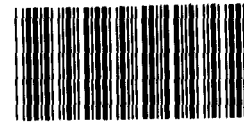


December 1992

FINANCIAL SYSTEMS

Weaknesses Impede Initiatives to Reduce Air Force Operations and Support Costs



148061





B-248208

December 1, 1992

The Honorable Richard B. Cheney
The Secretary of Defense

Dear Mr. Secretary:

This report discusses three initiatives to improve the Air Force's control over the costs of reparable parts, aviation fuel, and depot operations. We assessed whether Air Force financial systems provide F-15 aircraft managers with the tools they need to better account for and more efficiently manage these costs. We concluded that the systems and associated financial management controls have adversely affected the Air Force's ability to clearly identify and manage the cost of operating its weapons systems in the past and will impede managers' abilities to manage and reduce these costs under the initiatives. The report contains recommendations to the Secretary of the Air Force to improve the accuracy and availability of cost data for decisionmakers at the aircraft wing and depot management levels.

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 no later than 60 days after the date of this 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 this report.

We are sending copies of this report to the Chairmen of the Senate and House Committees on Appropriations and Armed Services; the Director, Office of Management and Budget; the Secretary of the Air Force; and other interested parties upon request.

Please contact Nancy R. Kingsbury at (202) 275-4268 or David M. Connor at (202) 275-7095 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix II.

Sincerely yours,

Nancy R. Kingsbury
Director
Air Force Issues

David M. Connor
Director
Defense Financial Audits

Executive Summary

Purpose

The Department of Defense has a number of initiatives under way that are intended to reduce its costs of operations. One initiative, the Defense Business Operations Fund, involves giving managers greater visibility over their costs. In April 1991, GAO testified before the Subcommittee on Readiness, House Committee on Armed Services, that neither the Department of Defense nor the Congress was aware of the total support costs of operating military components, such as Air Force fighter wings.¹ GAO stated that the Fund, if supported by adequate financial systems, could enable the Department to identify support costs and, by so doing, the Department would be better able to control and reduce such costs as the size of the military forces decline. The Air Force has related initiatives under way to reduce operations and support costs by giving wing commanders greater financial responsibility over aviation fuel and reparable parts and by better aligning the cost of repair and modifications at air logistics centers with specific products, such as an F-15 aircraft. GAO examined these initiatives as they pertain to F-15 wing and depot operations to determine whether Air Force financial systems provide managers, including those at wings and depots, with the tools to better account for and more efficiently manage their operations and support costs.

Background

Over the last several years, GAO has reported that Air Force accounting and financial systems cannot produce accurate and complete operations and support costs for its weapons and, thus, the Air Force cannot use these systems to manage costs or report to the Congress the cost of operating its primary aircraft unit, a wing. Examples of aircraft operations and support costs are the costs of salaries for military and civilian personnel, aviation fuel, aircraft spare parts, and aircraft depot maintenance.

Financial accountability for most F-15 aircraft operations and support costs resides with Air Force headquarters organizations and the major commands. To better manage its costs, the Air Force plans to transfer accounting and financial management control for aviation fuel and reparable parts (items that can be repaired for less than the cost of a new item) to aircraft wings, which receive accounting support from the bases where they are located. Under its initiatives, the Air Force will provide funds to wing commanders to purchase fuel and reparable parts from the Defense Business Operations Fund, a revolving fund established in November 1991 to consolidate existing revolving funds and five other

¹Defense's Planned Implementation of the \$77 Billion Defense Business Operations Fund (GAO/T-AFMD-91-5, Apr. 30, 1991).

activities. Funds for fuel were provided on a test basis to wings at 12 bases. Wings are scheduled to start receiving funds for reparable parts in fiscal year 1993.

One objective of the fund is to provide better visibility, at all levels of management, of the total costs of operation and support activities. The fund is not intended to make a profit or incur a loss but rather to recover from customers the costs incurred in providing goods and services. According to the Department of Defense, a revolving fund also provides an opportunity to relate costs to outputs or products and can lead to more cost-effective decisions about how to produce the output or product. Because aircraft depot maintenance facilities already operate as revolving funds and have cost accounting systems, the costs-to-output concept, or unit cost initiative, is being applied at these facilities. For example, the Warner Robins Air Logistics Center, which is primarily responsible for F-15 aircraft modifications (paid for with aircraft procurement funds) and repair (paid for with operations and maintenance funds), has been directed by the Air Force Logistics Command to accumulate accurate costs of labor, materials, and overhead by aircraft. The Center is to use those costs to evaluate its operations and establish fixed prices on a unit cost basis for various categories of future work on specific F-15 aircraft.

Results in Brief

The Air Force does not have accounting systems in place to accumulate and account for all operations and support costs applicable to an aircraft wing. The Air Force manages wing operations and support costs to ensure that budget allotments are not exceeded. Although the Air Force has a centralized operations and support cost data collection system to help identify and manage the cost of operations, the data collected by the system are not sufficiently accurate, timely, or comprehensive for this purpose.

The Air Force's efforts to better manage the cost of aviation fuel, reparable parts, and depot maintenance and repair are being adversely affected by a lack of accurate and complete cost information. Although wings may save money as a result of their actions, the systems do not provide wing commanders with the detailed information needed to make informed decisions on parts repair and fuel conservation, nor do they provide the Air Force with the data needed to evaluate the results of the fuel savings test.

The financial systems that support F-15 repair and modifications at the Warner Robins Center do not contain accurate cost information, primarily

because of internal control weaknesses. Without accurate and complete information, the F-15 manager cannot adequately manage costs; ensure that the prices set for F-15 repair work are accurate; ensure that repairs are charged to operations and maintenance funds and modifications are charged to aircraft procurement funds, as required; or ensure that the F-15 program supports the underlying premise of the revolving fund, which is to break even.

Principal Findings

Financial Systems Do Not Identify Wing's Operations and Support Costs

Most of a wing's expenses that are directly related to flying operations, such as military pay and aviation fuel, are funded through various accounts that (1) are centrally managed by Air Force headquarters or major commands and (2) do not relate expenditures to specific wings. Although the Air Force's Visibility and Management of Operations and Support Costs system was established to produce data that could be used for controlling the cost of operations, its data are not sufficiently accurate, timely, or detailed for this purpose. As a result, the Air Force cannot accurately report to the Congress what it costs to operate an aircraft wing, nor can the Air Force effectively manage the operational costs of these units as it has no basis for establishing efficiency goals and standards or accurately measuring performance.

Financial Systems Do Not Fully Support Savings Initiatives

The Air Force plans to give wing commanders financial responsibility for efficiently managing funds for aircraft reparable parts in fiscal year 1993 and tested a similar concept for aviation fuel. According to Air Force officials, the parts and fuel initiatives would motivate wing commanders to make more economical repair decisions and conserve aviation fuel because wing commanders (1) would have to pay for these commodities from wing operation and maintenance funds and (2) could use savings from budgeted amounts for other wing requirements. In anticipation of savings under the parts initiative, the Air Force reduced its estimated fiscal year 1993 reparable parts budget by approximately 10 percent, or \$262 million. Eventually, the Air Force expects to reduce its costs for fuel as the wings' savings are reflected in reduced budgets.

These efforts are impeded, however, because the Air Force's financial management systems do not provide cost information on aircraft reparable parts or timely, complete, and accurate information on aviation fuel usage

by wing. Consequently, the Air Force could not establish wing budgets for these commodities based on wings' previous usage. Because the Air Force did not have accurate historical fuel consumption for test wings, it did not have a good baseline against which to measure the wings' performance during the test. Moreover, according to Air Force officials, the systems do not provide wing commanders with the detailed information needed to make informed decisions on (1) the relative cost-effectiveness of alternative parts repair and (2) fuel conservation.

**Weak Financial Controls
Adversely Affect F-15 Depot
Operations**

Financial management systems at the Warner Robins Air Logistics Center did not provide accurate cost data on repairing and modifying individual F-15 aircraft, primarily because of weak internal controls. For example, the standard labor hours used to bill for repair work were not reconciled to approved technical orders, and questionable material charges were not investigated and corrected. Because of the weaknesses, excessive standard labor hours were used to bill and budget for modification work, resulting in (1) overcharges of about \$3.6 million to aircraft procurement funds during fiscal year 1991, which the depot later refunded, and (2) overstated budgets for the installation of modifications by \$15.7 million, which the depot has agreed to reduce. Also, the F-15 repair program incurred a loss of about \$8.7 million. Moreover, material charges for individual aircraft were incorrectly charged to overhead instead of to specific jobs, as required by depot cost accounting procedures. F-15 program officials at Warner Robins agreed to take action on the weaknesses and have initiatives under way to identify the reasons for the loss.

Recommendations

GAO makes a number of recommendations in chapters 3 and 4, primarily to improve the accuracy and availability of cost data for decisionmakers at the wing and depot management levels.

Agency Comments

In commenting on a draft of this report the Department of Defense generally agreed with the findings, concurred with all of the report's recommendations, and provided further explanations about their views (see app. I). The Department described actions being taken to correct internal control weaknesses identified at Warner Robins Air Logistics Center. However, the Department did not agree, in all cases, with our conclusions or with the perceptions or implications they believe the report might convey. For example, the Department said that the report should give more recognition to the fact that it has taken, and continues to take,

actions to reduce costs and improve financial systems, but it provided insufficient information on its corrective actions to allow an evaluation of their effectiveness. We have incorporated the Department's comments and made changes to the report where appropriate.

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Abbreviations

GAO	General Accounting Office
O&S	Operations and support
VAMOSC	Visibility and Management of Operating and Support Costs

directed by the Air Force Logistics Command to accumulate accurate costs for labor, materials, and overhead by aircraft and use those costs to evaluate the efficiency of its operations and establish fixed prices on a cost-per-unit basis for future work on specific F-15 aircraft.

How Revolving Funds Operate

The Department of Defense has for years used revolving funds to provide various services and supplies to its operating components. Although revolving funds are modeled after commercial business operations, they are intended to break even—neither make a profit nor incur a loss—by recovering from customers the costs of providing goods and services. Within the Department there are basically two types of revolving funds: industrial funds and stock funds. Industrial funds are designed to provide services, such as aircraft repair, whereas stock funds provide supply items, such as aircraft fuel.

