

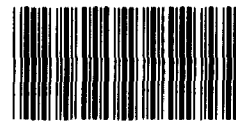
GAO

Fact Sheet for the Chairman,
Subcommittee on Investigations,
Committee on Armed Services, House of
Representatives

August 1990

FOREIGN MILITARY SALES

Air Force Efforts to Develop an FMS Accounting System



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Accounting and Financial
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August 8, 1990

The Honorable Nicholas Mavroules
Chairman, Subcommittee on Investigations
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

You requested that we evaluate the progress of the Department of Defense (DOD) in implementing improvements to the Foreign Military Sales (FMS) accounting system. Our January 17, 1990, report, Foreign Military Sales: Defense Efforts Are Improving Program Accounting (GAO/AFMD-90-18), discussed DOD's (1) efforts to enhance the current FMS accounting and billing system, (2) progress in resolving the differences between billing and disbursement records in the current trust fund, and (3) planned implementation of a second FMS trust fund. While we made no recommendations at that time, we reported that we would continue to monitor DOD's efforts to improve FMS accounting. This report discusses the status of the Air Force's efforts to design, develop, and implement a new central FMS accounting and billing system.

RESULTS IN BRIEF

In February 1989, the Air Force established a program management office to oversee the design, development, and implementation of a new central FMS accounting and billing system. In addition, the Air Force prepared an economic analysis, which identified five alternatives for a new FMS accounting and billing system. However, the Air Force thought only three of the alternatives offered viable approaches for correcting the long-standing financial management problems in the FMS program. The estimated life-cycle cost¹ for each of the three alternatives ranged from \$60 million to \$68 million. The Air Force has also

¹Life-cycle cost is defined as the total cost to design, develop, implement, and maintain a system throughout its useful life.

awarded 10 contracts valued at over \$1 million to assist with the development of system requirements, identification of alternative approaches, and development of independent cost estimates for selected alternatives. Further, the Air Force Audit Agency plans to oversee the design, development, and implementation of the FMS accounting and billing system by assigning six system auditors full-time to the effort.

BACKGROUND

The Arms Export Control Act (22 U.S.C. section 2751 et seq.) gives the President authority to sell defense articles and services to eligible foreign countries and international organizations, generally at no profit or loss to the U.S. government. As of September 30, 1989, there were over 17,000 open FMS sales agreements--commonly referred to as sales cases--valued at about \$156 billion.² They included undelivered goods and services valued at \$62 billion. For fiscal year 1989, new orders totaled \$11 billion.

For more than 10 years, GAO and DOD auditors have reported that major accounting and internal control weaknesses impaired DOD's ability to properly manage the FMS trust fund and provide accurate statements to customers. In addition, OMB recently identified the foreign military sales program as a "high risk" area which is vulnerable to fraud, waste, and mismanagement.

In July 1988, the then Deputy Secretary of Defense mandated the immediate termination of a foreign military sales central accounting system development effort because the project had substantially exceeded cost and schedule estimates without achieving systemwide capability. The Deputy Secretary also appointed the Air Force as the executive agent to design, develop, implement, and operate a new central FMS system. In addition, the Deputy Secretary directed the Air Force to first prepare an

²These 17,000 FMS cases are designated open because portions of their transactions are incomplete; that is, delivery of materiel, performance of services, completion of financial transactions, or rendering of the final statement of accounts has not occurred.

economic analysis of alternative approaches for the development of a new system.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of our review was to ascertain the status of the Air Force's efforts to design, develop, and implement a new central FMS accounting and billing system. To address our objective, we interviewed, in Washington, D.C., representatives of the Department of the Air Force, the Defense Security Assistance Agency, and the DOD Office of the Comptroller. In Denver, we interviewed representatives of the Air Force Accounting and Finance Center and the Air Force Audit Agency.

We reviewed the February 1989 economic analysis that detailed the Air Force's cost estimate for various alternatives for the design, development, and implementation of the FMS system to determine if the estimates were prepared in accordance with (1) Federal Information Processing Standards Publications 38 and 64, which provide guidelines for documenting computer programs and automated data processing systems, and (2) DOD internal guidelines for life-cycle cost estimating. We reviewed the contracts awarded by the Air Force to assist with the design, development, and implementation of the central FMS system so that we could determine the cost and the specific tasks to be performed. We also reviewed the system requirements to determine if they addressed previously identified FMS accounting and billing problems and were directed towards complying with GAO and DOD accounting principles and standards. Further, we discussed with the Air Force Audit Agency officials the role they plan to take in overseeing the design and implementation of the FMS accounting and billing system. Our review was conducted between October 1989 and March 1990.

PROGRAM MANAGEMENT OFFICE ESTABLISHED

In February 1989, the Air Force formed a program management office to oversee the design, development, and implementation of the FMS central accounting and billing system. The office is under the direction of the Air Force Accounting and Finance Center's Directorate of Program Management which is responsible for management and coordination of all ongoing system development projects at the Accounting and Finance Center. The Directorate of Program Management reports directly to the Commander, Air Force Accounting and Finance Center. The project

management office is responsible for the day-to-day management and coordination of the FMS system development effort. As of February 1990, 21 of the office's 23 authorized positions had been filled.

