March 2000

DEFENSE TRANSPORTATION

More Reliable Information Key to Managing Airlift Services More Efficiently

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# Contents

## Letter

<table>
<thead>
<tr>
<th>Appendixes</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix I: Customer Charges and Costs for 24 Airlift Missions by Mission Type Fiscal Year 1997</td>
<td>22</td>
</tr>
<tr>
<td>Appendix II: Problems Encountered With Air Mobility Command Systems or Data</td>
<td>25</td>
</tr>
<tr>
<td>Appendix III: Comments From the Department of Defense</td>
<td>26</td>
</tr>
</tbody>
</table>

## Tables

| Table 1: Special Assignment Airlift Missions | 22 |
| Table 2: Exercise and Contingency Missions | 22 |
| Table 3: Channel Passenger and Channel Cargo Missions | 23 |

## Figures

| Figure 1: Customer Charges as a Percent of Recorded Cost for Selected Fiscal Year 1997 Missions | 8 |
| Figure 2: Airlift Operating Deficits and Excess Air Force Airlift Readiness Supplemental Funds (fiscal years 1996 through 1998) | 13 |

## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOD</td>
<td>Department of Defense</td>
</tr>
</tbody>
</table>
B-283567

March 6, 2000

The Honorable Herbert H. Bateman
Chairman
The Honorable Solomon P. Ortiz
Ranking Minority Member
Subcommittee on Military Readiness
Committee on Armed Services
House of Representatives

The U.S. Transportation Command provides global air, land, and sea transportation services for all defense components in order to maintain a mobilization capability in time of peace and to meet national security needs in time of war. Its air transportation services are provided through the Air Force Air Mobility Command. In fiscal year 1997, the Air Mobility Command accounted for about 63 percent ($2.5 billion) of the total reported operating costs ($4.0 billion) of the U.S. Transportation Command, with most of the remaining 37 percent ($1.5 billion) representing the operating costs of the Army Military Traffic Management Command and the Navy Military Sealift Command for land and sea transportation, respectively.

The Department of Defense’s (DOD) guidance provides that the Air Mobility Command’s airlift costs associated with its peacetime mission (operations and maintenance) are to be funded through a transportation working capital fund. Under the working capital fund concept, defense customers place orders with the Air Mobility Command, which then provides airlift transportation services using its own or contracted resources. In turn, the Air Mobility Command charges customers (for example, defense agencies) for these services. Customers predominantly use funds from their operations and maintenance appropriations to reimburse the Command, which the Command uses to fund its operating costs. In contrast, operating costs for the Command’s wartime preparation mission (training and readiness) are to be directly funded using appropriated funds. Whether funded through a working capital fund or direct appropriations, the accounting standards (e.g., Statement of Federal Financial Accounting Standards Number 4) require federal agencies to account for full costs through appropriate cost methodologies. To reliably assess the economy and efficiency of its operations, the Command must have accurate cost information. Without these data, it does not have a
sound basis for setting prices, determining the amount of appropriations that is needed to fund its wartime readiness mission, or identifying areas where cost reductions are needed.

As you requested, we reviewed airlift rates charged to customers. Specifically, we determined (1) the extent to which the Air Mobility Command has reliable financial information for managing airlift transportation services and (2) the factors affecting efficient cost control of airlift services. We used the Command’s cost data to perform our review.¹

Results in Brief

The Air Mobility Command lacks accurate cost information to set rates and assess the economy and efficiency of its operations. Specifically, the Command does not have accurate data, reliable records, and effective systems to determine (1) its operating costs for airlift services and (2) the amount to charge its customers and/or to request from direct appropriations (the Air Force Airlift Readiness Account) for training and readiness costs. Its efforts to accumulate reliable financial information are hampered by nonintegrated systems and processes that contain numerous errors and inconsistencies. For example, our review of 22 airlift missions showed that most customer charges did not reflect accumulated costs, and that the Command recovered only 74 percent of its costs for providing the service. Moreover, the results of our most recent financial statement audit work at DOD highlight long-standing problems accumulating and reporting the full costs associated with all the Department’s working capital fund operations. Without reliable information, customers cannot verify airlift charges.

DOD financial management policy and practices create disincentives to control and recover full costs. First, because the Command receives a payment that is intended to cover any shortfalls between revenue collections and full costs, there is little incentive to either control costs or recover the full costs of its peacetime airlift operations. Absent accurate cost data, the Command does not have a sound basis for estimating the amount it needs from direct appropriations for payment. Second, the requirement to use rates that are generally competitive with commercial billing rates shifts the focus from determining full costs of operations.

¹While this data was the only data available to perform our analysis, our work raised questions as to its accuracy. (See Scope and Methodology section of this report for more detail.)
Consequently, an emphasis is placed on estimating commercial rates rather than developing the full costs of missions. The Department recognizes the need for reforms in the Defense-wide working capital funds. However, the Defense Working Capital Funds Task Force is not addressing the transportation working capital fund issues that are noted in our report.

We are recommending that DOD and the Air Mobility Command improve the Command's financial information for airlift services and provide better incentives to reduce costs and operate more efficiently by (1) correcting data errors, (2) improving information systems, and (3) developing an annual airlift operations cost reduction goal.

Background

The U.S. Transportation Command is the single manager for all defense transportation services for providing global land, sea, and air transportation. The Transportation Command is also the financial manager for all defense transportation in peace and war and is responsible for managing the transportation working capital fund.

In 1991, DOD established the Defense Business Operations Fund to focus management's attention on managing the cost of the Department's support operations. Activities operating within this fund were to charge customers rates for the provision of goods and services so that the activities could recover the full cost of goods and services, including administrative and operational expenses. In 1996, DOD announced the elimination of the Defense Business Operations Fund. At the same time, in place of the Defense Business Operations Fund, the Department established defense component working capital funds. In establishing the working capital funds, DOD stressed that the funds retain the essential purposes for which the Defense Business Operations Fund was established. Some purposes were full cost recovery and increasing the visibility of total cost of the Department's support structure.