A revolving fund and its customers maintain a buyer-seller relationship. For example, the stock fund for reparable parts will sell the parts to wing commanders, who will pay for them with funds they have been allotted from the operations and maintenance appropriation. Revenues from the sales of stock fund goods are to be used to replenish the fund's inventory.

Prior GAO Observations on the Defense Business Operations Fund

In April 1991, we testified before the Subcommittee on Readiness, House Committee on Armed Services, that neither the Department of Defense nor the Congress was aware of the total support costs of operating military components, such as Air Force fighter wings.³ We stated that the Defense Business Operations Fund, if supported by adequate financial systems, could enable the Department to identify and more fully accumulate support costs for military components. We stated that by identifying these support costs the Department would be better able to control and reduce them as the size of the military forces declines. We further stated that the initiative could increase the incentives and tools to manage existing resources with greater efficiency by identifying the total cost of operations and highlighting the cost implications of decisions by managers.

Although we supported the Department's efforts to determine the full cost of support operations, we believed that the Department could not operate the Defense Business Operations Fund in a businesslike manner. For example, the Department had little specific documentation on the policies

³See GAO/T-AFMD-91-5, Apr. 30, 1991.

Wing, Langley Air Force Base, Virginia; Luke Air Force Base, Arizona; Seymour Johnson Air Force Base, North Carolina; and the Warner Robins Air Logistics Center, Warner Robins Air Force Base, Georgia.

To assess how the Air Force fuel accounting system supports the fuel savings initiative, we analyzed daily and monthly fuel reports to verify the accuracy of the data and to determine if the accounting system could provide data (1) to establish budgets against which to measure the results of the fuel initiative and (2) to assist wing commanders in conserving fuel. Also, we reviewed the fuel initiative test plan and discussed with officials from Air Force headquarters, the Tactical Air Command, wings, the Air Force Cost Analysis Agency, and the Accounting Center how the plan would be implemented and how test results would be evaluated.

Similarly, we reviewed the Air Force's implementation plans for the repairable parts initiative and reviewed selected aspects of wing-level accounting systems to assess how the systems could support the initiative. We discussed with Tactical Air Command and wing officials how they expected to reduce repairable parts costs under the plan. Also, we reviewed selected aspects of the wings' repair procedures and discussed with wing officials cost information available to make economical repair decisions.

To assess the Warner Robins Air Logistics Center's implementation of the cost-per-output concept, we examined applicable Air Force and Center policies and procedures for industrial fund accounting at depot repair facilities. We also reviewed applicable records that show how F-15 cost data are accumulated for management purposes. To verify the accuracy of the cost data, we attempted to verify labor, material, and overhead costs accumulated on four F-15 aircraft that had completed periodic depot maintenance and system modifications during fiscal year 1991. When problems were uncovered, we reviewed additional aircraft to determine the extent of the problems. We also discussed with F-15 Financial Management and Supply directorate officials how cost information is used in budgeting and pricing depot work.

We conducted our review from April 1991 through early March 1992 in accordance with generally accepted government auditing standards.

Chapter 2
Air Force's Financial Systems Do Not Clearly
Identify Wings' Operating and Support Costs

maintenance appropriation and, like wing allotments, is controlled to ensure that it is not exceeded. However, depot costs, such as the cost of some repair parts that are common to several types of aircraft and the cost of common maintenance facilities, are not identified with specific wings or even specific types of aircraft repaired at the depot.

Table 2.1 shows the largest F-15 O&S cost items by appropriation and where appropriated or allotted funds are controlled.

Table 2.1: Largest Operating and Support Cost Items

Budget appropriation category	Controlled by		
	Air staff	Major commands	Fighter wings
Operation and maintenance ^a			
Aviation fuel	X		
Depot maintenance		X	
Depot level reparable ^b		X	
Consumable supplies		X	X
Civilian pay	X	X	X
Base operating support		X	X
Real property maintenance		X	X
Communications		X	X
Military compensation			
Military pay	X		
Personnel acquisition and training	X		
Permanent change of station	X		
Aircraft procurement			
Modifications and installation	X		
Replacement support equipment		X	
Other procurement			
Training munitions		X	
Missile procurement			
Other missiles	X		
Spares and replacement parts	X		
Other support	X		

^aMore than one Air Force organization may control a portion of the operations and maintenance funds allotted for certain cost categories.

^bIn fiscal year 1993 wings will control funds allotted for depot level reparable.

A small part of the O&S costs for an F-15 wing is managed by wing commanders. Figure 2.1 shows the relative portions of major O&S costs for

Limitations of Air Force's Centralized O&S Data System

Concerned about the magnitude of weapon systems' O&S costs, the Office of the Secretary of Defense directed the military services in May 1984 to develop and maintain data collection systems that would identify O&S costs by individual weapon systems. The directive stipulates, among other requirements, that the data collection systems are to

- provide visibility of O&S costs for use in cost analyses,
- provide visibility of critical maintenance and support costs in sufficient detail to promote the cost-conscious design and management of new weapon systems and systems already operational,
- provide visibility of O&S costs so that they may be managed to reduce and control life-cycle costs,
- reduce the time for collecting O&S cost data, and
- improve the validity and credibility of O&S cost estimates.

The directive further requires the military services to use existing systems to collect and allocate cost information to be included in the cost data collection systems. In response to the directive, the Air Force established a centralized system—Visibility and Management of Operating and Support Costs. However, the data collected by the system are not sufficiently accurate, timely, or comprehensive to meet the directive's requirements.

We discussed the limitations of the Air Force's centralized system in our January 1991 report on F-15 O&S costs. Specifically, we stated that the system

- does not provide timely data (some data are more than a year old when produced);
- excludes some weapon systems; and
- collects and processes unvalidated data from other information systems, even though some of the systems are known to produce inaccurate data.

Need for Improvements to Air Force's Accounting and Financial Systems Reported Previously

Over the last several years, we have reported on weaknesses in the Air Force's ability to account for and manage O&S costs and have recommended that the Departments of Defense and the Air Force improve their cost accumulation systems for weapon systems. For example, in February 1990, we reported that the Air Force's financial systems did not

Conclusions

Because the Air Force does not accumulate O&S costs by wing and its centralized cost collection system is not adequate for this purpose, the Air Force cannot report to the Congress the cost of operating its primary aircraft operating unit, a wing, or the cost implications of specific force structure changes. Moreover, without accurate wing O&S cost data, Air Force managers, including wing commanders, lack a basis for establishing efficiency goals and standards against which to measure performance.

Agency Comments and Our Evaluation

The Department of Defense stated that even though Air Force accounting systems do not accumulate and identify by wing all of the associated operating and support costs, reasonable estimates of costs are available for decisionmakers. We recognize that reasonable estimates of some costs may be available to decisionmakers. Our point is that the Air Force has indicated a need to better control O&S costs at the wing level. Without timely, accurate, and more complete wing O&S data, wing commanders and other decisionmakers lack the information they need to control costs through analysis and comparison of operating and support cost data and related estimates.

The Department also stated that current systems do accumulate cost data and allow the establishment of efficiency goals for those funds that are directly allocated to wing commanders for their operations. The primary exceptions are funds used for aviation fuel and depot equipment maintenance. Further, the Department stated that efficiency goals and efficiencies can be, and often are, measured in terms other than dollars. We understand that efficiency goals can be measured in terms other than dollars; however, cost is the underlying basis for assessing efficiency and for establishing goals that represent the most efficient use of resources.

The Department recognized that, regardless of the quality of the current effort, there are always opportunities for improvements. The Department stated that it has adopted standard Department of Defense-wide systems in selected areas and continues to review other areas for the selection of standard systems. Additionally, the Department stated that it has taken, and continues to take, actions to improve the financial systems. The Department stated that while the ultimate Corporate Information Management system could be years away, it is aggressively pursuing enhancements to current operations and is not merely waiting for future systems to be implemented.

Financial Systems Do Not Fully Support Aircraft Repairable Parts or Fuels Initiatives

The Air Force plans to give wing commanders financial responsibility for controlling and efficiently managing funds for aircraft repairable parts in fiscal year 1993 and has been testing a similar concept for aviation fuel. According to Air Force officials, the parts and fuel initiatives would motivate wing commanders to make more economical repair decisions and conserve aviation fuel because wing commanders (1) would have to pay for these commodities from wing operation and maintenance funds and (2) could use savings from budgeted amounts for other wing requirements. In anticipation of savings under the parts initiative, the Air Force reduced its estimated fiscal year 1993 repairable parts budget by approximately 10 percent, or \$262 million. Eventually, the Air Force expects to reduce its costs for fuel as the wings' savings are reflected in reduced budgets.

These efforts are impeded, however, because the Air Force's financial management systems do not provide cost information on aircraft repairable parts or timely, complete, and accurate information on aviation fuel usage by wing. Consequently, the Air Force could not establish wing budgets for these commodities based on wings' previous usage. Moreover, according to Air Force officials, the systems do not provide wing commanders with the detailed information needed to make informed decisions on (1) the relative cost-effectiveness of alternative parts repair and (2) fuel conservation, nor, in our opinion, do they provide the Air Force with data needed to evaluate the results of the fuel savings test.

Financial Systems Do Not Fully Support the Repairable Parts Initiative

Wing commanders have been responsible for maintaining the readiness of their aircraft and managing parts to ensure that aircraft are ready to perform missions. To effectively execute the additional responsibility of managing budgets for these parts in fiscal year 1993, wing commanders will need reliable cost data to assist in decision-making. Moreover, Air Force Logistics Command officials will need reliable cost data to ensure that decisions at the wing level are cost-effective for the Air Force as a whole.

Parts Repair and Billing Process

Currently, wings receive repairable parts from the depot free of charge. According to Air Force officials, as aircraft parts become worn, fail, or are scheduled for maintenance, they are tested at wing maintenance facilities to determine the extent of problems. Technical orders instruct wing maintenance personnel on whether parts may be repaired at wing maintenance facilities or must be repaired at the depot. Wing maintenance personnel may request authorization from the depot to repair parts

personnel identified a switch on a microwave processor that they were not allowed to replace on one type of radar transmitter but were allowed to replace on another. Authorizing the wing to repair this part would mean that the depot would not have to replace the processor and the annual requirements for the part would be reduced. Wing personnel estimated that acquiring the switch rather than the entire microwave processor would result in annual savings of over \$3 million. This request for wing repair authority has been approved by the depot.