INITIAL ECONOMIC ANALYSIS COMPLETED

In response to the then Deputy Secretary of Defense's July 1988 memorandum, the Air Force completed an economic analysis in February 1989 to assist in selecting the best development method for a central accounting and billing system for the FMS program. Five alternatives were evaluated. Two alternatives--(1) use current system and (2) use military departments' systems--were determined not feasible and cost estimates were not developed for them.

The program management office concluded that it was technically impossible for the current system to completely satisfy and support the requirements of the FMS program. In addition, using the military departments' systems was not considered viable because they did not fulfill centralized system requirements, are military department specific, and would require major modifications.

The resulting economic analysis considered three alternatives--(1) a data base management system, (2) a new system, and (3) enhancement of the current system. Appendix I briefly describes the three alternatives considered in the economic analysis. Life-cycle cost estimates for these three alternatives were relatively close, ranging from \$60 million for the data base management system to \$68 million for the new system. In reviewing the cost estimates, we found that they were prepared in accordance with the Federal Information Processing Standards and applicable DOD guidelines. The Air Force Cost Center found that the cost estimates were consistent with the DOD life-cycle costing policies. However, they considered the costs too close to be used as the primary basis for selection of a preferred alternative.

In May 1989, DOD, through its Major Automated Information System Review Committee, directed the Air Force to restudy the proposals, because it believed additional alternatives should be considered. Subsequently, in September 1989, the Air Force awarded a contract to Price Waterhouse to independently analyze the alternatives, including any

alternatives not previously considered, and independently recommend to the program management office which alternative should be pursued.

The Air Force expects to select and present its preferred alternative to DOD and the Major Automated Information System Review Committee soon. Next, the Committee will make a "go or no go" decision on the Air Force proposal. A chronology of the events following the designation of the Air Force as executive agent and leading to the planned decision is presented in appendix II.

SYSTEM OPERATING REQUIREMENTS PREPARED

Following the completion of the initial economic analysis, the Air Force developed 613 requirements that the new FMS accounting and billing system must meet. Currently, the requirements are being coordinated with the other services to ensure that they minimally affect the service systems, and thus existing systems interfaces remain intact. Our limited review of the 613 system requirements found that they were directed towards complying with GAO and DOD accounting principles and standards and aimed at correcting previously identified FMS accounting and billing problems. For example, in the collections area, we found that the requirements are directed towards (1) prompt posting of customer cash deposits by source to FMS case accounting records, (2) reconciling collections to Treasury records, (3) maintaining internal control over cash deposits, (4) maintaining accounting month and fiscal year integrity, and (5) providing source data to update the general ledger.

CONTRACTS AWARDED TO ASSIST WITH DEVELOPMENT EFFORT

Since July 1988, the Air Force has awarded to seven contractors 10 contracts valued at over \$1 million to assist it in developing cost estimates and fine tuning alternatives for the new central FMS system. The contracts are for various items that are involved in the design and development of a system, such as preparing an economic analysis, assisting with the development of system requirements, evaluating applications software, identifying alternative approaches, and developing an independent cost estimate for selected alternatives. Appendix III provides a summary of each contract, its specific tasks, and its related costs.

AIR FORCE AUDIT AGENCY PLANS
TO OVERSEE SYSTEM DEVELOPMENT

The Air Force Audit Agency plans to oversee the design, development, and implementation of the FMS accounting and billing system. To assist in its effort, six auditors, knowledgeable in the design, development, and implementation of systems will be assigned full-time to oversee the system development efforts. Their plans call for them to focus on system controls and security, using industry, DOD, and Air Force guidelines as criteria. These criteria will provide guidance for reviewing and monitoring system controls and security during the system development life cycle.

In order to avoid duplicating their efforts, we plan to utilize the Air Force Audit Agency work as a means to monitor the Air Force's development efforts. We will periodically brief the Subcommittee staff on the progress and any problems identified by the Air Force Audit Agency.

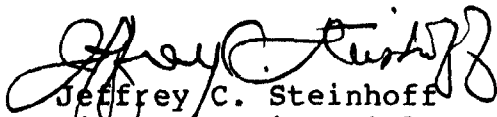
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As requested by your Subcommittee, we did not obtain written agency comments on a draft of this report. However, we discussed the results of our review with responsible agency officials and incorporated their comments where appropriate.

As agreed with your office, unless you publicly announce the contents of this report earlier, we will not distribute it until 30 days from its date. At that time, we will send copies to the Secretary of Defense; the Secretaries of the Air Force, Army, and Navy; the Director of the Defense Security Assistance Agency; and the Director of the Security Assistance Accounting Center. We will also make copies available to others upon request.

