



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

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NATIONAL SECURITY AND  
INTERNATIONAL AFFAIRS DIVISION

B-208171

JULY 28, 1983

The Honorable Verne Orr  
The Secretary of the Air Force



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Dear Mr. Secretary:

Subject: The Air Force Equipment Management System Still  
Does Not Assure Control of Nonexpendable Equip-  
ment (GAO/NSIAD-83-20)

We reviewed how the Air Force Equipment Management System (AFEMS) accounts for nonexpendable equipment valued at over \$15 billion. The system is intended to help managers efficiently equip individual units and develop effective budget and procurement plans. AFEMS data was a key part of justifications for Air Force plans to buy \$2 billion worth of equipment in fiscal year 1983; thus, substantial amounts in the Air Force budget depend on AFEMS' accuracy.

Recognizing longstanding problems, the Air Force has modernized AFEMS and has tried to establish inventory baseline data for all assets, but system weaknesses still limit assurance that requirements are based on accurate and complete information. To determine net requirements for inclusion in its budget, the Air Force identifies gross requirements and subtracts equipment on hand. However, AFEMS' problems in accounting for equipment on hand hinder the Air Force's ability to compute quantities of equipment to include in its budget. For example, key feeder systems to the AFEMS data bank are still not providing accurate and complete data, and certain categories of assets continue to present problems. Also, the modernized system is not yet validating and reconciling reported data, and item managers are no longer performing the required manual reconciliations. Details of our findings in these areas are contained in the enclosure.

In our opinion, Air Force goals for AFEMS are worthwhile, but the modernized system has not yet been successfully implemented. We believe that, in retrospect, the Air Force Logistics Command's (AFLC's) efforts to reestablish equipment

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inventory baselines may have been too ambitious. The inventory may be too large and the AFEMS errors too many to establish new baselines for all equipment at one time. The Air Force may have to reconcile data and establish baselines for one category of equipment at a time.

Reestablishing inventory baselines would not be worthwhile, however, if AFEMS ignored them. If AFEMS did not validate input data and reconcile reported data from one period to the next, it would again lose track of equipment inventories.

We recommend that you bring to bear the necessary management attention and resources needed to reestablish control over Air Force equipment on hand to help assure accurate computation of future equipment requirements. Specifically, we recommend that you direct AFLC to

- establish system controls to reconcile equipment inventories from one period to the next and to report variances;
- validate field-reported data through use of control files, such as records of total procured assets; and
- provide specific guidance and procedures to item managers for accounting for equipment under the new automated system. As a minimum, the guidance should identify the documents needed for manual reconciliations, define acceptable levels of accuracy, and prescribe how variances should be corrected.

We also recommend that you direct AFLC and the major commands to improve the accuracy of data reported to AFEMS by analyzing and correcting variances in specific problem areas, such as intransit equipment, onboard aircraft equipment, condemned equipment, and equipment procured outside AFLC. In view of custodians' perceptions that physical inventories are not necessary, we believe you should

- restate Air Force policy on the need for, and frequency of, physical inventories and
- direct that base commanders perform these inventories and make timely adjustments to reported data.

In commenting on a draft of this report, the Department of Defense fully concurred in our conclusions and recommendations and described Air Force initiatives to address AFEMS weaknesses, including interim guidance to item managers, tests of Air Force data bank linkages to identify specific causes of errors, development of a variance-reporting system, and a long-term project to restructure the Air Force's equipment data base.


The initiatives are responsive to our concerns, and we believe the actions cited can improve the reliability of AFEMS data. We must caution, however, that the Air Force plan of action in response to similar recommendations made in our earlier reports appeared reasonable as well. The degree of management attention and resources brought to bear on these equipment management initiatives will be critical to the initiatives' success.

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As you know, 31 U.S.C. § 720 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report. A written statement must also be submitted to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Director, Office of Management and Budget; the Chairmen of the above committees and of the House and Senate Committees on Armed Services; and the Secretary of Defense.

Sincerely yours,

  
for Frank C. Conahan  
Director

Enclosure

THE AIR FORCE EQUIPMENT MANAGEMENT SYSTEMSTILL DOES NOT ASSURE CONTROLOF NONEXPENDABLE EQUIPMENT

Since our 1974 and earlier reports, <sup>1/</sup> the Air Force has modernized its equipment management system. The objectives of the modernized system are to maintain worldwide files of authorized and in-use equipment, keep track of gains and losses, and edit and validate all input data. While there have been several changes to the system, some previously noted weaknesses still limit assurance that requirements are based on accurate and complete information.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our objective was to assess Air Force actions to improve equipment management. To follow up on system weaknesses discussed in our prior reports, we (1) identified changes made to the requirements computation system and data bank and (2) evaluated the reconciliation of onhand equipment data.

Between March and October 1982, we worked at Air Force Logistic Command (AFLC) headquarters and selected field organizations. We visited the Sacramento, San Antonio, and Warner Robins Air Logistics Centers and base-level organizations at Kelly, Lackland, Randolph, and Warner Robins Air Force Bases. At each location, we obtained data and management views regarding the basic policies on and features of AFEMS. At a repair contractor near Kelly Air Force Base, we tested reporting of item condemnations.

