DOE/IG-0437

AUDIT REPORT

AIRCRAFT AND AIR SERVICE MANAGEMENT PROGRAMS

JANUARY 1999

MASTER

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF AUDIT SERVICES

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Department of Energy

Washington, DC 20585

January 25, 1999

MEMORANDUM FOR THE SECRETARY

Greg Friedman

FROM: Gregory H. Friedman
Inspector General

SUBJECT: INFORMATION: Audit Report on "Aircraft and Air Service Management Programs"

BACKGROUND

The Department of Energy's (Department) Albuquerque Operations Office (Albuquerque) owns seven aircraft that support defense programs, research and development efforts, emergency response programs, and official travel of Government and contractor employees. An Office of Inspector General (OIG) report, issued in 1994, identified concerns with Albuquerque's cost for air service. Since that report, there have been reductions in cost and personnel indicating changes in air service requirements. We conducted this audit to determine (1) whether costs to operate Albuquerque's aircraft were excessive and (2) if individual aircraft in the fleet were justified.

On January 7, 1999, the OIG issued a separate report on its *Review of the U.S. Department of Energy's Aircraft Activities*, (DOE/IG-0435). This report assessed aircraft operations nationwide, and suggested that enhanced centralized management was needed to ensure that new and existing aircraft were justified based on mission needs, and that program costs were minimized.

RESULTS OF AUDIT

Costs to operate the Department's aircraft at Albuquerque were excessive because of the number of personnel employed by the air service contractor. Projected costs to operate Albuquerque's aircraft over the next two years will be as much as $5.7 million more than necessary. Although the costs could be reduced by recompeting a new contract, Albuquerque decided not to recompete based on a perceived concern for continuity of service in the event of a change in aircraft management contractors. Further, Albuquerque was concerned that its own in-house analysis of the aircraft costs did not consider all factors.

In addition, we concluded that the retention by Albuquerque of at least one aircraft was not justified. This aircraft was used to transport passengers between Albuquerque, New Mexico and Amarillo, Texas. The audit disclosed that the commercial round trip fare between these cities was as much as $185. This was in contrast with $1,474 per person per round trip, the current cost to the Department for use of the Government aircraft for the same trip. We found that the Albuquerque Transportation Safeguards Division's analysis of the service performed did not consider the full cost of the service.

MANAGEMENT REACTION

Management concurred with our recommendation to take aggressive and immediate action to significantly reduce the cost of the air services. However, Albuquerque did not submit a corrective action plan that described how it would achieve the projected savings described in the report. Management agreed to terminate the Amarillo shuttle service effective December 30, 1998, but did not concur with our recommendation to sell the BE-200 King Air aircraft used for the Amarillo shuttle.

Attachment

cc: Acting Deputy Secretary
Under Secretary

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OVERVIEW

INTRODUCTION AND OBJECTIVE

The Albuquerque Operations Office (Albuquerque) owns seven aircraft that support transportation of hazardous weapon components, research and development efforts, emergency response needs, and movement of passengers to Department of Energy (Department) sites. Albuquerque's aircraft are managed by the Transportation Safeguards Division (TSD) and operated by a support service contractor, Ross Aviation Incorporated (Ross). Ross has operated Albuquerque's aircraft since 1972. In 1994, the Office of Inspector General (OIG) issued a report, Audit of Aircraft Management at the Albuquerque Operations Office, CR-B-94-05, that identified concerns with costs of air service provided by Albuquerque. Since then, Albuquerque has terminated some unnecessary air services, reduced aircraft fleet size, reduced annual costs, and changed the aviation contract from a management and operating contract to a support service contract. The change in contract type was based on the perception that the support service contract would be more cost effective. In fact, the number of aircraft in the fleet has declined from nine in Fiscal Year (FY) 1994 to seven in FY 1998, and annual costs have declined from over $15 million per year in FY 1994 to less than $10 million in FY 1998.

