United States General Accounting Office

GAO

Report to the Ranking Minority Member, Committee on Energy and Natural Resources, U.S. Senate

April 2002

DEPARTMENT OF THE INTERIOR

Office of Aircraft Services and Bureaus Can More Fully Recover and Further Reduce Aviation Program Costs

GAO-02-460

Contents

GAO
Accountability * Integrity * Reliability

United States General Accounting Office
Washington, DC 20548

April 17, 2002

The Honorable Frank H. Murkowski
Ranking Minority Member
Committee on Energy and Natural Resources
United States Senate

Dear Senator Murkowski:

To fight fires, enforce laws, and conduct search and rescue operations on federal lands in Alaska, Hawaii, and throughout the lower 48 states, the Department of the Interior's eight bureaus must obtain aircraft and aviation-related services through the Office of Aircraft Services (OAS). OAS administers the department's $102 million aviation program and provides the bureaus with about 550 government-controlled aircraft: about 100 owned by the government (fleet aircraft) and 450 obtained from the private sector through various long-term contracts and leases (contract aircraft). OAS also has overall responsibility for the department's aviation safety program: it reviews the bureaus' aviation safety efforts, assists in training fleet pilots, develops aviation safety and aircraft accident prevention programs, and establishes aviation program standards.

Each bureau is responsible for deciding whether OAS should contract or purchase aircraft for that bureau, and schedules or coordinates aircraft use within its operations and with other Interior bureaus, as well as with the U.S. Department of Agriculture's Forest Service. The bureaus must reimburse OAS for aviation costs. For government-owned aircraft, the bureaus' aviation managers meet annually to set the fleet rates OAS will charge the bureaus in the upcoming fiscal years. To provide a basis for these rate-setting decisions, OAS prepares cost projections based on historical data and presents these estimates to the bureaus at the annual fleet rate meeting. The factors that go into setting the rates vary from year to year but include such considerations as historical usage, changes to mission requirements, and anticipated maintenance costs. For aircraft obtained through contracts, OAS relies on a competitive bidding process, and the bureaus reimburse OAS for the costs of the contracts and for OAS's costs for servicing these agreements.

At the 2001 annual fleet rate meeting, OAS proposed a substantial surcharge to the bureaus to recover a nearly $2 million shortfall in its Alaskan operations over the previous 10 years. The bureaus were surprised to learn that OAS had not recovered all fleet costs and could go

back as far as 10 years to assess these charges. Following this meeting, several bureau officials expressed serious concerns about OAS's overall operations, including the lack of a reliable accounting system, questionable cost recovery practices, and the lack of concern for cost-effectiveness. In addition, some bureau officials believed that the escalating program costs and OAS's efforts to control these costs could compromise aviation safety.

As a result of these concerns, you asked us to determine the (1) trend in the accident rate of Interior's aviation safety program, (2) extent to which OAS has recovered the costs associated with the aviation program, and (3) extent to which OAS has implemented cost-reduction efforts.

Results in Brief

Interior's aviation accident rate has been cut in half since 1975, from 18.8 accidents per 100,000 flight hours in fiscal year 1975 to 8.7 accidents per 100,000 flight hours in fiscal year 2001. OAS officials attribute the department's reduced accident rate, in part, to the implementation of a standard aviation operating policy for the department and to aviation safety standards that exceed Federal Aviation Administration's requirements. The program specifies standards for pilot qualifications and proficiency requirements as well as for aircraft maintenance and equipment inspections.

OAS has not fully recovered the costs associated with the aviation program. From fiscal years 1997 through 2000, OAS had charged bureaus about $4 million less than actual costs. This represented an undercharge of about 2 percent. The undercharge resulted from several factors. First, the rates OAS set were based on flight hour projections of actual usage that turned out to be low. This occurred because the bureaus did not consistently provide OAS with the information necessary to make more accurate projections. Consequently, OAS had to rely on 5-year historical averages, which turned out to be less than declining actual use in recent years. Second, OAS did not include in its calculations all the cost elements that needed to be considered in setting rates. For example, in the Alaskan operations, OAS omitted the overhead cost for aircraft maintenance from the rate calculation, which resulted in significantly lower rates than needed to recover the costs. OAS has since taken actions to recoup the costs of the Alaskan fleet maintenance operations and now includes these costs in its rate calculations. Periodic monitoring of the rates and actual costs incurred would help ensure that all costs are recovered. OAS's failure to recover all its costs from the bureaus was not due to any faults in OAS's accounting system. Although some bureaus raised concerns about

the reliability of the system, we found the accounting system capable of producing reasonably complete, reliable, and useful financial information to management for rate-setting purposes. We are making recommendations to the secretary of the Department of the Interior aimed at ensuring that OAS fully recovers its program costs and improves the rate-setting process.

OAS has taken a number of actions to reduce the aviation program's costs, but it has yet to develop a more cost-effective approach for using aircraft, which could potentially lead to additional cost savings. Among the actions OAS has taken to reduce costs, OAS has reduced its staffing levels by about 24 percent since 1992. OAS also conducted cost comparisons and determined it to be more cost effective to maintain aircraft under government ownership than to contract for aircraft. Additional savings are possible, however. For example, in 1995, Interior's inspector general reported that the department unnecessarily spent $2.3 million throughout 1992 and 1993 because the bureaus did not coordinate the scheduling and use (utilization) of the government-owned fleet. Our analysis confirms that moderate improvements in aircraft utilization can translate into a savings of several million dollars annually. Although OAS has attempted to control its costs, it has not established performance measures to evaluate its program outcomes. We are making a recommendation to the secretary of the Department of the Interior that OAS and the bureaus work together to improve aircraft scheduling and usage and establish performance measures to monitor and assess progress toward improved aircraft utilization.