At the centers, we examined the documentation for primarily high-value items in budget request documents. Most of the work was at the San Antonio center, which manages about half (37,500) of the more than 74,000 centrally procured items in AFEMS. We tested 35 items as part of our evaluation of policy and procedure changes since our prior reviews. The items were generally of higher value and would by their nature receive the

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<sup>1/</sup>"Improvements Needed in Managing Nonexpendable End-Item Equipment in the Air Force" (B-133361, Feb. 26, 1974).

"Need for Improvement in the System for Managing Non-Expendable Equipment" (B-133361, Dec. 1967).

"Review of Management Within the Department of the Air Force of Replacement Equipment" (B-133361, June 1961).

greatest management attention of AFEMS items. Our limited tests at Sacramento and Warner Robins included comparison of centers' procedures and examination of records for selected items.

At base-level installations, we made limited tests of equipment management and reporting.

We did not quantify system errors or project error rates because the items we reviewed were not a statistical sample. Also, we did not examine the equipment authorization process because that subject was covered in another report.<sup>2/</sup> In the current review, we accepted gross requirements as authorized by major commands and examined the process used to account for all existing assets before additional items are bought.

We made this review in accordance with generally accepted government auditing standards.

#### SUCCESSFUL CHANGES TO AFEMS

Before 1974, the system's 2.5 million records were reconstructed each month without reconciling with prior data. After a phased modernization, the Air Force now collects and processes daily transactions for the system's 3.9 million records, and present procedures require reconciliation of current and prior data.

Before 1974, AFEMS computed requirements for every nonexpendable item costing \$10 or more. The amount of data involved for low-cost items was voluminous, and in 1974 we questioned the need for worldwide visibility on such items. Also, in many cases the system computed requirements for categories involving five or fewer items. The system was overburdened by as many as 62,000 line items which fell into these categories. The system now considers value, item use, and maintenance cost to limit output products and control the level of management attention required. These changes were implemented with no major problems.

Another previous problem involved field organizations reporting invalid substitutes for authorized items. For example, chairs were reported as substitutes for rifles and a \$100 bridge resistor was reported as a substitute for a \$10,000 load bank. The system now has data on interchangeable items and identifies invalid substitutes. Our followup disclosed no significant problems in this area.

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<sup>2/</sup>"The Air Force Needs To Exercise More Control Over Equipment Authorizations" (GAO/PLRD-82-100, July 27, 1982).

SOME PRIOR PROBLEMS CONTINUE

Key feeder systems to the AFEMS data bank are not providing accurate and complete data, and certain categories of assets, such as intransit items and onboard aircraft equipment, continue to present problems. These problems hinder the Air Force's ability to compute accurate requirements.

The Air Force objective for AFEMS is to provide asset tracking from procurement to disposal. However, we examined AFEMS asset history reports for 8 of the 35 items included in our review to see if the procurement data was accurate and found blank procurement history sections in the reports. For example, the history report for 20-man liferafts showed no procurements while other AFEMS printouts showed 5,700 rafts acquired and no losses. We found separate procurement records showing that at least 42,788 of these liferafts had been procured by March 31, 1981. The dollar value of the approximately 37,000-item difference between AFEMS printouts and procurement records totaled more than \$53 million. Sacramento center officials reported that procured items frequently do not get entered into the system. AFLC officials told us an interface problem was at fault because a procurement feeder system's data was not being transferred to the AFEMS data base, causing the lack of procurement history data.

In 1974, items being shipped from one location to another were not being reflected as available assets, thus increasing computed requirements. AFEMS now considers such intransit items, but for 2 of the 35 items we checked, item managers deleted AFEMS entries because the managers did not have shipping records which corresponded to the AFEMS entries. For example, in March 1982, a San Antonio center item manager deleted 26 of 42 intransit entries for a digital analyzer because his records did not match the AFEMS report. This resulted in a reduction of reported assets by \$118,300 and a corresponding increase in the requirements computation. Item manager records, however, do not necessarily include all shipments. For example, a liquid storage tank shipped from Randolph Air Force Base during our visit was not reflected in the item manager's records at San Antonio.

Accurate and complete reports are critical to AFEMS success, but equipment replacement factors and onboard aircraft assets still are not reported consistently. Item managers manually computed equipment replacement factors in 1974 using

inaccurate or incomplete condemnation loss data. Although AFEMS now automatically computes replacement factors, loss data is still not always reported. At the repair contractor we visited, at least 19 condemnations on 3 different items were not reported for the requirements computations, thus understating computed requirements. Onboard aircraft equipment, such as liferafts and parachutes, was inconsistently reported in 1974 and continues to be a problem. None of the four bases visited was reporting the items properly. Thus, item managers could neither identify the location of items reported nor determine whether the items should be included in requirements computations.