The objectives of our audit were to determine (1) whether costs to operate Albuquerque's aircraft were excessive and (2) if aircraft in the fleet were justified.

CONCLUSIONS AND OBSERVATIONS

Costs to operate the Department's aircraft at Albuquerque were excessive based on both an in-house cost analysis and our comparison of costs to published standards. Based on TSD's analysis, the projected costs to operate the aircraft for the next two years will be as much as $5.7 million more than necessary primarily because of an excessive number of contractor personnel. Although the TSD analysis recommended recompeting the contract, Albuquerque decided not to do so based on concerns about the need for continuity of service. Albuquerque was also concerned with the validity of the TSD analysis.

Further, Albuquerque justified six of the seven aircraft based on unique and necessary services for the Department. The seventh plane was not justified on that basis. This aircraft was used to transport passengers between Albuquerque, New Mexico, and Amarillo, Texas, at a cost of $1,474 per person per round trip. This compared to readily available commercial fares of as much as $185 per person per round trip. This occurred because a full cost comparison for this aircraft was not performed in accordance with Office of Management and Budget

Circulars A-126 and A-76. Instead, justification for the aircraft was based on convenience and cost evaluations that did not consider the full cost of the aircraft.

In our opinion, the matters discussed in this report should be considered when preparing the yearend assurance memorandum on internal controls.

Office of Inspector General

Office of Inspector General

AIR SERVICE COSTS

Excessive Air Service Costs

Costs for air service appeared excessive based on an internal TSD analysis. The purpose of TSD's analysis was to determine the most advantageous and cost effective approach to fulfilling Albuquerque's requirements for air service. The TSD analysis relied upon standards published by Conklin & deDecker to identify hourly costs for various types of aircraft. Conklin & deDecker, a leader in establishing standards for aircraft, has earned a reputation for offering the most realistic numbers available for aircraft costs.

The analysis was performed during the spring of 1998 because the contract with Ross would expire on April 30, 1999, and a determination had to be made either to recompete the contract or extend the period of performance with Ross. The analysis evaluated the cost of exercising a two-year extension with Ross versus converting the aircraft service to another form of operation. The operational methods considered were (1) a fixed price Contractor-Owned Contractor-Operated (CoCo) contract, (2) a fixed price Government-Owned Contractor-Operated (GoCo) contract, and (3) a Government-Owned Government-Operated (GoGo) operation. Factors considered in the analysis included continuity of service, transition of maintenance agreements, and technical requirements. The following chart shows the costs per flight hour under each option considered.

Average Cost Per Flight Hour
Under Options Considered

Extend Current Cost Contract	$4,180
Fixed Price CoCo	$3,041
Fixed Price GoCo	$2,362
GoGo Operation	$2,303

Extending the current contract was found to be the most expensive option. Further, according to the TSD analysis, the cost of the current contract was significantly higher than the industry standard for similar operations with equivalent aircraft. In discussions with the Audit staff, TSD managers explained that the high costs were associated primarily with overstaffing at Ross. Specifically, they questioned the need for a staff of 68 to operate a 2,400 flight hour per year program. In addition to these 68 personnel, major maintenance to the three DC-9 aircraft at Albuquerque is performed by a subcontractor to Ross. The analysis disclosed that there was a sufficient level of interest by fully qualified vendors in the aviation industry to obtain competition in bids/proposals for a fixed price contract and for the achievement of significant savings for Albuquerque without any noticeable change in the service provided. TSD's analysis recommended a competitively awarded new contract to bring costs in line with industry standards.

To validate TSD's analysis, we compared Ross' cost per flight hour to standard costs published by Conklin & deDecker. Our conclusion was consistent with the results of the TSD analysis. In summary, we found that Albuquerque's costs were excessive. For example, we found that the standard per hour cost to operate a DC-9 was $2,805 while Ross' cost to operate the same aircraft was $4,531.