We provided a draft of this report to the Department of the Interior for review and comment. Interior agreed with the information presented in the draft, and stated that our findings and recommendations are reasonable. They stated that the department's aviation program is complex and multi-faceted due to the widely diverse mission of the bureaus. Further, they stated that our report recognizes that successful aviation management depends on a partnership between OAS and the bureaus to seek more efficient and cost-effective ways to manage the program.

Background

The secretary of the Department of the Interior created OAS in 1973 to resolve several aviation program problems: numerous accidents, improper budgeting and financial management, and poor utilization of aircraft. A 1973 task force, comprising representatives from across the Interior bureaus, attributed these problems to the decentralized aviation program—with each bureau responsible for all aviation functions. The

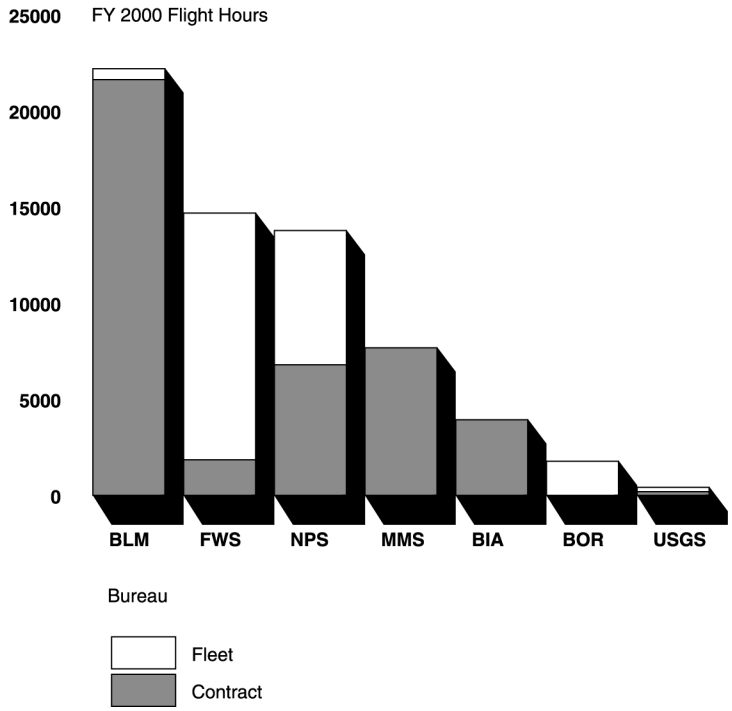
secretary of the Department of the Interior charged OAS with responsibility for (1) coordinating and directing all fleet and contract aircraft; (2) establishing and maintaining standards for safety, procurement, and utilization; (3) budgeting for and financially controlling fleet and contract aircraft; and (4) providing technical aviation services to the bureaus. As the program evolved, OAS assumed responsibility for policy oversight and aviation services, while the bureaus became responsible for implementing safety requirements, deciding on whether to use fleet or contract aircraft, and the scheduling and use of their aircraft.

OAS works with the Aviation Management Board of Directors to involve the bureaus in formulating policy and managing aviation activities. In addition, since 1996, the bureaus' aviation managers have also participated with OAS in setting fleet rates and planning for aircraft replacement and projected aviation program requirements.[1] Eight Interior bureaus use OAS's services in varying degrees to carry out their respective missions as shown in figure 1.[2] The Bureau of Land Management—which accounted for over one-third of the OAS program in flight hours for fiscal year 2000—uses aircraft to carry out its fire-fighting and resource management missions. The Fish and Wildlife Service and the National Park Service depend heavily on OAS to manage fleet aircraft to achieve their respective missions.

[1] Bureaus must usually request additional appropriations for aircraft replacement because bureaus contribute to the replacement reserve based on the depreciated value, not the replacement value, of the aircraft. Bureaus use their reserve balances and additional appropriations to purchase replacement aircraft.

[2] The eight bureaus include the Bureau of Land Management (BLM), Fish and Wildlife Service (FWS), National Park Service (NPS), Minerals Management Service (MMS), Bureau of Indian Affairs (BIA), Bureau of Reclamation (BOR), U.S. Geological Survey (USGS), and Office of Surface Mining (OSM). The OSM relied on short-term aircraft rental agreements to meet its aviation needs. Since OSM did not use fleet or contract aircraft in FY 2000, the flight hours are not reflected in figure 1.

Figure 1: Bureaus' Fiscal Year 2000 Contract and Fleet Flight Hours



OAS is headquartered in Boise, Idaho, with significant operations located in Anchorage, Alaska. It has additional offices in Boise; Atlanta, Georgia; and Phoenix, Arizona. OAS operated with approximately 94 FTE in fiscal year 2000, 63 located in the lower 48 states and 31 located in the Anchorage office. In fiscal year 2000, OAS managed 95 government-owned aircraft, 42 based in the lower 48 states and 53 based in Alaska. OAS contracts for aircraft maintenance of fleet aircraft in the lower 48 states. In Alaska, OAS contracts for maintenance of fleet aircraft with private vendors, but maintains an in-house core maintenance staff.