The Command sets the rates it charges customers for airlift transportation according to the type of airlift mission and the amount of total recorded costs it is attempting to recover. The five types of missions are (1) channel (regular route) passenger, (2) channel (regular route) cargo, (3) special assignment airlift, (4) exercise, and (5) training. Channel cargo and channel passenger missions are defined as frequently traveled routes, such as from Dover, Delaware, to Ramstein, Germany, and back. They are typically well-established worldwide routes. Charter missions are used when the customer leases the entire aircraft. These include special assignment airlift,
Joint Chiefs of Staff exercise and contingency missions, and training missions. Special assignment airlift missions are infrequently traveled routes that are used when the Air Mobility Command must meet (1) customer airlift requirements for special pickup or delivery at points other than established routes or (2) requirements involving special considerations because of the number of passengers involved, the weight or size of the cargo, the urgency or sensitivity of movement, or other factors. Joint Chiefs of Staff exercise and contingency missions are chartered aircraft in support of a military exercise or an emergency. Training missions provide pilots, aircrews, and airborne troops the necessary training to meet technical proficiency warfighting qualifications.

Airlift transportation rates are intended to generally cover the operating costs to provide the service. A different rate is calculated for each type of mission. The Command charges customers for channel passenger and channel cargo missions according to the number of passengers and the weight or volume of cargo. A rate slightly under the General Services Administration rate is used when the Command flies on an international airlift route for which the General Service Administration has negotiated a government rate with civil carriers. On routes where there is no government negotiated rate, the Command uses a standard rate. We could not determine, and Command officials could not tell us, when the standard rate was first set or its basis because the rate setting was not documented or recorded. We were told, however, that it was more than 5 years ago. The rate has been adjusted annually to reflect rate changes approved by the Office of the Under Secretary of Defense, Comptroller.

On special assignment airlift, exercise, and training missions, the Command charges customers for the entire aircraft by flight hour for military aircraft and by flight length (miles) and capacity used for civil aircraft. The hourly and mileage charges differ by aircraft type. Airlift rates for special assignment airlift and exercise missions are set to recover 91 percent of the Command’s recorded costs for military aircraft and 110 percent of the Command’s recorded costs for commercial aircraft. Rates for training missions are set to recover 100 percent of the Air Mobility Command’s recorded costs.

2The Statement of Federal Financial Accounting Standards No. 4 provides that while the price of a good or service does not necessarily equal the cost of the good or service, cost should be an important consideration in setting prices.
The Command's operating costs also vary by type of aircraft used to fly airlift missions and by which military service owns the aircraft used to fly the mission. All military aircraft costs are determined by flight hour. When the Command uses aircraft that were purchased through the working capital fund, its recorded operating costs incurred include an applicable portion of fixed costs and depreciation and variable hourly costs, depending on the duration of the flight and the type of aircraft. However, when the Command uses other military aircraft, such as aircraft loaned from a reserve unit that it does not own, it is charged only for the variable costs associated with the duration of flight by aircraft type, but it still charges its customers at the same hourly rate it uses for aircraft that have been purchased through the working capital fund.

The Air Mobility Command lacks accurate cost information necessary for setting rates and assessing the economy and efficiency of its operations. Specifically, the prices it charges for airlift services in most of the cases we reviewed varied from reported costs. The Command cannot be certain its charges are accurate and that all operating costs are being recovered. Further, customers are concerned about the accuracy of the prices being charged. This condition exists primarily because of the errors and inconsistencies of airlift cost data and the lack of integrated information systems for accumulating costs and calculating customer charges.

Our judgmentally selected sample of 22 fiscal year 1997 airlift missions showed that most customer charges did not reflect recorded costs. The missions we selected represent about 100 flights, three mission types, and various aircraft types. According to Air Mobility Command records, the Command did not collect enough revenue on 15 missions (68 percent) to cover its recorded costs and was reimbursed at or above its recorded cost on 7 missions (32 percent). Recorded cost recovery averaged 74 percent, ranging from 11 to 238 percent recovered, as compared to the recorded cost of providing the service. (See fig. 1 for details on each of the missions reviewed.)

3We attempted to evaluate 24 missions, but the Command could not locate the revenue records for one mission and it did not have cost records for another mission. Although the Command did not record the cost for the latter mission involving a medical evacuation, the customer was charged $144 for the service.
Most of the customers we talked to cannot critically evaluate their airlift charges because they cannot get enough information to analyze them and raised concerns about their accuracy. Working with the U.S. Transportation Command Business and Mission Control Centers, we contacted representatives of the largest Defense shipper—the Defense Logistics Agency—and three of the largest customers of defense airlift services: the Army, the Navy and the Marine Corps. Some of the customers we contacted

Customers Are Concerned About the Accuracy of Airlift Charges

Note: Missions 15 and 21 are excluded from figure 1 but are discussed in appendix I, which includes descriptions of each of the 24 missions.
told us they lack sufficient information for determining whether the charges are accurate or belong to their units. For example, a Marine Corps customer told us that the Command cannot easily research airlift charges from the original source documents; therefore, it is often unable to effectively respond to customer inquiries. According to a Marine Corps customer, when it receives airlift bills that it disputes, it must research charges at air terminal offices to try to determine the accuracy. Although several customers told us they have informed the Transportation Command and the Air Mobility Command about reconciliation problems, they have not seen any action on the Commands’ part to resolve them.