Importance Of Benchmarking

In accordance with the 1993 National Performance Review, Albuquerque benchmarked its contractor's performance against standards used by private industry and other methods of acquiring similar services. In spite of the TSD analysis showing significantly higher cost under the current contract and recommending to competitively award a new contract, Albuquerque decided to exercise the two-year contract extension with Ross. Management stated that the decision was based on the need for continuity of service because transition to a new contractor could disrupt air service and impact security. However, we found that the TSD analysis stated that continuity of service could be maintained even if Ross was not the successful bidder for the new contract.

Albuquerque expressed concern that both the TSD analysis and our comparison to industry cost standards did not consider several factors. For example, Albuquerque contended that the recognized standards did not consider costs associated with factors specific to the Government such as the cost to comply with unique Department Orders and regulations. While we recognize that operating in a Government environment may have some additional cost associated with it, management did not quantify the costs of complying with Orders and regulations. Thus, the decision to extend the contract with Ross does not appear adequately justified.

Potential Savings On Air Service Costs

Our comparison with published standards supports TSD's conclusion that the cost of the current contract was significantly higher than other viable options. Based on the TSD analysis, as much as $5.7 million could be saved over the two-year contract extension period by recompeting a new contract. (See Appendix 1 for details.) Nonetheless, Albuquerque has elected to extend the contract with Ross.

Under the circumstances, Albuquerque should, as a minimum, negotiate a reduction in costs to bring them in line with the industry standards as disclosed in the TSD analysis.

RECOMMENDATION

We recommend that the Manager, Albuquerque Operations Office, take aggressive and immediate action to significantly reduce the cost of air services.

MANAGEMENT REACTION

Albuquerque concurred with the recommendation, reiterating prior actions it had taken to reduce costs. Management stated that it will continue to be proactive in determining ways to reduce the overall aviation service costs. Current award fee incentives will be stressed; and the contractor will be required to update its resources management plan indicating planned improvements, better utilization of personnel, and ways to achieve efficiencies through automation, outsourcing, and personnel reductions.

AUDITOR COMMENTS

Although Albuquerque concurred with the recommendation, it did not establish a corrective action plan that will achieve savings similar to the amount projected by the TSD analysis. Albuquerque's air services costs were simply too high, primarily because of contractor overstaffing. In our opinion, Albuquerque must focus on reduced staffing to achieve significant savings.

Amarillo Passenger

Albuquerque justified six of its aircraft based on unique and necessary services. We did not, as part of this audit, evaluate the validity of these services. We found that one of Albuquerque's aircraft was not justified based on unique or necessary services. This aircraft, a BE-200 King Air, which at one point was identified as no longer having a valid mission, was retained for use as a passenger shuttle between Albuquerque and Amarillo two to three days per week.

The shuttle was not justified because a commercial carrier, Southwest Airlines, provided service between Albuquerque and Amarillo. Southwest had scheduled service seven days a week with two flights from Albuquerque to Amarillo per day on Sunday through Friday and one flight on Saturday. Returning from Amarillo, there were three flights per day on Monday through Friday, and two flights per day on Saturday and Sunday. Further, Southwest was the Government's contract carrier for travel between Albuquerque and Amarillo.

The cost to provide the Albuquerque to Amarillo shuttle was excessive compared to the use of the commercial carrier. Based on the total contractor cost of operating this aircraft, the cost per person per round trip using Ross was $1,474. In contrast, the commercial carrier round trip was as high as $185.

In the Office of Inspector General's 1994 audit on Albuquerque's aircraft service, we encountered a similar situation. In that audit we questioned the economic viability of passenger shuttle service which the Department was operating between Albuquerque and Los Alamos, New Mexico. After our report was issued, the Department, to its credit, terminated this service.