Internal auditors and AFEMS managers continue to express concern over the lack of accurate data from feeder systems and command or base level reporting. An August 1980 Air Force Audit Agency report on communications equipment controls at 3 centers and 17 installations showed that requirements computations were not reliable because input data was inaccurate, incomplete, or outdated. Also, inventory managers were not reconciling procurements with equipment on hand as required. In January 1982, the Audit Agency reported inaccurate aircraft equipment data. A total of 238 records were reviewed. Authorized quantities in 96 records and onhand quantities in 102 records were incorrect. Operating personnel told the Audit Agency that they did not reconcile equipment data because they did not have enough time to do so and because they had little confidence in feeder data from reporting activities.

Our limited tests of command and base-level reporting confirmed internal audit results. As in 1974, assets procured directly by the Air Force Systems Command are not always reported as due-in assets, and center officials told us that item managers have little confidence in the command's reports of items in use as well. The January 1982 internal audit report also noted that 17 of 63 custodians did not conduct annual inventories. Custodians at three of the four bases we visited stated that because inventories for AFEMS equipment generally were not required, they had not performed them.

A May 1982 AFLC letter to Air Force headquarters expressed concerns about deemphasis in field-level equipment management and specifically cited decreased emphasis on making physical inventories. Air Force headquarters, however, disagreed with AFLC's use of the term "deemphasis" regarding equipment

management, saying that although physical inventories are not explicitly required, custodians are required to review equipment lists and verify that equipment is on hand. Also, in July 1982, the Air Force Director of Maintenance and Supply emphasized that all personnel must be aware of the importance of equipment management. He also noted the need for qualified supervisors and technicians and for effective local training programs.

THE MODERNIZED AFEMS DOES NOT  
YET ACCOUNT FOR ALL EQUIPMENT

The Air Force's goal for its modernized equipment management system is to provide automated management of equipment items from their entry into the inventory through their life cycles. According to Air Force and AFLC policy, transactions to be recorded include procurements, receipts, issues, inventory adjustments, deployments, repairs, transfers, and losses. AFEMS is to validate all records received, through various edit processes and reconciliation with control files; variances are to be returned to the originator. AFLC policy provides that, until the automated system has been implemented successfully, item managers must continue to account for acquired assets manually.

The automated system has not yet been successfully implemented, and item managers are not performing the manual accounting of asset history required by AFLC regulations. As part of the AFEMS modernization begun in 1974, the Air Force began an effort to reconcile reported asset data with procurement history records. Item managers had until January 1980 to reconcile data and provide a firm baseline for all items. Of the 31 tested items subject to the reconciliation at San Antonio, only 2 had recorded baselines for both total acquisitions and total losses. Although we found some additional attempts to reconcile data, they were not well documented. Validated baseline data is critical to the reconciliation process.

Nevertheless, the Air Force changed to its new system in May 1980, thus starting over by erasing past variances and accepting unvalidated input data as the system's initial baseline.

As approved by Air Force headquarters in June 1980, the requirements computation system adds all reported assets to those reported as lost or condemned to arrive at an artificial total acquired. The following data on a multimeter (NSN 6625-01-004-1294) shows how the new automated system reports artificial total acquisitions, rather than reporting variances.



<u>Date of report</u>	<u>Data reported under AFEMS</u>			
	<u>Total acquired</u>	<u>Total losses</u>	<u>Total available</u>	<u>Variance</u>
September 1979	7,200	906	5,102	1,192
March 1980	5,318	520	4,798	-
March 1981	5,141	501	4,640	-
March 1982	5,042	829	4,213	-

Such decreases in total acquisitions are clearly impossible. If the system were reconciling data properly, then AFEMS would report a variance rather than creating artificial acquisition data.

We traced the figure of 7,200 total acquired shown in the September 1979 report to procurement records, but Air Force officials told us they could not verify what had happened to the 2,158 multimeters (7,200 less 5,042) that are not accounted for in the March 1982 computation. The September 1979 report, prepared before the new system's implementation, reported total acquisitions, losses, available assets, and a variance not accounted for. Since system redesign, however, the reports show no variance to be analyzed--the automated system simply totals reported available assets and reported losses to arrive at a new "total acquired."

#### Unsuccessful attempts to reconcile equipment data

At a workshop held at AFLC headquarters in April 1982, center officials agreed the new automated system was not properly accounting for all equipment items. The San Antonio center's representatives said the center's item managers were trying to reconcile asset data, but the other centers' representatives said they were not sure what their item managers were doing.

The San Antonio center's item managers use a locally prepared asset accounting sheet to compare data from manual procurement records with data in the requirements computation system. These documents were available for 18 of the 35 items in our sample. As previously noted, however, only two had sufficient data to determine why variances had occurred.

ENCLOSURE

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At the Sacramento and Warner Robins centers, item managers do not try to account for all procured assets manually. According to requirements branch officials at Warner Robins, asset accounting procedures were discontinued with the revision of Air Force regulations in May 1980. They said that the item managers now have no written guidance on how to perform asset reconciliation.

In contrast to prior procedures, the new system provides no specific guidance beyond identifying the types of items to reconcile. Prior procedures had defined acceptable levels of accuracy for asset accounting and had identified the documents needed for reconciliations. Current procedures require reconciliation for items to be bought, budgeted, or terminated but do not specify acceptable levels of error or the baseline with which reports should be reconciled.