Other customers experienced different problems. For example, according to memorandums from the Commander in Chief, U.S. Atlantic Fleet, to both the Commander in Chief, U.S. Transportation Command and the Commanding Officer, Defense Accounting Office, for years Atlantic Fleet customers have received erroneous or uncertified bills for transportation that actually belong to other Navy customers. According to customer documents, these bills totaled about $17.9 million for fiscal years 1994 through 1997. Customers have returned the bills without payment. Another Navy customer told us it has received duplicate bills and incorrect bills. The incorrect bills have resulted in tying up service funds and resources in attempting to receive credit for erroneous charges.

Data Errors and System Weaknesses Contribute to Variances Between Customer Charges and Recorded Costs

The Command’s ability to calculate the various rates and to develop customer charges for airlift services is dependent on reliable and accurate data in the information systems it uses to set these rates and charges. Many of the problems in developing customer charges and reliable cost information are related to errors in accumulating the information from systems and/or the lack of integration within the systems.

Data errors and inconsistencies

In attempting to compare mission history and mission revenue records and data for the latest fiscal year available at the time of our review—fiscal year 1997—we found mismatches concerning (1) mission and aircraft identification and (2) departure and arrival dates that raised questions about which mission airlifted the cargo and passengers recorded on the revenue record. Additionally, we had difficulty identifying the customer charges for the missions reviewed because of poor record keeping and tracking. Command officials stated that system edits and information linkage changes made since 1997 should have eliminated this type of problem; however, the Command representatives who compile and publish the Command’s statistics on cargo airlifted told us that these problems
persist. Moreover, since the Command representatives rely on manual compilation of the data from separate airlift systems, they also told us that additional research is often necessary to obtain accurate passenger and cargo information.

We also found that key information systems used to accumulate flight data and develop customer rates and charges (called the Air Mobility Command History System and the Airlift Service Industrial Fund Integrated Computer System) contained unreliable and/or missing data. For example, the History System contained inaccurate payload and flying hour information and the Integrated Computer System contained inaccurate mission identifiers, aircraft tail numbers, and dates related to some of the cases we reviewed. An overview of the errors and inconsistencies found in our analysis of the systems and processes used to accumulate airlift cost and billing data is provided in appendix II.

We previously expressed concern about the reliability of the airlift mission history data, and Air Force Audit Agency reports continue to raise concerns about internal controls over customer billings.

System Weaknesses

We found that a significant barrier to computing accurate rates and charges is the lack of an integrated process to support airlift operations. The Command relies on many stand-alone systems and processes, many of which involve error-prone manual operations. Locating and relating history, cost, and revenue records is time-consuming, and the relationship between records is often uncertain or unknown. Some records are manual and others are automated, maintained on separate data systems. The systems are not linked and information cannot be shared or easily compared.

We found that airlift records are processed and stored at many locations, contributing to these inefficient practices, and making it cumbersome even for Command officials to research airlift charges. The Command maintains a mission history record, a separate record of mission revenue for each type of mission, and a separate record of mission cost for each type of mission operator, each located in different offices. Thus, in developing a methodology to reconcile recorded costs and revenue for the missions we selected, we had to interview numerous Command officials to determine the process since it is not documented.

We identified three different processes the Command uses for identifying and recording airlift costs, and seven different processes for determining the rate or amount it will charge customers for airlift services. Consequently, to evaluate and identify the total recorded costs and total revenue associated with the airlift missions, we had to access the information from a variety of sources, including five separate Air Force and Defense Finance and Accounting Service information systems. The information had to be reconciled from 13 different types of semiautomated and manual records, which were maintained at several geographically dispersed locations. We met with Air Mobility Command and Defense Finance and Accounting Service representatives to discuss issues related to missing, inaccurate, and/or inconsistent data. Command officials told us that they analyze mission cost and revenue records monthly and annually in the aggregate and do not reconcile cost and revenue records on a mission-by-mission basis. However, in its comments on this report DOD states that the Air Mobility Command is currently developing the capability to analyze cost and revenue on a mission-by-mission basis.

In our previous financial statement audit reports we have noted that DOD systems do not capture the full cost of its activities and programs. The Statement of Federal Financial Accounting Standards Number 4 requires federal agencies to account for full costs through appropriate cost methodologies. Nevertheless, the Department has long-standing problems accumulating and reporting the full costs associated with its working capital fund operations.

Disincentives to Controlling and Recovering Costs of Operations

DOD financial management policy and practices create disincentives to control and recover full costs. Moreover, the Command has little incentive to either control costs or recover the full costs of its peacetime airlift operations because it receives supplemental funding from Air Force direct appropriations to cover shortfalls between revenue collections and recorded costs. Further, absent accurate cost data, the Command does not have a sound basis for estimating how much it needs from direct appropriations. Also, the requirement to use rates that are generally competitive with commercial billing rates shifts focus away from determining full costs of operations. Commercial rates are different than the actual cost the Command experiences. Finally, while the Department

recognizes the need for reforms in the working capital fund, the Defense Working Capital Funds Task Force is not addressing these issues.

Air Force Payments to Working Capital Fund
Exceeded Recorded Operating Costs Over a 3-Year Period

DOD guidance\(^6\) directs the Transportation Command, through the Air Mobility Command, to set airlift prices that are based upon full cost recovery for peacetime airlift operations, including general and administrative support. The guidance also directs that airlift rates should be generally competitive with commercial carriers. In addition, the guidance provides that training and readiness costs, which are not always directly related to providing airlift services, should be excluded from the peacetime airlift costs and are to be funded through direct appropriations. Department policy and financial management regulations direct that training and readiness costs should be recovered by direct appropriations. In compliance with this policy and regulatory direction, the Air Force makes a yearly payment to the working capital fund. The amount of this payment is determined by calculating the difference between expected total operating costs and anticipated revenue.

The only way the Command knows how much to request for the appropriation is to determine the expected revenue shortfall and estimated airlift expenses. The Command estimates operating costs based on its military airlift and purchased commercial capacity and the infrastructure necessary to provide these airlift services in the working capital fund budget. The Command also seeks to recover past operating shortfalls and estimates the revenue it expects to recover through its rate structure. The appropriation request will total the difference among the expected operating costs, past revenue shortfalls, and the anticipated revenue. If the Command can execute its budget as planned, the annual operating result at the end of the year should have a zero balance.