Furthermore, when wing commanders seek authority to repair items, the depots will need to determine whether repair is more economical for the depot or the wing. To make this determination, the depot will need to analyze comparable and relevant costs associated with wing and depot repair. However, Air Force officials said that all relevant costs for wing level repair are not readily available, and necessary cost comparisons cannot easily be made. For example, wing overhead costs associated with maintaining repair facilities are not allocated to repair costs and would not be readily available for cost benefit analyses. As a result of excluding such costs as wing overhead in the analysis, managers may erroneously conclude that it is cheaper to repair items at the wing when it may be more costly.

Financial Systems Do Not Fully Support the Fuel Savings Initiative

The Air Force's fuel initiative would provide wings with funds to pay for aviation fuel previously paid for by Headquarters, Air Force. In October 1991, the Air Force began a test of the initiative to determine whether (1) base accounting systems could accurately track and account for fuel used and (2) wing commanders could save fuel if given the incentive of using the savings from fuel funds for other operational requirements. The Air Force plans to use the test results to determine whether the initiative should be implemented throughout the Air Force. The test was conducted at 12 bases during a 6-month period. The Tactical Air Command was granted an extension of the test period for the two bases it had involved in the test for an additional 6 months.

The Air Force established wing fuel budgets for the test based on command averages by type of aircraft.¹ Because the wings have various missions that affect fuel consumption, Air Force Cost Analysis Agency officials planned

¹For example, the Air Force computed the average amount of fuel used per flying hour for F-15E aircraft in the Tactical Air Command and applied that average to the number of flying hours allocated to the F-15E wing to determine the number of gallons needed. It then applied the standard cost per gallon to the results to develop the budget.

summary. According to a Center official, as a result of an error in a standard computer program, the daily fuel transactions were attributed to the wrong base.

Some bases were also being charged for fuel for aircraft types that were not assigned to them. For example, 71,547 gallons of fuel were shown as being issued to Luke Air Force Base F-16B aircraft, but the base had none of those aircraft. Although the Center is required to check the data to help ensure that bases are charged only for fuel for aircraft that are stationed at those bases, the aircraft list included 43 types of aircraft that were not assigned to the test bases. As a result, about 300,000 gallons of fuel were charged to the 12 test bases in July 1991 for seven aircraft types not assigned to them. According to a Center official, the aircraft list is not always immediately updated to reflect transfers of aircraft types from bases in order to allow for processing of late fuel transactions. However, in some cases, aircraft had been transferred from certain bases for over a year, and the list had not been updated.

Manual Procedures Are Cumbersome

The Air Force directed the test bases to establish procedures for keeping records of fuel issued to their aircraft. Under these procedures, pilots operating at locations other than their home base were required to report to their home base weekly fuel received at other locations. The Air Force believed these procedures are needed so the bases can compile timely and accurate information on the status of available fuel funds. However, if accounting systems are not improved, these procedures would have to be continued beyond the test period in order to implement the initiative.

The bases are required to reconcile their information with the fuel bills received from the Accounting Center. When there are discrepancies, the bases are required to resolve them with the fueling location identified in the billing.

According to Air Force officials, fuel usage data is needed by individual aircraft to analyze consumption and identify potential savings. However, the test plan did not specifically require the test bases to gather or analyze the data in this manner. One of the two test bases we visited was not summarizing or analyzing fuel usage data by aircraft. Instead, it was recording fuel usage by squadron.

Although wing commanders are expected to save fuel, the Air Force, according to a Tactical Air Command official, has not provided guidance to

The manual procedures established at the wings to keep track of fuel issued to their aircraft are cumbersome and are designed to collect data that essentially duplicates information collected by the Air Force's fuel accounting system. Although wings need to ensure that the bills they receive are correct, it appears that the wings' manual procedures would be needed only for exceptions if the fuel accounting system provided accurate, timely, and sufficient detailed data on fuel consumption.² Moreover, by having reliable data in the centralized accounting system, the Air Force could compare fuel consumption patterns of various wings.

Recommendations

We recommend that the Secretary of the Air Force direct

- the Air Force Comptroller to develop guidance to assist wing commanders in collecting and analyzing (1) data on wings' costs to repair parts and (2) fuel usage data by specific aircraft and
- the Commander, Air Force Logistics Command, to implement controls to help ensure the fuel accounting system provides accurate, timely, and sufficiently detailed data to analyze fuel consumption patterns.

Agency Comments and Our Evaluation

The Department provided detailed comments on each of the cost-saving initiatives discussed in this chapter.

Repairable Parts Initiative

The Department of Defense stated that wing, not depot, managers should determine whether items authorized for wing-level repair should be repaired at the wing or returned to the depot. Further, the Department stated that the costs of depot repairs are readily available to the wing commander. Beginning in fiscal year 1993, wing managers will have available standard prices, forecast acquisition costs, costs of repair parts, and other depot repair-related costs in the Stock Number User Directory. Also, the Department stated that wing-level repair costs for any item can be estimated from bench check results, historical labor and material consumption data from the Consolidated Aircraft Maintenance System, current labor rates, and the experience of maintenance managers. Recognizing that systems to accumulate overhead costs do not exist presently, the Department emphasized that overhead costs are not a significant factor in the analyses needed to determine whether to perform

²An exception could be for fuel obtained at non-Air Force installations because the consumption data are delayed until bills are received from the installations.

providing such information under its Visibility and Management of Operation and Support Costs system (as discussed in ch. 2), we would encourage the Air Force to provide the cost information the wing commanders need to successfully implement the initiative.

Aviation Fuel Savings Initiative

The Department stated that the Air Force began capturing and retaining home station fuel consumption data at the beginning of the fuel test. The Department concluded that the data reporting errors we identified at Nellis Air Force Base had no impact on the fuel consumption baseline. Further, the Department said the error identified at Luke Air Force Base and the erroneous data compilation problem were fixed in system software prior to initiating the test. We do not agree that the errors we identified at Nellis Air Force Base had no impact on the fuel consumption baseline. As discussed in this chapter, the office responsible for evaluating the results of the fuel initiative planned to use historical home station fuel consumption data as a baseline against which to evaluate test results. This was not possible because of the compilation problem. The correction of the problems prior to the test did not resolve the problem of providing accurate historical home station data as a baseline against which to evaluate test results.

The Department also stated that the Air Force fuel initiative, whereby wings pay for fuel previously furnished without charge, provides a financial incentive to save on fuel consumption and to ensure that the fuel usage and charge data are accurate and complete. We noted in this chapter that this is the concept on which the initiative is based and which the test sought to substantiate. However, due to the problems with the baseline, the test would be inconclusive as to whether or not the test bases saved fuel.

Finally, the Department stated that comparisons of fuel consumption can be made in total. Such comparisons could not previously be made at the wing level partially because fuel was funded centrally, rather than solely because the financial system had shortcomings. We agree that with adequate financial systems, funding aviation fuel at the wing level could facilitate comparisons of the cost of wings' aviation fuel. However, our point was that the Air Force could not evaluate the results of its test of this decentralization concept because its existing financial system was not compiling historical base level data as it was intended to do. Therefore, the Air Force did not have accurate historical consumption data by wing to compare to consumption data developed during the test.

the Multi-Stage Improvement Program, an avionics enhancement that began in fiscal year 1987 and is scheduled to be completed by fiscal year 1997. The enhancement can take over 9,000 hours per aircraft to install.

Erroneous Billing of Aircraft Procurement Funds

Air Force policy requires that labor hours for processing tasks common to both maintenance and modification, such as removing aircraft fuel and wings, be recorded as a maintenance expense and charged to the Center's operations and maintenance funds. Also, according to Center officials, the standard labor hours charged for the installation of aircraft modifications are not to exceed the hours specified in approved technical orders. However, in numerous instances, common processing tasks were being charged to the Multi-Stage Improvement Program and were incorrectly funded by the Center's aircraft procurement funds. Also, the standard labor hours charged for that modification exceeded those in approved technical orders. Consequently, \$3.6 million was erroneously billed to aircraft procurement funds during fiscal year 1991.

- The labor hours for common processing tasks for F-15A-D aircraft were charged improperly as modification costs. These tasks totaled over 1,900 hours and cost as much as \$124,000 per F-15A aircraft. In fiscal year 1991, the F-15 directorate overbilled aircraft procurement funds by about \$2.9 million because of this practice.
- The standard labor hours billed for installing the modification on F-15C and D aircraft exceeded the hours authorized in the technical orders. This resulted in excess billings of as much as 1,559 hours and \$99,199 for F-15D aircraft. In fiscal year 1991, the F-15 directorate overbilled aircraft procurement funds by about \$700,000 for excess standard labor hours.

The overbillings occurred because of weak financial management controls. Operating procedures require the F-15 directorate to identify processing tasks common to maintenance and modification and eliminate them from the total standard labor hours for the modification. The revised hours are to be used to bill for the modification. However, bills were prepared based on the total standard labor hours for the modification, including the common tasks. The errors occurred because controls were not adequate to ensure that F-15 personnel prepared the bills from the revised labor hours.

Aircraft procurement funds were improperly charged for standard labor hours in excess of those specified in technical orders because the financial system from which billing documents were prepared contained excessive standard labor hours for installing the modification on F-15C and D

In some instances a job order included materials that exceeded requirements for an aircraft. For example, 15 wing pylon assemblies and 6 data transfer modules were ordered for one F-15 aircraft, even though only four pylon assemblies and one module are required for the F-15. Because the material charges exceeded the requirements, all the charges appeared in suspense listings. Eventually, because these charges were not corrected in the specified time, they were transferred to overhead. Neither F-15 nor Center supply officials could explain why the materials ordered exceeded aircraft requirements.

After we notified F-15 directorate officials in December 1991 that material suspense listings were not being reviewed and corrected, they told us they planned to begin reviewing the suspense listings.

Financial Systems Do Not Provide Information Needed to Explain Losses

The F-15 directorate estimates that it incurred an \$8.7 million loss in fiscal year 1991. Moreover, F-15 directorate officials said that they have had a problem with accurately budgeting the overhead rate for several years. For example, directorate officials said that for fiscal year 1991, the actual production overhead rate was \$22.83 per hour, or about 43 percent over the budgeted rate of \$15.98 per hour. According to F-15 officials, the directorate does not have the information needed to fully understand the reasons for these losses or the high production overhead, but it has two principal initiatives under way to identify the reasons.