To fulfill its responsibilities, OAS set up functional divisions, including financial and information management, acquisition, and technical services. However, OAS accounts for and reports costs across four lines of business: fleet, contract, rental, and other. Of the $117 million spent on aviation services in fiscal year 2000, OAS received an appropriation of only $800,000 (or approximately seven FTE) to provide oversight of OAS department-wide aviation policies and procedures. Most of OAS's costs are financed through a working capital fund, established in the Office of the

Secretary to finance a continuing cycle of operations, and must be repaid to the fund by the bureaus and others using the services based on rates determined by OAS.[3]

Interior's Aviation Accident Rate Has Improved Dramatically Since OAS's Safety Program Was Established

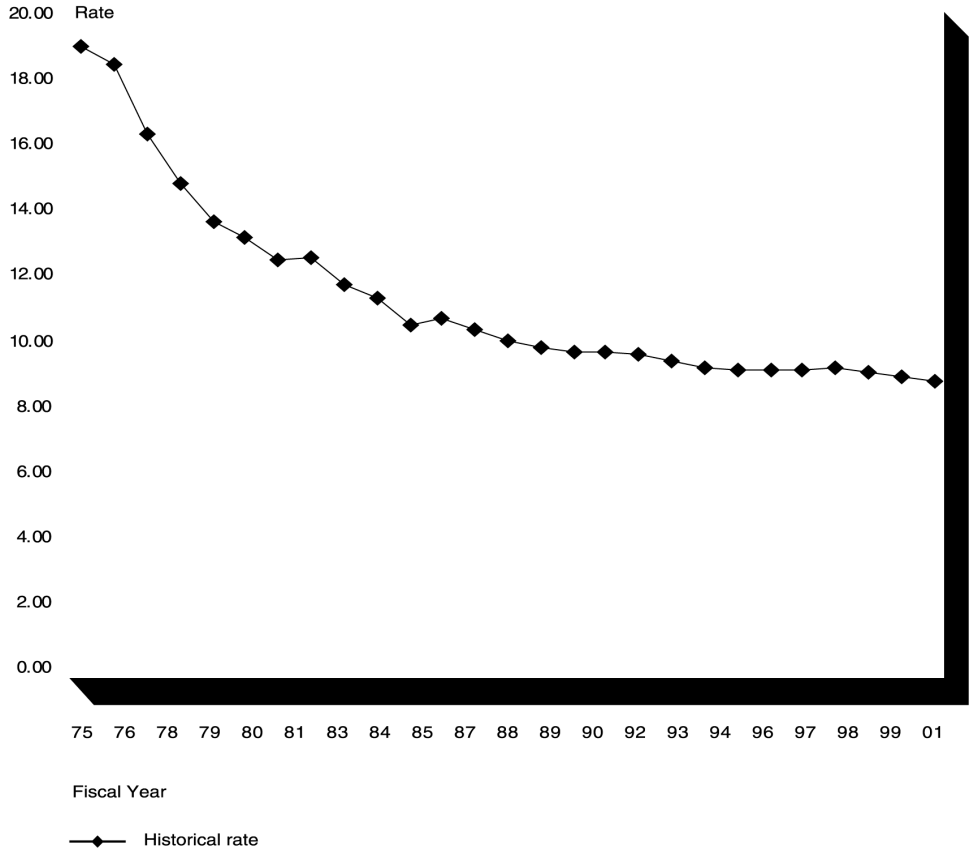
Since 1975 Interior's aviation accident rate has been cut in half, from 18.8 accidents per 100,000 flight hours in fiscal year 1975 to 8.7 accidents per 100,000 flight hours in fiscal year 2001. A number of OAS efforts have contributed to this reduction. Prior to the establishment of OAS's aviation safety efforts, safety standards varied from bureau to bureau and between regions within bureaus; in some cases, standards did not exist at all. According to the 1973 task force, virtually no control over aviation operations existed within the department, which resulted in a high accident rate and higher operational costs. OAS officials attribute the department's reduced accident rate, in part, to the implementation of a standard aviation operating policy. OAS sets pilot qualifications and proficiency standards as well as standards for aircraft maintenance and equipment inspections. These standards exceed the Federal Aviation Administration's (FAA) requirements. In addition, OAS periodically evaluates the bureaus' implementation of the aviation program, with a special emphasis on safe operations.

The OAS Aviation Safety Management Office, reporting to the OAS director, is responsible for policy development, implementation, and review of the department's (1) aviation safety management and aircraft accident/incident prevention programs; (2) accident and incident investigation; (3) management of the department's reporting system for aircraft accidents, incidents, and hazards; and (4) management of the OAS aviation and occupational safety and health programs. Since April 1995, OAS is required to report accidents involving fatalities, serious injuries, or substantial damage to the National Transportation Safety Board and to assist the board with accident investigations when appropriate. The OAS Division of Technical Services oversees many day-to-day safety concerns, such as pilot training, aircraft engineering and maintenance, and technical policy development. The bureau directors are ultimately responsible for adherence to standards and the implementation of an effective accident prevention program.

[3] 43 U.S.C. 1467.

Since safety oversight was centralized under OAS, Interior has seen a dramatic decline in the rate of accidents, as shown in figure 2.

Figure 2: Decline in Interior's Accident Rate per 100,000 Flight Hours, 1975 through 2001



OAS accepts applicable FAA regulations as baseline criteria for its aviation operations and then applies additional standards in order to reduce accidents that occur during hazardous flying conditions and specialized operations required by the bureaus' unique missions. These standards are published in the department's manual and in OAS's operational procedures memoranda. Additional policy directives issued by the bureaus may be more restrictive but may never be less restrictive than OAS's standards.

