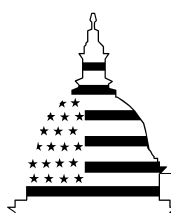


June 2004

FEDERAL AIRCRAFT

Inaccurate Cost Data and Weaknesses in Fleet Management Planning Hamper Cost Effective Operations



G A O

Accountability * Integrity * Reliability



Highlights of [GAO-04-645](#), a report to congressional requesters

Why GAO Did This Study

Federal civilian agencies own and operate a fleet of aging aircraft, many of which may soon need to be replaced. Agencies manage their fleets with help from guidance and policies issued by the General Services Administration (GSA) and the Office of Management and Budget (OMB). Numerous audit reports have disclosed that agencies lacked accurate cost data and had acquired aircraft without adequate justification. GAO reviewed (1) the composition and costs of the federal aircraft fleet; (2) the systems and controls agencies use to ensure that they effectively and efficiently acquire and manage their aircraft fleets; and (3) the operations, maintenance, safety standards, and safety records for federal aircraft.

What GAO Recommends

GAO recommends that GSA strengthen the accuracy and reliability of data in the federal aircraft database, help programs develop more cost-effective fleet management planning systems, and assist programs in strengthening the safety oversight of their operations. GAO also recommends that OMB review and clarify its guidance for cost effectively acquiring and managing government aircraft. Departments of Agriculture, Energy, Interior, Justice, Transportation, GSA and OMB commented on a draft of this report; in general, they agreed with GAO's findings and recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-04-645.

To view the full product, including the scope and methodology, click on the link above. For more information, contact JayEtta Hecker, at (202) 512-2834 or heckerj@gao.gov.

FEDERAL AIRCRAFT

Inaccurate Cost Data and Weaknesses in Fleet Management Planning Hamper Cost Effective Operations

What GAO Found

GAO could not accurately determine the number of government-owned aircraft and total costs of federal aircraft program operations, because it found that GSA's database was unreliable. Although the database showed federal agencies owned nearly 1,400 aircraft and that agencies reported spending over \$700 million to operate and maintain federally-owned and contracted aircraft in fiscal year 2002, GAO found it understated the cost of federal aircraft operations by at least \$568 million over the past 3 years. This is because some agencies did not report all the required information. GAO also found there was no requirement for the agencies to report other aircraft costs such as depreciation.

The systems and controls GAO reviewed provide limited assurance that agencies are cost effectively acquiring and managing their aircraft fleets. All seven aircraft programs GAO examined failed to implement some key principles of fleet management planning, as outlined in GSA, OMB, and other federal guidance. GAO found that programs did not consistently prepare long-term fleet management plans to identify fleet requirements and aircraft that best meet those requirements. GAO also found that these programs rarely prepared OMB Circular A-76 studies to assess whether the private sector could provide aviation services at a lower cost, and often did not perform cost benefit analyses before acquiring aircraft. Finally, GAO found that programs did not use a full range of aviation metrics to measure and assess the effectiveness of their aircraft operations and rarely prepared OMB Circular A-126 studies to periodically assess the continuing need for their aircraft operations. GAO also found that OMB provides limited oversight over compliance with Circulars A-76 and A-126, leaving it up to each program to determine whether to complete the reviews.

Although exempt from many federal safety requirements, federal aircraft programs GAO reviewed developed their own operations, maintenance, and safety standards to help ensure safe operations. However, the use of oversight to evaluate the safety of the programs and help identify potential issues before they become safety problems varied greatly. Two programs that GAO visited subjected themselves to reviews by Federal Aviation Administration inspectors and two others utilized GSA-sponsored safety teams to review their operations. Historically, these GSA-sponsored reviews have found that similar safety issues existed at several programs. These issues included having an insufficient number of instructors to conduct aviation training, lack of a formal general maintenance manual, lack of trained personnel to accomplish assigned missions, and flight crews not thoroughly planning flights. The remaining three programs relied on internal reviews of their operations. GAO also identified 183 accidents and incidents occurring in federally owned or contracted aircraft over the past 9 years that resulted in 91 fatalities. GAO found that most of these were caused by human factors such as pilot error and occurred in contracted aircraft.

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Abbreviations

AMD	Aviation Management Directorate
ARMS	Aviation Resource Management Survey
ARO	Aviation Resident Offices
AVN	Aviation Systems Standards
BICE	Bureau of Immigration and Customs Enforcement
BOP	Bureau of Prisons
CAS	Commercial Aviation Services
DEA	Drug Enforcement Administration
DOE	Department of Energy
DOI	Department of the Interior
DOJ	Department of Justice
DOS	Department of State
DOT	Department of Transportation
FAA	Federal Aviation Administration
FAIRS	Federal Aviation Interactive Reporting System
FBI	Federal Bureau of Investigation
FWS	U.S. Fish and Wildlife Service
GSA	General Services Administration
ICAP	Interagency Committee for Aviation Policy
INL/A	Bureau for International Narcotics and Law Enforcement Affairs Office of Aviation
IPT	Integrated Product Team
JPATS	Justice Prisoner and Alien Transportation System
JRC	Joint Resources Council
MOA	memorandum of agreement
NASA	National Aeronautics and Space Administration
NTSB	National Transportation Safety Board
OA	Aviation Division
OMB	Office of Management and Budget
USDA	U.S. Department of Agriculture

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United States General Accounting Office
Washington, D.C. 20548

June 18, 2004

The Honorable Susan M. Collins, Chairwoman
Committee on Governmental Affairs
United States Senate

The Honorable Russell D. Feingold
United States Senate

Federal civilian agencies own and operate a fleet of aging aircraft, many of which are well past the age when aircraft become increasingly unreliable, more costly to operate and maintain, and potentially unsafe. These agencies' programs have historically reported spending several hundred million dollars each year on government-owned and leased or contracted aircraft obtained from the private sector to perform important and sometimes dangerous missions, such as aerial firefighting, illicit drug eradication, and wildlife control. Since 1977, numerous audit reports and studies have repeatedly disclosed that the programs lacked accurate information on aircraft costs, inappropriately used aircraft for nonmission activities, and spent millions of dollars acquiring aircraft without adequate justification. Additionally, studies have disclosed that federal government aircraft operations are exempted from many of the safety regulations applicable to commercial aircraft and that these operations are not subject to most aspects of Federal Aviation Administration oversight. The safety of federal government aircraft operations drew national attention in the summer of 2002 when the wings of two aircraft under contract to the U.S. Department of Agriculture's Forest Service fell off in midflight, causing both aircraft to crash and kill a total of five crewmembers.

You asked us to assess the oversight and management of federal agencies' aircraft programs by providing information on (1) the composition of the federal aircraft fleet and how much it costs to operate and maintain; (2) the extent to which federal agencies have systems and controls in place to ensure that they are effectively and efficiently acquiring and managing their aircraft fleets; and (3) the operations, maintenance, safety standards, and safety records for the federal aircraft fleet. In conducting this review, we analyzed fleet data that the General Services Administration (GSA) centrally collects and maintains for both federal civilian aircraft and for

aircraft and related services supplied by the private sector.¹ We also assessed the internal controls and reliability of this data to determine whether they contain accurate information about the fleet of aircraft and the costs to operate and maintain it. We found information in the database was not sufficiently complete and accurate to determine the composition and cost of federal aircraft programs, however, we used the information to provide descriptive information and summary statistics to show the relative magnitude of the federal programs.

To obtain information on the systems and controls for acquiring and managing aircraft fleets, we selected seven programs in five agencies for review. According to GSA's data at the time we began our review: these agencies owned over 70 percent of federal civilian aircraft used for federal missions and accounted for over 85 percent of federal aircraft program costs. For each of the seven aircraft programs we selected we reviewed the systems and controls they were currently using to help ensure they acquire and manage their aircraft cost effectively and operate and maintain their aircraft safely. The seven programs were the U.S. Department of Agriculture's Forest Service (USDA Forest Service), the U.S. Fish and Wildlife Service (FWS) in the Department of the Interior (DOI), the Drug Enforcement Administration (DEA) and the Justice Prisoner and Alien Transportation System (JPATS) in the Department of Justice (DOJ), the Bureau for International Narcotics and Law Enforcement Affairs Office of Aviation (INL/A) in the Department of State (DOS), and the Federal Aviation Administration's (FAA) Flight Inspection and Washington Flight Program (Hangar 6) in the Department of Transportation (DOT). The seven programs we selected were some that had the greatest number of aircraft, historically incurred the most costs, or covered a wide variety of aviation missions. We selected four to six aircraft in each program and asked program officials to provide documentation to support their acquisition decisions. In judgmentally selecting these aircraft we considered such factors as whether the aircraft were airplanes or helicopters, the make and model of the aircraft, and the date the program acquired the aircraft. We also reviewed and analyzed data on accidents that occurred between April 1995 through October 2003 contained in the National Transportation Safety Board's (NTSB) aviation accident database. Based on interviews with NTSB officials and testing of the data, we determined that the data were

¹GSA does not collect or maintain information on Armed Forces, Executive Office of the President, or U.S. intelligence-gathering aircraft programs and, thus, these programs are not part of our review.

sufficiently reliable for the purposes of this report. More information on our scope and methodology is contained in appendix I. We conducted our work from February 2003 through May 2004 in accordance with generally accepted government auditing standards.

Results in Brief

We were unable to accurately determine the composition and costs of the federal aircraft fleet because we found the governmentwide aircraft database maintained by GSA to be unreliable because it was incomplete and inaccurate. According to this database, the federal fleet consisted of about 1,400 aircraft, and federal programs reported spending about \$290 million in fiscal year 2002 in operations and maintenance costs for their fleet aircraft. It also showed that programs reported spending an additional \$416 million on aviation services such as aircraft contracted from the private sector. However, on the basis of our review of the database and more detailed reviews of select aircraft programs, we estimated that, at a minimum, the database likely understates total program costs by at least \$568 million over the period 2000 through 2002, or an average of about \$190 million per year. The database understates the cost of the federal aircraft fleet because some programs did not report all the required costs. For example, we identified instances where programs had not reported any costs for their aircraft and did not report costs for fuel or pilot salaries. We also found four federally owned aircraft that were not included in the database. In addition, we identified additional costs that programs are not required to report that we believe would make the cost data more complete and accurate. For example, requiring programs to report depreciation, self-insurance, and financing costs would provide a more complete view of the costs associated with operating the federal aircraft fleet. Further, we determined that a number of internal controls on the database system were missing, and other controls did not always function effectively, which may have allowed invalid data to be recorded.

Systems and controls for the federal aircraft programs we reviewed provide limited assurance that agencies are cost effectively acquiring and managing their aircraft fleets. We found that programs we reviewed did not consistently implement federal fleet management guidance to (1) determine program mission and flight hour requirements and the number and type of aircraft needed over the long term, (2) ensure that they acquired the appropriate aircraft at the least possible cost, and (3) track key aviation information regarding aircraft performance, such as whether an aircraft is available when needed. We found that only two of the seven programs we reviewed had identified their long-term aviation requirements

and determined the most effective mix of aircraft to meet these needs. In addition, although the programs we reviewed generally had processes in place for making decisions on acquiring aircraft, they did not always use the available tools to assist them in making their decisions. For example, under certain circumstances, the Office of Management and Budget (OMB), pursuant to OMB Circular A-76, requires programs to conduct an analysis to determine if the private sector could provide the services at a lower cost. However, we found that programs conducted this analysis for only 3 of the 28 aircraft we examined. In general, program officials said they did not do so because they consider their operations to be inherently governmental in nature and not subject to that requirement. OMB staff stated they do not independently validate these decisions and allow aircraft program managers to determine when they should complete A-76 reviews. In addition, cost benefit analyses, which are useful in helping to determine the most cost-effective aircraft model to acquire were not regularly conducted. Although each of the programs we reviewed tracked aspects of aircraft performance, such as whether their aircraft are available when needed, the information tracked did not include a full range of statistical information to assess their aircrafts' performance. Additionally, six of the seven programs did not prepare periodic OMB Circular A-126 reviews of the continuing needs of their fleets. Similar to the A-76 required reviews, OMB staff stated they do not ensure that programs complete these reviews; rather, they leave it up to each program to determine whether or not they are needed.

The seven programs we reviewed required their aircraft operations to comply, at a minimum, with the FAA basic rules governing all civil flight operations and developed operations, maintenance, and safety standards specific to their aircraft programs to help ensure safe operations. These standards address, for example, operational issues associated with pilot qualifications and training requirements; the need for a maintenance inspection program and a means of tracking maintenance actions; and the need for safety guidelines and minimum flight crew requirements. In addition, some of the programs developed standards significantly above the minimum applicable FAA requirements and required compliance with portions of the more restrictive FAA civil aircraft regulations. One area where we found considerable differences among the programs was in the use of oversight. For example, the two FAA programs we reviewed were subjected to the same level of inspection that FAA requires of civil operations. Two other programs subjected themselves to external oversight of their operations by the GSA-sponsored Interagency Committee on Aviation Policy, and the remaining three programs subjected themselves to internal reviews. Although programs have taken these steps to mitigate the

risks of their dangerous missions, the operations have resulted in some accidents or incidents.² Our review of safety data for all federal programs found 183 accidents and incidents involving federally owned, operated, or contracted aircraft between April 1995 and October 2003 that resulted in 91 fatalities. Our review of accident reports for these accidents found that most accidents (1) were caused by human factors such as pilot error, (2) occurred during dangerous missions such as fire suppression and complex training maneuvers, and (3) occurred in contracted aircraft.

This report includes recommendations to the Administrator, General Services Administration, and the Director, Office of Management and Budget, to strengthen the accuracy and completeness of data in the federal aircraft database, to help agencies improve fleet management and aircraft acquisition decisions, and to help agencies strengthen the safety oversight of their operations. We received written and oral comments on a draft of this report from the Departments of Agriculture, Energy, Interior, Justice, and Transportation, and the General Services Administration and the Office of Management and Budget; in general the agencies concurred with our findings and recommendations.

Background

Federal civilian agencies have aircraft programs that utilize a wide variety of aircraft, ranging from helicopters to large jet airliners to accomplish their missions. These programs use aircraft that they own and aircraft they obtain from the private sector through commercial aviation service contracts to perform activities such as aerial firefighting, illicit drug eradication, and passenger transportation. The individual agencies and their programs are responsible and accountable for aircraft acquisition, management, use, cost accounting, and safety. Although the agencies and programs have independent responsibility and accountability for managing their programs, OMB and GSA provide guidance and regulations for the agencies to follow.

OMB has issued two circulars that directly affect the management of agency aircraft programs. Circular A-126 provides the basic guidance for

²An accident is an occurrence associated with the operation of an aircraft in which any person suffers death or serious injury, or in which the aircraft receives substantial damage. An incident is an occurrence other than an accident, which affects or could affect the safety of operations.

management of aircraft programs and for travel on government aircraft.³ The purpose of Circular A-126 is to minimize cost and improve the management and use of government aviation resources. The circular prescribes policies for acquiring, managing, using, accounting for the costs of, and disposing of aircraft. According to the circular, agencies should not have more aircraft than they need to fulfill their mission, and they should periodically review the cost effectiveness of their entire fleet of owned aircraft. The circular also instructs agencies to comply with Circular A-76 before purchasing, leasing, or otherwise acquiring aircraft. Circular A-76 establishes policy for the competition of commercial activities, including the use of aircraft.⁴ The circular provides guidance for use in preparing cost comparisons involving the provision of aircraft or aviation support services with agency-owned resources or through the private sector. The purpose of the comparison is to ensure that aviation services cannot be obtained from the private sector more cost effectively. It also states that agencies should consider that, although an activity may be inherently governmental, the tools needed to perform the activity are not necessarily inherently governmental.

OMB Circular A-126 also sets out responsibilities for GSA regarding aircraft management. Under the circular, GSA

- maintains an office to coordinate policy for federal aircraft management;
- develops generic federal aircraft information system standards;
- identifies ways to acquire, manage, and dispose of aircraft in a cost-effective manner;
- assists agencies in establishing systems to comply with cost accounting and cost analyses requirements; and
- reviews agencies' internal policies for compliance with OMB guidance.