First, F-15 officials are concerned that the operating losses could reflect, among other things, inaccurate labor standards for the installation of the Multi-Stage Improvement Program. The standard labor hours are the length of time it should take to perform a given task. A loss could occur if actual labor hours are greater than the standard hours that are used to bill customers. In July 1991, the F-15 directorate awarded a contract, currently valued at \$1.4 million, that provides for a study to validate the standard labor hours for this modification. According to F-15 officials, the study results should be known by about April 1992.

Second, on April 30, 1991, the F-15 directorate requested the Center's financial management directorate to track the costs associated with an F-15 aircraft undergoing modification and repair work to identify the reasons for the high production overhead costs. In making this request, the F-15 directorate acknowledged the difficulty in tracing labor, material, and overhead costs. At the completion of our review in December 1991, the

-
- future year budgets for the Multi-Stage Improvement Program are based on standard labor hours that have been validated and adjusted for common processing tasks.

Agency Comments and Our Evaluation

While the Department agreed that the cited weaknesses existed, it stated that the problems have been corrected. Additionally, it said that the problems cited appeared to stem largely from a lack of compliance with existing Department of Defense guidance rather than from inadequate financial systems. The Department provided insufficient information on the nature of its corrective actions to allow us to evaluate the effectiveness of those actions or to determine if they paid appropriate attention to improvements in the system of internal controls.

GAO DRAFT REPORT - DATED MAY 26, 1992
(GAO CODE 392598) OSD CASE 9085

"FINANCIAL SYSTEMS: WEAKNESSES IMPEDE REDUCTIONS OF
AIR FORCE'S OPERATIONS AND SUPPORT COSTS"

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

FINDINGS

- **FINDING A: Initiatives By The DoD To Reduce Operations And Support Costs.** The GAO cited testimony it presented in April 1991 (GAO/T-AFMD-91-5, OSD Case 8684), in which the GAO stated neither the DoD, nor the Congress, was aware of the total support costs of operating military components, such as Air Force fighter wings. The GAO reported that the GAO testimony supported the DoD efforts to determine the full cost of support operations, and stated that the Defense Business Operations Fund, if supported by adequate financial systems, would enable the DoD to identify support costs and be better able to control and reduce those costs. The GAO also testified, however, that the DoD could not operate the Fund in a businesslike manner. As examples, the GAO reported that (1) the DoD had little documentation for governing the Fund, (2) the DoD financial systems could not provide reliable cost information, and (3) many of the systems had serious internal control weaknesses.

The GAO reported that the DoD has a number of initiatives underway intended to reduce operations and support costs, one being the Defense Business Operations Fund. The GAO explained that the Fund was established in November 1991, and consolidated existing revolving funds and five other activities. The GAO noted that an objective of the Fund is to give managers greater visibility over their costs. The GAO reported that to better manage its costs, the Air Force will provide wing commanders with budgets for reparable parts and fuel so that (1) the commanders can more efficiently manage the funds, and (2) the Air Force will have a more accurate accounting of wings' operations and support costs.

The GAO reported that the DoD maintains that the use of revolving funds will also provide an opportunity to relate costs to outputs or products, and lead to more cost effective decisions about how to produce the output or product. According to the GAO, since aircraft depot maintenance facilities already operate as revolving funds and have cost accounting systems to relate costs to output, the cost-per-

costs. For example, as noted by the GAO, the Air Force plans to give wing commanders financial responsibility for controlling and efficiently managing funds for aircraft reparable parts in fiscal year 1993, and is testing a similar concept for aviation fuel. In addition, the Department is expanding existing reimbursement practices to provide for full reimbursement of base support costs on a Department wide basis. Base support costs, many of which previously were provided "free" by host installations, will be identified to, and reimbursed by, the organization receiving and benefiting from the support. Full reimbursement for base support costs will provide increased cost visibility by organization and provide managers with the cost information needed to better achieve their mission.

The composite wing concept and changes in funding and accountability for communications, weather, and audio visual areas will place more financial management responsibility in the hands of wing commanders.

- **FINDING C: Limitations Of The Air Force Centralized Operations And Support Data System.** The GAO reported that in 1984, the Office of the Secretary of Defense directed the Services to develop and maintain data collection systems that would identify operations and support costs by weapon systems. According to the GAO, the Directive stipulated that the data collection systems were to (1) provide increased visibility of operations and support costs, (2) reduce the time for collecting cost data, and (3) improve the validity and credibility of the cost estimates.

The GAO reported that, in response to the Directive, the Air Force established a centralized system--the Visibility and Management of Operating and Support Costs. According to the GAO, however, in a January 1991 report (GAO/NSIAD-91-81, OSD Case 8541), the GAO cited limitations of the Air Force centralized system. The GAO explained that the system (1) does not provide timely data, (2) excludes some weapon systems, and (3) collects and processes unvalidated data from other information systems.

The GAO concluded that, because the Air Force does not accumulate operations and support costs by wing (Finding B), and because the centralized accounting system is not adequate for that purpose, the Air Force cannot report to the Congress the cost of operating a wing, or the cost implications of specific force structure changes. The GAO further concluded that, without accurate operations and support cost data, Air Force managers, including wing commanders, lack a basis for establishing efficiency goals and standards

Information Management system could potentially be years away, the Department is aggressively pursuing enhancements to current operations and is not content merely to wait for future systems to be implemented.

- **FINDING E: Financial Systems Do Not Fully Support The Repairable Parts Initiative.** The GAO reported that the Air Force plans to give wing commanders financial responsibility for controlling and efficiently managing funds for aircraft reparable parts in FY 1993. The GAO observed that to effectively execute the budget management responsibility, wing commanders will need reliable cost data to assist in decision making, while Air Force Logistics Command officials will need reliable data to ensure that decisions at the wing level are cost effective.

The GAO reported that under the current system, wings receive reparable parts from the depot free of charge. The GAO explained that the reparable parts initiative would not change the repair process, except the wings would pay for replacement of reparable parts, in lieu of receiving them free. According to the GAO, the Air Force expects the initiative to save money, because the wings will have incentives to achieve greater efficiencies.

The GAO observed that under the initiative, wing commanders will be faced with decisions concerning which parts to propose for wing-level repair and how best to use available resources. The GAO pointed out, however, that wing officials said the financial systems do not provide all the relevant data needed to identify and compare the costs and savings of repairing various parts. The GAO discussed an example where savings have been achieved by repairing parts at the wing, instead of the depot.

The GAO also pointed out that, when wing commanders seek authority to repair items, the depots will need to determine whether repair is more economical for the depot or the wing. To make that determination, the GAO stated the depot will need to analyze the costs associated with wing and depot repair. According to the GAO, however, Air Force officials said all the relevant costs for wing level repair, such as wing overhead costs, are not readily available. The GAO observed that excluding such costs in cost benefit analyses could lead managers to erroneously conclude it is cheaper to repair items at the wing, when it may actually be more costly. (pp. 3-5, pp. 19-21/GAO Draft Report)

DoD RESPONSE: Partially concur. It is wing, not depot, managers who should determine whether items authorized wing level repair should be repaired at the wing or returned to

Now on pp. 4-5, 21-23.

- **FINDING F: Financial Systems Do Not Fully Support The Fuel Savings Initiative.** The GAO reported that the Air Force fuel initiative would provide wings with funds to pay for aviation fuel, previously paid for by the Air Force Logistics Command. The GAO found that in October 1991, the Air Force began a test of the initiative to determine whether (1) the base accounting systems could accurately track and account for fuel used, and (2) wing commanders could save fuel if given the incentive of using savings from fuel for other operational requirements.

According to the GAO, the Air Force established wing fuel budgets for the test based on command averages by aircraft. The GAO reported that plan was to use an average fuel consumption rate by aircraft type to develop consumption for the test period, and then compare the projected with actual consumption during the test to evaluate fuel savings. The GAO pointed out, however, that the Air Force realized the base fuel usage data were not sufficiently accurate to provide a reliable basis for measuring wing performance.

The GAO reported that, to account for fuel usage, receipts for refueling aircraft are collected at the base where the fueling occurred or at the aircraft's home base, summarized monthly, and reported to the Defense Finance and Accounting Center. The GAO explained that the Center is responsible for comparing fuel consumption data received against criteria to ensure data accuracy, and also maintain a fuel usage data base for budgeting and billing purposes.

The GAO further explained that, under the fuel initiative, the Center is to bill each test base for fuel issued to its aircraft, and the bases are then to reconcile the bills against manual records to ensure the charges are accurate. However, the GAO found problems with the Accounting Center fuel usage data, and discussed several examples. In addition, the GAO determined that the manual procedures established by the test bases to keep track of fuel issued are cumbersome and are not consistently applied.

Overall, the GAO concluded that the Air Force initiatives may result in some savings, because of the actions of the wings. The GAO also concluded, however, that because the Air Force does not have a good baseline to measure wing performance during the fuel test, and does not have accurate historical fuel consumption for test wings, the test results will be inconclusive as to whether or not the wings saved fuel. The GAO observed that the manual procedures would not be needed if the fuel accounting system provided accurate, timely, and sufficient detailed data on fuel consumption. The GAO further observed that having reliable data in the centralized accounting system would enable the Air Force to

The GAO found that financial management systems at Warner Robins did not provide accurate cost data on repairing and modifying individual F-15 aircraft, primarily because of weak internal controls. The GAO reported, for example, that the standard labor hours used to bill for repair work were not reconciled to approved technical orders, and questionable material charges were not investigated and corrected. The GAO found that as a result of the weaknesses, excessive standard labor hours were used to bill and budget for modification work, resulting in (1) common processing tasks being charged to the Multi-Stage Improvement Program and overcharges of about \$3.6 million to aircraft procurement funds during FY 1991, and (2) overstated budgets of \$15.7 million for the installation of modifications.

The GAO also found that the financial systems do not provide information to explain losses. According to the GAO, the F-15 directorate estimated it incurred a \$8.7 million loss in FY 1991. The GAO reported, however, that F-15 officials said the directorate does not have the information needed to fully understand the reasons for the losses. In addition, the GAO found that material charges for individual aircraft were incorrectly charged to overhead, instead of to specific jobs as required by depot cost accounting procedures.