These manuals specify more stringent pilot qualifications than those required by federal aviation regulations. For example, FAA requires pilots

who fly passengers on commuter aircraft to have a commercial pilot certificate, which requires a minimum of 250 flight hours. However, OAS requires its contract pilots to have 1,500 flight hours to be eligible to fly missions for Interior. OAS also requires most of its fleet pilots to have a minimum of 500 hours of time commanding an aircraft to operate government-controlled aircraft, although there is no similar requirement in the federal aviation regulations.

OAS has also developed additional aircraft maintenance standards for all Interior-owned aircraft and all contract aircraft that operate for Interior. For example, OAS requires a flight test following an aircraft overhaul, a major repair, or a replacement of engine or propeller. In addition to requirements for flight tests and 100-hour inspections, OAS developed standards for the inspection and maintenance of special use and mission-related equipment that is not covered by FAA regulations.

Although OAS strives to meet or exceed all FAA regulatory standards on manufacturer requirements, OAS has granted exceptions to manufacturers' weight requirements for certain aircraft—eight Cessna 206 Amphibians and one De Havilland DHC-2T Beaver aircraft. OAS granted these exceptions to the Fish and Wildlife Service to allow the aircraft to exceed the manufacturers' weight limitations when the service conducts surveys of migratory birds. The exceptions were required to compensate for special equipment needed to conduct these surveys and to carry extra fuel during long flights over remote areas. OAS granted the exceptions with several stipulations designed to enhance the safety of these operations. Furthermore, to verify that the aircraft are operating under safe conditions, OAS had an engineering analysis conducted on the eight Cessna aircraft and has an engineering analysis in progress on the De Havilland Beaver. OAS also awarded a development contract on June 5, 2001, to provide a replacement aircraft that will meet all migratory bird mission requirements, thereby eliminating the need for all overweight exceptions to policy.

Rates Charged to Users of Fleet Aircraft Have Not Fully Funded the Cost of Fleet Operations

From fiscal year 1997 through fiscal year 2000, OAS did not recover about $4 million from Interior's bureaus. We found two primary reasons why OAS set rates too low to fully recover its costs: (1) actual flight hours were lower than the projected hours based on historical usage and (2) all costs were not included in the estimates. As a result, OAS had to subsidize the costs of the aircraft used by Interior bureaus in part with funds from its reserve accounts, collected in prior years, such as the reserve fund for replacing aircraft. OAS's failure to recover all its costs from the bureaus was not attributable to any faults in OAS's accounting system but to deficiencies in the fleet rate model and rate process. We found the accounting system capable of producing financial information that is reasonably complete, reliable, and useful to OAS management for the purposes of setting rates.

OAS recovers its costs from users by charging for its services. Costs for fleet aircraft are recovered based on fleet rates, and costs for contract aircraft are recovered based on agreements for the cost of the contract plus OAS's costs for servicing these agreements. OAS provides four lines of services—fleet, contract, rental, and miscellaneous (other)—to Interior's bureaus and other agencies, such as those within the Departments of Defense and of Agriculture. For fiscal years 1997 through fiscal year 2000, OAS failed to recover about $4 million from the Interior sector of its business while realizing a slight overcharge of approximately $400,000 from agencies outside Interior. Table 1 shows, by business line, where these unrecovered costs occurred.

Table 1: Charges and Costs for Interior Bureaus by Business Line, Fiscal Years 1997 through 2000

Dollars in thousands					
	Fleet	**Contract**	**Rental**	**Miscellaneous reimbursable**	**Total**
Total charges	$24,406	$169,355	$50,049	$11,462	**$255,272**
Total costs	27,512	169,673	50,877	11,367	**259,429**
(Under)/overcharge	($3,106)	($318)	($828)	$95	**($4,157)**
Percentage of (under)/overcharge to costs	(11.3%)	(0.2%)	(1.6%)	0.8%	**(1.6%)**

As table 1 shows, the majority of unrecovered costs were in the fleet business line. The fleet business recovered less of its costs because OAS and the bureaus' aviation managers had not correctly determined and set the appropriate rates. To determine the rates it needs to charge its users to

recover the costs of its services, OAS captures the historical costs associated with each aircraft. OAS then projects the future costs based on its analysis of the historical costs, adjusted for inflation, and determines a means by which to allocate projected costs to the appropriate user. Based on this allocation, OAS calculates the hourly and monthly rates of the fleet rates using a fleet rate model. OAS then meets with the bureaus' aviation managers to get their input on the rates and makes subsequent adjustments to its projections of future costs if necessary. Finally, the aviation managers and OAS agree to the fleet rates, and OAS and each bureau sign an interagency agreement that sets the rate. In order to allow the bureaus lead time to budget for future costs, rates are set 2 years in advance and adjusted, if necessary. OAS and the aviation managers do not have a process to monitor rates periodically to determine if the rates fully recover costs.

Using this process for setting the fleet aircraft rates, OAS has not recovered all costs because it relies on 5-year historical averages of flight hours in its calculation of rates and has no provision for projecting flight hours in its rate-setting process. If OAS had solicited the bureaus for projected flight hours, which may change from year to year because of changes in mission requirements, it would have had a more accurate projection of usage and therefore could have set the rates more precisely. The use of 5-year historical averages has resulted in an overestimation of the number of flight hours when compared to declining actual usage in recent years. According to an OAS official, the bureaus accept this higher projection of flight hours based on 5-year historical usage, because it results in lower rates. For example, if an aircraft has (1) an estimated cost of $100,000 based on historical costs and (2) an estimated usage of 200 flight hours based on the historical averages, the resulting rate would be $500 per flight hour. However, if the actual usage were reduced to 100 flight hours, the actual cost recovery for that aircraft would only be $50,000 or one-half of the projected recovery. As a result, the rate set would not fully recover the costs. While it is to be expected that flight hours vary to some degree from the projected usage, the use of more accurate projections and resulting rates would result in more accurate recovery of the costs.