The Transportation Command refers to this payment of appropriated funds in its budget submission to Congress as the Airlift Readiness Account. The Air Mobility Command estimates the amount of readiness costs through the use of a mathematical formula. The difference between customer reimbursements and total operating costs is the basis for determining the amount of appropriated funding that is needed from the Airlift Readiness Account.

The Command incurred a deficit of over $1.1 billion in the working capital fund during a 3-year period (fiscal years 1996 through 1998, see fig. 2). At the end of fiscal year 1998, payments from appropriated funds for fiscal years 1996 through 1998 exceeded the amount needed to cover the deficit by more than $54 million. The Command earmarked the excess to reduce any future appropriation request.

In response to this report, the Department stated that airlift rates during this period did not recover about $1.1 billion in costs by design and in accordance with Department policy and financial management regulation. Further, the Department stated that the airlift readiness account is established 2 years prior to the year of execution and that the amount of the account is considered to be firm once set. As such, the Department stated that normally occurring fact-of-life changes, such as unexpected changes in workload and/or number of hours flown, are normal aspects of business that impact the amount of money requested for the readiness account. Finally, it stated that these normal business changes have had a positive impact on the Air Mobility Command's operating costs and have
reduced the amount the Air Force has requested for its fiscal year 2000 airlift readiness account appropriation.

Setting Rates Commensurate With Commercial Carriers Shifts Focus From Recovering Costs of Operations

Operating the Air Mobility Command is challenging because the Command’s primary mission is to maintain readiness, yet it is expected to operate as a business activity and seek reimbursement for its services from DOD customers. Since the Command’s primary mission is to provide for training and readiness its cost for providing services is generally higher than that of commercial carriers. When the Command sets a rate, its management practices focus more on setting a commercially competitive rate than on setting a rate that would recover peacetime airlift operating costs from customers.

In general, a working capital fund activity is intended to recover its full costs of operations through customer charges. Applicable guidance states that the Command should recover 100 percent of its airlift operating costs, excluding the costs of maintaining readiness. As discussed previously, the actual costs of airlift missions are not being reliably accumulated and thus are unknown. In addition, operating airlift as a business activity is complicated because the airlift training and readiness costs associated with moving cargo and passengers cannot be easily separated and eliminated from customer charges.

The House Committee on National Security, in attempting to identify the amount needed to maintain readiness, directed the Secretary of Defense to separately identify the Transportation Command’s peacetime transportation and readiness costs. However, in March 1998 the Secretary reported that these costs could not be separated. The Air Mobility Command estimates the amount of readiness costs through the use of a mathematical formula, not by accounting for actual costs. The rates do not always cover the Mobility Command’s recorded cost of providing airlift services as a result and sometimes a customer is over- or undercharged. Consequently, the working capital fund has not been effective in enabling the Command to monitor and/or control costs.

Unreliable information has also affected the efficiency of operations. For example, revenues were relatively low on 6 of the 15 missions we reviewed.

7The House Committee on National Security is now called the House Committee on Armed Services.
because the aircraft were not filled to targeted capacity in terms of cargo and/or customers. (See app. I, which shows the extent to which the missions were flying at full capacity.) These missions were providing airlift on regularly established routes. If the Command had reliable information it could better manage its airlift services and enhance its ability to recover operating costs. In its comments on the report, DOD stated that the Transportation Command is currently developing a new advance shipping notification system that should provide more accurate airlift information and ultimately improve aircraft capacity utilization. Since this system is in development, we cannot comment on whether it will achieve the expected improvements.

DOD Task Force Addressing Overall Working Capital Fund Reform

The Department has recognized that its working capital funds are not working as intended, and it established a task force to identify potential improvements. The Defense Working Capital Funds Task Force was chartered through the Defense Reform Initiative Office. According to the Secretary of Defense, the Defense Reform Initiative is a comprehensive approach that will transform the support activities of the Department by adopting best business practices of the private sector and consolidating and streamlining organizations. The initiative is to provide a major source of annual recurring savings that can be used to help increase funding for other defense uses. The working capital reform task force is addressing customer and management concerns in a broad context. However, it is not specifically addressing the multiple processes used in the transportation working capital fund or data reliability that are significant barriers to enhancing the operations of the transportation working capital fund. Therefore, it is not clear whether the reform task force will address these issues as they pertain to the transportation working capital fund.

Conclusions

The Air Mobility Command lacks accurate cost information that is necessary to set rates and assess the economy and efficiency of its operations. Specifically, the systems do not provide accurate information and adequate cost control. Moreover, automated and manual data systems are not linked, limiting the Command’s ability to effectively accumulate cost information for the rate setting process. These weaknesses impair the Command’s ability to focus management attention on the costs of airlift operations and its customers’ abilities to critically evaluate and verify their bills.
The working capital fund concept, as implemented by the Command, is not providing the expected cost visibility to both service providers and customers. Also, key financial management practices are creating disincentives to controlling and recovering full costs. Furthermore, because of financial data and system weaknesses, the Command does not have a sound basis on which to estimate the annual amount of the direct appropriations necessary to cover the difference between revenues and cost of operations.

Finally, the Defense Working Capital Funds Task Force is not likely to address improvements that are needed in the transportation working capital fund.

Recommendations

We recommend that the Secretary of Defense direct the Commander, U.S. Transportation Command, to take action to improve the Command’s airlift financial cost information and develop annual airlift operations cost reduction goals as an incentive for improving airlift operations. Specifically, in the short term, the Command should form a team to assess and recommend ways to address data accuracy problems within its financial management systems. The team should focus on data input controls and methods for ensuring the accuracy of information accumulated from a variety of sources and locations. In the long term, the Command needs to assess the costs and benefits of developing an architecture that either integrates existing data systems or develops new systems and new methods for capturing the costs of its operations and charging its customers.