³OMB Circular A-126, "Improving the Management and Use of Government Aircraft," May 1992.

⁴OMB Circular A-76, "Performance of Commercial Activities," May 2003.

In implementing the circular, GSA employs a small group of individuals to help it establish governmentwide policy on the operation of aircraft by the federal government—including policies for managing the acquisition, use, and disposal of aircraft that the agencies own or hire. GSA publishes its regulatory policies in the Code of Federal Regulations (C.F.R.).⁵ GSA also established the Interagency Committee for Aviation Policy (ICAP) as a working group to advise it in developing or changing aircraft policies and information requirements. Under GSA's direction, ICAP has established several subcommittees, comprising representatives from the various aircraft programs, which work on regulatory, data management, aircraft acquisition, and safety issues. GSA, in conjunction with ICAP, also publishes a number of other guides and manuals to help agencies manage the acquisition, use, and disposal of their aircraft. These publications include the *U.S. Government Aircraft Cost Accounting Guide*, which contains information on how agencies should account for aircraft costs; the *Fleet Modernization Planning Guide*, which aids programs in developing cost-effective fleet replacement plans; and the *Safety Standards Guidelines for Federal Flight Programs*, which agencies can use to help create their own agency-specific safety standards and operations and maintenance manuals.

In addition to establishing governmentwide aircraft policy, OMB Circular A-126 requires GSA to maintain a system to track aircraft cost and usage data. GSA deployed the Federal Aviation Interactive Reporting System (FAIRS) in April 2000 in an attempt to improve upon the shortcomings of a previous data system. The FAIRS system replaced the Federal Aviation Management Information System that was antiquated and had limited data collection and analysis capabilities. All civilian federal agencies that own or hire aircraft must report data into the FAIRS system. FAIRS is an Internet-based system that is accessed through a secure Web site. Each individual agency is responsible for entering the data into FAIRS, and GSA is responsible for developing, operating, and maintaining the computer-based system itself. GSA uses the data contained in the FAIRS system to prepare its annual report on the status of federal government aircraft, which includes information on the costs and use of the aircraft fleet. The most recent report for the period of this study details fiscal year 2002 operations.⁶

⁵41 C.F.R. Pt. 102-33, (2003).

⁶General Services Administration, *Report on the Status of Federal Government Aircraft, Fiscal Year 2002*, Aircraft Management Policy Division, undated.

When federal agencies use aircraft to carry out their missions, the aircraft are generally flown as “public use” aircraft and are exempted from many FAA regulatory requirements that are applicable to “civil use” aircraft. Although all aircraft operations must follow applicable sections of 14 C.F.R. Part 91, which sets out basic rules governing all flight operations, public aircraft operators do not have to comply with FAA safety regulations, including maintenance rules and pilot certification standards. Therefore, the federal agencies have sole responsibility for providing the safety oversight of those operations. The definition of what constitutes a public use operation has been modified over the years, but public use operations include, but are not limited to, law enforcement, firefighting, search and rescue, biological or geological resource management, and aeronautical research. When agencies use aircraft for nonmission purposes such as passenger transportation, they are no longer considered to be public use and FAA subjects the federal aircraft programs to the same operations, maintenance, and safety standards as those that apply to civil operators.

Total Federal Aircraft Operating and Maintenance Costs Are Unknown Because Existing Data Are Incomplete and Inaccurate

We were unable to accurately determine the composition and costs of the federal aircraft fleet because there is no reliable central source of this information. Although GSA maintains a governmentwide aircraft database, we found this information to be incomplete and inaccurate. GSA’s FAIRS system showed that in fiscal year 2002, the federal government owned about 1,400 aircraft and, including the cost of aviation services obtained through the private sector, reported spending about \$706 million to operate and maintain federal aircraft programs.⁷ However, according to the results of our analysis, GSA’s management controls do not provide reasonable assurance that the FAIRS system provides an accurate accounting of the composition and cost of the federal aircraft fleet, which calls into question the information published in GSA’s annual report. Our review of the FAIRS data showed that the data are incomplete and inaccurate because several agencies did not accurately report all of the costs captured by FAIRS and did not report all aircraft to FAIRS. As a result of these shortcomings, we found that GSA’s annual reports on the cost of federal aircraft programs likely understate total program costs by at least \$568.7 million over the period fiscal year 2000 through fiscal year 2002, or an average of about \$190 million per year. In addition, agencies are not required to report some costs, such as depreciation and financing costs, which further understates

⁷Appendix II summarizes federal fleet information from the GSA FAIRS system.

total aircraft program costs, and some of the data reliability controls directed at ensuring that the FAIRS data are sound were not working as designed.

Agencies Reported Incomplete or Inaccurate Information

On the basis of our analysis of the data contained within the FAIRS system and information obtained from the seven programs we reviewed, we found that agencies reported incomplete or inaccurate information. Reasons they did not report certain information included not understanding the FAIRS reporting requirements, finding no compelling reason to report, and agency mistakes resulting in some missing information. Table 1 summarizes the results of our analysis of the data contained within the FAIRS system.

Table 1: FAIRS Data Problems for Major Aircraft Programs, Fiscal Years 2000 through 2002

Dollars in millions			
Problems identified/status	2000	2001	2002
Department of Agriculture (USDA Forest Service)			
Forest Service-provided data exceeds FAIRS data for fiscal years (FY) 2000 – 2002. FAIRS aircraft program costs understated.	\$16.5	\$30.3	\$39.4
USDA Forest Service overstated Commercial Aviation Services (CAS) hours by about 4,000. However, cost data did not change so there was no impact on total program costs.	None	None	None
Department of Justice			
JPATS costs understated. JPATS reported \$52.8 million in FY 2000, \$67.4 million in FY 2001, and \$49.5 million in FY 2002 to FAIRS. JPATS officials stated that the agency's program costs were \$78.4 million in FY 2000, \$78.0 million in FY 2001, and \$72.4 million in FY 2002. Aircraft program costs understated.	\$25.6	\$10.6	\$22.9
DEA did not report costs or hours associated with aircraft leased through a private contractor. Aircraft were flown by DEA pilots. DEA officials estimated that the program spent about \$2 million per year for the use of these aircraft. Aircraft program costs understated.	\$2.0	\$2.0	\$2.0
Federal Bureau of Investigation (FBI) did not report for certain aircraft. Impact on total program costs unknown. All aircraft conduct sensitive missions and FAIRS data is restricted to FBI use only. Total aircraft program costs understated.	Unknown	Unknown	Unknown
Department of the Interior			
Three DOI aircraft not included in inventory. DOI officials stated that they do not include the three aircraft because they perform undercover operations. DOI continues to exclude the aircraft from FAIRS. Aircraft program costs understated.	\$0.1	\$0.1	\$0.1
DOI does not report cost of pilots when they perform a dual role on the flight (e.g., serve as a biologist in addition to piloting the aircraft). Total aircraft program costs understated.	Unknown	Unknown	Unknown

(Continued From Previous Page)

Dollars in millions

Problems identified/status	2000	2001	2002
National Aeronautics and Space Administration			
One National Aeronautics and Space Administration (NASA) Gulfstream aircraft not reported in inventory. Aircraft recently added to fleet inventory. FAA operates aircraft and is required to report cost and hour data. Federal aircraft fleet understated by one aircraft.	None	None	None
No cost data reported for FY 2002. In FYs 2000 and 2001 NASA reported between \$75.5 million and \$79.3 million respectively. GSA officials working with NASA to comply with FAIRS reporting requirements. Aircraft program costs understated by an estimated \$75 to \$80 million in FY 2002.	None	None	\$75.0
Many reported costs averaged across aircraft. Analysis of NASA aircraft and complete FAIRS inventory by cost category not meaningful. No impact on total program costs.	None	None	None
National Science Foundation			
FAIRS reporting for FYs 2001 and 2002 are incomplete. Agency reported inconsistent data across years. Aircraft program costs understated for FYs 2001 and 2002.	Unknown	Unknown	Unknown
Crew costs not reported (aircraft flown by military crews.) Total aircraft program costs understated.	Unknown	Unknown	Unknown
Department of State			
No cost data reported for FY 2001; FY 2002 data understated. In FYs 2000 and 2002, agency reported \$20.7 million and \$91.7 million respectively. Agency officials estimated that program costs were \$150 to \$180 million per year. Aircraft program costs understated by between \$58 and \$150 million per year.	\$129.3	\$150.0	\$58.3
Cost data for FYs 2000 and 2002 inconsistently reported. Results in unreliable cost category analysis. No impact on total program cost.	None	None	None
Numerous costs not reported to FAIRS. Costs of fuel, chemicals, salaries, and overhead are not reported. Agency officials stated that only costs directly associated with aircraft are reported. Total aircraft program costs understated (impact captured above.)	Unknown	Unknown	Unknown
Department of Transportation			
FAA did not report cost or hours for NASA Gulfstream aircraft. (The aircraft had been missing from the inventory, and was recently added.) GSA officials stated that FAA would report costs and hours for FY 2003. Aircraft program costs understated.	\$1.5	\$1.5	\$1.5
Overall FAIRS data			
Number of aircraft understated. GSA and program officials compared FAIRS inventory information to agency data and discovered 65 aircraft that should have been included in FAIRS. Many of the aircraft identified were classified as nonoperational. Magnitude of impact on cost and hour data unknown, but likely understated.	Unknown	Unknown	Unknown
Minimum total estimated understatement^a	\$175.0	\$194.5	\$199.2
FAIRS reported costs	\$661.5	\$613.1	\$705.6
Minimum percentage understated	26%	32%	28%

Source: GAO analysis of FAIRS data.

^aOur analysis showed that this amount represents the minimum amount that FAIRS data are understated.

In addition to our findings of incomplete or inaccurate information being reported, in January 2004, GSA and the agencies reviewed the aircraft contained in the FAIRS database and found that numerous aircraft were missing from the database. According to GSA, agencies found that a number of aircraft were assigned erroneously within and among agencies and that a number of aircraft, particularly nonoperational aircraft, were not recorded in FAIRS. According to preliminary fiscal year 2003 data, GSA and the agencies discovered an additional 65 aircraft that were not included in the FAIRS inventory (not including the three DOI aircraft that remain missing from the inventory.)

Agencies Are Not Required to Report Some Important Costs

Our review of the FAIRS data requirements for aircraft programs found that the system does not capture several cost elements that directly relate to the costs of operating aircraft programs. OMB Circulars A-126 and A-76 and GSA's cost accounting guidelines recognize costs such as depreciation, self-insurance, and financing costs as important costs of acquiring and operating aircraft and require programs to include them when preparing various cost analyses. However, FAIRS has made no provision that programs identify and report these costs because GSA designed FAIRS to capture only the day-to-day costs associated with operating aircraft.

The impact of not capturing these costs can potentially represent a significant annual expense that is not included in GSA's annual report on the aircraft program costs. For example, generally accepted accounting principles recognize depreciation as a "cost of doing business"—a way to recoup the value of an asset as it is consumed. In this way, the organization can capitalize the lost value of an asset in planning its future replacement. Given the age and diverse nature of the federal aircraft fleet, it is not possible to determine the total amount of annual depreciation that would be reported to FAIRS. However, given the size and value of the fleet, it could represent a significant annual expense. For example, in 2002, a contractor estimated that it could cost JPATS about \$117 million to purchase a fleet of seven used large transport aircraft. The depreciation expense of this fleet could total several million dollars per year over the anticipated 10 years that JPATS plans to use these aircraft.

We also found that GSA's cost accounting guidelines do not require that agencies report the costs associated with self-insurance. Aviation activity involves risks and potential casualty losses and liability claims. These risks are normally covered in the private sector through the purchase of an insurance policy. The government is self-insuring; the Treasury's general

fund is charged for losses and liability claims. Circular A-76 requires agencies to include a self-insurance cost when performing A-76 calculations. Finally, the costs associated with financing are not captured. For the purpose of capturing finance costs, OMB instructs agencies to use the borrowing rate announced by the Department of the Treasury for bonds or notes whose maturities correspond to the useful life of the asset.

FAIRS Data Reliability Controls Could Be Improved

In developing the FAIRS system, GSA implemented a number of data reliability controls and issued guidance designed to help ensure that FAIRS data are complete and accurate. Some of these controls are specific controls built into the FAIRS system. Others relate to GSA's role as a "central data steward"—a central agency that collects and reports aircraft program data. GSA has a responsibility to provide the most accurate information possible. We tested a number of the controls that GSA employs and found some to be effective or partially effective and some ineffective or missing. Table 2 summarizes our review of both existing and missing internal controls that apply to the FAIRS system and GSA's responsibility as a data steward.

Table 2: Analysis of Internal Controls for the FAIRS System

Effective controls	Partially effective controls	Ineffective controls	Missing controls
FAIRS systems controls			
Only agency-authorized and GSA-trained persons can access FAIRS.	Triggers prevent improper entry, review, correction, or approval of aircraft inventory, cost, and use data.	Only the FAIRS administrator should be able to change approved inventory data.	FAIRS should not allow a reviewer to enter new aircraft inventory or cost and use data.
Triggers allow only an agency-authorized user to enter new or correct disapproved data.		Only agency-authorized reviewer should be able to mark CAS cost and use data as approved.	FAIRS should not allow negative aircraft cost and use data to be accepted.
Triggers allow only records without errors on aircraft cost and use data to be uploaded via batch processing.		Approved CAS cost and use data should only be changed with the assistance of the FAIRS administrator.	Users should not be able to enter a disposal date that is prior to the acquisition date for an aircraft.
Only agency-authorized reviewer can review and mark aircraft cost and use data as approved.			Use data entered should not be greater than the maximum number of hours available for the reporting period.
Approved federal aircraft cost and use data can only be changed with the assistance of the FAIRS administrator.			

(Continued From Previous Page)

Effective controls	Partially effective controls	Ineffective controls	Missing controls
Status automatically changes to awaiting review or system accepted, not reviewed after specific time frames.			
Control access to report and data in FAIRS and make corrections as proposed by agencies.			
Data stewardship controls			
Provide agencies with guidance on data requirements including the <i>Cost Accounting Guide</i> and the <i>FAIRS Users Manual</i> .	Provide technical assistance to agencies in establishing their cost accounting systems.		GSA should foster the concept of full costing for agencies' cost accounting systems.
Provide draft of annual report to agencies for comment and proposed changes.	Require agencies to use prescribed data elements for reporting aircraft cost data.		GSA should check agencies' cost accounting systems for compliance with the <i>Cost Accounting Guide</i> .
	Verify that aircraft cost and use data collected from agencies are in compliance with reporting requirements.		GSA should routinely check data agencies report to FAIRS for completeness and accuracy.
	Establish data entry and approval procedures and edit checks to promote validity and reliability of data.		GSA should ensure periodic audit coverage by the Office of Inspector General or internal auditors to promote quality of aircraft data.
	Systematically perform analytical reviews of cost and use data reported to FAIRS.		GSA should ensure that changes to prior periods and annual report are disclosed in subsequent reports.

Sources: GAO analysis of FAIRS internal controls and GSA aircraft program guidance.

Appendix III contains additional information on the criteria we used to analyze GSA's controls over data reliability and the results of that analysis.

Our review found that the system effectively ensured that only agency-designated personnel had access to the agency's data. Alternatively, we found that the control designed to ensure that each aircraft entered has a unique inventory code assigned to it that allows each aircraft in the database to be differentiated was not functioning properly at the time of our test. The control is designed to ensure that once entered and approved, the data cannot be changed without the use of approved approaches. During our tests we created a new aircraft record, approved the data, and were able to change the information. GSA officials stated that they have taken steps to correct the malfunctioning controls and have a continuing

agreement with Computer Sciences Corporation, the FAIRS contractor to establish additional controls for the FAIRS system.