According to the GAO, program officials at Warner Robins agreed to take action on the weaknesses and have initiated action to identify the reasons for the loss. The GAO concluded that better financial management controls and more accurate cost data are essential if the F-15 directorate is to better control modification and repair costs. The GAO also concluded that the internal control weaknesses identified indicate that the DoD does not have sufficiently reliable accounting systems and controls in place to achieve the objectives of the Defense Business Operations Fund. (pp. 3-5, pp. 25-29/GAO Draft Report)

DoD RESPONSE: Partially concur. While the Department agrees that the cited weaknesses formerly existed, those problems have now been corrected. Additionally, it should be noted that the identified problems appear to stem largely from a lack of compliance with existing DoD guidance, rather than from inadequate financial systems.

The Air Force Materiel Command financial management systems are well suited to unit cost management. Deficiencies in budgeting and cost allocation noted in the GAO report have been corrected through systems updates and procedural improvements. As a result: (a) labor, material, and overhead costs now are correctly allocated and properly budgeted, (b) those improvements contributed to successful implementation of the DoD unit cost initiative within Air

Now on pp. 5, 30-33.

While the Department agrees that internal control weaknesses did exist, those weaknesses preceded, and are not a result of, the establishment of the Defense Business Operations Fund. The objectives of the Defense Business Operations Fund are being achieved and the Department continues to work to strengthen its accounting systems and eliminate weaknesses.

* * * * *

RECOMMENDATIONS

- **RECOMMENDATION 1:** The GAO recommended that the Secretary of the Air Force direct the Air Force Comptroller to develop guidance to assist wing commanders in collecting and analyzing (1) data on wings' costs to repair parts, and (2) fuel usage data by specific aircraft. (p. 24/GAO Draft Report)

DoD RESPONSE: Concur. Guidance on collecting and analyzing data on wing repair part costs is due to be implemented in full on October 1, 1992. In addition, under the direction of Headquarters, United States Air Force, the Air Force Standard Systems Center and the San Antonio Air Logistics Center have initiated a Rapid Application Development accounting module to capture off-station refueling data at the aircraft tail number level, and to interface that data with the Defense Finance and Accounting Service billing process. A prototype system is scheduled for testing in August 1992. The system is forecasted to be fully operational throughout the Air Force by April 1, 1993. Implementation will insure that all fuel issue data, whether to on or off station aircraft, is captured at the tail number level. Guidance on collecting and analyzing consumption data under the new system will be disseminated to all users prior to full implementation.

- **RECOMMENDATION 2:** The GAO recommended that the Secretary of the Air Force direct the Commander, Air Force Logistics Command, to implement controls to help ensure the fuel accounting system provides accurate, timely, and sufficiently detailed data to analyze fuel consumption patterns. (p. 24/GAO Draft Report)

DoD RESPONSE: Concur. Implementation of the new fuels accounting module by April 1, 1993, will provide the necessary data to analyze fuel consumption patterns.

Now on p. 27.

Now on p. 27.

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Introduction

The Air Force spends billions of dollars annually on the operations and support (O&S) of its weapons systems. Examples of aircraft O&S costs are the costs of military and civilian personnel, aviation fuel, aircraft spare parts, and aircraft depot maintenance. The Air Force's fiscal year 1991 budget of \$91 billion included an estimated \$43 billion for O&S.

Both the Congress and the Department of Defense have sought to reduce O&S costs through improved oversight and control. Reducing costs and efficiently managing operations have become more important in the current environment of tight budgetary constraints and impending force reductions. Currently, the Air Force is reducing its operations by consolidating and/or eliminating wings, consolidating several major commands, and implementing cost reduction efforts. Reliable cost information is crucial to the Congress and the Air Force to ensure that the right decisions are made and to measure the impact of those decisions.

Initiatives to Reduce Costs

The Department of Defense has a number of initiatives under way that are intended to reduce O&S costs. One initiative, the Defense Business Operations Fund, involves giving managers greater visibility over their costs. The fund, established in November 1991, consolidated existing revolving funds and five other activities. Under revolving funds customers pay for the goods and services they are provided. For example, the Air Force is planning to require commanders of F-15 fighter wings¹ to pay for the reparable parts² and aviation fuel they use in their operations. Currently, the Air Force pays for and provides aviation fuel and reparable parts to fighter wings free of charge. Under the initiatives, the Air Force will provide its wing commanders with budgets for these items so they can more efficiently manage these funds and so the Air Force will have a more accurate accounting of wings' operations and support costs.

According to the Department, the use of revolving funds will also provide an opportunity to relate costs to outputs or products and lead to more cost-effective decisions about how to produce the output or product. Because aircraft depot maintenance facilities already operate as revolving funds and have cost accounting systems intended to relate costs to output, the cost-per-output, or unit cost, initiative is being applied at these facilities. For example, the Warner Robins Air Logistics Center, which is primarily responsible for F-15 aircraft modifications and repair, has been

¹A fighter wing of F-15s usually consists of 3 squadrons of 24 aircraft each.

²A reparable part is an item that, if damaged, can be repaired for less than the cost of a new item.

and procedures for governing the fund. Also, its financial systems could not provide reliable cost information, and many of these systems had serious internal control weaknesses.

Agency Comments and Our Evaluation

The Department of Defense stated that there is extensive documentation for governing the Defense Business Operations Fund. Additionally, while the Department recognizes that weaknesses exist in the Department's financial systems, it does not believe that those weaknesses prevent the successful operation of the Fund. Further, according to the Department, it has taken, and continues to take, appropriate actions to correct the weaknesses. Furthermore, notwithstanding any remaining weaknesses that might exist in the Department's financial systems, the Department believes that use of the Defense Business Operations Fund and unit cost initiatives offer the best financial management tools available to the Department to increase cost visibility and to reduce support costs.

At the time of our testimony, the Department had few policies in place to govern the Fund, and many of its financial systems could not provide reliable cost information. Although we did not evaluate the status of the Fund's implementation as part of this review, we have work under way to evaluate the implementation of the Fund.

Objectives, Scope, and Methodology

Because the Defense Business Operations Fund concept is being implemented at the Air Force wing and depot levels through various related initiatives, we assessed whether Air Force financial systems provide managers at these levels with the tools to better account for and more efficiently manage their operations and support costs. Specifically, we looked at the aviation fuel and reparable parts initiatives at F-15 aircraft wings and the cost-per-output concept at the Warner Robins Air Logistics Center, the principal depot facility for F-15s. We selected F-15 aircraft wings and Warner Robins because of our prior work on the aircraft's O&S costs.⁴

To accomplish these objectives we interviewed officials and reviewed documents at the Air Force Cost Analysis Agency, Crystal City, Virginia; Air Force headquarters, Washington, D.C.; the Air Force Finance Center, Denver, Colorado; the Tactical Air Command and 1st Tactical Fighter

⁴DOD Budget: Air Force's Ability to Track F-15 Operating and Support Costs (GAO/NSIAD-91-81, Jan. 2, 1991).

Air Force's Financial Systems Do Not Clearly Identify Wings' Operating and Support Costs

Air Force headquarters or major commands are financially accountable for most O&S costs applicable to F-15 aircraft wings. The Air Force manages wing O&S funds to ensure that budget allotments are not exceeded but does not compile all the costs of a specific wing's operations. The Air Force established a centralized O&S cost data collection system called Visibility and Management of Operating and Support Costs to help identify and manage the cost of operations; however, the data collected by the system are not sufficiently accurate, timely, or comprehensive for this purpose.

The Departments of Defense and the Air Force have initiated actions to better manage O&S costs and improve and streamline accounting and financial systems. The Defense Business Operations Fund, if properly implemented and supported by reliable financial management systems, could provide greater visibility and control of O&S costs. Moreover, the Department of Defense's Corporate Information Management project, a long-range effort to standardize and improve financial and accounting systems, could lead to the implementation of systems that will provide better cost data for decision-making. However, the Corporate Information Management improvements are being implemented in phases and are not expected to produce standard systems for at least several years.

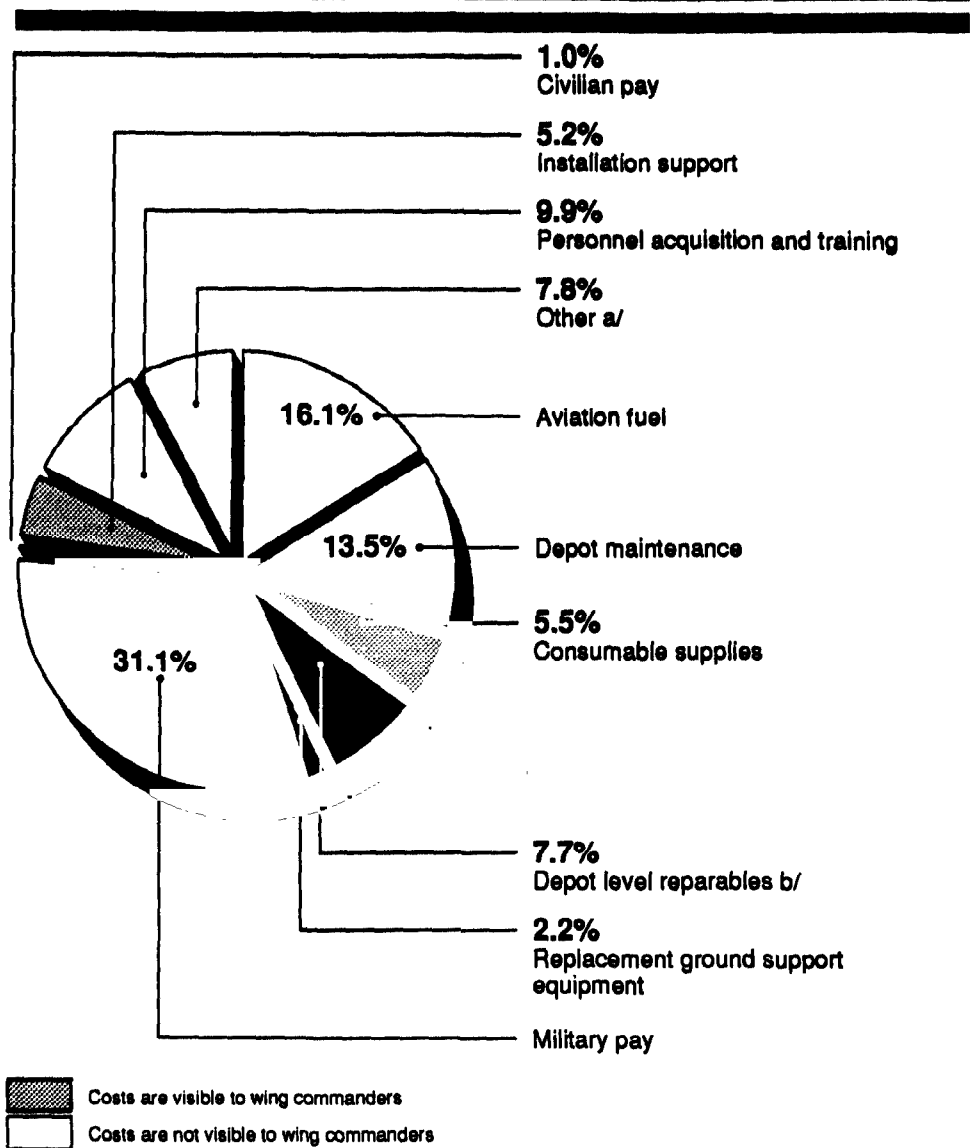
Dispersed Accountability Complicates Identification of Wings' O&S Costs