Review For Continuing Need And Cost Effectiveness Required

Circular A-126, Improving the Management and Use of Government Aircraft, establishes policy for improving the management and use of Government aviation resources. Specifically, it requires Government departments to "... review periodically the continuing need for all of their aircraft and the cost effectiveness of their aircraft operations in accordance with the requirements of Circular No. A-76." Circular A-126 also states that Government aircraft can be used for official travel only if commercial airline service is not available within a 24-hour period of the traveler's departure and/or arrival requirements. Circular A-76 establishes Federal policy regarding the performance of commercial activities. It states that the Government should not compete with its citizens and that the general policy of the Government is to rely on commercial sources to supply its needs. It further prescribes that the Department must release all aircraft that are not fully justified by these reviews.

Convenience And Cost Considerations

TSD stated that the shuttle was necessary because commercial airline schedules did not allow employees to travel to Amarillo in the morning and return on the same evening, thereby avoiding hotel and per diem costs. In the 12 months we reviewed, however, there were 952 round trip passenger seats, but only 240 were used for same day travel.

TSD also justified the shuttle by claiming that it was cost effective. However, it established cost effectiveness based on an analysis which relied solely on variable costs. Variable costs are incurred as a direct result of hours flown and include items such as fuel, direct crew costs, landing fees, and specific maintenance costs; but not fixed costs such as administrative overhead or crew salaries for time not flown. Considering only variable costs, the shuttle appears cost effective. However, the Circulars require periodic evaluation of cost effectiveness using all costs, variable and fixed. Under such a comparison, the round trip shuttle cost per actual rider was $1,474, or nearly 8 times the cost of a commercial carrier fare.

Cost Of Service

For the 12 months reviewed, the cumulative cost difference between the shuttle service and the commercial carrier was $504,000. This cost difference is based on the contractor's cost of $1,474 per person per round trip compared to the commercial fare of $185 plus additional costs for hotel, per diem, parking at the airport, rental car, and a miscellaneous allowance. We added these extra costs to the commercial fare to consider the possibility that passengers would need to fly to Amarillo a day prior to a visit in case the commercial schedule did not meet their needs. These additions increased our commercial cost to $324 per person per round trip. The difference between $1,474 and $324 multiplied by the total number of round trips flown in the 12 months reviewed totaled $504,000. The $504,000 could be avoided if the shuttle service was terminated. In addition, the value of the aircraft could be recovered if it was sold. Its estimated value is about $1.5 million.

RECOMMENDATIONS

We recommend that the Manager, Albuquerque Operations Office, take action to end this service. Specifically, Albuquerque should:

1. Terminate the shuttle service and reduce the contract scope of work; and

2. Sell the BE-200 King Air used for the shuttle service at market value.

MANAGEMENT REACTION

Albuquerque concurred with the first recommendation, agreeing to terminate the shuttle service on December 30, 1998. This action has been taken.

In responding to the second recommendation to sell the BE-200 King Air aircraft at market value, Albuquerque said it would retain the aircraft because it performs a valid mission as detailed in Albuquerque's Aircraft Operations Review. Albuquerque claimed that in FY 1998, the aircraft was flown 134 hours in support of its nuclear stockpile support mission. In FY 1997 and FY 1996, this aircraft flew 118 hours and 285 hours, respectively, of mission support. Further, Albuquerque said that Federal Acquisition Regulations do not allow for an agency to sell an aircraft and directly recover any moneys for discretionary use. Moreover, Management stated that the value the OIG placed on the aircraft was too high and it did not have a way to directly recover any moneys from such a sale for discretionary use.

With regard to the cost figures used by the OIG for the Amarillo shuttle cost, Albuquerque claimed that the operating cost (variable cost) of flying to Amarillo was $1,560 per round trip flight based on a $600 per hour aircraft cost. Management claimed that the trip reached a break even at only 4.2 seats.

AUDITOR COMMENTS

Albuquerque's termination of scheduled air service is appropriate. The OIG has learned, however, that Albuquerque does not plan to sell the aircraft. Furthermore, Albuquerque recently advertised use of the aircraft for trips to Amarillo on an as needed basis. In light of the cost differences cited in this report, using the aircraft on this basis does not appear to be justified.