Our review also found that although the internal controls currently available in the system are fairly robust, a number of the controls were missing, and other controls did not always function effectively. As a result, the controls as a whole could not ensure that the data contained in the system are complete and accurate. For example, we found that GSA did not routinely audit the agency-generated data to help ensure that all aircraft and related costs and flight hours that should be reported to FAIRS were included. In addition, we found that GSA does not check agencies' compliance with the *Cost Accounting Guide* or conduct oversight of agencies' cost accounting systems to compare the data in these systems with the data reported to FAIRS. Some agencies ask GSA for advice on policies and the operation of their cost accounting systems, and GSA provides the assistance when requested. A GSA official stated that the agency has the responsibility to develop policies and provide consultation to agencies that report to FAIRS, but it lacks the resources necessary to ensure that the agencies completely and accurately report. The official added that he would prefer additional resources to oversee the agencies reporting information into FAIRS but also said that it would be more effective for the agencies to routinely audit the aircraft and related cost and use data that they report.

GSA is responsible for collecting information on the federal government's use of aircraft and issues an annual report that provides information on the composition of the federal fleet and the costs that agencies incur in conducting aircraft operations. GSA helps agencies to identify, compile, analyze, and report aircraft program data but does not have systematic oversight of the agencies' cost accounting systems—the primary source for the cost data that GSA collects. As the central agency that collects and reports aircraft program data, GSA has a responsibility to provide the most accurate information possible. The Joint Financial Management Improvement Program's Framework for Federal Financial Management Systems identifies GSA as a "central data steward" with responsibility to ensure that the data used to support governmentwide managerial functions and reporting are complete and accurate. Specifically, the document states that although the information is dependent on the integrity of data provided by program agencies, GSA must still perform adequate verification to ensure that data collected comply with reporting standards.

In 2002, GSA hired Conklin and deDecker Associates, an aviation information services consultant, to analyze FAIRS cost data to determine, among other things, the extent to which the data could be used for detailed cost analyses and developing aviation performance measures. The contractor's preliminary study found that missing and inconsistent FAIRS data, combined with the ways in which different agencies report data into FAIRS, made it impossible to draw useful conclusions. The study also found that the FAIRS reporting requirements were vague and allowed agencies to report inconsistent or incomplete data. The contractor provided several recommendations on how the quality of the data could be improved and GSA has awarded a contract to Computer Sciences Corporation to enhance and modify FAIRS with many of the recommendations identified in the performance measures study. These enhancements include requiring four mandatory cost categories (crew, fuel, maintenance, and overhead); the adding of two aircraft utilization measures; and clarifying the definitions of several cost elements. GSA and ICAP recognized that the FAIRS system would change over time and adopted a process to address potential enhancements to the system. They meet periodically to review and prioritize improvements and, after enhancements have been approved, GSA plans to make the improvements to the FAIRS system as funding permits.

Federal Aircraft Programs Lack Comprehensive Systems to Ensure Cost-effective Acquisition and Fleet Management Decisions

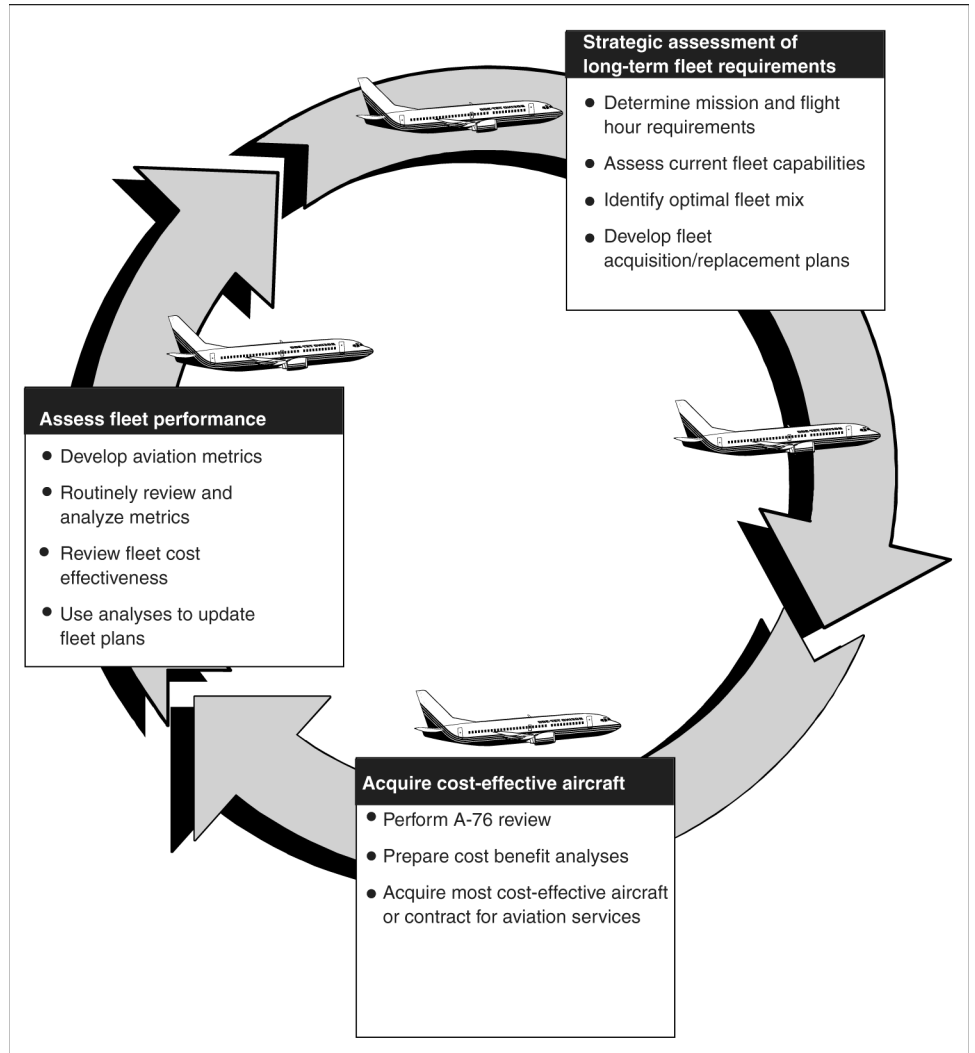
A comprehensive aircraft fleet management planning process can help federal aircraft programs ensure that they acquire, manage, and modernize their aircraft in a cost-effective manner. This process is based on determining a program's long-term fleet requirements, acquiring the most cost-effective fleet of aircraft, and continually assessing the fleet's ability to meet a program's mission requirements. Our review of seven programs found that none of them had fully implemented such a systematic process to ensure cost effective fleet management decisions. However, some had sporadically taken measures, such as developing a fleetwide replacement plan, preparing cost benefit analyses on some aircraft, and implementing some statistics to assess their fleet's performance. In addition, officials from some of the programs said that their ability to make cost-effective acquisition decisions is constrained by budget scoring rules presented in OMB Circular A-11, because it can limit their method of acquiring aircraft to either purchasing them outright or entering into more costly short-term operating leases.

Federal Guidance Outlines Three Key Fleet Management Planning Principles

According to federal guidance, sound fleet management decisions should be based on a comprehensive process that relies on three key principles: (1) assessing a program's long-term fleet requirements, (2) acquiring the most cost-effective fleet of aircraft to meet those requirements, and (3) continually assessing fleet performance to determine if needs are being effectively met. These overarching principles are detailed in guidance that GSA, OMB, and the Department of Energy (DOE) have made available to federal aircraft programs. Specifically, GSA has developed a fleet modernization planning guide and associated workshops, which outlines key aspects of sound fleet planning. This guidance stresses the need for aircraft programs to determine mission requirements, identify aircraft alternatives, perform financial analyses of alternatives, and select the most cost-effective mix of fleet aircraft. OMB Circulars A-76 and A-126 highlight the need to make cost-effective aircraft acquisition decisions, and Circular A-126 requires programs to periodically assess the cost-effectiveness of their fleets. In addition, the DOE's aircraft program has developed a comprehensive aviation performance management program, which outlines nearly 40 statistical measures or metrics that aviation officials can use to continually assess their fleet's operating, maintenance, supply, crew, mission equipment, safety, and cost performance. Through ICAP, DOE has made the details of their program available to other programs.

Figure 1 displays the fleet management planning process, showing that it is a continuous cycle of planning and analyses.

Figure 1: Aviation Fleet Management Planning Process



Source: GAO analysis of fleet management planning principles.

The first phase of the fleet management planning process begins when aircraft program managers do a strategic assessment of long-term fleet requirements. According to GSA's guidance, this is the foundation of fleet management, because it identifies future workload requirements that serve as the basis for aircraft needs. The assessment process includes specific analyses, such as an assessment of the number of flight hours needed to meet mission requirements over a minimum of a 5-year period and the

capability of existing aircraft to cost effectively meet those requirements. The guidance recommends that, if shortfalls in the current fleet of aircraft are identified, managers should determine the optimal mix of aircraft to meet anticipated flight hour and mission requirements and develop a proposed fleet acquisition or replacement plan to achieve the desired mix of aircraft. This plan could include an anticipated schedule and time frames for disposing of inadequate aircraft and procuring replacements.

According to GSA's guidance, after identifying potential aircraft and developing a proposed fleet replacement plan, aviation managers should develop a series of analyses to identify and acquire the most cost-effective aircraft to meet mission needs. These analyses include preparing A-76 studies to determine whether the aviation operations should be performed by the government or contracted to the private sector and life cycle cost analyses to ensure that the most cost-effective aircraft are procured. A life cycle cost analysis provides managers with important information concerning the total cost of an aircraft over its full life. It takes into account not only the costs of acquiring aircraft, but also the cost of operating and maintaining them over their useful life. Such information and analyses are crucial to making sound acquisition decisions. Once analyses are completed, aviation managers should obtain senior management approval and then acquire needed aircraft or commercial aviation services.

The final phase of the fleet management process centers on assessing the performance of the aircraft fleet in meeting mission needs. To accomplish this, managers should develop a set of aviation performance measures and a process to routinely review and analyze these measures to gauge their fleet's performance. These measures include statistics to assess the reliability of the aircraft fleet, determine whether costs are too high, and determine whether there are systematic maintenance issues that require attention. Managers should also periodically conduct an OMB Circular A-126 review of the cost effectiveness of their entire fleet. Finally, managers should incorporate the results of their performance metrics analyses and their periodic Circular A-126 reviews into their long-term fleet planning process and make adjustments to their fleets as needed.

Programs Made Limited Use of Key Principles in Fleet Management Planning

Of the seven programs we reviewed, we found no program fully implementing all of the key aspects of fleet management planning. We found only two of the seven programs had performed long-term, strategic reviews of their mission requirements and optimal fleet mix. Rather, most of the programs we reviewed engaged in a limited form of long-term

planning. In addition, we found none of the seven programs were regularly completing Circular A-76 studies to determine whether their aircraft should be owned or operated by the federal government or a contractor. The programs could provide cost-benefit reviews only about one-third of the time documenting the aircraft they selected was the most cost-effective aircraft to perform the needed tasks. Similarly, we found that none of the seven programs in our review had developed a comprehensive system that included a full-range of aviation statistics to track the effectiveness of their aircraft, and only one that evaluates the continuing need for their aircraft under OMB Circular A-126.

Figure 2 displays our assessment of whether the programs we reviewed had implemented the key concepts of fleet management planning when acquiring and managing their aircraft fleets. In general, we found that FAA's Flight Inspection, DOJ's JPATS, USDA Forest Service, and FWS programs had implemented many of the key concepts of fleet management planning when acquiring and managing their fleets. In contrast, FAA's Hangar 6, DEA, and DOS's INL/A programs made less frequent use of these key concepts when acquiring and managing their fleets. Summaries of how the agencies we reviewed implemented the key principles of fleet management planning follow the chart. Detailed information on the programs we reviewed can be found in appendixes IV through X.

Figure 2: Implementation of Key Fleet Management Planning Principles

Program	Long-term planning		Justifying acquisitions			Assess fleet performance	
	Determined mission requirements	Developed fleet acquisition plan	Implemented approval process	Prepared A-76 studies	Performed cost benefit analyses	Developed aviation metrics	Prepared A-126 cost effectiveness reviews
FAA Flight Inspection	●	●	●	○	●	◐	○
JPATS (prisoner transport)	●	●	◐	○	◐	◐	○
FWS (fish and wildlife)	○	◐	●	◐	◐	○	●
USDA Forest Service (firefighting)	◐	◐	◐	◐	●	◐	○
FAA Hangar 6 (Washington flight)	◐	○	●	○	◐	○	○
DEA (drug enforcement)	◐	◐	◐	○	○	◐	○
State Department INL/A (narcotic eradication)	○	○	◐	○	○	◐	○

- Not implemented
- ◐ Partially implemented
- Fully implemented

Source: GAO analysis of programs' fleet management planning processes.

Most Programs Made Limited Use of Long-term Strategic Planning

Overall, federal aircraft programs we reviewed generally engaged in limited long-term strategic planning for the purpose of assessing and determining their fleet requirements. For example, only two of the seven programs we reviewed had produced a comprehensive long-term plan that identified future mission requirements and a recommended mix of aircraft to meet those requirements. In 2002, FAA's Flight Inspection program issued a study

that evaluated the program's future workload; how many flight hours it would take to meet that workload; and what the optimal, most cost-effective mix of aircraft would be to perform the program's mission. The study resulted in a recommendation to replace much of the current fleet with smaller, more efficient aircraft. FAA officials stated that they hope to implement these recommendations, if funding is available. Similarly, in 1997 DOJ's JPATS program completed a comprehensive strategic plan estimating how many and what type of prisoners the program would need to transport over a 5-year period, the program's resources needed to perform this task, and what mix of aircraft would be best-suited for the program's future needs. This study also resulted in a recommendation to replace many current JPATS aircraft with more efficient aircraft. DOJ officials stated that they have been trying to implement these recommendations but have been delayed due to budgetary and contracting concerns. Although these two programs have recently produced long-term strategic plans for the aircraft fleet, neither has a mechanism in place to regularly produce such plans.

Three of the other programs we reviewed had recently produced some long-term fleet plans, but nothing as comprehensive as the Flight Inspection or JPATS programs. For example, although the FWS has not produced a long-term strategic fleet plan for its entire fleet of 57 aircraft, in 2003 it produced a long-term assessment and fleet replacement plan for the portion of its fleet of aircraft used to survey migratory bird routes. This plan recommended replacing nine outdated aircraft by purchasing nine new aircraft beginning in 2005. Also, in the Conference Report (H.R. Conf. Rep. 108-10) for the Consolidated Appropriations Resolution, 2003 (P.L. 108-7), the conferees directed that DEA produce a 5-year strategic plan for its aircraft program. The plan includes some recommendations on replacing portions of its fleet, including its aging OH-6 helicopters, but did not include a detailed analysis of how many flight hours would be required of its fleet and what mix of aircraft would be best suited to DEA's mission. Finally, the USDA Forest Service completed two replacement studies for its fleet of Beech Baron planes that direct other aircraft fighting forest fires but USDA Forest Service officials indicated they have not done such a study for the USDA Forest Service's entire fleet of aircraft.

The remaining two programs we reviewed (DOS-INL/A and FAA's Hangar 6) did not engage in long-term planning that estimated the future, long-term mission requirements for their programs and what mix of aircraft was best suited for these requirements. These programs had general ideas about the future mission requirements of their programs and when particular aircraft

in their fleets would need to be replaced. However, these programs had not performed a comprehensive, fleetwide analysis of these issues and had not studied the optimal fleet mix for their future requirements.

During the course of our review, GSA identified DOE as an example of a federal aircraft program that had successfully implemented the key principles of fleet management. For example, DOE officials stated they implemented a comprehensive long-term planning process in which DOE strategically assesses its aircraft program's long-term fleet requirements. In 2001, DOE published the results of their planning process. According to DOE officials, this document, the Comprehensive Aviation Program Study, recommended selling five aircraft and acquiring two others. DOE plans to perform this type of study every 5 years and update the study on an ongoing basis in the interim.

