
Comptroller of the Department of Defense
Director, Defense Research and Engineering

Department of the Air Force

Secretary of the Air Force
Assistant Secretary of the Air Force (Acquisition)
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Commander, Air Force Systems Command
Program Executive Office, Strategic Programs
SRAM II System Program Office

Office of Management and Budget

U.S. General Accounting Office, NSIAD Technical Information Center

Congressional Committees:

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

PART IV - MANAGEMENT COMMENTS

Office of the Director, Defense Research and Engineering

Office of the Assistant Secretary of the Air Force (Acquisition)

Management Comments from the Office of the Director, Defense Research and Engineering

OFFICE OF THE DIRECTOR OF
DEFENSE RESEARCH AND ENGINEERING

WASHINGTON, DC 20301

18 November 1991

(S&TNF)

MEMORANDUM FOR DIRECTOR, ACQUISITION MANAGEMENT DIRECTORATE
(DoD/IG)

SUBJECT: Audit Report on the Air Force Short Range Attack Missile II (SRAM II) Program (Project No. 1AE-5006.02)

Thank you for the opportunity to comment on your audit of the SRAM II program. Although the President cancelled the program on September 27, 1991, comment is appropriate to highlight areas the report needs to consider. In particular, the report should address that since February 1991, we were already proceeding with some of your recommendations--now, those recommendations have been overtaken by events.

For example, your report recommends Joint Requirements and Oversight Council (JROC) and Defense Acquisition Board (DAB) reviews. As a result of the April 1991 Defense Acquisition Executive Summary (DAES) meeting and the Nunn-McCurdy certification process, both SRAM II/T JROC and Strategic System Committee (SSC) reviews were planned and held. If required, the SSC would then have recommended a DAB review.

In the case of Nunn-McCurdy (NMC) certification, actions were in progress to certify the program before funds were needed. As early as February 1991, the NMC requirement, SRAM II alternatives, and cost analyses were in progress for the NMC decision, and then presentation at the SSC review. The significant consideration for the certification was to avoid missing a December 1991 progress payment to the contractor which could constitute a breach of contract. This timing relationship is not addressed in your report.

DoD/IG Recommended Corrective Actions

Recommendation 1. Partially concur. The DoD/IG recommended the Air Force Acquisition Executive direct the preparation of updated Defense Acquisition Board documentation for SRAM II and SRAM T to include an Integrated Program Summary, a Test and Evaluation Master Plan (TEMP), an Independent Cost Estimate (ICE), and a Cost and Operational Effectiveness Analysis (COEA). The SRAM programs already had a TEMP, as well as other documentation needed to support a DAB milestone decision. However, for the planned OSD review of SRAM II, the Air Force did not have to prepare an IPS, COEA, or ICE since the potential DAB review was not a milestone review (which would have levied specified documentation requirements in accordance with DoDI 5000.2).

The SSC did request the Air Force to provide the documentation needed to assess the SRAM acquisition strategy, risk assessment, possible alternative concepts, and updated cost estimates in order to determine for the DAB if the program should proceed further in full-scale development.

Recommendation 2. Partially concur. The DoD/IG recommended that the Under Secretary of Defense for Acquisition hold a special DAB program review of the SRAM II and SRAM T programs to determine the future direction of the programs before the Air Force modified the existing development contracts. Based on the results of the SSC review of the SRAM II and SRAM T programs, a DAB program review was planned and the Air Force provided detailed information at the SSC review on September 22, 1991, to address the aforementioned issues. The SSC was prepared to recommend a DAB review to determine how the program would proceed in full-scale development, but the President's decision to cancel the program obviated this need. Had the USD(A) authorized the SRAM program to complete its development phase, a DAB Milestone III would then have required the Air Force to prepare the appropriate documentation to include an updated IPS, COEA, ICE, TEMP, and other documents as specified in DoDI 5000.2.

In summary, we were already proceeding with many of your recommendations, but, as stated above, these actions have been overtaken by events.

George R. Schneiter
Deputy Director
Defense Research and Engineering
Strategic & Theater Nuclear Forces

Management Comments from the Office of the Assistant Secretary of the Air Force (Acquisition)

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC 20330-1000

OFFICE OF THE ASSISTANT SECRETARY

31 OCT

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

SUBJECT: Report on the Air Force Short Range Attack Missile II (SRAM II) Program, (Project No. 1AE-5006.02) - INFORMATION MEMORANDUM

This is in reply to your memorandum for comments on the SRAM II audit that written on August 30, 1991. The SRAM II program was cancelled by the President on September 27, 1991. A Stop Work Order and a Termination notice were sent to the contractor shortly thereafter.

We acknowledge that at the time of the DOD(IG) report, which was during the program recertification, there was no viable acquisition strategy. Technical problems with the rocket motor, avionics and software delayed resolution. Upon completion of the Nunn-McCurdy certification, the Air Force planned to submit a new acquisition strategy and baseline for OSD approval. We expected to have this new baseline, funding profile and contract upon completion of this process by December 1, 1991. The December 1991 date was contractually constrained. In order for the Air Force to avoid a breach of contract, we had to make a progress payment or breach the Fixed-Priced FSD contract.

The report fails to recognize that the DAB had directed a SRAM II/T program review before the Milestone III decision. In the SRAM T full scale development ADM, dated November 30, 1989, the DAB directed that a combined SSC/DAB review be held when the SRAM II critical design review and SRAM T preliminary design review were completed. These milestones were planned for December 1991 and January 1992, respectively. A DAB review could have been held as early as February 1992.

In summary, we were already proceeding with some of your recommendations, but none of this information was included in your report.

GEORGE MCVEIGH, Col, USAF
Deputy, Chief, Strategic, Division
Directorate Strategic, SOF &
Airlift Programs
SAF/AQQS

AUDIT TEAM MEMBERS

Donald E. Reed, Director, Acquisition Management Directorate
Russell A. Rau, Program Director
Patricia A. Brannin, Project Manager
Diane Stetler, Assistant Program Director, Office of the Assistant Inspector General for Audit Policy and Oversight
Jack Snider, Team Leader
Richard Collier, Auditor
Teresa Hayes, Auditor