Additionally, OAS did not include in its calculations all the costs that needed to be considered in setting rates. From 1991 through 2000, in the Alaskan operations, OAS omitted from its rate calculation approximately $1.9 million in costs for aircraft maintenance. Fleet rates were therefore significantly lower than needed to recover the costs. OAS did not have a process in place to recognize the error and the resulting underrecovery of

costs in a timely fashion. OAS has since taken actions to recoup the costs of the Alaska fleet maintenance operations and now includes these costs in its rate calculations. OAS has also not included in its projection all the costs of employees' postretirement health benefits and of the Civil Service Retirement System employee pension plan for current OAS employees engaged in work directly related to aviation services and therefore is not recovering these costs from its users.

OAS Has Taken Actions to Control Program Cost Increases, but Improved Scheduling and Use of Aircraft Could Further Reduce Costs

OAS has taken steps to control increases in program costs, but could potentially save several million dollars more annually if it implemented a more cost-effective approach to using aircraft. In an effort to control costs, OAS has reduced staff and implemented strategies to operate more efficiently. As a further effort, OAS conducted cost comparisons and determined that it was more cost effective to maintain aircraft under government ownership than to contract for aircraft. Despite these efforts, OAS has not managed the use and scheduling of aircraft, a major factor of the aviation program's cost. We analyzed the savings attributable to improvements in fleet and contract utilization and found that a moderate increase in average annual flight hours per aircraft could translate into savings of several million dollars annually. However, until OAS sets results-oriented performance goals and measures as part of a strategic aviation planning process and monitors its performance on an ongoing basis, it cannot track its progress in achieving additional program savings.

OAS Has Acted to Control Program Cost Increases

OAS has taken several actions to control the cost of operations to maintain fleet rate cost increases consistent with the producer price index for transportation since 1995. In particular:

- OAS decreased staffing levels from 124 staff in fiscal year 1992 to 94 staff in fiscal year 2000, a 24-percent decrease. Because most OAS costs are personnel-related, this reduction significantly decreased OAS's costs.
- The OAS Acquisition Management Division implemented new contracting procedures to streamline the contracting process and established interdepartmental agreements with the Department of Agriculture's Forest Service to facilitate aircraft sharing arrangements.
- OAS is developing Web-based training for bureau aviation personnel, reducing training cost by more than $100,000 during the first 6 months of program implementation.

OAS's Cost Comparisons Showed Fleet Operations to Be Cost Effective

To examine the cost effectiveness of government ownership, OAS compared the costs of fleet aircraft with the costs of contracted aircraft. OAS found that, given the existing fleet aircraft, equipment, locations, and missions, retaining the fleet under government ownership to be $243 per flight hour less, on average, than contract aircraft. In making these comparisons, OAS contracted for two comprehensive studies—one in 1996 and one in 2001—that were to follow the standard requirements laid out in Office of Management and Budget Circular A-76, "Performance of Commercial Activities," for ensuring that the cost comparisons between government and contracted operations were conducted appropriately. The 1996 study concluded that all but 2 of the 84 aircraft examined were, on average, significantly more cost effective under government ownership. The 2001 study found that all but 1 of the 89 aircraft reviewed to be cost effective.

OAS also contracted for a cost comparison of aviation maintenance costs and solicited bids from private vendors to maintain the fleet in Alaska during 1995. As part of the A-76 process, OAS also prepared a bid proposing a streamlined government operation that would lower its maintenance costs by reducing the number of maintenance personnel. While several vendors expressed interest, none ultimately bid on the contract to assume maintenance operations for the Alaskan service. Some bidders took exception with the minimum wage provisions issued by the Department of Labor that were included in the solicitation. OAS requested a clarification regarding wage determination rates, but did not receive a reply; therefore, the wage provisions remained in the solicitation as issued. OAS won the bid to continue in-house maintenance and implemented the streamlined organization, reducing the number of maintenance personnel from 13 to 9.

OAS Has Not Acted to Improve Use and Scheduling of Aircraft to Reduce Costs

Although OAS was organized in 1973 to help improve the utilization of government-controlled aircraft, the use of fleet aircraft declined from about 350 hours per aircraft in fiscal year 1973 to 246 hours per aircraft in fiscal year 2000.[4] The task force and several recent reports recommended more centralization of scheduling; however, OAS has not been able to fully implement these recommendations because the bureaus determine the aviation resources needed to accomplish their missions.

[4] The actual fiscal year 2000 average hours of 224 has been increased by 10 percent for comparison purposes due to a change in the method of recording flight hours in 1996.

In 1995, the inspector general of the Department of the Interior estimated that Interior spent $2.3 million throughout 1992 and 1993 in unnecessary costs because the bureaus did not schedule flights when fleet aircraft were available and did not coordinate these aircraft either within each bureau or among the bureaus. The report suggested that OAS could be a focal point for scheduling and use of the government-owned fleet, or designate a bureau as the schedule coordinator within specified regional areas.

In 1996, the General Services Administration also reviewed the Interior aviation program and identified the potential for significant savings related to utilization. At the time, the Interior average of 252 hours was significantly less than the federal average of 350 hours per year, according to the report. The report estimated that increasing the average hours per aircraft to the federal average of 350 hours per year would result in an annual savings of $715,000 in fixed costs and more than $4 million from the disposal of multiple fleet aircraft. The General Services Administration did not estimate any savings for variable costs.