Programs Use Differing Methods for Justifying and Making Cost-effective Aircraft Acquisition Decisions

Each of the seven aircraft programs we reviewed used different methods to justify their needs to acquire aircraft and used different amounts of documentation to ensure the most cost-effective aircraft was acquired—an important principle of comprehensive fleet management. These processes range from programs that require formal cost-benefit analyses and review by officials outside the aircraft program before acquiring an aircraft to those that have an informal process in which aircraft are acquired as needed with only limited analysis required. For example, FAA's Flight Inspection program uses a process that all FAA programs are subject to when they acquire capital assets. Under this process, the acquiring program prepares an analysis documenting the need for the aircraft and recommending the most cost-effective aircraft to acquire. After that, an outside group, independent of the acquiring program, reviews this documentation to determine if the acquisition is justified. Conversely, the DOS's INL/A program uses no set criteria or documentation to approve an aircraft acquisition and there is no outside, independent review of their decisions.

To gain a better understanding of how the programs we reviewed justified and documented their aircraft acquisitions, we asked program officials to provide us documentation on 28 of the aircraft they acquired.⁸ These

⁸We initially selected 32 aircraft for our review, but because agencies had acquired 4 of these aircraft at the direction of Congress, or through an interagency transfer, we excluded them from our review. Therefore, we reviewed the documentation of 28 aircraft.

aircraft had a combined initial acquisition value of over \$129 million.⁹ Specifically, we asked program officials to provide A-76 reviews for the aircraft we selected. OMB Circular A-76 requires federal programs to perform an analysis of whether or not an aircraft they are acquiring should be owned and/or operated by the federal government or contracted out to a private entity. The circular also requires that programs provide the results of this review to GSA and OMB. The overarching principles of fleet management planning and modernization would also indicate that programs should complete a cost-benefit analysis before acquiring any aircraft. We found that programs had completed A-76 reviews for only 3 of the 28 aircraft whose documentation we reviewed. Only the Fish and Wildlife Service (once) and the USDA Forest Service (twice) had completed an A-76. In all other cases, programs stated that the aircraft we had selected were considered by agency officials to be exempt from OMB Circular A-76 requirements because the aircraft performed inherently governmental missions, were replacements for existing aircraft, or had been mandated by Congress.

However, Circular A-76 explicitly states that programs should file A-76 reviews in most instances because, although the mission of the program may be inherently governmental, the aircraft does not necessarily have to be government owned or operated. In addition, we found that some of these programs had hired contractors to perform the same aviation functions for them, which contradicted their views that the missions were inherently governmental, and thus needed to be completed by government employees using government-owned aircraft. Furthermore, Circulars A-76 and A-126 require programs to meet its requirements whenever they acquire an aircraft and does not make a distinction as to whether the aircraft is a replacement of an existing aircraft or an addition to the fleet. GAO and several Offices of Inspectors General have repeatedly found aircraft programs that do not complete A-76 reviews before acquiring their aircraft.¹⁰ Despite the circular's requirements, OMB staff stated that they do not verify the material in A-76 studies that programs submit nor do they

⁹Program officials could not provide the acquisition price for six of the aircraft we reviewed.

¹⁰U.S. General Accounting Office, *Improvements Are Needed in Managing Aircraft Used by Federal Civilian Agencies*, LCD-77-430 (Washington, D.C.: Dec. 22, 1977); U.S. General Accounting Office, *Federal Civilian Agencies Can Better Manage Their Aircraft and Related Services*, GAO/PLRD (Washington, D.C.: June 24, 1983); *President's Council on Integrity and Efficiency Combined Report on the Federal Civilian Agencies' Aircraft Management Programs*, December 16, 1996. This study summarized the reports of 20 Offices of Inspectors General that were completed between 1994 and 1996.

ensure that such studies are completed. Also, OMB staff stated that they rely on program officials to determine whether they need to prepare A-76 reviews or decide the requirements do not apply to their programs because their operations are inherently governmental.¹¹ As we have previously reported, OMB does not view its role as requiring agencies to undertake A-76 cost comparisons, and it has not consistently worked with agencies to ensure that provisions of A-76 are being effectively implemented.¹² In addition, we reported that A-76 has not appeared to be a high priority within OMB or civilian agencies and, as a result, little effort has been taken to use the A-76 process.

In addition to A-76 reviews, another way federal aircraft programs can help ensure that they acquire the most cost-effective aircraft to meet their needs is to perform a cost-benefit analysis that includes a life cycle cost analysis on any aircraft a program is considering acquiring. GAO and several agencies' Offices of Inspectors General have recommended that programs perform these cost-benefit analyses prior to acquiring aircraft. Despite this, we found that, in general, programs had performed such analyses for only one-third of the programs' aircraft we selected and that five of the seven programs we reviewed had added at least one aircraft without performing such a study. FAA's Flight Inspection program and the USDA Forest Service were the most consistent as far as preparing such studies. In contrast, the remaining programs had either performed such analyses in only some instances, or, as was the case with DOS's INL/A operation and DEA, they did not document or could not locate their analyses.

Programs Did Not Have Comprehensive Systems for Assessing Fleet Performance

We found that programs were implementing the final key principle of fleet management—assessing fleet performance—to varying degrees. Overall, we found that none of the seven programs we reviewed had established a wide range of statistical goals or targets that were routinely tracked to judge the effectiveness of their aircraft. These statistics could include data on whether a particular part on an aircraft has failed several times, how frequently pilots are flying aircraft, or how long it takes to repair a

¹¹OMB staff stated that they do require federal agencies to submit a list of activities they perform that are not inherently governmental, as required by the Federal Activities Inventory Reform Act of 1998 (P. L. 105-270) so that private contractors are aware of activities on which they could potentially bid.

¹²U.S. General Accounting Office, *OMB Circular A-76: Oversight and Implementation Issues*, GAO/T-GGD-98-146 (Washington, D.C.: June 4, 1998).

particular malfunction. Five of the seven programs we reviewed tracked some statistics but did not include a full range that focused on all aspects of their aircraft programs. Generally, these programs focused on performance indicators measuring how often an aircraft was disabled and unable to fulfill its mission. The remaining two programs—FAA’s Hangar 6 and the FWS—do not routinely track any performance indicators on their aircraft. In contrast to these programs, DOE has implemented a comprehensive performance management system that tracks nearly 40 performance indicators. The Director of DOE’s Office of Aviation Management stated that DOE aviation staff frequently review these indicators and would be able to discover issues that they otherwise might not. For instance, DOE staff would be able to identify if delivery of certain parts was consistently slow, keeping their aircraft grounded longer than they needed to be. They would then be able to make changes to address the problem.

Having a system of performance measures in place can also help a program fulfill the requirements of another OMB circular designed to assist programs in assessing their operations. OMB Circular A-126 requires continuing needs analyses in which programs periodically assess the cost-effectiveness of their operations and determine whether their aircraft are still necessary. However, we found that six of the seven programs we reviewed were not performing these continuing needs analyses, stating that they were exempt from the requirements or did not know about them. Only the FWS had completed an A-126 review. Much like A-76 reviews, OMB staff stated they do not verify the information in A-126 reviews nor ensure that agencies complete the reviews as the circular directs.

Budget Scoring Rules May Cause Agencies to Select Costly Shorter-term Leases, Which Can Potentially Increase Long-term Acquisition Costs

With the average age of the federal aircraft fleet exceeding 25 years and nearly 45 percent being older than 30 years, many federal aircraft programs may soon need to spend millions of dollars acquiring new or replacement aircraft. As program managers proceed through this process, they will be faced with the decision of whether to (1) purchase the aircraft outright; (2) use a lease-purchase arrangement in which programs make payments for a period of years, at the end of which they would own the aircraft; or (3) use

short- or longer-term operating leases.¹³ During the course of our review, officials from some aircraft programs indicated that, when budgetary constraints precluded the purchase of aircraft, they have attempted to use lease-purchase or long-term lease options. However, they said that federal budget scoring guidelines as presented in OMB Circular A-11 have effectively precluded these options.¹⁴ As a result, programs are left with either continuing to use their existing fleet or entering into short-term operating leases, which increase the cost of their acquisitions by millions of dollars.

To effectively allocate resources, Congress needs to know and vote on the full cost of any program it approves at the time a funding decision is made. Thus, scorekeeping rules require that budget authority for the cost of purchasing an asset—whether it be outright federal purchase or lease-purchase—be recorded in the budget when it can be controlled, that is, up front so that decision makers have the information needed and an incentive to take the full cost of their decisions into account. Under budget scoring rules, if a program uses a lease-purchase, it must have budget authority in an amount equal to the present value of the total lease payments for the asset. Scoring the full costs up-front permits Congress to compare a lease-purchase with an outright purchase. However, this scoring results in pressures to use operating leases, because if a program uses an operating lease, it needs up-front budget authority to cover only the first year lease payments plus any cancellation costs. Therefore, a program could spread the budgetary impact of acquiring the use of an asset over a number of years using an operating lease.

As we have reported in the past, purchasing assets is typically the least costly option, followed by the lease-purchase option, which is more expensive than purchasing assets, but less costly than using short-term

¹³An operating lease gives the federal government the use of an asset for a specified period of time, but the ownership of the asset does not change. OMB Circular A-11 identifies six criteria that a lease must meet to be considered an operating lease. The circular defines a lease-purchase as a type of lease in which ownership of the asset is transferred to the government at or shortly after the end of the lease term. It defines a capital lease as any lease other than a lease-purchase that does not meet the criteria of an operating lease.

¹⁴Scorekeeping guidelines as agreed upon and used by the House and Senate Budget Committees, the Congressional Budget Office, and OMB measure the effects of legislation on the deficit. They are presented in OMB Circular A-11.

operating leases.¹⁵ While short-term operating leases are more costly over time compared with other options, they add much less to a single year's total appropriation, making them a more attractive option from an agency's perspective, particularly when it believes that funds for ownership would not be made available. With regard to acquiring aircraft, a GSA consultant's 2003 study showed the cost impact of these different acquisition methods.¹⁶ According to the study, the net cost of acquiring a \$10 million aircraft, after subtracting the residual value of the aircraft after 10 years, would be about \$3.5 million. This same aircraft would have a 10-year net cost of about \$5.5 million if acquired through a 5-year lease-purchase, \$9.6 million by using a 10-year operating lease, and \$18 million by using a series of ten 1-year operating leases.¹⁷

Officials at several programs we visited stated that if they had sufficient budget authority they would not need to finance aircraft, and their first choice would be to purchase aircraft, because it costs less in the long run. As a result, officials indicated that if funding is not available for purchasing an aircraft, their options are limited to using more costly shorter-term leases that can meet the operating lease definition spelled out in Circular A-11 or continue to fund the operation and maintenance of older, less reliable aircraft until funding becomes available to acquire new ones. For example, in 2003 FAA Hanger 6 decided they needed two replacement aircraft. Since funding was not available to purchase these aircraft they entered into two 1-year leases, with four 1-year renewable options. A study for FAA's Hanger 6 program estimated that the net cost of purchasing the two aircraft would be about \$7.7 million, after subtracting the residual value of the aircraft after 10 years. If they were to acquire these aircraft through lease-purchase they estimated the net cost of about \$10.7 million.¹⁸ The study estimated the cost of acquiring these aircraft through operating leases over the 10-year period to be about \$21.3 million—\$13.6 million and \$10.6 million more than the outright purchase and lease-purchase options, respectively. JPATS is

¹⁵U.S. General Accounting Office, Performance and Accountability Series, *High-Risk Series: Federal Real Property*, [GAO-03-122](#) (Washington, D.C.: Jan. 1, 2003).

¹⁶"Impact of the FAR and OMB Circular A-11 on Lease vs. Lease-to-purchase Decisions," Conklin and deDecker Associates, (July 9, 2003).

¹⁷The net cost of the purchase and lease-purchase options includes the residual value of the aircraft, estimated to be \$6.5 million at the end of 10 years.

¹⁸The net cost of the purchase and lease-purchase options includes the residual value of the aircraft, estimated to be \$12.4 million at the end of 10 years.

also in the process of acquiring replacement aircraft. A study examining the cost of acquiring seven large transport aircraft estimated that it could cost about \$117 million to purchase the aircraft, about \$137 million to use lease-purchase, about \$183 million for a 7-year lease, and \$208 million for seven 1-year leases.¹⁹

OMB staff told us that purchasing an aircraft is more cost effective than various lease options because a program can avoid financing costs, so programs should purchase aircraft, rather than finance them. They indicated that if the aircraft acquisition is a high enough priority, program officials should work through the budget process to obtain the funding needed to acquire it.

Decision makers have struggled with this matter since the scoring rules were established and the tendency for agencies to choose operating leases instead of ownership became apparent. We have suggested the alternative of up-front scoring of those leases that are perceived by all sides as long-term federal commitments so that all options are treated equally.²⁰ Although this could be viable, there would be implementation challenges if this were pursued, including the need to evaluate the validity of agencies' requirements. Another option, which was recommended in 1999 and discussed by GAO, would be for agencies to establish capital acquisition funds to pursue ownership where it is advantageous, from an economic perspective.²¹ Finding a solution for this problem has been difficult; leasing to meet long-term needs results in excessive costs to taxpayers and does not reflect a sensible approach to capital asset management.

¹⁹The study did not include a calculation of any aircraft residual values for the purchase or lease-purchase options.

²⁰U.S. General Accounting Office, *Public Buildings: Budget Scorekeeping Prompts Difficult Decisions*, [GAO/T-AIMD-GGD-94-43](#) (Washington, D.C.: Oct. 28, 1993).

²¹U.S. General Accounting Office, *Accrual Budgeting: Experiences of Other Nations and Implications for the United States*, [GAO/AIMD-00-57](#) (Washington, D.C.: Feb. 18, 2000).

Federal Aircraft Programs Have Developed Operational and Safety Standards, but Oversight Is Voluntary and Varied

The federal aircraft programs included in our review had developed operations, maintenance, and safety standards specific to their programs even though their public use operations are exempted from many regulatory requirements that apply to “civil use” aircraft. The programs required their aircraft operations to comply, at a minimum, with FAA’s basic rules governing all civil flight operations, and some of the programs required their aircraft operations to develop standards beyond the basic rules and comply with more restrictive FAA aircraft regulations. Although federal aircraft programs had developed various standards without being required to do so, the use of oversight to help ensure the safety, effectiveness, and efficiency of the programs varied greatly. We found that each agency is responsible for managing its aircraft programs, writing standards based on the ICAP safety standards guidelines, and instituting an oversight process. Although the federal agencies have taken steps to mitigate the risks of their dangerous missions, it is not possible to eliminate the risk and, as a result, the operations have resulted in some accidents. Our review of accident data for all federal programs found 183 accidents and incidents from April 1995 through October 2003. Most of these accidents occurred during dangerous missions, such as fire suppression and complex training maneuvers, and were generally the result of pilot error.

Federal Aircraft Programs Have Developed Standards That Exceed Federal Requirements

Federal aircraft programs operate and maintain aircraft that are engaged in some of the most dangerous types of flight possible. For example, USDA Forest Service pilots often fly 150 feet above ground level at roughly 175 miles per hour when dropping fire retardant in an effort to suppress forest fires. Despite the inherently dangerous nature of some of their missions, federal aircraft are exempt from most safety requirements that apply to civil and commercial aircraft, with the exception of the airspace rules referred to in certain sections of C.F.R., Part 91, that all aircraft operators must follow.²² For example, operators of public aircraft are not required to have an FAA pilot or medical certificate ensuring they are able and medically fit to operate aircraft; pilots who fly civil aircraft must have these minimum credentials.

²²14 C.F.R. pt. 91 prescribes air traffic and general operating rules governing flight operations.