We also recommend that the Secretary of Defense direct the Defense Working Capital Funds Task Force to include the airlift portion of the transportation working capital fund in its work. The group should place particular attention to addressing ways to improve airlift cost information and the disincentives to controlling and recovering costs.

Agency Comments and Our Evaluation

The Department of Defense provided comments on a draft of this report (see app. III). DOD agreed with our recommendation to take action to improve its airlift financial cost information, but it disagreed with our assessment that key financial management practices are creating disincentives for controlling and recovering full costs. The Department believes that its current financial practices already provide incentives for
controlling and recovering full costs. Finally, DOD stated that it had complied with our recommendation that the Task Force include the transportation working capital fund in its work because the Task Force recommendations include issues that are relevant to the transportation working capital fund. DOD also provided technical comments to our report. We have incorporated those comments within the text of the report where appropriate.

We continue to believe that the availability of a funding source other than customer revenue provides a financial safety net not normally available to a business activity operating in the working capital fund and serves as a disincentive to accurately identify and manage cost. Absent accurate cost data, the Command does not have a sound basis for estimating the portion of costs allocable to mobilization and the amount needed from direct appropriations. DOD also stated that our draft report is misleading in that it implies that the Airlift Readiness Account is not subject to review. We recognize that this account competes for resources in the budget process. Our concern relates to the lack of incentives for improving the efficiency of airlift operations. Accordingly, we have revised our recommendation to state that the Command should develop annual airlift operations cost reduction goals as an incentive for improving the efficiency of airlift operations.

Finally, the Department stated that it had already complied with our Task Force recommendation because the Task Force did review issues that impact the transportation working capital fund. During our review, the Task Force could not provide us with specifics of its work or final report. However, we discussed the airlift issues detailed in our report with key task force officials and the Task Force Director told us that its work did not specifically assess the unique issues associated with the airlift portion of the transportation working capital fund. Thus, we continue to believe that the Task Force's efforts should include a specific focus on the airlift portion of the transportation working capital fund with particular attention to assessing ways to improve airlift cost information and disincentives to controlling and recovering costs. As such, we have clarified our recommendation to focus specifically on the airlift portion of the fund.

Scope and Methodology

We conducted our work at the headquarters of U.S. Transportation Command and Air Mobility Command, Scott Air Force Base, Illinois, and Defense Finance and Accounting Service-Omaha, Offutt Air Force Base,
Nebraska. We also contacted major Air Mobility Command airlift customers from the military services.

To determine the extent to which the Air Mobility Command has reliable financial information for managing airlift transportation services, we judgmentally selected a cross section of 24 fiscal year 1997 airlift missions from the Command's History System based on the total number of flights flown by mission type. From the mission types, we randomly selected 15 missions on established routes and 9 charter missions. We also uniformly selected the missions based on the different ways aircraft was acquired. For example, eight missions were flown by aircraft the Air Mobility Command owns through the transportation working capital fund; eight were flown by other Air Mobility Command aircraft and aircraft owned by other Air Force commands; and eight were flown by commercial carriers under contract to Air Mobility Command. Additionally, we obtained mission summary records from the Command to verify all of the sorties associated with each of the missions. We selected these mission types because they were to be funded through the transportation working capital fund.

We identified revenue totals for each mission from customer billing records for the special assignment airlift and the exercise and contingency missions. To calculate the revenue earned for each of the 15 channel missions, we included revenue earned only on the channels that belonged to the individual mission. For some channel missions and customer shipments, we determined flight distances to adjust revenue earned. We estimated the cost of missions based on payment vouchers, hourly aircraft rates, and flight times. The scope of our work did not include an assessment of whether it was more cost-effective to use one aircraft type versus another.

We discussed our methodology and analysis of revenue earned and costs accrued for the 24 missions selected and attempted to resolve data inconsistencies with officials in the Air Mobility Command's comptroller office. The officials stated that they found our methodology both accurate and reasonable. We also obtained and analyzed annual Air Mobility Command transportation working capital fund budgets and operating results to determine annual cost recovery.

To determine the factors affecting efficient cost control of airlift services, we interviewed officials from the Transportation Command, the Air Mobility Command, the Defense Finance and Accounting Service—Omaha,
and airlift customers and analyzed manual and automated records, which identified the revenue earned and the cost accrued to individual airlift missions. To identify the appropriate records and the systems that generated these records, we obtained descriptions of the Transportation Command's and the Air Mobility Command's revenue and cost accumulation processes and of the Defense Finance and Accounting Service—Omaha's customer billing processes and records. We also obtained annual Air Mobility Command passenger and cargo airlift rates for all defense customers, official accumulated flight times from mission operators, and opinions from airlift customers on the Command's estimating and billing practices.

While we used the Command's airlift data as a basis for our review, we question its accuracy because of the mismatches we found between records. Appendix II shows the problems we encountered with the data and systems. Our analysis represents the best data available.

We conducted our review from August 1998 through November 1999 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Honorable William S. Cohen, Secretary of Defense; General Charles T. Robertson, Jr. Commander in Chief of the U.S. Transportation Command and the Air Force Air Mobility Command; the Honorable Louis Caldera Secretary of the Army; the Honorable Richard J. Danzig, Secretary of the Navy; the Honorable F. Whitten Peters, Secretary of the Air Force; the Honorable Jacob J. Lew, Director, Office of Management and Budget; and other interested congressional committees. Copies will also be made available to others upon request.
Please contact me on (202) 512-8412 if you or your staff have any questions concerning this report. Major contributors to this report were Nomi Taslitt, John Wiethop, and Mark Amo.