We also analyzed the potential for program savings resulting from improved aircraft utilization. Our analysis is meant to illustrate the potential for savings—not to identify what utilization improvements should be made by OAS and the bureaus. We considered two strategies to increase the fleet's average number of flight hours per year—either reduce the size of the fleet or increase the total hours flown. Reducing the number of fleet aircraft could reduce fixed program costs, while increasing the total number of hours flown by fleet aircraft could reduce the variable program costs.

If fewer fleet aircraft could fly the required missions, then the utilization of the fleet could be increased and the fixed cost associated with some fleet aircraft could be eliminated. As shown in table 2, a 30-percent reduction in the size of the fleet increases average flight hours per aircraft per year from 221 to 316 hours per year based on actual fiscal year 2000 fleet flight hours.

Table 2: Potential Fixed Cost Savings Opportunities Resulting from Increases in Utilization

		Potential for savings under three scenarios		
	Fiscal year 2000	Reduction in fleet size of 10 percent	Reduction in fleet size of 20 percent	Reduction in fleet size of 30 percent
Number of fleet aircraft	100	90	80	70
Total fleet hours	22,125	22,125	22,125	22,125
Average flight hours per fleet aircraft	221	246	277	316
Potential reduction in fixed cost	**$0**	**$170,510**	**$370,529**	**$610,070**

Note: The potential for fixed cost reductions is based on OAS's cost data and assumes that the least utilized fleet aircraft would be among the first considered during any fleet streamlining decision process.

We also looked at the potential to realize variable cost savings. These savings could be achieved by using fleet aircraft instead of contract aircraft when fleet costs are less than contract costs. For example, according to the OAS 2001 cost comparison study, certain contract aircraft are 100 to 235 percent more expensive to operate. For these aircraft, the OAS's estimated average net variable cost savings between the fleet and contract aircraft was $778 per flight hour. As shown in table 3, if it were possible to convert 4,425 flight hours to fleet operations, then the average utilization per fleet aircraft would increase by 20 percent, and the potential variable cost saving would be about $3.4 million annually. However, in order to determine the actual savings potential, OAS and the bureaus would need to conduct a detailed review of opportunities on an aircraft-by-aircraft basis.

Table 3: Potential Variable Cost Savings Opportunities Resulting from Increases in Utilization

		Potential for savings under three scenarios		
	Fiscal year 2000	Increase in utilization of 10 percent	Increase in utilization of 15 percent	Increase in utilization of 20 percent
Contract hours converted to fleet hours	0	2,213	3,319	4,425
Net savings per converted contract hour	0	$778	$778	$778
Total fleet hours	22,125	24,338	25,444	26,550
Number of fleet aircraft	100	100	100	100
Average flight hours per fleet aircraft	221	243	254	266
Potential reduction in variable cost	**$0**	**$1,721,325**	**$2,581,988**	**$3,442,650**

Note: The potential for converted contract hours of 4,425 (a 20-percent increase in utilization) is based on actual FY 2000 contract hours flown by 74 Bell 206 and 412 helicopters. Since OAS operates only a few Bell aircraft, the potential variable cost savings would be contingent upon the acquisition of additional aircraft.

OAS and the bureaus have not been able to improve aircraft utilization. Citing its history and relationship with the bureaus, OAS did not implement all the utilization recommendations made in the prior studies because it believes it lacks the authority and responsibility to mandate bureau program and mission requirements—and hence, utilization—under departmental regulations. While bureau aviation managers point to some examples in which improved utilization has resulted in savings, they have not attempted to make a systemwide improvement in utilization. Bureau aviation managers noted that improvements in utilization are difficult to implement because of other factors: weather, high-priority or time-critical missions, workload peaks, mission-required equipment, and the aircraft's physical location.

OAS Cannot Demonstrate How Its Cost Reductions Have Affected Program Outcomes

OAS does not set results-oriented performance goals and measures as part of a strategic aviation planning process and does not monitor its performance on an ongoing basis. As a result, it cannot effectively track its performance or measure its results on a consistent basis. OAS has tracked its performance on a sporadic basis in response to requests for information, legislative requirements, or, most recently, as part of the rate-setting process, but it has not linked performance measurement to results-oriented goals. For example, OAS tracked the cost and

performance of the Alaskan operations as part of the reorganization, but discontinued monitoring the operations' performance after 2 years.

Conclusions

Rate setting is a critical component of OAS's program operations because OAS must recover its costs and maintain adequate funding for operations, future aircraft replacement, and accident reserves. Shortfalls in program costs, such as those resulting from inaccurately setting rates, would have been less likely to occur year after year if the bureaus had evaluated whether their reliance on historical averages correctly predicted future costs and usage. Consideration of both historical and projected data would help OAS bring the best available information to bear in estimating usage and setting rates. Periodic comparisons of the rates set with the actual costs incurred would have helped ensure that all costs were recovered.

OAS acting alone cannot improve the utilization of aircraft. Traditionally, the bureaus have not coordinated their efforts to use their aviation resources in a more cost-effective manner. As a result, fleet aircraft are not being fully utilized; better utilization could lead to significant savings. Absent a strategic aviation plan for the department, it is difficult to analyze future requirements by mission and flight hours. OAS and the bureaus could begin the process for fuller utilization if they established a strategic aviation plan that, among other things, sets results-oriented performance goals and measures for the department and then, following that plan, analyzed future requirements for the department. Such an analysis could help them identify new opportunities to reduce cost, maintain the quality of services, and maximize the value of the aviation program for the department.