Recognizing that the inherently dangerous nature of their missions require a focus on safety, each aircraft program we reviewed had voluntarily developed systems specific to their programs to help ensure safety. These systems set a level of standards to address the operational, maintenance, and safety issues associated with operating the aircraft programs. The operations standards generally covered program policies and procedures, pilot qualifications, and crew training and proficiency requirements. The maintenance standards provided procedures for maintaining the programs' aircraft, which included maintenance management responsibilities, personnel qualifications, maintenance and inspection procedures, and a means of tracking maintenance actions. Finally, the safety standards established guidelines for the protection and preservation of personnel and property against injury and loss. They covered items such as aircraft accident investigation and reporting requirements, mission risk assessment processes, mission safety guidelines, and program safety review requirements.

Each of the programs that we reviewed developed specific operations, maintenance, and safety standards governing a wide variety of aircraft operations. Because of the differences in the missions, the standards for each aircraft program were developed specific to the program's mission. Based on our review of these standards, and discussions with program officials, we found that the standards federal aircraft programs had developed exceeded the requirements for public use operations. Each of the programs we reviewed also voluntarily adopted ICAP's Safety Standards Guidelines for Federal Flight Programs. The standards outline five major components of an effective aviation safety system—management/administration, operations, maintenance, training, and safety.

In addition, we found some of the programs developed standards significantly above the basic operating rules set out in 14 C.F.R. Part 91 and required compliance with the more restrictive FAA aircraft regulations, 14 C.F.R. Part 135.²³ For example, FAA made a policy decision to comply with Part 135 regulations prescribed for civil operations. Still, two of the federal aircraft programs developed requirements to operate above the requirements of Part 91 but do not comply with all of the higher standards

²³14 C.F.R. pt. 135 prescribes rules specifically governing certain commuter, on-demand (air taxi), and charter flight operations.

of Part 135 and 14 C.F.R. Part 121.²⁴ To illustrate, JPATS officials said their operations and safety standards attempt to mirror those in Part 121 relating to air carrier operations but cannot meet all of the standards of Part 121 because of the associated costs of maintaining maintenance and parts facilities at each location their aircraft visit. Thus, JPATS met some of the Part 121 standards, such as pilot qualifications and training requirements, but its maintenance is conducted at the less restrictive Part 91 level.

Agencies Use Differing Approaches to Aircraft Program Oversight

FAA is generally considered the federal government's expert for overseeing and regulating aircraft safety, operations, and maintenance. In the interest of public safety, FAA regulates civil aircraft requiring that operators, pilots, crew, and maintenance personnel comply with general standards and procedures. In addition, FAA's flight inspectors examine the operations, maintenance, and airworthiness of commercial aircraft. As a result of these inspections, aircraft can be grounded until corrective actions are taken to address the inspector's findings. However, FAA's responsibilities for flight safety do not reach to the aircraft used for public use operations by federal agencies.²⁵

Because there are no regulatory requirements for oversight of federal aircraft programs, it is left to each program to determine the best oversight process for making certain that it is complying with its policies and safety standards. An oversight process can help ensure that each federal aircraft program continues to operate as safely as possible. We found that some programs chose to undergo external oversight voluntarily, while others relied on self-enforcement. For example, the two FAA programs, Hangar 6 and Flight Inspection, both undergo safety reviews from FAA's Flight Standards Service staff. Flight Standards is the organization within FAA that has oversight responsibilities for all civil aviation operations. FAA officials stated that the Flight Standards Service subjects FAA's aircraft

²⁴14 C.F.R. pt. 119 prescribes rules specifically governing scheduled air carrier common carriage or commercial charter service operations using large aircraft—aircraft capable of carrying more than 20 passengers or a maximum payload of 6,000 pounds or more. 14 C.F.R. pt. 121 prescribes rules governing the domestic, flag, and supplemental operations of (pt. 119) scheduled air carrier common carriage or commercial large aircraft charter service operators.

²⁵When agencies operate aircraft for purposes that are not defined as public use operations, such as passenger transportation, those operations are subject to the FAA regulations applicable to civil aircraft operations.

programs to the same level of scrutiny and inspection that it gives the commercial industry.

Two programs we reviewed, JPATS and INL/A had established program requirements that require them to undergo GSA's Aviation Resource Management Survey (ARMS) reviews. JPATS has a requirement to complete an ARMS review every 4 years, and DOS's INL/A has an ARMS review requirement for each of its site locations on a periodic basis. An ARMS review, coordinated through ICAP, is an evaluative process for safety and accident prevention used for discovering deficiencies in federal aircraft programs in the areas of operations, training, and facilities. The criteria used in the ARMS reviews are derived from the ICAP Safety Standards Guidelines. In implementing a review to assess a program's operations, ICAP forms a safety team that generally includes FAA personnel to ensure the team has adequate safety expertise. Between 1991 and 2002, ICAP completed 22 ARMS reviews. Although the evaluative results of program-specific ARMS reviews are not publicly available, GSA performed a trend analysis of the 10 ARMS reviews completed between 1997 and 2002 found many of the same safety issues existed at several programs. These issues included having an insufficient number of instructors to conduct aviation training, not having a formal general maintenance manual, lack of trained personnel to accomplish assigned missions, and flight crews not thoroughly planning flights.

In contrast, the USDA Forest Service, DEA, and FWS subject themselves to internal reviews of their operations. Each FWS region undergoes a program review performed by the Department of the Interior's National Business Center-Aviation Management Directorate (AMD) every 5 years. This review involves a broad examination of FWS' aircraft program administration, training, operations, and safety systems in each region. FWS officials said the AMD program review is considered an external oversight process, and they believe AMD's inspections and 5-year reviews are sufficient. The USDA Forest Service and DEA elected to undergo program reviews that are initiated and performed internally. DEA officials stated that their internal safety and training reviews are conducted using guidelines established by outside agencies. In addition, DEA plans to undergo an ARMS review in the next year and an internal DEA Office of Inspections review in July 2004.

Although the programs are responsible for the oversight of their public use operations, we found that some confusion exists over what party is responsible for ensuring that contractors are meeting operations, maintenance, and safety requirements. Government regulations require

that when federal aircraft programs enter into contractual agreements with commercial operators to fulfill their missions, they include operational, maintenance, and safety requirements in the agreements. For example, 2 years ago two USDA Forest Service contracted aircraft crashed after their wings came detached during flight. The USDA Forest Service had included maintenance requirements in its contracts for the air tankers that required compliance with Part 135 maintenance standards. USDA Forest Service officials said they believed that because they had required Part 135 compliance, it was FAA's responsibility to ensure that the contractors were meeting those maintenance requirements. However, FAA officials stated that when federal aircraft programs use contracted aircraft to fulfill a public use mission, it is the responsibility of the agencies to monitor the contractors. Consequently, neither the USDA Forest Service nor FAA were ensuring that the contractors were meeting the maintenance and safety standards set forth in the contracts.

A blue ribbon panel formed after the accidents concluded that until new contracting processes are implemented and backed by FAA's participation and oversight, this situation would likely continue. FAA officials told us that they would consider providing safety inspections to federal agencies on a reimbursable, resource-available basis if an agency requested this service. In addition, NTSB investigated these accidents and found that oversight of aircraft used in firefighting operations was not adequate to ensure safe operations. On April 23, 2004, NTSB issued a letter to the Departments of Agriculture and Interior—federal agencies that routinely conduct firefighting operations—and FAA that concluded the firefighting agencies must ensure the continuing airworthiness of firefighting aircraft and monitor the adequacy of maintenance programs used for these aircraft.²⁶ NTSB made a number of recommendations to these agencies to ensure the continued airworthiness of aircraft used in firefighting operations. Subsequent to this letter, USDA Forest Service and DOI determined they do not have in-house expertise to certify the airworthiness of these aircraft and, therefore, decided to ground the planes and cancel all existing contracts for air tanker services.

²⁶National Transportation Safety Board: Safety Recommendation (A-04-29 through A-04-33), April 23, 2004.

Federal Aircraft Programs Are Required to Report Accidents and Incidents

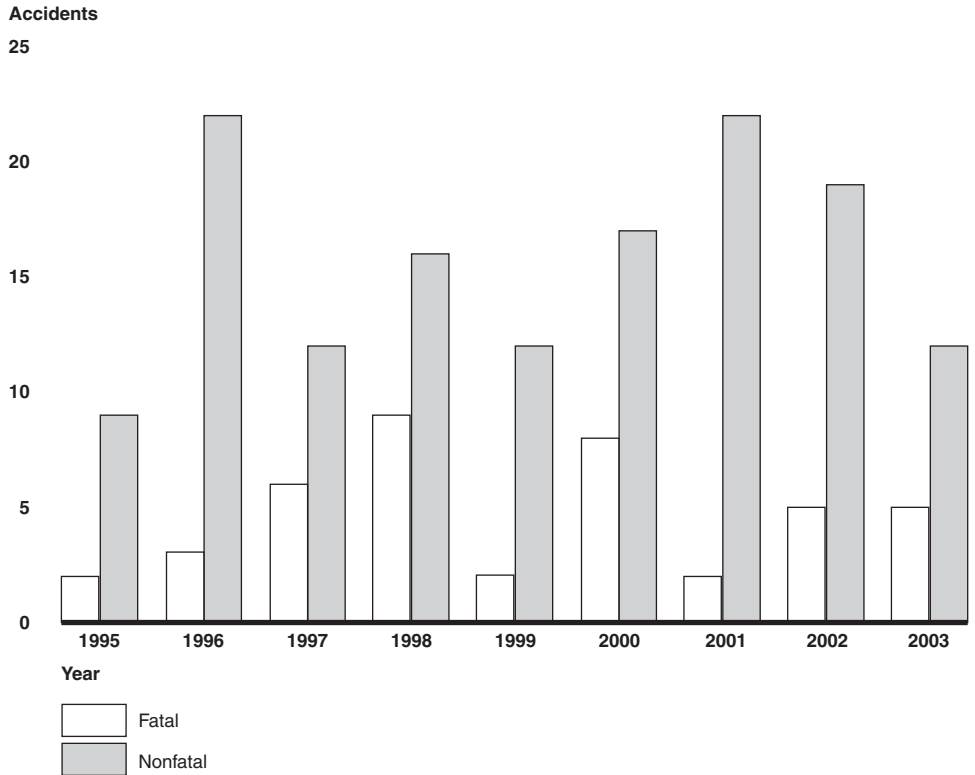
Federal aircraft programs are required to report to the NTSB when accidents or incidents occur.²⁷ Since 1995, NTSB has had authority to investigate and determine probable cause of all federal aircraft accidents or incidents.²⁸ We identified 183 accidents and incidents occurring from April 1995 through October 2003 involving federally owned and contracted aircraft that resulted in 91 fatalities. Figure 3 shows the number of fatal and nonfatal accidents and incidents reported to NTSB during the period April 1995 through October 2003.²⁹

²⁷NTSB defines aircraft “Accidents” as an occurrence associated with the operation of an aircraft in which any person suffers death or serious injury or in which the aircraft receives substantial damage. An “Incident” is an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.

²⁸The Independent Safety Board Act Amendments of 1994 (P.L. 103-411) gave NTSB jurisdiction to investigate all accidents involving public aircraft, except those operated by the Armed Forces or by a U.S. intelligence agency.

²⁹It is customary to cite accident rates—for example, accidents per 100,000 flight hours—however, because there is a lack of accurate federal public use flight hours, we did not compute accident rates.

Figure 3: Federal Fatal and Nonfatal Accidents and Incidents, April 1995 – October 2003



Source: GAO analysis of NTSB data.

We found three primary categories of causes of federal aircraft accidents and incidents identified by NTSB: (1) human factors, including pilots, maintenance staff, flight crews, and management; (2) environmental factors, including light conditions, terrain, objects, and weather; and (3) mechanical malfunction, including structure and systems failure, fuel exhaustion, and engine failure. In addition to the primary causes, NTSB often finds other contributing factors that may have lead to an accident or incident. Table 3 identifies the primary cause and contributing factors that NTSB determined for the federal aircraft accidents and incidents.

Table 3: Causes and Contributing Factors to the 183 Federal Aircraft Accidents and Incidents, April 1995 – October 2003

	Primary cause	Contributing factor	Total	Percentage of accidents
Human				
Pilot	103	3	106	58%
Maintenance	6	7	13	7%
Crew	2	7	9	5%
Management	0	9	9	5%
Other	2	3	5	3%
Subtotal	113	29	142	78%
Environment				
Light conditions	0	6	6	3%
Terrain	1	19	20	11%
Object	3	12	15	8%
Weather	2	35	37	20%
Subtotal	6	72	78	43%
Mechanical				
Structure and systems	14	8	22	12%
Fuel	4	5	9	5%
Engine	10	11	21	11%
Subtotal	28	24	52	28%
Unknown				
Cause not identified	4	0	4	2%
Ongoing investigation	32	0	32	18%
Subtotal	36	0	36	20%

Source: GAO analysis of NTSB accident data.

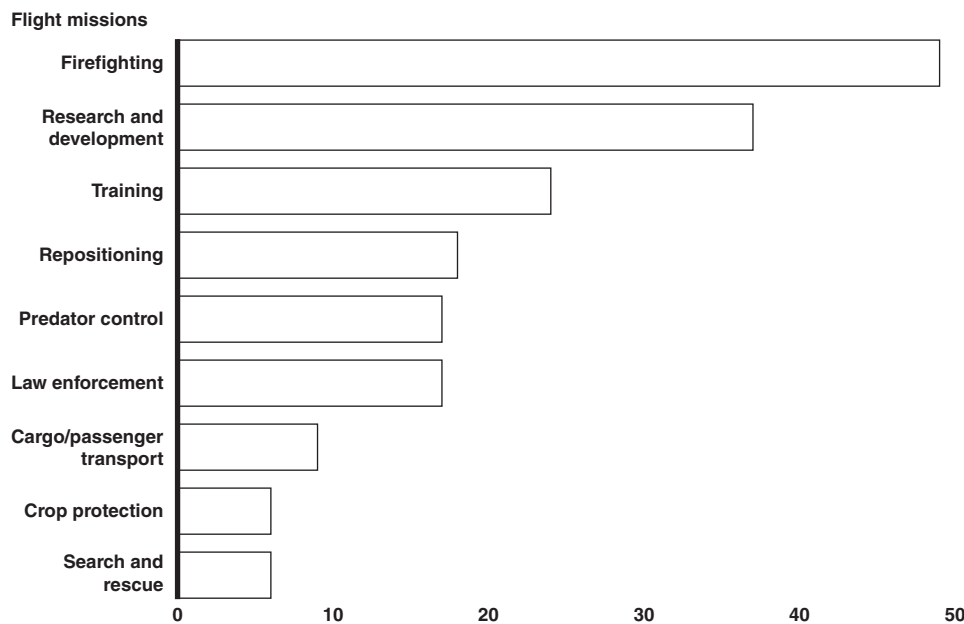
Note: Contributing factor columns may not equal to the total number of accidents and incidents because a single accident or incident could have none or multiple contributing factors. In addition, percent columns do not add to 100 because a single accident could have more than one category of causes or contributing factors.

The table shows that human factors caused or contributed to 142, or 78 percent, of all federal aircraft accidents and incidents. Pilot error was the most frequently cited primary cause, contributing to 58 percent of all federal aircraft accidents and incidents we reviewed. Our review of safety reports and discussions with agency officials confirmed that pilot and crew error have historically been a safety challenge. Examples of pilot error

included operating at inadequate speeds, not following procedures, and lack of experience. There also appeared to be a link between pilot error and environmental factors and mechanical failure. For example, more than half of the 103 accidents and incidents caused by pilot error were due to the pilots' actions during adverse weather conditions; while in close proximity to objects and terrain, such as power lines and trees; or during mechanical breakdown.

We also found that the number of accidents and incidents varied by the nature of the mission. For example, 98 of the 183 accidents and incidents, or 54 percent, occurred during firefighting missions, law enforcement, and training operations (see fig. 4). These missions involve such activities as abrupt and sharp turns; low-level maneuvering; excessively slow or fast speeds; and landings on water and ice-covered runways and lakes.