Please contact me at 275-9454 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix IV.

Sincerely yours,


Jeffrey C. Steinhoff
Director, Financial Management
Systems and Audit Oversight

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ABBREVIATIONS

DOD	Department of Defense
FMS	Foreign Military Sales
GAO	General Accounting Office

SYSTEM ALTERNATIVES CONTAINED IN THE
FEBRUARY 1989 ECONOMIC ANALYSIS

Data base management system--This is the accumulation of all pertinent data into one large, centrally managed system, which is readily available for use by the various subsystems as required. This alternative would use portions of the existing Defense Integrated Financial System, portions of the terminated FMS Accounting and Billing System, and a commercial package. This alternative offers a relatively inexpensive new system and comparatively rapid implementation.

New system--This alternative proposes the design and development of an entirely new data base system to meet defined requirements independent of those for existing systems. This alternative was considered because it provides for greater efficiency of implementation and operation, and because it would eliminate many of the inefficiencies and time delays in dealing with the problems of the existing system.

Enhancement of the current system--This alternative calls for the use of (1) the current system's data file management methodology and (2) existing program logic from the Defense Integrated Financial System and the FMS Accounting and Billing System as the foundation. Development of software to meet the accounting, performance, financial reporting, and management requirements would use segments of the two above-mentioned systems. The Defense Integrated Financial System Billing and Case Management subsystems would be enhanced and a cash management subsystem would be developed and implemented. New system programs would be required for the Accounts Receivable and Payable, Cost Clearing Accounts, and Performance Reporting subsystems of the Defense Integrated Financial System. The Accounting, General Ledger, Budget, and Transportation subsystems would be extracted from the FMS Accounting and Billing System. Before using any segment of either system, a review would be made to determine if the segment fulfills the necessary system requirements.

CHRONOLOGY OF EVENTS IN IMPLEMENTING
IMPROVEMENTS TO FMS ACCOUNTING SYSTEM

<u>Date</u>	<u>Event</u>
July 1988	The Deputy Secretary of Defense terminated the FMS Accounting and Billing System because of cost overruns and milestone slippage and appointed the Air Force as executive agent to design, develop, implement, and operate a new FMS accounting system. The Air Force was also directed to complete an economic analysis of various system approaches within 90 days.
January 1989	Economic analysis directed by the Deputy Secretary of Defense was completed. Three alternatives with life-cycle costs ranging from \$60 million to \$68 million were proposed.
February 1989	The Air Force Cost Center reviewed economic analysis in preparation for the Major Automated Information System Review Council review.
May 1989	The Major Automated Information System Review Council meeting was held and the Air Force was informed that all alternatives were not considered.
September 1989	The Air Force awarded a contract to Price Waterhouse to analyze the alternatives and recommend one of them.
January 1990	Functional requirements for the new system were coordinated with the services.
February 1990	Revised economic analysis of alternatives under consideration was completed.
February 1990	The Air Force Accounting and Finance Center selected its preferred alternative.
April 1990	System decision paper was prepared and submitted to the Air Force in preparation for the August 1990 Major Automated Information System Review Council meeting.

- May 1990 Independent cost estimate of alternatives under consideration was completed.
- May 1990 Draft proposal for system alternative submitted by the Air Force to DOD for review.
- a Draft proposal for system alternative to be submitted by the Air Force to the Major Automated Information System Review Committee for review.
- a Final proposal for new system design to be submitted by the Air Force to DOD and the Major Automated Information System Review Committee.
- a The Major Automated Information System Review Committee to meet to make a "go or no go" decision on the proposed system alternative.

^aThe Air Force has not yet determined the dates by which these events will have been accomplished.

SUMMARY OF AIR FORCE CONTRACTS FOR
SYSTEM DEVELOPMENT EFFORT

<u>Contractor</u>	<u>Purpose</u>	FY 1989 contract cost	FY 1990 contract cost	Total contract cost
Tecolote Research, Inc.	Prepare preliminary economic analysis and extend contract to update the economic analysis	\$176,000	\$151,000	\$ 327,000
Atlantic Research Corp.	Develop alternatives and recommendations for the design, development, test, and implementation of new system	75,000	14,000	89,000
BDM, Inc.	Evaluate the Defense Integrated Financial System and the FMS Accounting and Billing System and assist the program management applications software evaluation	115,000	0	115,000
CGI Systems, Inc.	Provide advance technology software support; data base management software and training for program management office personnel	112,000	31,000	143,000
Robbins Glola	Train program management office personnel in the fundamentals of program management and implement a program management and control system	22,000	38,000	60,000
MCR	Prepare an independent cost estimate of the new system	0	150,000	150,000
Price Waterhouse	Provide independent analysis of alternatives, including any alternatives not previously considered; independent recommendation as to which alternatives should be pursued	11,000	167,000	178,000
		<u>\$511,000</u>	<u>\$551,000</u>	<u>\$1,062,000</u>

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