David R. Warren, Director
Defense Management Issues
Appendix I

Customer Charges and Costs for 24 Airlift Missions by Mission Type Fiscal Year 1997

### Table 1: Special Assignment Airlift Missions

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<th>Mission number</th>
<th>Aircraft type</th>
<th>Air Mobility Command cost</th>
<th>Customer charges</th>
<th>Percent of cost recovered</th>
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### Table 2: Exercise and Contingency Missions

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<th>Customer charges</th>
<th>Percent of cost recovered</th>
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<td>238</td>
</tr>
<tr>
<td>7</td>
<td>C130H</td>
<td>11,953</td>
<td>28,062</td>
<td>235</td>
</tr>
<tr>
<td>8</td>
<td>L1011</td>
<td>105,513</td>
<td>115,783</td>
<td>110</td>
</tr>
<tr>
<td>9</td>
<td>B727</td>
<td>52,936</td>
<td>56,772</td>
<td>107</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$336,817</td>
<td>$324,594</td>
<td>96</td>
</tr>
</tbody>
</table>
## Table 3: Channel Passenger and Channel Cargo Missions

<table>
<thead>
<tr>
<th>Mission number</th>
<th>Aircraft type</th>
<th>Air Mobility Command cost$</th>
<th>Customer charges$</th>
<th>Percent of cost recovered</th>
<th>Average tons of cargo or number of passengers airlifted per mile</th>
<th>Goal for tons of cargo or number of passengers to be airlifted per mile</th>
<th>Number of sorties with payloads less than goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>KC10A</td>
<td>$181,353</td>
<td>$102,128</td>
<td>56</td>
<td>9.1 tons</td>
<td>16.7 tons</td>
<td>6 of 6</td>
</tr>
<tr>
<td>11</td>
<td>C141B</td>
<td>254,333</td>
<td>121,164</td>
<td>48</td>
<td>11.3 tons</td>
<td>10.8 tons</td>
<td>4 of 8</td>
</tr>
<tr>
<td>12</td>
<td>C5B</td>
<td>261,814</td>
<td>140,182</td>
<td>54</td>
<td>34.1 tons</td>
<td>36.6 tons</td>
<td>4 of 5</td>
</tr>
<tr>
<td>13</td>
<td>C5B</td>
<td>202,040</td>
<td>146,739</td>
<td>73</td>
<td>29.9 tons</td>
<td>39.8 tons</td>
<td>2 of 2</td>
</tr>
<tr>
<td>14</td>
<td>C5B</td>
<td>203,235</td>
<td>196,002</td>
<td>96</td>
<td>48.5 tons</td>
<td>39.8 tons</td>
<td>1 of 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mission number</th>
<th>Aircraft type</th>
<th>Air Mobility Command cost$</th>
<th>Customer charges$</th>
<th>Percent of cost recovered</th>
<th>Average tons of cargo or number of passengers airlifted per mile</th>
<th>Goal for tons of cargo or number of passengers to be airlifted per mile</th>
<th>Number of sorties with payloads less than goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>C9A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>C130E</td>
<td>9,940</td>
<td>15,953</td>
<td>160</td>
<td>16.4 tons</td>
<td>5.6 tons</td>
<td>0 of 3</td>
</tr>
<tr>
<td>17</td>
<td>KC135E</td>
<td>32,147</td>
<td>32,270</td>
<td>100</td>
<td>5.9 tons</td>
<td>4.8 tons</td>
<td>2 of 3</td>
</tr>
<tr>
<td>18</td>
<td>C130H</td>
<td>8,721</td>
<td>2,930</td>
<td>34</td>
<td>5.3 tons</td>
<td>5.6 tons</td>
<td>1 of 3</td>
</tr>
<tr>
<td>19</td>
<td>C141B</td>
<td>85,542</td>
<td>29,719</td>
<td>35</td>
<td>4.1 tons</td>
<td>11.7 tons</td>
<td>4 of 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mission number</th>
<th>Aircraft type</th>
<th>Air Mobility Command cost$</th>
<th>Customer charges$</th>
<th>Percent of cost recovered</th>
<th>Average tons of cargo or number of passengers airlifted per mile</th>
<th>Goal for tons of cargo or number of passengers to be airlifted per mile</th>
<th>Number of sorties with payloads less than goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>L1011</td>
<td>292,685</td>
<td>252,212</td>
<td>86</td>
<td>142 passengers</td>
<td>122 passengers</td>
<td>4 of 9</td>
</tr>
<tr>
<td>21</td>
<td>L100</td>
<td>96,247</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>B757</td>
<td>93,683</td>
<td>44,093</td>
<td>47</td>
<td>110 passengers</td>
<td>109 passengers</td>
<td>2 of 4</td>
</tr>
<tr>
<td>23</td>
<td>L100</td>
<td>32,239</td>
<td>3,590</td>
<td>11</td>
<td>4.3 tons</td>
<td>10.2 tons</td>
<td>4 of 4</td>
</tr>
<tr>
<td>24</td>
<td>L100</td>
<td>34,849</td>
<td>10,024</td>
<td>29</td>
<td>10.2 tons</td>
<td>10.2 tons</td>
<td>1 of 3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$1,092,581</td>
<td>$1,097,006</td>
<td>65</td>
<td>Missions 15 and 21 are not included</td>
<td></td>
<td>35 of 57</td>
</tr>
</tbody>
</table>


*The Air Mobility Command's operating costs differ for military aircraft owned by the Command through the transportation working capital fund (C141, C5, and C17 aircraft types), other aircraft owned by the Command (KC135 and KC10 aircraft types), aircraft owned by other Air Force commands, and civil aircraft. Although all military aircraft costs are determined by flight hour, the Command's costs for aircraft it owns through the transportation working capital fund aircraft include both fixed and variable costs. The Command reimburses only variable costs when it uses other military aircraft. Civil carriers charge Air Mobility Command by statute mile and allowable capacity. In addition, hourly and mileage operating costs vary for each aircraft type.