Figure 4: Classification of Accidents and Incidents by Mission April 1995 – October 2003



Source: GAO analysis of NTSB data.

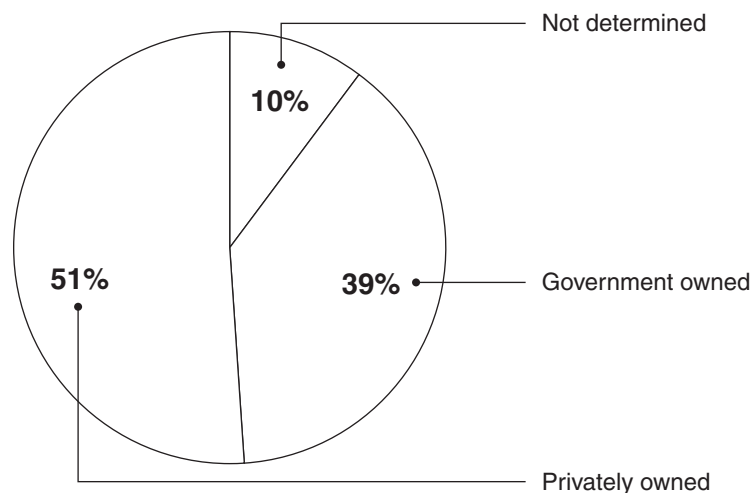
Note: Repositioning involves moving an aircraft from one location to another for future use.

We also found that a higher proportion of federal aircraft accidents and incidents occurred during the flight of the mission, compared with approach and landings, when most of the commercial aircraft accidents occur. Overall, about 34 percent of the 183 accidents and incidents occurred during the maneuvering phase of the mission, such as dropping fire retardants, capturing animals, enforcing drug laws, and crop dusting. For example, 12 of the 17 or 71 percent of predator control accidents and incidents occurred during the maneuvering phase of flight.³⁰ Predator control missions require pilots to turn at sharp angles and fly at aggressively fast speeds to chase and capture a predator in close proximity to trees and other terrain.

Finally, we found that about half of the 183 accidents and incidents occurred in privately owned aircraft that were under government contract. We reviewed the data to determine whether the accidents or incidents occurred more frequently with aircraft owned and operated by the federal government or with commercial aviation services obtained from the private sector. Although we were not able to determine ownership in all 183 accidents and incidents, we were able to identify 95 accidents and incidents (or 51 percent) that occurred in privately owned aircraft (see fig. 5).

³⁰Predator control refers to the operation of an aircraft for control of predators such as coyotes by capture and/or eradication.

Figure 5: Classification of Accidents and Incidents by Aircraft Owner



Source: GAO analysis of NTSB data.

In reviewing the NTSB data we found that privately owned aircraft under government contract completed a majority of the search and rescue, firefighting, crop protection, predator control, and passenger/cargo missions. For example, according to our analysis, 79 percent of the 44 USDA Forest Service accidents and incidents during the timeframe occurred in privately owned aircraft. According to a USDA Forest Service official, the safety of contracted aircraft has been a longstanding issue, because the contracting process assumed that FAA's certification ensured the aircraft's safety. In contrast, the owners of the aircraft were responsible for maintaining their own safety. Two highly publicized accidents that occurred during firefighting highlighted safety issues associated with the government's use of contractor-supplied aircraft. According to a study commissioned by the USDA Forest Service and the U.S. Bureau of Land Management following these accidents, the contracting process for acquiring the services of privately owned aircraft is limited, because it does not require contractors to operate their aircraft in accordance with maintenance and inspection schedules tailored to the conditions of firefighting.³¹

³¹Blue Ribbon Panel, *Federal Aerial Firefighting: Assessing Safety and Effectiveness* (December 2002).

Conclusions

In order to cost effectively manage federal aircraft programs, managers need accurate and complete cost data and a systematic process for determining aircraft fleet requirements and the best mix of aircraft to meet those requirements. Developing accurate cost and usage data is a critical first step to conducting meaningful assessments of federal aircraft programs. Since 1992, OMB Circular A-126 has directed GSA to operate a governmentwide aircraft management information system to collect, analyze, and report on the aircraft that programs own or hire and the usage of those aircraft. GSA has developed the FAIRS system to fulfill its requirements under the circular. FAIRS was designed to correct many of the problems inherent in the system it replaced. However, FAIRS data is insufficient for conducting detailed analyses or drawing useful conclusions on the condition and performance of federal aircraft operations because it does not capture the full costs associated with acquiring, operating, and maintaining federal aircraft. Existing FAIRS reporting guidance is vague and allows programs latitude in what cost elements to report. Also, the system provides no mechanism to ensure programs adhere to reporting requirements. This results in some programs excluding specific items, such as pilot salaries and fuel costs; and other programs excluding the entire costs of their aircraft programs—items totaling hundreds of millions of dollars. In addition, the design of the FAIRS system itself excludes important aircraft program costs such as those associated with acquiring and financing aircraft. By excluding the cost of acquiring aircraft, this system does not capture a significant portion of aircraft program costs. Further, the FAIRS system lacks sufficient internal controls to maintain data integrity. We found that some controls over the entry, review, and approval of FAIRS data were ineffective.

Developing accurate and reliable cost data for federal aircraft programs is only one part of a system to ensure cost-effective management and use of aircraft. Federal aircraft programs are, or soon will be, facing decisions about what to do with their aging fleets. A substantial portion of the federally owned aircraft fleet is approaching or past the age when aircraft become increasingly unreliable and more costly to operate; thus, programs will be faced with spending considerable sums on modernizing and upgrading their old, inefficient fleets. Federal aircraft programs will need to make cost-effective decisions on how best to modernize their fleets in order to stretch their available funding as far as possible and in accordance with applicable budget scoring rules. However, some agencies have not developed adequate systems to acquire and manage their aircraft fleets in the most cost-effective manner. Programs have continued to spend millions

of dollars acquiring aircraft without completing required OMB reviews or consistently performing cost benefit analyses. Officials from many of these programs believe that they are exempt from meeting OMB requirements to assess the cost effectiveness of their aircraft acquisitions and operations, despite repeated studies calling for them to complete such reviews. OMB provides limited oversight of the applicable circulars and leaves it up to the programs' discretion to determine whether and when to complete required reviews. In addition, programs lack comprehensive performance management systems that could help them prioritize those aircraft in greatest need of replacement. In meeting these future needs, a wide range of guidance and analytical tools is available to these programs, including OMB circulars, GSA fleet management guidance, and lessons learned from other programs such as FAA and DOE. By utilizing these available tools, program managers can begin developing comprehensive fleet management planning processes, which will help them identify needed replacements and provide added assurance that their replacement decisions are the most cost effective for the government.

In addition, each of the programs we reviewed subjected themselves to varying levels of safety and accident prevention oversight. FAA's two programs are examined by the same organization that inspects civil aviation operations, and two other programs have had aspects of their operations reviewed through use of GSA's ICAP Aviation Resource Management Surveys. Historically, these GSA-sponsored reviews have found that many of the same safety issues existed at several programs. The three other programs have relied on internal reviews of their operations. While it was beyond the scope of our review to evaluate the adequacy of these varying approaches to oversight, a comprehensive oversight system can play a key role in identifying potential issues before they become safety problems.

Recommendations for Executive Action

In order to improve the completeness and accuracy of the FAIRS database so that it captures all aircraft program costs and is useful for conducting detailed analyses of the condition and performance of the federal aircraft fleet, we are making the following three recommendations to the Administrator of GSA:

- Clarify existing FAIRS guidance to agencies to identify those cost elements that all aircraft programs should report to the FAIRS system, make the reporting of those elements mandatory, and develop a mechanism to ensure that agencies comply with reporting requirements.

-
- Expand existing FAIRS guidance to require that programs report additional aviation costs associated with acquiring aircraft, not currently required, which would provide more complete and accurate data on the composition and cost of the federal aircraft fleet and, thus, enhance GSA's annual report on federal aircraft operations. At a minimum, agencies should be required to report acquisition, financing, and self-insurance costs.
 - Conduct periodic testing of the FAIRS database to ensure that existing systems controls are working as designed and work with ICAP to identify, develop, and implement additional controls as necessary.

In order to ensure that federal aircraft programs have the capability to make sound fleet management decisions, we are making the following recommendation to the Administrator of GSA:

- Direct the Interagency Committee on Aviation Policy to work with its members to develop a model fleet management planning process. At a minimum, this process should include guidance to help agencies strategically assess long-term fleet requirements, acquire the most cost-effective aircraft to meet those requirements, and continually assess fleet performance.

Given the wide variety of oversight provided these programs and the important role oversight can play in helping enhance safety, we are making the following recommendation to the Administrator of GSA:

- Direct the Interagency Committee on Aviation Policy to examine the oversight being provided to federal aircraft programs and provide additional guidance, as necessary, on areas where enhanced oversight could improve the safety of federal aircraft operations.

In order to help ensure that federal aircraft programs are being managed in the most cost effective manner, we are making the following recommendation to the Director, OMB:

- Review current guidance relating to the acquisition and management of federal aircraft, including those associated with OMB Circulars A-76 and A-126, and develop additional guidance, as necessary, for agencies and OMB to achieve greater consistency in the management of federal aircraft programs.

Agency Comments and Our Evaluation

We received written comments on a draft of this report from GSA, DOJ, USDA, and DOI. We received oral comments from DOE and OMB. We received comments via e-mail from DOT. NTSB and DOS did not provide comments on the report.

The General Services Administration generally agreed with the findings and noted that improvements are needed in the management of federal aircraft programs across the board but did not indicate whether they agreed or disagreed with the specific recommendations. In addition, GSA offered several observations on our report. First, GSA commented that the draft report's title obscures the audit's scope, findings, and recommendations and suggested we revise the title to *Federal Aviation: Further Improvements Needed in Acquisition, Cost Accounting, Performance Measurement and Oversight*. We did not make this suggested change for several reasons. In our opinion, the term "aviation" encompasses factors beyond aircraft, such as air traffic control systems and the National Airspace; therefore, we do not believe it accurately portrays that this report is about aircraft operated by the federal government. In addition, the term "Federal Aviation" could imply that this report is about FAA, when it encompasses many federal agencies. Finally, we believe that the remainder of the report's title accurately reflects the report's key findings and recommendations. Second, GSA agreed that FAIRS cost data is too understated at this point to draw concrete conclusions about cost effectiveness and stressed that the quality of the data is improving each year. It also stated that aircraft inventory and flight hour data are more accurate and useful. We recognize that FAIRS is an enhancement over the prior system and that GSA has worked to improve the data it contains. We believe that our recommendation to improve the FAIRS system and its controls will further aid GSA's efforts. With regard to the inventory and flight hour data, we agree with GSA's assessment that it is more accurate and useful than the cost data contained in the system. Third, GSA commented that there were inconsistencies in the report's presentation of accident and incident data. We agree with GSA's comment and have revised the report to clarify the accident and incident data. Finally, GSA commented that the draft report correctly highlights that many parties are responsible for effectively implementing and managing federal aircraft programs including GSA, OMB, other agencies, and Congress. However, GSA opposes interfering in other agencies' internal management controls for which the agencies are accountable. We agree that no one party bears responsibility for effective federal aircraft programs; therefore, some of our recommendations are directed at the ICAP where all responsible parties

can work together to improve the management and use of federal aircraft. GSA also provided several technical comments that we have incorporated where appropriate. GSA's written comments are reproduced in appendix XI.

The Department of Justice generally agreed with much of the report, but expressed concerns regarding the implications of some statements contained in the report. First, the department stressed that DEA's long-term planning examined only a portion of its fleet because it did not have the financial resources or ability to identify specific milestones for its aircraft in that time frame. Also, it stated that the nature of DEA's mission was constantly changing, which makes it impossible to know how many flight hours its aircraft will need to perform. Instead, DEA focused its 5-year strategic plan on what could realistically be accomplished within a 5-year period. While we recognize that all government agencies have limited funding and changing mission requirements, we believe that preparing a strategic assessment of mission and fleet requirements is the foundation of effective fleet management because such analysis can identify future workload requirements, which define aircraft needs. We further believe that having such a plan allows agencies to respond proactively to existing and future needs and meet them as funding becomes available. We encourage DEA to emulate the best practices of programs that have prepared such a strategic assessment, such as FAA Flight Inspection and DOJ's JPATS programs. Second, the department commented that it believes that DEA's aircraft program is exempt from OMB Circular A-76 reviews because the majority of its missions are inherently governmental and require the use of law enforcement officers or other specialized DEA employees. As we point out in this report, GAO has observed a long history of noncompliance with OMB Circular A-76 and DEA, in particular, has previously indicated its aviation function is exempt from OMB Circular A-76 requirements because of the nature of its missions. Specifically, in our 1983 report on federal civilian aircraft programs, DEA stated that it is not realistic to expect drug law enforcement aircraft services to be provided by the private sector. Its rationale was that law enforcement needs are specialized and need to be available on demand. At that time, we agreed with DEA that law enforcement is a specialized area, but our position was, and remains, that all agencies must comply with OMB Circular A-76 in determining whether aircraft can be provided by the private sector. Also, DEA's argument is incongruous with INL/A's routine use of a contractor to fly aircraft used in drug eradication, interdiction, and surveillance missions. The department's long-standing noncompliance with OMB Circular A-76 is an example of why we have recommended OMB review its

guidance and make necessary clarifications on this matter. Finally, the department further clarified DEA's internal safety review process and provided additional information regarding planned external safety reviews of DEA's aviation operations. We have incorporated this information in the body of this report. The department also provided technical comments that we have incorporated where appropriate. The department's written comments are reproduced in appendix XII.

The Department of Agriculture agreed with virtually all of the comments that specifically identified a USDA Forest Service need for improvement and indicated that, in most cases, it believed it had complied with the requirements of OMB Circulars A-76 and A-126 but realized it could improve in the areas outlined in the draft report. The department agreed with GAO's concerns about GSA's FAIRS database and believed the draft report provided an accurate assessment of USDA Forest Service aviation cost data. Finally, it welcomed the suggested improvements to FAIRS and would like to be an active participant in making improvements to the FAIRS database. The department's written comments are reproduced in appendix XIII.

The Department of the Interior generally agreed with the findings and recommendations contained in the report but offered clarifying comments to information that pertains to the U.S. Fish and Wildlife Service. First, FWS expressed concerns regarding our finding that inaccurate aviation cost data hampers the cost-effective operation of federally owned aircraft because GAO based its assessment on data contained in the FAIRS system rather than agency-specific data. FWS indicated it does not use the information in GSA's database and, as a result, the shortcomings of the FAIRS cost data do not impact the agency's ability to cost effectively manage its aircraft fleet. While we recognize that FWS does not utilize FAIRS data to manage its aircraft fleet, our findings are based on the extent to which agencies used a comprehensive system of key fleet management principles that include an analysis of aircraft program cost data, as well as numerous other factors such as long-term planning, cost-benefit analysis, and performance management data. Second, while FWS agreed that it does not routinely track any performance indicators, both FWS and DOI commented that reports are available that track the daily utilization of individual aircraft that could be used to monitor trends in utilization. As this report points out, having information available on the utilization of aircraft can provide valuable data on the performance of aircraft—data that can support analytically-based fleet management decisions. As such, utilizing these reports can only serve to aid the department and FWS in

managing its aircraft program. The department also provided technical comments that we have incorporated where appropriate. The department's written comments are reproduced in appendix XIV.

OMB representatives agreed with the facts, conclusions, and recommendations of the report. With regard to the recommendation directed to OMB, its staff suggested that we slightly modify our original recommendation that it develop new guidance to one that recommends they review existing guidance and identify any actions needed to help ensure more consistency in the management of federal aircraft programs. We agreed and have modified the recommendation to OMB. OMB also provided technical comments that we incorporated where appropriate.

The Department of Transportation provided technical comments, which we incorporated where appropriate.