The funds to pay for F-15 wings' O&S costs are managed by various Air Force organizations, which generally focus on controlling these funds to ensure that they do not exceed spending limits imposed by appropriations or allotments. Few costs are related to specific wings, and Air Force managers therefore do not know the total costs of operating a wing. For example:

- F-15 wings are allotted funds from the operation and maintenance appropriation to pay civilian employees' salaries. Wings closely account for these funds to ensure that expenditures do not exceed the wings' allotments. Military pay, which is charged against the military personnel appropriation, is accounted for and controlled at Air Force headquarters. Because the Air Force's accounting systems do not accumulate military pay by wing, this operating cost is not identified to specific wings.
- F-15s are maintained by wing personnel at the bases and at depots such as the Warner Robins Air Logistics Center. F-15 wings are allotted funds from the Air Force operations and maintenance appropriation to pay for their maintenance. Wings keep track of these funds to ensure that they do not spend more than they are allotted. The cost of depot maintenance is charged against the Center's allotment from the Air Force operation and

an average wing of F-15C aircraft. The shaded areas represent the costs that are managed by wing commanders.

Figure 2.1: Major O&S Costs for an Average Wing of F-15C Aircraft



^aIncludes permanent change of station, training munitions, class IV modifications, and medical costs, most of which are not visible to wing commanders.

^bIn fiscal year 1993, the wings will control funds allotted for depot level reparables.

Source: GAO developed figure from information provided by the Air Force Cost Analysis Agency.

provide managers with complete and reliable information on either the acquisition or operating costs of Air Force aircraft or missile systems.¹ We recommended, among other things, that the Secretary of the Air Force direct his Chief Financial Officer to accumulate and report weapon systems' actual costs, which include operating costs. Also, in February 1992, we reported that the Air Force's cost accounting systems should provide information for three broad purposes: (1) internal reporting to managers for use in planning and controlling routine operations; (2) internal reporting to managers for use in nonroutine decisions, such as choosing bases for closure or eliminating an aircraft wing; and (3) determining the cost of products and services for reporting the results of operations.² Such systems are needed to provide reliable cost information to the Congress in order to oversee operations and assess alternative actions.

Standardized Accounting
Systems Not Expected Until
Mid- to Late 1990s

The Departments of Defense and the Air Force have initiatives under way to standardize and improve their financial management and accounting systems, but these systems are not expected to be fully implemented until the mid- to late 1990s. Specifically, the Corporate Information Management project, which was adopted by Defense in 1989, is the Department's long-term strategy to improve finance and accounting operations. Overall objectives of the project are to provide standardization, improve the quality and consistency of data in various information systems, and reduce the number of redundant systems. However, Defense officials estimate that designing, developing, and implementing these systems will take years. We stated in our February 19, 1992, report that while the Department of Defense has placed substantial emphasis on its Corporate Information Management project for correcting financial problems, aggressive actions are needed to achieve improvements now. For example, closer adherence to established internal control procedures would result in more accurate and reliable financial data. We said that these actions can be accomplished currently, independent of the project.

¹Financial Audit: Air Force Does Not Effectively Account for Billions of Dollars of Resources (GAO/AFMD-90-23, Feb. 23, 1990).

²Financial Audit: Aggressive Actions Needed for Air Force to Meet Objectives of the CFO Act (GAO/AFMD-92-12, Feb. 19, 1992).

Chapter 2
Air Force's Financial Systems Do Not Clearly
Identify Wings' Operating and Support Costs

While we have not evaluated what the Department of Defense is doing to aggressively pursue enhancements to current operations, the Air Force Audit Agency, under the Chief Financial Officers' Act, is conducting an audit that should evaluate the effectiveness of corrective actions the Air Force is taking in response to our February 19, 1992, report. Also, the Department said it has taken actions to correct the weaknesses in internal controls we identified at Warner Robins Air Logistics Center.

designated for depot repair if they can demonstrate that they have the repair capability and that sending the parts to the depot will affect readiness or aircraft safety because the part is not readily available. Maintenance personnel may also request repair authority if they can demonstrate that they can perform the work for less cost.

The repairable parts initiative would not change the repair process except that the wings would pay for replacement of repairable parts in lieu of receiving them free of charge. The Air Force expects the initiative to save money because the wings will have incentives to achieve greater efficiencies. For example, if wing commanders have to pay for repairs, the Air Force expects the wings to repair more parts themselves. Fewer parts will then be needed in transit between the wing and depot, which could result in reduced inventory requirements and procurement costs. Tactical Air Command officials said that wing commanders will routinely try to obtain authority to fix parts that, according to technical orders, must be repaired at the depot.

Financial Systems Could Not Be Used to Develop Repairable Parts Budgets

Because Air Force financial systems do not identify the cost of wings' repairable parts, the Air Force did not have such cost data to develop the wings' budgets. As an alternative, the Air Force developed a computer program that accumulates estimated charges for repairable parts sent to the depot as if the wings were paying for depot repairs. The Air Force plans to use the accumulated charges to develop budgets for the wings. However, Air Force officials anticipate that establishing reliable wing budgets for repairable parts will take several years.

Need for Data to Analyze Costs

Wing commanders will be faced with decisions concerning which parts to propose for wing-level repair and how best to use their available resources, such as personnel and facilities, to achieve economies. However, according to wing officials, the wings' financial systems do not provide all the relevant data needed to identify and compare the costs and savings of repairing various alternative parts. For example, all the costs to repair parts for which wings currently have repair authority are not readily available for analysis. As a result, wing commanders cannot readily compare savings achieved on these parts with the estimated savings that could be achieved by repairing different items.

According to Air Force officials, savings have been achieved by repairing some parts at the wing instead of the depot. For example, maintenance

to use an average fuel consumption rate by type of aircraft for each base to develop projected consumption for the test period. The officials planned to compare this projected consumption with actual consumption during the test to evaluate fuel savings. However, as a result of our work, Air Force officials realized that the bases' fuel usage data were not sufficiently accurate to provide a reliable basis for measuring the test wings' performance.

The Air Force also realized that the wings could not rely on accounting and financial systems to accurately track and account for fuel used by their aircraft. Therefore, it required wings to manually track aviation fuel used by their aircraft. Wing commanders used the manually collected data rather than the fuel accounting system to evaluate operations and save fuel.

Accounting for Aviation Fuel Usage

Aircraft are generally fueled at the wing's home base, at other bases when in transit, and in flight by tanker aircraft. A transaction receipt identifies the aircraft, the quantity of fuel issued, the aircraft's home base, and the date of the fueling. These receipts are collected at the base where the fueling occurred or the tanker's home base, summarized monthly, and reported to the Defense Finance and Accounting Center in Denver, Colorado.

The Center is responsible for comparing fuel consumption data received from the bases against certain criteria to ensure data accuracy. For example, the Center compares the monthly fuel usage summary with the type of aircraft authorized by base to ensure that a base is not charged for fuel issued to types of aircraft not assigned to that base. Additionally, the Center maintains a fuel usage data base for budgeting and billing purposes. Under the initiative, the Center was to bill each test base for fuel issued to its aircraft, and the bases were to reconcile those bills against their manual records to ensure the charges were accurate.

Problems With the Accounting Center's Fuel Usage Data

We performed limited tests of the Center's fuel usage data and found errors. For example, the April 1991 monthly summary for Nellis Air Force Base showed that the base provided approximately 987,000 gallons of fuel to Langley Air Force Base F-15A aircraft. However, daily transactions from Nellis show that only 12,403 gallons of fuel were issued to Langley's aircraft. Additionally, Nellis' daily fuel transactions showed that over 940,000 gallons were issued to Holloman Air Force Base F-15A aircraft. However, no fuel was charged to Holloman aircraft in the monthly

assist them in analyzing fuel usage data. Such guidance could help ensure that fuel data is systematically gathered and evaluated. According to Air Force officials responsible for evaluating test results, some of the analyses submitted by test wings were inadequate for identifying fuel savings. The overall results of the test were not completed at the time our report was ready to issue.

However, the Air Force Audit Agency had completed a review of the test to assess the timeliness of existing aviation fuel and flying hour data supporting the test and to evaluate the adequacy and accuracy of supporting policies and procedures. The audit agency issued its draft report to management for comment in July 1992. The draft report discusses problems with the accuracy and timeliness of the test data and reports, as well as shortcomings in the existing aviation fuel accounting systems and procedures that supported the decentralized aviation fuel funding concept.

Conclusions

The Air Force's accounting and financial management systems did not have the cost data needed to establish repairable parts and fuel budgets for wings. However, the wings' efforts to gather data on repairable parts sent to the depot and on fuel issued to their aircraft could provide the information needed to establish the budgets. Moreover, the information could begin to identify the cost of these items by wing.