*The amount of payload (i.e., number of passengers and volume and weight of cargo) does not affect customer charges for special assignment airlift, exercise, and contingency missions because customers charter the entire aircraft on these missions. The Air Mobility Command charges by flight hour for military aircraft and by statute mile and allowable cabin load for commercial aircraft. However, payload affects customer charges on channel missions because the Command charges customers...
Appendix I  
Customer Charges and Costs for 24 Airlift Missions by Mission Type Fiscal Year 1997

according to the number of passengers and the weight or volume of cargo airlifted. Also, the Air Mobility Command does not charge for all payloads airlifted on channel missions or for transporting nonduty military passengers, dependents, retirees, and humanitarian cargo.

*Both revenues and payloads (relative to payload goals) were low on six of the channel missions—missions 10, 12, 13, 18, 19, and 23.

*Tons of cargo and numbers of passengers airlifted per mile are averages for each mission.

*The Air Mobility Command sets payload goals for the amount of cargo and passengers it should airlift to recover the cost of channel missions. There are no payload goals for sorties flown within the continental United States; therefore, the number of sorties in the channel mission table exclude sorties within the continental United States. The Command advised us that, although it attempts to maximize mission payloads, it does not meet or exceed the goals on each mission. It does, however, try to exceed payload goals over time in the aggregate.
## Problems Encountered With Air Mobility Command Systems or Data

<table>
<thead>
<tr>
<th>System or data</th>
<th>Purpose of system or data</th>
<th>Automated or manual</th>
<th>Problem with system or data</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMC History System (AHS)</td>
<td>Identifies fiscal year 1997 sorties, selects sorties to review, and gathers sortie information</td>
<td>Automated</td>
<td>Mission identifiers inconsistent with guidelines. Inaccurate payloads and flying hours.</td>
</tr>
<tr>
<td>AHS Mission Form 59</td>
<td>Groups sorties into missions and gathers mission information</td>
<td>Automated</td>
<td>Inaccurate payloads and flying hours.</td>
</tr>
<tr>
<td>Air Force Form 781</td>
<td>Records number of flying hours per mission</td>
<td>Manual</td>
<td>Copies not available at all operating units.</td>
</tr>
<tr>
<td>Mobility Command aircraft costs</td>
<td>Records transportation working capital fund aircraft cost per flight hour</td>
<td>Manual</td>
<td>None</td>
</tr>
<tr>
<td>Memoranda of understanding between Air Mobility Command and other commands</td>
<td>Establishes non-transportation working capital fund aircraft cost per flight hour</td>
<td>Manual</td>
<td>None</td>
</tr>
<tr>
<td>Public vouchers for payment of non-transportation working capital fund aircraft costs</td>
<td>Records payment of other military units for mission costs</td>
<td>Manual</td>
<td>No direct link to missions for which payment was made.</td>
</tr>
<tr>
<td>Public vouchers for payment of civil carriers</td>
<td>Records payment of civil carriers for mission costs</td>
<td>Manual</td>
<td>Vouchers are filed by date paid, which must be determined from contracting records.</td>
</tr>
<tr>
<td>Official public vouchers for mission costs</td>
<td>Provides official record of payments and adjustments</td>
<td>Semi-automated</td>
<td>Located at Defense Finance and Accounting Service in Omaha, Nebraska. Must use Air Mobility Command records to identify vouchers.</td>
</tr>
<tr>
<td>AMC Deployment Analysis System</td>
<td>Provides record of revenue for special assignment airlift missions</td>
<td>Automated</td>
<td>Imprecise and inaccurate identification of missions.</td>
</tr>
<tr>
<td>Billing memorandum</td>
<td>Provides record of revenue for exercise missions</td>
<td>Manual</td>
<td>No direct link to missions.</td>
</tr>
<tr>
<td>Billing schedule for contingency missions</td>
<td>Provides record of revenue for contingency missions</td>
<td>Semi-automated</td>
<td>Some billings are for multiple missions.</td>
</tr>
<tr>
<td>Airlift Service Industrial Fund Integrated Computer System</td>
<td>Provides record of revenue for channel missions</td>
<td>Automated</td>
<td>Incorrect mission identifiers, aircraft tail numbers, and dates.</td>
</tr>
<tr>
<td>Passenger and cargo utilization data</td>
<td>Records adjustments of frequency channel mission revenue</td>
<td>Automated</td>
<td>Difficult to relate to individual missions.</td>
</tr>
<tr>
<td>Official public vouchers for mission revenue</td>
<td>Provides official record of revenue</td>
<td>Semi-automated</td>
<td>Located at Defense Finance and Accounting Service in Omaha, Nebraska. Must use Air Mobility Command records to identify vouchers.</td>
</tr>
</tbody>
</table>
Dear Mr. Warren:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DEFENSE TRANSPORTATION: More Reliable Information Key to Managing Airlift Services More Efficiently," dated December 9, 1999 (GAO Code 709361/OSD Case 1922). The DoD nonconcurs with selected portions of the draft report. The detailed DoD comments addressing the recommendations are provided in enclosure 1. Enclosure 2 contains suggested technical changes. The DoD appreciates the opportunity to comment on the GAO draft report.

Sincerely,

[Signature]

Roger W. Kallock
Deputy Under Secretary of Defense
(Logistics & Material Readiness)

Enclosures
Appendix III
Comments From the Department of Defense

GAO DRAFT REPORT DATED DECEMBER 9, 1999
(GAO CODE 709361) OSD CASE 1922

“DEFENSE TRANSPORTATION: MORE RELIABLE INFORMATION KEY TO
MANAGING AILIFT SERVICES MORE EFFICIENTLY”

DEPARTMENT OF DEFENSE COMMENTS TO
THE GAO RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the
Commander, U.S. Transportation Command, to take action to improve its airlift financial cost
information and provide incentives to operate more efficiently. (P. 16/GAO Draft Report)

DOD RESPONSE:

Part 1: The GAO recommended that the Secretary of Defense direct the Commander, U.S.
Transportation Command, to take action to improve its airlift financial cost information.