Officials from the Department of Energy agreed with the findings, conclusions, and recommendations in the report and provided comments on a few issues. First, the officials agreed with GAO's presentation of the impact that OMB Circular A-11 has and will continue to have on programs' ability to modernize their aging aircraft fleets. The officials also stated that this issue merits further scrutiny from OMB because of the potential to add sizable unnecessary costs to aircraft programs. We agree that this issue is important and believe our discussion adequately describes the challenges facing aircraft programs as they attempt to modernize their fleets. Secondly, these officials wanted to highlight the fact that internal safety reviews can be an adequate mechanism for ensuring program safety if the review is performed by qualified staff with the requisite safety and technical expertise to oversee aviation operations. Although not cited in this report, they believe DOE's own internal program could be a model for other agencies to follow. Finally, DOE officials suggested that GAO recognize that FAIRS is an improvement over the previous federal aircraft database and has the ability to be an effective management tool if agencies would consistently follow reporting requirements and utilize the data in decision making. We agree that FAIRS has the potential to assist agencies in cost effectively managing their aircraft operations.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to congressional committees with responsibilities for the activities discussed in this report;

to the Secretaries of the agencies we reviewed; and to the Administrators of the bureaus and offices we reviewed. We will also make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions regarding the contents of this report, please contact me at (202) 512-2834 or heckerj@gao.gov. Individuals making key contributions to this report are listed in appendix XV.

A handwritten signature in black ink that reads "JayEtta Z. Hecker". The signature is written in a cursive style with a long horizontal stroke at the end.

JayEtta Z. Hecker
Director, Physical Infrastructure Issues

Scope and Methodology

To provide information on the composition of the federal fleet and how much it costs to operate and maintain, we examined both the General Services Administration's (GSA) Federal Aviation Interactive Reporting System (FAIRS) computer system and its underlying data to attempt to determine the reliability of the information that the system provides. We analyzed GSA's FAIRS data reporting requirements, the computer-based system's internal controls, and the data that agencies reported into the system. Where possible, we compared the data that the agencies reported with that from their internal cost accounting systems. We conducted interviews with GSA officials responsible for operating and maintaining the FAIRS system and agency officials responsible for reporting the data and ensuring its accuracy. In addition, we interviewed an industry expert who specializes in aircraft program cost accounting. For this report, we are using FAIRS data for fiscal years 2000 through 2002. Although agencies were required to submit their fiscal year 2003 FAIRS data by December 31, 2003, GSA had not finalized the data by the time we completed our analysis.

As part of our effort to examine GSA's FAIRS systems, we reviewed the extent and quality of controls over federal aircraft data. In doing so, we sought to determine whether (1) GSA had management controls in place to provide reasonable assurance that the FAIRS data included in its report were valid and reliable and (2) FAIRS data were sufficiently reliable for our intended use. We identified and evaluated GSA's management controls over the processes to collect, analyze, and report costs, use, and numbers of government aircraft. We did not audit the data that agencies submit to FAIRS, nor did we audit the data produced by FAIRS or the information included by GSA in its annual reports. We conducted background research and site visits; interviewed GSA officials, and collected and reviewed documentation on GSA and FAIRS to gain an understanding of GSA's operations and FAIRS processes, its inherent and control risk factors, and existing management controls. We documented our understanding of the processing of aircraft inventory, cost, and use data in FAIRS and the identified internal controls in a process flowchart. For each relevant process identified, we assessed the overall effectiveness of existing controls by conducting a walk-through of the system and performing control testing—physical observation of how controls actually operated. Further, we evaluated the results of our analyses and testing to conclude whether GSA management controls provide reasonable assurance that the FAIRS data included in GSA's annual report are valid and reliable. We found information in the database was not sufficiently reliable to accurately determine the composition and cost of federal aircraft programs, however, we used the information to provide descriptive and

summary statistics. As a result, we developed recommendations for improving or establishing management controls to help assure FAIRS data quality.

To determine the extent to which federal programs have systems and controls in place to ensure that they are effectively and efficiently acquiring and managing their aircraft fleets, we identified key principles of aircraft fleet management/modernization planning and assessed the extent to which the programs had implemented these principles. In doing so, we reviewed the systems and controls that seven specific aircraft programs in five agencies were currently using to help ensure they acquire and manage their aircraft cost effectively and operate and maintain their aircraft safely. The seven programs were the U.S. Department of Agriculture's Forest Service, the U.S. Fish and Wildlife Service in the Department of the Interior, the Drug Enforcement Administration and the Justice Prisoner and Alien Transportation System in the Department of Justice, the Bureau for International Narcotics and Law Enforcement Affairs Office of Aviation in the Department of State, and the Federal Aviation Administration's Flight Inspection and Washington Flight Program in the Department of Transportation. We selected these five agencies because, according to GSA's data at the time we began our review; they owned over 70 percent of federal civilian aircraft and accounted for over 85 percent of federal aircraft program costs. Also, the seven programs we selected were some that had the greatest number of aircraft, historically incurred the most costs, or covered a wide variety of aviation missions (for detailed information on the seven programs, see appendixes IV through X.)

As a part of our review of these programs, we interviewed officials knowledgeable in fleet management at GSA, the various programs we reviewed, and GSA's primary aviation consultant, and we reviewed and analyzed the Office of Management and Budget (OMB), GSA, and Department of Energy (DOE) guidance on cost effectively acquiring and managing federal government aircraft. Based on the results of our interviews and our analysis of these documents, we identified key principles of a sound fleet management planning process, which we discussed with GSA officials and GSA's primary aviation consultant. In addition, we compared the systems and controls in place at each of the seven programs we reviewed with the key fleet management principles outlined in the available guidance. In doing so, we interviewed officials to determine whether they had strategically assessed and identified the optimal mix of aircraft to meet their programs' long-term mission needs. We also identified the internal review and approval processes for justifying

aircraft acquisitions at each of the seven programs. We also selected a nonprobabilistic sample of four to six aircraft in each program and asked program officials to provide documentation to support their acquisition decisions. The criteria for which we based our selection of the 32 aircraft consisted of factors such as whether the aircraft were airplanes or helicopters, the make and model of the aircraft, and the date the program acquired the aircraft. Finally, we interviewed officials at each of the programs to determine whether they had implemented a comprehensive aviation performance management system. During the course of our review, officials at some of the programs expressed concerns about the impact of OMB Circular A-11 on their abilities to cost effectively modernize their aircraft fleets. To learn more about the impact of this circular, we held discussions with OMB staff and reviewed a study prepared by GSA's consultant on this topic.

We also reviewed the operations, maintenance, safety standards, and safety records for the federal fleet. To determine what systems federal aircraft programs use to ensure safe operations, maintenance, and safety standards, we interviewed GSA officials and representatives from each of the selected aircraft programs. Further, we obtained documentation from the selected aircraft programs and performed site observations regarding the standards they use for their operations, maintenance, and safety programs. We also subjectively selected aircraft from the selected aircraft programs for detailed review and completed data collection instruments pertaining to maintenance and inspections of the aircraft. For each aircraft selected, we reviewed available maintenance and inspection records, and discussed the pilots' qualification requirements to operate the aircraft with program officials. We also interviewed officials from the Aerial Firefighting Industry Association, the Flight Safety Foundation, and the Helicopter Association International to obtain information on safety within federal, civil, and commercial aviation operations. However, we did not test for compliance with each programs' standards as it relates to their operations, maintenance, and safety programs. We also analyzed GSA, Congressional Research Service, and congressional committee reports on safety standards for federal aircraft programs.

To examine the safety record of federal agencies we developed a database of aviation accidents and incidents, which occurred from April 1995 through October 2003, based on an analysis of the National Transportation Safety Board's (NTSB) Aviation Accident Database. To ensure that the NTSB's database was complete and up-to-date, we conducted literature searches to identify federal aviation accidents, we collected accident data

from the agencies that participate in the Interagency Committee for Aviation Policy, and included accidents that NTSB identified for its public aircraft accident study. Where possible, we developed information on the agency involved, the type of mission, type of aircraft, accident severity, and flight operation among others. We identified summary data on these elements and, where possible, sought to identify trends in the data. We confirmed our analysis methodology with officials from NSTB. Based on interviews with NTSB officials and testing of the data, we determined that the data were sufficiently reliable for the purposes of this report.

Federal Aircraft Fleet Information

To determine the composition of the federal aircraft fleet and how much it costs to operate and maintain, we examined data that the agencies reported into the Federal Aviation Interactive Reporting System (FAIRS). We reviewed data for fiscal years 2000–2003, however, fiscal year 2003 was not complete enough to include in our analysis. Therefore, this section provides information for fiscal years 2000–2002.¹ Our review found four aircraft that should have been listed in the database but were not. This represented an understatement of about 0.3 percent. In addition, our review found discrepancies between the flight hours that agencies reported to FAIRS and the information we obtained directly from the seven flight programs we reviewed. Our review of the cost information in the database found it to be incomplete and inaccurate. We found that the cost data significantly understates the true cost of federal aircraft programs. Therefore, while FAIRS is the only comprehensive source of data on the federal government’s use of aircraft, care should be taken in drawing conclusions based on the information. We are reporting the data in the following tables and figures for information purposes only.

Composition of the Federal Aircraft Fleet

Eleven federal agencies owned aircraft during fiscal years 2000–2002. In addition, the Department of Agriculture and the National Aeronautics and Space Administration own a number of aircraft that are loaned to nonfederal entities.² Table 4 contains detailed information on the composition of the federal fleet.

¹FAIRS data frequently change as program officials input and edit data on an as needed basis. The data presented in this section are from the General Service Administration’s (GSA) published reports unless otherwise indicated.

²Although the federal government owns the aircraft that are loaned to the states, it does not operate the aircraft. Therefore, while the loaned aircraft are included in the inventory, they are not included in utilization or cost analyses.

Appendix II
Federal Aircraft Fleet Information

Table 4: Number of Aircraft Owned by Federal Agencies, Fiscal Years 2000-2002

Agency	2000	2001	2002
Department of Agriculture	89	93	77
Department of Commerce	14	14	13
Department of Energy	31	30	24
Department of Justice	331	347	348
Department of State	163	158	204
Department of the Interior	94	98	94
Department of the Treasury	131	137	137
Department of Transportation	52	52	52
National Aeronautics and Space Administration	107	108	108
National Science Foundation	14	14	13
Tennessee Valley Authority	9	9	9
Subtotal	1,035	1,060	1,079
Loaned to the states	236	235	289
Total	1,271	1,295	1,368

Source: FY2000–2002 FAIRS reports.

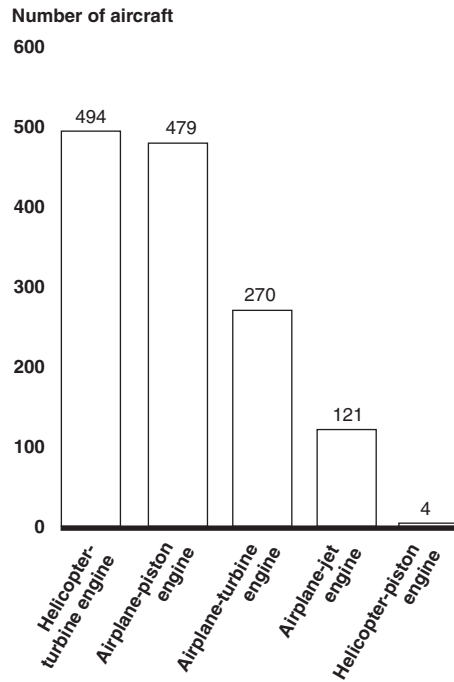
Note: Several aircraft programs were transferred to the Department of Homeland Security. The Department of Homeland Security began reporting to FAIRS in fiscal year 2003.

According to FAIRS, in fiscal year 2002, the federal aircraft fleet was composed of 236 different makes and models of aircraft produced by 45 different manufacturers. The fleet is composed of aircraft that are classified as either airplanes or helicopters.³ Figure 6 shows the types of aircraft in the federal fleet in fiscal year 2002.

³There is currently one glider in the fleet that is nonoperational. GSA classifies this aircraft as a piston engine aircraft.

Appendix II
Federal Aircraft Fleet Information

Figure 6: Types of Aircraft Owned by Federal Agencies, Fiscal Year 2002

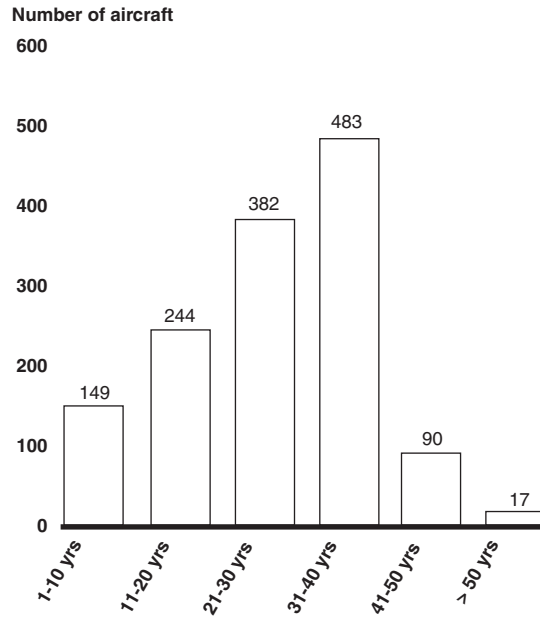


Source: GAO analysis of FAIRS data.

The federal aircraft fleet contains generally older aircraft—nearly 45 percent are 30 years or older. In fiscal year 2002, the average age of aircraft in the fleet was 26 years old. Figure 7 shows the age of federal aircraft grouped in 10-year increments.

**Appendix II
Federal Aircraft Fleet Information**

Figure 7: Age of Federal Aircraft in Fiscal Year 2002



Source: FY 2002 FAIRS report.

Note: Includes aircraft on loan to the states.

The Department of Agriculture and the National Aeronautics and Space Administration had the oldest aircraft—an average of 32 years in fiscal year 2002. Table 5 shows the average age of aircraft in the federal fleet during fiscal year 2002.

**Appendix II
Federal Aircraft Fleet Information**

Table 5: Average Age of Federal Aircraft by Agency, Fiscal Year 2002 (in years)

Agency	2002
Department of Agriculture	32
National Aeronautics and Space Administration	32
National Science Foundation	28
Department of Justice	25
Department of State	24
Department of the Interior	20
Department of the Treasury	20
Department of Commerce	19
Department of Transportation	18
Department of Energy	17
Tennessee Valley Authority	16

Source: FY 2002 FAIRS report.

Note: Includes aircraft on loan to the states.

Federal Aircraft Utilization

To determine the extent to which federal aircraft are utilized, we examined the flight hours reported to the FAIRS system. FAIRS does not collect or maintain information on the usage of aircraft that are loaned to the states. For the purposes of FAIRS, agencies track the amount of time that an aircraft is airborne. Table 6 contains information on aircraft utilization.

Table 6: Total Flight Hours of Aircraft Owned by Federal Agencies, Fiscal Years 2000-2002

Agency	2000	2001	2002
Department of Agriculture	26,337	24,897	26,756
Department of Commerce	2,869	3,002	3,800
Department of Energy	8,090	8,286	9,057
Department of Justice	101,387	82,887	107,373
Department of State	19,818	29,149	32,294
Department of the Interior	21,805	17,792	19,486
Department of the Treasury	38,223	30,021	44,907
Department of Transportation	15,253	19,824	23,582
National Aeronautics and Space Administration	20,024	19,592	15,545

**Appendix II
Federal Aircraft Fleet Information**

(Continued From Previous Page)

Agency	2000	2001	2002
National Science Foundation	933	4	731
Tennessee Valley Authority	3,274	3,133	2,874
Total	258,013	238,587	286,405

Source: FY 2000–2002 FAIRS reports.

Aircraft Program Costs

In attempting to determine the cost of federal aircraft programs, we analyzed aircraft program costs contained in the FAIRS system. Table 7 shows the total costs that agencies reported to FAIRS for fiscal years 2000 through 2002.