The Air Force does not have a good baseline against which to measure the wings' performance during the fuel test because the Air Force used command average fuel consumption figures to establish budgets—figures that could be above or below the wings' actual fuel consumption. Moreover, the Air Force does not have accurate historical fuel consumption data for test wings because the accounting system did not summarize base-level data correctly. Hence, while wing commanders may implement fuel conservation measures, the test results will be inconclusive as to whether or not wings saved fuel.

The initiatives may result in some savings because of wings' actions. However, wing commanders will not have readily available all associated costs for on-base repair to compare with the estimated costs of repairing different items to determine which are most economical to repair. Also, they may not analyze fuel consumption data by individual aircraft, although Air Force officials believe such analyses are needed to identify savings.

repairs at the wing level. The Department concluded that the relative costs for wing-level repair or replacement decisions could be compared to determine the tradeoffs.

In these comments, the Department addresses decisions concerning items currently authorized for wing-level repair. However, Tactical Air Command officials had advised us that under the initiative, wing commanders would routinely be looking for authorization to repair parts they are not currently authorized to repair. As noted by the Department in its comments and as discussed in this chapter, these decisions would be made by depot level managers and would require wing-level data, including overhead. Further, we recognize that wing commanders can make cost comparisons, and we give an example where savings were achieved. However, our point is that wing-level information is not readily available from Air Force accounting systems, and the Air Force's ability to implement this initiative is therefore impeded. In our report, we did not address the depot information to be made available in fiscal year 1993. We were primarily concerned about accounting for wing level data. However, we would encourage the Air Force to provide available information to the wings to support wing commanders' decisions.

The Department elaborated that the Air Logistics Center item management teams determine the appropriate level of repair for individual items based on facilities, equipment, and skills required and on the relative investment and operations and maintenance costs involved for each alternative. Further, the Department stated that wing managers may request a change to the level of repair for any item by submitting the proper form and providing a cost analysis and other relevant data. This is consistent with our discussion and is the basis for our concerns about the availability of information on wing costs, including overhead.

The Department noted that the Air Force builds its budgets by identifying requirements by the Mission Design Series and then at the weapon system level. The budget is not compiled or presented by wing. We discuss this point in chapter 2. Managing O&S costs at the wing level is complicated by the absence of a budgeting and accounting system that compiles or tracks most of these costs at the wing level.

The Department said that within a year, sufficient data should be collected at the Mission Design Series level to provide an adequate baseline for analysis by wing managers. We did not evaluate the status of this effort. However, to the extent the Air Force has eliminated past problems in

Weak Financial Management Controls Adversely Affect F-15 Depot Operations

The Warner Robins Air Logistics Center is responsible for modifying and performing periodic depot maintenance on most F-15s. The Air Force Logistics Command directed Warner Robins and the other logistics centers to apply the cost-per-output concept, also called the unit cost initiative, because the centers already operate as Air Force industrial funds and should have cost accounting systems to support the concept. The Air Force Logistics Command also directed the centers to prepare and charge fixed prices on a cost-per-unit basis for certain aircraft repair work.

Because of weaknesses in financial management controls, the Center's financial management systems, including cost accounting systems, do not contain sufficiently accurate information on labor, material, or overhead costs to support the unit cost initiative. As a result of these weaknesses, excessive labor costs were used to bill and budget for modification work. Consequently, the F-15 organization, called the directorate, overbilled aircraft procurement funds by about \$3.6 million during fiscal year 1991 and over-budgeted for modifications by about \$15.7 million for fiscal years 1992 through 1997. After we brought the erroneous billings to the attention of the F-15 officials, the bills were corrected. Further weaknesses in financial management controls also caused material charges for individual aircraft to be allocated to overhead.

Accounting for F-15 Aircraft Depot Operations

The Warner Robins Center established weapon systems directorates in October 1990 to better manage the modification and repair of aircraft such as the F-15. The F-15 directorate's responsibilities include acquiring and installing F-15 system modifications, planning for and performing periodic maintenance on the aircraft, improving the efficiency of operations, and establishing fixed prices for many of its aircraft depot repairs. The F-15 directorate budgeted over \$200 million for modification and repair of about 80 F-15s in fiscal year 1991.

Warner Robins performs extensive repairs of F-15A-D model aircraft as part of a periodic depot maintenance program. Work on aircraft in the program can take over 10,000 hours to complete. The depot begins its work with funding from the industrial fund. As work is completed, the industrial fund is replenished from the Center's operations and maintenance funds.

F-15 modifications are usually done concurrently with periodic maintenance. However, modifications are paid for directly from aircraft procurement funds. The most extensive modification to F-15A-D aircraft is

aircraft. F-15 officials explained that they had not reconciled the labor hours in the financial management system with the labor hours authorized by technical orders for those modifications.

After we discussed our findings, F-15 financial management officials reimbursed aircraft procurement funds by \$3.6 million. They said that they would not bill procurement funds for common processing tasks in the future. Also, Center officials told us that action would be taken to correct the excess labor hours in their financial management system to prevent future excess charges to the aircraft procurement funds.

On the basis of existing labor standards, we estimated that the Center's budget for F-15 modifications for fiscal years 1992 through 1997 was overstated by about \$27.7 million because officials had not eliminated common processing tasks from their labor hour estimates for installing the Multi-Stage Improvement Program. After we informed F-15 officials of this matter, they said they would reduce their budget, but because of increases in inflation and other charges, they estimated the overbudgeted amount to be \$15.7 million.

Weak Controls Result in Inaccurate Material and Overhead Costs

The cost of certain materials are to be accumulated separately from overhead and charged to specific aircraft. The Center's financial management systems identify questionable material charges when (1) the branch that ordered the material does not have labor charges for a job order against which the material was requisitioned, or (2) materials ordered exceed job requirements for an aircraft. Questionable material charges appear in suspense listings that are distributed to the directorates. The directorates are expected to investigate and make corrections as necessary to ensure that the materials are properly charged and removed from the listings. If these charges are not corrected and removed within a specified time, they are automatically allocated to overhead.

However, the F-15 officials who had the information needed to review the listings stated that they were not aware of the listings and corrections were thus not being made. As a result, approximately \$369,000, or about 10 percent, of certain material costs for 23 of 39 aircraft released from the Center between May and September 1991 was charged to overhead. The cost of materials was therefore understated. Also, the cost was distributed to all other jobs, making it difficult to manage and control costs.

financial management directorate had not completed its analysis of the F-15 overhead problem.

Previous GAO Audit Identified Similar Internal Control Weaknesses

In a February 1991 management letter to the Commander, Air Force Logistics Command (GAO/AFMD-91-33ML), we reported that internal controls and financial systems at the depots were not adequate to ensure the integrity of financial data. For example, we reported that internal controls were insufficient to ensure that materials were charged to appropriate jobs or limited to established job requirements. We noted that without accurate job costs, the cost of maintaining weapons systems cannot be identified and may contribute to selecting the wrong logistics alternatives. In responding to the management letter, Defense concurred with these findings and with suggested improvements.

Conclusions

The financial management systems at the Warner Robins Air Logistics Center do not provide accurate cost data on repairing and modifying individual F-15 aircraft. Without accurate cost data, the F-15 directorate cannot effectively implement the Department of Defense's unit cost initiative. Accurate cost data are also essential to ensure that all periodic depot maintenance costs are charged to operations and maintenance funds and all Multi-Stage Improvement Program installation costs are charged to aircraft procurement funds.

We believe that better financial management controls and more accurate cost data are essential if the F-15 directorate is to better control modification and repair costs.

Recommendations

To better ensure that the F-15 directorate controls its costs, accurately prices its work for the unit cost initiative, and accurately bills and budgets for future work, we recommend that the Commander, Air Force Logistics Command, direct the F-15 Weapon System Director to ensure that

- the standard labor hours used to bill for installing modifications do not include processing tasks common to modifications and periodic maintenance and do not exceed standard labor hours in approved technical orders,
- materials charged to aircraft do not exceed requirements and questionable material charges in suspense listings are investigated and corrected in a timely manner to prevent their placement in the overhead account, and

Comments From the Department of Defense



OFFICE OF THE COMPTROLLER OF THE DEPARTMENT OF DEFENSE

WASHINGTON, DC 20301-1100

AUG 3 1992

(Management Systems)

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and
International Affairs
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office Draft Report, "FINANCIAL SYSTEMS: Weaknesses Impede Reductions of Air Force's Operations and Support Costs," dated May 26, 1992 (GAO Code 392598), OSD Case 9085. The DoD partially concurs with the findings and fully concurs with the recommendations in the draft report.

The Department has taken a number of actions to reduce costs. The most significant is the implementation of the Defense Business Operations Fund. Weaknesses identified to the Defense Business Operations Fund preceded, and were not the result of, establishment of the Fund. In addition, the Department has taken, and continues to take, significant steps to strengthen and improve the operation of the Defense Business Operations Fund.

To afford proper recognition of actions the Department has taken and is continuing to take, it is suggested that the report title be revised to read "FINANCIAL SYSTEMS: Improvements Could Enhance DoD Initiatives To Reduce Air Force's Operations and Support Costs."

Detailed DoD comments on the draft report findings and recommendations are provided in the enclosure. The Department appreciates the opportunity to comment on the draft report.

Sincerely,

David N. Tiedeman
for Alvin Tucker
Deputy Comptroller
(Management Systems)

Enclosure

Now on pp. 2-3, 10.

output (also known as unit cost initiative) is being applied at those facilities. (pp. 2-3, pp. 8-10/GAO Draft Report)

DoD RESPONSE: Partially concur. The Department of Defense does, as the GAO states, have a number of initiatives underway to reduce operations and support costs. Among those initiatives are the Defense Business Operations Fund and the unit cost initiative. However, the Department does not agree that there is a significant lack of documentation for governing the fund. To the contrary, there is extensive documentation for governing the Fund. Additionally, while the Department recognizes that weaknesses exist in its financial systems, those weaknesses do not prevent the successful operation of the Fund. Further, the Department has taken, and continues to take, appropriate actions to correct the weaknesses. Notwithstanding any remaining weaknesses that might exist in departmental financial systems, use of the Defense Business Operations Fund and unit cost initiatives offer the best financial management tools available to the Department to increase cost visibility and to reduce support costs.