Recommendations for Executive Action

To ensure that all program costs are fully recovered and to improve the rate-setting process, we recommend that the secretary of the Department of the Interior

- direct OAS to obtain forecasts of future usage from the bureaus and use these forecasts, as well as other relevant information, to set rates; and
- direct OAS and the bureaus, upon completion of the rate-setting process and calculation of associated payments, to determine whether the rates recovered all costs and, if not, whether adjustments in the process used to calculate the rates are necessary.

We also recommend that the secretary of the Department of the Interior instruct the directors of the Office of Aircraft Services and of each bureau

to improve scheduling and use of aircraft and establish performance measures to monitor and assess progress.

Agency Comments

We provided the Department of the Interior with a draft of this report for review and comment. Interior agreed with the information presented in the draft, and stated that our findings and recommendations are reasonable. It stated that the department's aviation program is complex and multi-faceted due to the widely diverse missions of the bureaus. Further, it stated that our report recognizes that successful aviation management within the department depends on a partnership between OAS and the bureaus to seek more efficient and cost-effective ways to manage the program. The comments of the Department of the Interior and our responses to those comments are included in appendix I.

Scope and Methodology

We performed our review at OAS's headquarters in Boise, Idaho, and at OAS, Fish and Wildlife Service, and the National Park Service offices located in Anchorage, Alaska. We discussed the OAS aviation program with aviation managers and others from Interior's Bureau of Land Management, Fish and Wildlife Service, and National Park Service. For additional perspective, we interviewed private-sector maintenance vendors in Alaska and representatives of the state of Alaska aviation program.

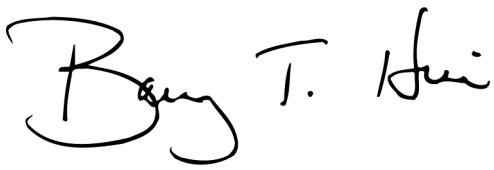
We reviewed OAS's and bureaus' aviation program documents and prior audit reports, including laws, regulations, program plans, financial data, fleet rate meeting minutes, and other documents. Although we did not conduct audit procedures designed to completely evaluate or give an opinion on the OAS accounting system and corresponding internal controls, we did review work conducted by the Office of the Inspector General and also performed limited testing of data reliability. We examined OAS's cost comparisons as part of the A-76 process; we did not, however, evaluate the bureaus' future mission needs or flight hour forecasts on which the study was based. To illustrate the potential improvements in aircraft utilization, we relied on OAS's most recent comparison of contract and fleet costs and applied the estimated costs to actual OAS fiscal year 2000 aircraft and flight hours.

We conducted our work from July 2001 through April 2002 in accordance with generally accepted government auditing standards.

As we agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution of it until 30 days from the date of this letter. We will then send copies to other interested parties and make copies available to others who request them.

If you or your staff has any questions about this report, please call me or Peg Reese at (202) 512-3841. Key contributors to this report are listed in appendix II.

Sincerely yours,



Barry T. Hill
Director, Natural Resources
and Environment

Appendix I: Comments from the Department of the Interior

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

MAR 27 2002

Barry T. Hill, Director
Natural Resources and Environment
United States General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Director Hill:

Thank you for the opportunity to review the draft of GAO-02-460, entitled "Department of the Interior: Office of Aircraft Services and the Bureaus Can More Fully Recover and Further Reduce Aviation Program Costs."

In general, the Department of the Interior finds the report to be factual, and the findings and recommendations to be reasonable.

We appreciate that you highlighted several positive aspects of the Department's aviation activities. Your recognition of the dramatic improvement in our aviation safety record is an example. You also noted the actions taken by the Office of Aircraft Services (OAS) to reduce costs, and you found that the OAS accounting system is capable of producing reasonably complete, reliable, and useful information.

We also appreciate your recognition that successful aviation management within the Department depends on a partnership between OAS and the bureaus. We agree with that approach. The Department believes that placing safety-related oversight at the Department level, and placing day-to-day operational control of resources at the bureau field level is the right formula. We view this report as an opportunity to refine a basically sound system.

A few comments are offered:

See comment 1.

Fleet flight hour projections. The report implies that fleet aircraft flight hour projections might be intentionally overestimated in an effort to reduce planned hourly rates. We do not agree. It is likely that increased hourly rates cause field locations to fly less simply due to fixed budget constraints. The report recommends considering both historical and projected data to estimate usage and to set rates. We agree and will work with the bureaus to more accurately define flight hour projections.

See comment 2.

Monitoring fleet rates and costs. The report indicates that periodic monitoring of fleet costs and subsequent adjustment of rates would result in more complete recovery of costs. While we agree with this theory, it is important to understand that fleet rates are established two years in advance, enabling

the bureaus to insert estimated costs into the normal budget process. Increasing rates after budget allocation would reduce flying hours, which in turn adversely impacts cost recovery. This is a self-perpetuating domino effect of decreasing flight hours and increasing fleet rate. As noted in your report, the true solution will be found in controlling costs by increasing fleet efficiency. We will work with the bureaus to periodically compare the rates set with actual costs incurred, examine usage and establish a methodology that will assist us to more fully recover fleet costs.

See comment 3.