Although the Aircraft Operations Review described a mission requirement, that requirement was not unique to the BE-200 King Air aircraft. Two other aircraft were available, compatible, and had ample hours to satisfy the required services. Further, in Albuquerque's FY 1999 Field Budget Call for purchase of a new aircraft, Albuquerque stated that it no longer had a mission need for the BE-200 King Air.

The issue of whether aircraft sale proceeds can be used at an agency's discretion should not be central to a decision on such a sale. If an aircraft is excess to agency need, the taxpayer should no longer bear the burden of maintaining the aircraft and it should be excessed using normal channels.

The value placed on the aircraft by the OIG was obtained directly from a March 30, 1998, issue paper prepared by the Aviation Program and transmitted through TSD to the Albuquerque Manager. This document stated that the sale of the BE-200 King Air could result in proceeds of $1.5 million. This figure is also provided by the FY 1997 Albuquerque Aircraft Operations Review.

The primary point of contention between the OIG and Albuquerque lies with the type of cost comparisons required by the OMB Circulars. Circular A-126 allows for cost comparisons to be performed to justify official travel for individual trips using variable cost only in comparison to commercial sources. However, when determining whether the Government should perform a service that can be performed by the commercial sector, Circular A-76 requires that the full cost of Government resources be considered in comparison to the cost of commercial sources. Since the BE-200 King Air's primary use was to regularly carry passengers to and from Amarillo, and there is a commercial source available to provide the service, the cost effectiveness should be reviewed in accordance with Circular A-76.

Appendix 1

CALCULATION OF SAVINGS ON AIR SERVICE COSTS

We used TSD's analysis to arrive at the potential savings amount. In considering its various options, TSD based its cost calculation for the new contract GoCo option on 2,750 flight hours per year even though the current contract costs are based on 2,387 flight hours per year. Since the GoCo option was based on a fixed price, it was given more flight hours as a cushion to cover special needs. Thus, the lower-priced option allows for more flight time than the contract extension. In addition, we determined that the cost to extend the current contract, as calculated by TSD, included cost to be paid to close out a defined benefit pension program. In order to make the comparison fair, we subtracted this amount as well.

	Hours for 2 Years	Hourly Rate	Total Costs
Cost to Extend Current Contract	4,774	$4,180	$19,955,320
Less: New Contract GoCo Option	5,500	$2,362	$12,991,000
Pension Plan Closeout			$ 1,230,000
Total Savings			$ 5,734,320

Appendix 2

SCOPE

The audit was performed at Albuquerque from September 16 to November 25, 1998. We limited our review to aircraft and air service management owned by the Department and operated for the Albuquerque Operations Office. The aircraft included in our review were: three DC-9 aircraft, two DHC-6 Twin Otter aircraft, one LR-35 Lear Jet, and one BE-200 King Air.

METHODOLOGY

To accomplish the audit objective, we:

- obtained usage data per aircraft for the period October 1, 1992 through September 30, 1998;
- obtained cost data for the program for the period October 1, 1992 through September 30, 1998;
- performed detailed analyses of individual trip reports for the period September 1, 1997 through August 31, 1998;
- reviewed the mission requirements for each aircraft;
- compared cost per flight hour for Albuquerque's aircraft to standards published by Conklin & deDecker; and
- held meetings with TSD officials to discuss issues.

We performed detailed analyses of passenger loads for aircraft that did not have a clear Defense Programs related mission. Standards published by Conklin & deDecker in The Aircraft Cost Evaluator are used by aircraft manufacturers, dealers, distributors, and brokers for use in presentations and proposals for the sale or lease of specific aircraft to their customers. Over the years, The Aircraft Cost Evaluator has earned a reputation for offering the most realistic numbers available.

The audit was conducted in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the objectives of the audit. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We performed limited testing of the reliability of computer-processed data and concluded that the data could be relied upon.

Albuquerque waived the exit conference.

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