- **FINDING B: Dispersed Accountability For Air Force Operations And Support Costs.** The GAO reported that Air Force headquarters or major commands are financially accountable for most operations and support costs applicable to F-15 aircraft wings. The GAO explained, however, that the funds management is focused generally on controlling the funds to ensure they do not exceed spending limits imposed by appropriations or allotments. The GAO noted that few costs are related to specific wings. The GAO observed that as a result, Air Force managers do not know the total costs of operating a wing.

To illustrate the situation, the GAO discussed examples involving the accounting for military pay and depot costs. In both examples, the GAO pointed out that the accounting systems do not identify the costs by aircraft wing. The GAO also noted that only a small part of total operations and support costs for an F-15 wing is actually managed by wing commanders. The GAO concluded that the dispersed accountability complicates the identification of operations and support costs for F-15 wings. (pp. 3-4, pp. 12-15/GAO Draft Report)

Now on pp. 2-3, 14.

DoD RESPONSE: Concur. The Air Force accounting system was built to ensure financial accountability of appropriations. While it does provide other information, it does not perform mission accounting, as in the cited case of the F-15. However, initiatives are currently in progress to achieve financial accountability for most operations and support

Now on pp. 4, 17.

against which to measure performance. (pp. 3-4, p. 12, pp. 16-18/GAO Draft Report)

DoD RESPONSE: Partially concur. Although Air Force accounting systems do not accumulate and identify to a wing all of the associated operating and support costs, that does not mean reasonable estimates of costs are unavailable for decision makers. Additionally, current systems do accumulate and allow the establishment of efficiency goals for those funds that are directly allocated to wing commanders for their wing operations. The primary exceptions are aviation fuel dollars and Depot Purchased Equipment Maintenance. Further, efficiency goals can be, and often are, stated in terms other than dollars. Efficiencies can, and are, measured in other terms.

- **FINDING D: Initiatives To Establish Standardized Accounting Systems.** The GAO found that the DoD has initiatives under way to standardize and improve financial management and accounting systems. The GAO reported that the Corporate Information Management Project, adopted by the DoD in 1989, is the long term DoD strategy to improve finance and accounting operations. The GAO explained that overall objectives of the project are to provide standardization, improve the quality and consistency of data in various information systems, and reduce the number of redundant systems. The GAO pointed out, however, that DoD officials estimate designing, developing, and implementing the systems will take years.

The GAO pointed out that in a February 1992 GAO report (GAO/AFMD-92-12, OSD Case 8376-L), it stated that aggressive actions are needed to achieve improvements now. As an example, the GAO observed that closer adherence to established internal control procedures would result in more accurate and reliable financial data. The GAO concluded that, while the DoD plans to make significant improvements to the Air Force information and accounting systems by the mid to late 1990s, there are opportunities for immediate improvements to the accuracy and reliability of financial data, independent of the Corporate Information Management project. (pp. 3-4, p. 12, pp. 16-18/GAO Draft Report)

Now on pp. 2-3, 18.

DoD RESPONSE: Partially concur. The Department recognizes that, regardless of the quality of the current effort, there always are opportunities for improvement. The Department currently has adopted standard DoD-wide systems in selected areas and continues to review other areas for the selection of standard systems. Additionally, the Department has taken, and continues to take, numerous actions to improve its financial systems. While the ultimate Corporate

Appendix I
Comments From the Department of Defense

the depot. The decision is based on mission impact, current workload, skills available, relative costs, and other factors. The cost to a wing commander for having a depot repair an item is readily available to the wing commander. Wing commanders also should have sufficient actual or estimated cost data to make required cost comparisons for efforts to be done at the wing level. Overhead costs are not a significant factor in marginal cost analyses needed to determine whether to perform repairs at wing level. Although systems to accumulate overhead costs do not exist presently, it is noted that overhead costs are not significant in item repair decisions. Many overhead cost decisions are mobilization related, fixed with respect to a repair cost analysis, and therefore not relevant to the repair decision. Effective with FY 1993, wing managers will have available standard price, forecast acquisition cost, carcass value, cost of repair parts, depot repair charge and surcharge data from the Stock Number User Directory. Wing level repair costs for any item can be estimated from bench check results, historical labor and material consumption data from the Consolidated Aircraft Maintenance System, current labor rates, and the experience of maintenance managers with past repairs to the item. The relative costs for wing level "repair or replace" decisions can thereby be compared to determine necessary tradeoffs.

Decisions as to the appropriate level of repair for individual items are made by Air Logistics Center item management teams based on facilities, equipment, and skills required and on the relative investment and operations and maintenance costs involved for each alternative. Wing managers may request a change to the level of repair for any item by submitting an Air Force Technical Order Form 135 and providing cost analysis and other relevant data.

Additionally, it should be noted that the Air Force builds its budgets by identifying requirements by the Mission Design Series and then at the weapon system level. The budget is not compiled nor presented by wing.

Further, as indicated above, the essential elements of cost data, including base and depot unit repair costs, will be provided to wing managers beginning October 1, 1992. In addition, the Air Force does have systems that accumulate historical costs at the weapon system Mission Design Series level. The Mission Design Series-level data will provide an accurate basis for analysis by wing managers, since repair costs are not expected to vary greatly from wing to wing. Within a year, sufficient data should be collected to provide an adequate baseline for that purpose.

Now on pp. 4-5, 23-26.

compare fuel consumption patterns of various wings.
(pp. 3-5, p. 19, pp. 21-24/GAO Draft Report)

DoD RESPONSE: Partially concur. The Air Force Logistics Command does not pay for aviation fuel. Fuel is billed to the Fuels Stock Fund at each Air Force Base. The stock fund sells to and bills the customer's Operations and Maintenance appropriation or transportation business area of the Defense Business Operations Fund (formerly the Airlift Service Industrial Fund).

Prior to initiating the test of fuel funding at base level, fuel consumption was captured at the Mission Design Series and major command levels for all aircraft. The data was used to develop hourly fuel consumption factors by Mission Design Series for budgeting. There was no requirement to capture consumption by aircraft home station. The Air Force began capturing and retaining home station consumption data at the beginning of the test. Therefore, the data reporting errors at Nellis Air Force Base had no impact on the fuel consumption baseline. Moreover, the error identified at Luke Air Force Base and the erroneous data compilation problem were fixed in system software prior to initiating the test.

It also should be noted that the Air Force fuel initiative, whereby wings pay for fuel previously furnished without charge, provides a financial incentive to save on fuel consumption not heretofore present, and to assure that fuel usage and charge data is accurate and complete.

Further, comparisons of fuel consumption can be made in total. That such comparisons previously could not be made at the wing level was due, in part at least, to the fact that such fuel was funded centrally, rather than at the wing level. The inability to make the comparisons was not solely because of financial system shortcomings.

- **FINDING G: Weak Financial Controls Affect F-15 Depot Operations.** The GAO explained that the Warner Robins Air Logistics Center is responsible for modifying and performing periodic depot maintenance on most F-15 aircraft. The GAO reported that the Air Force Logistics Command directed Warner Robins and other logistics centers to apply the cost-per-output concept (also called the unit cost initiative), because the centers already operate as Air Force industrial funds and should have cost accounting systems to support the concept. In addition, the GAO reported the Command also directed the centers to prepare and charge fixed prices on a cost-per-unit basis for certain aircraft repair work.

Force depot maintenance, and (c) the Air Force Materiel Command (formerly Air Force Logistics Command) financial systems are well suited to achieve the objectives of the Defense Business Operations Fund.

During Fiscal Year 1991, fixed prices were developed for F-15 programmed depot maintenance and optional work, including modifications, performed in conjunction with the programmed depot maintenance. During that process, modification tasks common to the programmed depot maintenance were identified and eliminated. Annual updates to F-15 fixed prices should ensure that duplications do not occur in the future.

At the time of the audit, F-15 modification costs were overstated by \$15 million. However, common processing tasks were eliminated from the FY 1993 budget submitted to the Congress. Under unit costing, those common tasks also will be eliminated from future budgets.

Although procedural problems may have resulted in improper allocation of material by aircraft, Air Force Materiel Command repair cycle and consumable asset control systems insured that only one-for-one replacements occurred and that total material consumed did not exceed total requirements. Moreover, the Air Force Materiel Command Exchangeable Production System front end edit program now insures that material ordered matches material required for each job. In addition, Headquarters, Air Force will request the Air Force Materiel Command to direct all Air Logistics Centers to ensure that (a) labor expended on processing tasks is recorded promptly to preclude direct material being charged to overhead, and (b) material is not ordered against any aircraft in excess of actual requirements for that aircraft.

Correction of the procedural and systemic deficiencies outlined herein, as well as completion of a transition from a functional to a weapon system organizational structure, provide a basis for more accurate budgeting of overhead rates at Warner Robins Air Force Base.

The Warner Robins job order cost system ensures that costs for modifications and repair work reflect actual work performed, by tail number. Correction of the procedural and systemic deficiencies outlined herein ensures that data is accurate. Air Force depot maintenance is conducted on a businesslike buyer-and-seller basis, with fixed and stabilized pricing, which passes all costs of operations to customers. The net result of this business activity is reflected in an annual profit and loss, which results in continuing pricing adjustments that ensure viable operations.

- **RECOMMENDATION 3:** To better ensure that the F-15 directorate controls its costs, accurately prices its work for the unit cost initiative, and accurately bills and budgets for future work, the GAO recommended that the Commander, Air Force Logistics Command, direct the F-15 Weapon Systems Director to ensure that:

- The standard labor hours used to bill for installing modifications do not include processing tasks common to modifications and periodic maintenance, and do not exceed standard labor hours in approved technical orders;
- Materials charged to aircraft do not exceed requirements, and questionable material charges in suspense listings are investigated and corrected in a timely manner to prevent their placement in the overhead account; and
- Future year budgets for the Multi-State Improvement Program are based on standard labor hours that have been validated and adjusted for common processing tasks. (pp. 29-30/GAO Draft Report)

Now on pp. 34-35.

DoD RESPONSE: Concur. By September 1, 1992, Headquarters, United States Air Force, will request the Air Force Materiel Command to ensure that Air Logistics Centers--(1) eliminate common processing tasks from the unit costs and standard hours established for billing depot level modifications, (2) closely monitor the Exchangeable Production System front end edit and suspense listings in order to properly charge material consumed by job order, and (3) validate that depot level modification unit costs and standard hours developed for future budget submissions include no common processing tasks.

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