Concur. United States Transportation Command (USTRANSCOM) recognizes the need to
improve the quality of financial information within the Command. We are proactively pursuing
courses of action to improve the quality of this information. Over the summer USTRANSCOM,
working with the DOD Inspector General, completed a report on the feasibility of a single financial
system for transportation. This report highlighted the need for better financial information. To
foster the long term improvements which are required, USTRANSCOM established in September
1999 a program office to develop a cost accounting system capability by June 2002. Additionally,
DOD is investigating cost accounting approaches for the Department; USTRANSCOM is under
consideration for a DOD pilot program. Finally, the DOD is reengineering defense transportation
documentation and financial processes, to include Transportation Working Capital Fund payments,
as directed by Management Reform Memorandum #15. MRM#15 will work to improve the
customer’s ability to critically evaluate and verify their bills.

Part 2: The GAO recommended that the Secretary of Defense direct the Commander, U.S.
Transportation Command, to take action to... provide incentives to operate more efficiently.

Non-Concur. USTRANSCOM does not concur with the GAO assessment that key financial
management practices are creating disincentives to controlling and recovering full costs. AMC
develops rates in accordance with long standing OUSD(Comptroller) financial management
guidance (DOD 7000.14), which specifies that AMC rates should be commercially competitive and
exclude mobilization costs. Furthermore, OUSD(C) guidance states that mobilization costs not
charged in rates should be recovered by a direct Air Force appropriation (the Airlift Readiness
Account). USTRANSCOM recognizes the need to continually review our processes to improve
operational efficiency and cost control.

The GAO assessment that key financial management policy and practices create disincentives to
control and recover full costs is misleading. Current financial practices do provide incentives to
operate efficiently. Specifically:

Enclosure 1
Appendix III
Comments From the Department of Defense

A) The draft GAO report asserts that because the Command receives a payment (Airlift Readiness Account) that is intended to cover shortfalls between revenue collections and full costs, there is little incentive to either control costs or recover the full costs of its peacetime airlift operations. This implies that the Airlift Readiness Account is not subject to critical review. The Airlift Readiness Account competes for limited resources just like all other DOD requirements and must be fully justified to both the Air Force and OUSD(C) in the budget review.

B) The draft GAO report asserts that the requirement to use commercial billing rates (where applicable) shifts the focus from determining full costs of operations and creates disincentives to controlling costs. Commercially competitive rates encourage the efficient use of existing military airlift capacity over commercial transport services. Airlift capacity provided in everyday "peacetime" operations is a by-product of the wartime mission. Peacetime use of our strategic mobility capability provides the Department with an extremely effective and efficient arrangement. Dual use of wartime assets provides USTRANSCOM and the transportation customers in the Military Services with vital training opportunities and substantial cost avoidance. If the Department did not use its strategic mobility capability in peacetime circumstances, additional commercial transportation would have to be procured at a significantly higher cost to the taxpayer because a transportation structure capable of handling surge requirements would still be required.

Air Mobility Command (AMC), USTRANSCOM, and OUSD(C) aggressively manage costs. AMC costs are thoroughly evaluated by USTRANSCOM and OUSD(C) during budget formulation and review. Additionally, USTRANSCOM holds monthly cost driver meetings with its components to give visibility to and aggressively attack costs. OUSD(C) reviews USTRANSCOM costs and revenue in quarterly execution reports.

The Working Capital Fund (WCF) provides a disciplined method of equitably allocating lift capacity and other transportation services to the users in line with funding requirements justified during the budget process. The implementation of the Airlift Service Industrial Fund (ASIF) was directed by Congress in 1958. Congressional studies prior to that time found there were many abuses of available airlift capability. They cited examples of Services inflating their priorities to gain a larger share of airlift, while at the same time, other agencies with legitimate requirements were unable to obtain airlift. Despite prescribed organization and supply priority systems, there was considerable leeway for users to change their priorities as they sought to compete for a limited amount of airlift. Congress directed the implementation of Industrial Fund procedures to overcome these observed abuses.

RECOMMENDATION: The GAO recommended that the Secretary of Defense direct the Defense Working Capital Fund Task Force to include the transportation working capital fund in its work. (P. 16/GAO Draft Report)

DOD RESPONSE: The Department has already complied with this recommendation. The Defense Working Capital Fund (DWCF) Task Force did review issues which impact the transportation working capital fund (TWCF). The DWCF recently submitted its recommendations to the Deputy Secretary of Defense. The task force concluded that full cost recovery in the DWCF billing rates is not necessarily the optimal procedure to promote efficiency and economy.
Appendix III
Comments From the Department of Defense

Specifically, the task force recommended the following, which apply to full cost recovery in rates and financial systems:

- Allow Components to propose — through the normal budget process—prototypes that collect total costs through means other than price.
- DEPSECDEF direct Components to augment logistics system improvement plans to include better cost data for DWCF managers, reduce the need for reconciliation, and enhance cost analysis tools.
- Defense Finance and Accounting Service (DFAS) develop plans for improving customer access to ad hoc queries and financial data reports.

The DWCF Task Force specifically recognized that price influences customer behavior. Further, mobilization/readiness costs, if identifiable, should be removed from the cost basis and funded through direct appropriation.

USTRANSCOM has been actively pursuing these recommendations for some time. They have actively used their budgets to collect costs through means other than price since 1993 and have been steadily working to improve financial reporting and cost visibility.

In summary, the DWCF Task Force did include issues that were relevant to TWCF. The recommendations of the DWCF Task Force recognize the need for financial system improvements and support the current pricing structure within the TWCF.