Personnel costs. The report finds that OAS is not recovering costs associated with employee post-retirement health benefits and pension plans. OAS is recovering all personnel costs for which it is currently directly responsible; we agree, however, that post-retirement costs are a part of the actual full cost of our services. With the passage of the reform in this area proposed in the FY 2003 President's budget, OAS will incorporate these items into its costing model.

See comment 3.

Use and scheduling of aircraft. The review finds that OAS and the bureaus have not been able to improve aircraft utilization. While finding further efficiencies in the use of aircraft can yield significant savings, it is important to understand that, especially in Alaska, elements such as remote basing of aircraft and time-critical missions requiring dedicated aircraft make sharing difficult. Aircraft must be available when needed to perform the bureau's mission. Fleet efficiency will be reviewed, including the size of the fleet, in an attempt to find savings in areas that will not adversely impact mission accomplishment. Regarding centralized aircraft scheduling, the Department sees this as an operational function that rightly belongs in the field. Within that framework, we will explore the possibility of consolidating bureau scheduling. We will also seek new information technology tools that may be available to assist with this effort. The report recommends that OAS and the bureaus jointly develop performance measures and a strategic plan to implement and gauge progress in these areas. We will attempt to do that.

See comment 4.

Variable cost savings. The report suggests that the Department should consider using fleet aircraft instead of contract aircraft when savings may be realized. OAS has placed considerable emphasis on evaluating fleet aircraft ownership using OMB Circular A-76 criteria. Reliance has been placed on the competitive acquisition process for private sector savings. Your report indicates that we should more critically compare vendor prices to fleet aircraft costs. Overall, the Department believes that we have the right mix of fleet and contract aircraft, providing quality service and best value to the taxpayers. We agree, however, that there may be opportunities to improve the efficiency of our use of fleet aircraft. As indicated above, we will be reviewing our scheduling policies to identify such opportunities.

See comment 5.

The Department's aviation program is complex and multi-faceted due to the widely diverse missions of the bureaus. We place mission accomplishment and safety first and foremost in priority. Within this framework, we have and will continue to aggressively partner with the bureaus to seek more efficient and cost-effective ways to manage this critical support activity. Thank you for highlighting some of these possibilities.

P. Lynn Scarlett
Assistant Secretary for Policy,
Management and Budget

The following are GAO comments on the Department of the Interior's letter dated March 27, 2002.

GAO Comments

1. Interior agreed with our recommendation that historical and projected data should be used to set rates but stated that our report implies that fleet aircraft flight hour projections might be intentionally overestimated in an effort to reduce planned hourly rates. We disagree. Our report describes the process for making projections and attributes comments about projections to OAS, but draws no conclusions about the intent on the part of OAS or the bureaus. During our review, we noted that when total flight hours decline year after year, projections based on historical averages will inherently result in over-estimating future flight hour requirements.

2. Interior agrees with our findings and recommendation that periodic monitoring of fleet cost and subsequent adjustment of rates would result in more complete recovery of costs. Interior points out that, once rates are established for budgeting purposes, increasing rates after budget allocation would reduce flying hours, which in turn could adversely impact cost recovery. We agree. Our report, however, recommends that actual costs be compared with estimated costs and that adjustments be made as needed. We acknowledge Interior's concurrence to work with the bureaus and periodically compare the rates set with actual cost incurred, examine usage, and establish a methodology that will assist in more fully recovering fleet costs.

3. We support Interior's proposed actions to recover personnel costs, and its actions to improve use and scheduling of aircraft.

4. Interior agrees that there may be opportunities to improve the efficiency of its use of fleet aircraft. Interior stated that it will be reviewing its scheduling policies to identify such opportunities. We support this initiative.

5. Interior emphasizes that the department's aviation program is complex and multi-faceted due to the diverse missions of the bureaus and the high priority of safety and mission accomplishment. We agree with this assessment. Aviation program responsibility is shared by OAS and the bureaus. We support OAS and bureau partnerships to seek more efficient and cost-effective ways to manage the aviation program.

Appendix II: GAO Contacts and Staff Acknowledgments

GAO Contacts

Barry T. Hill (202) 512-3841
Peg Reese (202) 512-9695

Acknowledgments

In addition to those named above, Mark Connelly, Robert E. Kigerl, Lisa Knight, Dawn Shorey, and Carol Herrnstadt Shulman made key contributions to this report.

GAO's Mission

The General Accounting Office, the investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents is through the Internet. GAO's Web site (www.gao.gov) contains abstracts and full-text files of current reports and testimony and an expanding archive of older products. The Web site features a search engine to help you locate documents using key words and phrases. You can print these documents in their entirety, including charts and other graphics.

Each day, GAO issues a list of newly released reports, testimony, and correspondence. GAO posts this list, known as "Today's Reports," on its Web site daily. The list contains links to the full-text document files. To have GAO e-mail this list to you every afternoon, go to www.gao.gov and select "Subscribe to daily E-mail alert for newly released products" under the GAO Reports heading.

Order by Mail or Phone

The first copy of each printed report is free. Additional copies are $2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and Mastercard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to:

U.S. General Accounting Office
441 G Street NW, Room LM
Washington, D.C. 20548

To order by Phone:
Voice: (202) 512-6000
TDD: (202) 512-2537
Fax: (202) 512-6061

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: www.gao.gov/fraudnet/fraudnet.htm
E-mail: fraudnet@gao.gov
Automated answering system: (800) 424-5454 or (202) 512-7470

Public Affairs

Jeff Nelligan, managing director, NelliganJ@gao.gov (202) 512-4800
U.S. General Accounting Office, 441 G Street NW, Room 7149
Washington, D.C. 20548