Table 7: Total Cost of Federal Aircraft Programs, Fleet Aircraft and Commercial Aviation Services Fiscal Years 2000-2002

Dollars in millions

Agency	2000	2001	2002
Department of Agriculture	\$230.1	\$182.0	\$280.0
Department of Commerce	6.5	6.1	8.6
Department of Energy	21.7	21.8	33.6
Environmental Protection Agency ^a	0.4	0.2	0.3
Federal Emergency Management Agency ^a	0.0	0.0	< 0.1
Department of Health and Human Services ^a	2.4	1.4	0.9
Dept. of Housing and Urban Development ^a	< 0.1	0.0	0.0
Department of Justice	80.8	124.6	83.8
Department of State	20.7	33.7	91.7
Department of the Interior	80.1	78.1	96.2
Department of the Treasury	41.9	29.9	50.1
Department of Transportation	76.0	47.4	49.1
National Aeronautics and Space Administration	75.5	79.3	Not reported
National Science Foundation	21.7	6.0	8.3 ^b
National Transportation Safety Board ^a	< 0.1	0.0	0.0
Tennessee Valley Authority	3.4	2.7	2.8
U.S. Arctic Research Commission ^a	0.0	< 0.1	0.0
Total^c	\$661.5	\$613.1	\$705.6

Source: FY 2000–2002 FAIRS reports.

^aSeveral agencies do not own aircraft and use commercial aviation services exclusively.

**Appendix II
Federal Aircraft Fleet Information**

^bThe National Science Foundation did not report costs for the Office of Polar Programs.

^cTotals may not add due to rounding.

Table 8 shows the costs that agencies reported to FAIRS for fleet aircraft during fiscal years 2000 through 2002.

Table 8: Cost of Federal Aircraft, Fiscal Years 2000-2002			
Dollars in millions			
Agency	2000	2001	2002
Department of Agriculture	\$8.3	\$2.3	\$11.2
Department of Commerce	6.4	5.7	8.0
Department of Energy	19.6	20.3	21.5
Department of Justice	57.9	76.0	53.2
Department of State	20.7	33.7	91.7
Department of the Interior	6.4	6.3	5.6
Department of the Treasury	41.7	29.8	50.1
Department of Transportation	70.4	40.6	43.7
National Aeronautics and Space Administration	75.5	76.2	Not reported
National Science Foundation	2.9	< 0.1	2.3 ^a
Tennessee Valley Authority	3.1	2.5	2.8
Total^b	\$312.9	\$293.5	\$289.9

Source: FY 2000–2002 FAIRS reports.

^aThe National Science Foundation did not report costs for the Office of Polar Programs.

^bTotals may not add due to rounding.

Agencies sometimes acquire commercial aviation services from the private sector. Some agencies that do not own their own aircraft still use aircraft and are required to report those costs to FAIRS. Therefore, the number of agencies reporting commercial aviation services costs is greater than the number of agencies in table 8. Table 9 shows the costs that agencies reported to FAIRS for commercial aviation services during fiscal years 2000 through 2002.

Appendix II
Federal Aircraft Fleet Information

Table 9: Cost of Commercial Aviation Services, Fiscal Years 2000-2002

Dollars in millions

Agency	2000	2001	2002
Department of Agriculture	\$221.8	\$179.7	\$268.9
Department of Commerce	< 0.1	0.4	0.5
Department of Energy	2.1	1.4	12.2
Environmental Protection Agency ^a	0.4	0.2	0.3
Federal Emergency Management Agency ^a	0.0	0.0	< 0.1
Department of Health and Human Services ^a	2.4	1.4	0.9
Dept. of Housing and Urban Development ^a	< 0.1	0.0	0.0
Department of Justice	23.0	48.6	30.7
Department of State	0.0	0.0	0.0
Department of the Interior	73.7	71.7	90.6
Department of the Treasury	0.1	< 0.1	0.0
Department of Transportation	5.6	6.7	5.4
National Aeronautics and Space Administration	0.0	3.1	0.0
National Science Foundation	18.8	6.0	6.0 ^b
National Transportation Safety Board ^a	< 0.1	0.0	0.0
Tennessee Valley Authority	0.3	0.2	< 0.1
U.S. Arctic Research Commission ^a	0.0	< 0.1	0.0
Total^c	\$348.3	\$319.6	\$415.6

Source: FY 2000–2002 FAIRS reports.

^aThese agencies do not own aircraft and use commercial aviation services exclusively.

^bThe National Science Foundation did not report costs for the Office of Polar Programs.

^cTotals may not add due to rounding.

Review of FAIRS Internal Controls

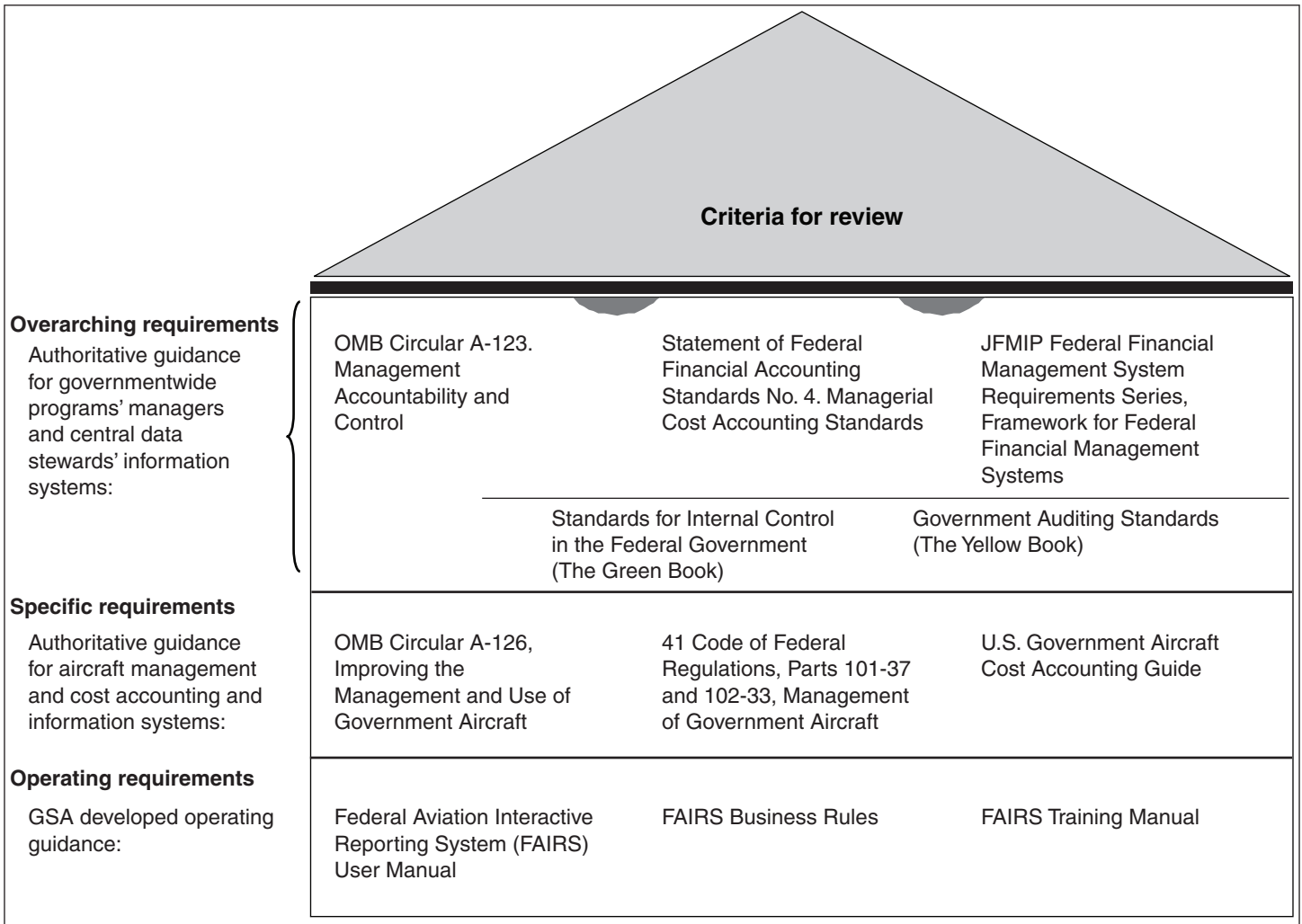
The General Services Administration (GSA) developed the Federal Aviation Interactive Reporting System (FAIRS) to fulfill its responsibilities for maintaining a management information system to collect, analyze, and report information on the inventory, cost, and usage of government aircraft. In order to ensure the system contains accurate and complete information, GSA must have effective controls over the system and data it contains. Our review found, that overall, GSA's internal control system did not have sufficient, effective control procedures in place to provide reasonable assurance that the FAIRS data included in the annual GSA report are valid and reliable. We found data stewardship controls and systems controls over validity and reliability of data ranging in effectiveness from in-place-and-working-as-expected to in-place-but-not-working (ineffective).¹ More importantly, we identified specific control procedures that should be in place but did not exist. Any management controls that are partially effective, ineffective, or nonexistent increase the risk for nonvalid, incomplete, or inaccurate data entering the system.

Requirements for GSA to Maintain Effective Control over the FAIRS System

As a governmentwide operational data steward for central agency data, GSA should comply with requirements that are applicable to federal agencies that manage governmentwide programs and to central data stewards' information systems, such as FAIRS. Furthermore, federal agencies that use aircraft to accomplish their missions and GSA, as management coordinator for federal aircraft, should also comply with requirements in federal regulations and authoritative guidance specifically crafted both for the management and operations of federal agencies' aircraft programs and for the implementation and use of cost accounting and information systems. These requirements are spelled out in numerous documents such as Office of Management and Budget (OMB) circulars, financial accounting standards, government internal control and auditing standards, and FAIRS manuals. Figure 8 outlines the framework of criteria applicable to GSA's management of the FAIRS system.

¹The Joint Financial Management Improvement Program's Framework for Federal Financial Management Systems defines a "central data steward" as having the responsibility to assure that data used to support government wide functions and reporting are complete and accurate.

Figure 8: Hierarchy of Criteria Used to Review Controls over GSA's FAIRS System



Source: GAO analysis of criteria applicable to FAIRS system.

As the figure shows, GSA must follow numerous requirements in administering the FAIRS system. The controls needed to meet these requirements and thereby ensure validity and reliability of data in the FAIRS system can be grouped into two main categories. The first category is data stewardship controls, which are procedures that a central agency needs to institute to ensure that agencies capture and report valid and reliable data. They include items such as procedures to ensure that all

agencies comply with data reporting requirements and tests to ensure that reported data is accurate. The second category is system controls, which are controls over FAIRS to ensure proper operation of the system and accurate data processing. These include items such as mechanisms to ensure that the system does not accept invalid data entries.

GSA Needs More Effective Data Stewardship Controls

To meet its data stewardship responsibilities, GSA should have certain procedures in place to ensure that the aircraft inventory, cost, and use data that agencies generate and report to FAIRS are valid and reliable. Our review found that GSA had a range of data stewardship controls in place, but that many of them were only partially effective. For example, GSA does not ensure that all agencies report their costs in compliance with reporting requirements. GSA officials stated that they work with agencies to help them understand the cost reporting requirements and urge them to comply. However, we found one agency lumped all of their costs under one cost element, instead of breaking out its costs among multiple cost elements as required by the *Cost Accounting Guide*. As a result, cost data reported by this agency did not contain detail needed for accurate compilation and analyses in FAIRS.

We also found that GSA had not implemented several other data stewardship controls. For example, GSA does not review the agencies' cost accounting systems or require that agencies' auditors review those systems for compliance with GSA's *Cost Accounting Guide*. Also, GSA does not routinely test agencies' data for completeness and accuracy. While GSA confirms FAIRS data with agency officials prior to releasing its annual report, GSA does not compare FAIRS data with agencies' information systems. Further, agencies routinely make changes to existing FAIRS data after GSA's annual report is issued. GSA, however, does not disclose the changes that agencies made in subsequent annual reports. Table 10 displays our analysis and evaluation of data stewardship controls by effectiveness of the controls.

**Appendix III
Review of FAIRS Internal Controls**

Table 10: Analysis of Data Stewardship Controls

Effective (control in place and working)	Partially effective (control in place, but only working to a certain extent)	Ineffective (control in place, but not working)	Missing (control not in place)
Provide agencies with guidance on data requirements including the <i>Cost Accounting Guide</i> and the <i>FAIRS Users Manual</i> .	Provide technical assistance to agencies in establishing their cost accounting systems.	None.	GSA should foster full costing for agencies cost accounting systems.
Provide draft of annual report to agencies for comment and proposed changes.	Require agencies to use prescribed data elements for reporting aircraft cost data.		GSA should check accounting systems for compliance with the <i>Cost Accounting Guide</i> .
	Verify that aircraft cost and use data collected from agencies are in compliance with reporting requirements.		GSA should routinely check data that agencies report to FAIRS for completeness and accuracy.
	Establish data entry/approval procedures and edit checks to promote validity and reliability of data.		Changes to prior annual reports should be disclosed in subsequent annual reports.
	Systematically perform analytical reviews of cost and use data reported to FAIRS.		

Source: GAO analysis GSA's data stewardship controls.

GSA Lacks Effective FAIRS Systems Controls

GSA has incorporated numerous system controls in FAIRS to help maintain data integrity once the aircraft inventory, cost, and use data are input into the system and even after the issuance of the annual report. However, we found that some of the controls in place were not effective and other control procedures that should exist were missing or not in place. For example, certain controls over who should review, correct, and approve data were ineffective. Further, we found controls to prevent input of negative values for aircraft costs and hours do not exist. Table 11 depicts our analysis of systems controls by effectiveness of controls.

**Appendix III
Review of FAIRS Internal Controls**

Table 11: Analysis of Systems Controls

Effective (control in place and working)	Partially effective (control in place, but only working to a certain extent)	Ineffective (control in place, but not working)	Missing (control not in place)
Only agency-authorized and GSA-trained persons can access FAIRS.	Triggers prevent improper entry, review, correction, or approval of aircraft inventory, cost and use data.	Only the FAIRS administrator should be able to change approved inventory.	FAIRS should not allow reviewer to enter new aircraft inventory or cost and use data.
Triggers allow only an agency-authorized user to enter new, or correct disapproved data.		Only agency-authorized reviewer should be able to mark and use data as approved.	FAIRS should not allow negative aircraft cost and use data to be accepted.
Triggers allow only records without errors on aircraft cost and use data to be uploaded via batch processing.		Approved CAS cost and use data should only be changed with the assistance of the FAIRS administrator.	Disposal date entered should not be prior to the acquisition date.
Only agency-authorized reviewer can review and mark aircraft cost and use data as approved.			Use data entered should not be greater than the maximum number of hours available for the reporting period.
Approved federal aircraft cost and use data can only be changed with the assistance of the FAIRS administrator.			
Status automatically changes to awaiting review or system accepted, not reviewed after specific time frames.			
Control access to report and data in FAIRS and make corrections as proposed by agencies.			

Source: GAO analysis of GSA's system controls.

Policy Issues Affecting GSA's Controls over FAIRS Data

GSA officials expressed concerns about a variety of issues affecting their ability to implement controls to ensure that agencies report complete and accurate information to FAIRS. This included the validity and reliability of data generated and reported by the agencies and in FAIRS, their data sources and related cost accounting systems, GSA management resources, aircraft management policies, regulations and authoritative guidance, and advisory oversight. Specifically, because the *U.S. Government Aircraft Cost Accounting Guide* does not require that agencies report depreciation, self-insurance cost, or finance costs to FAIRS, agencies do not include them in the costs they report to FAIRS and, therefore, the costs of federal

aircraft programs GSA includes in its annual report do not reflect full costing. GSA officials told us that they are concerned that problems with cost accounting throughout the government make it difficult to determine the full costs associated with federal aircraft programs.

GSA officials brought up two examples of deficiencies by aircraft program managers that adversely affect data reliability in FAIRS: (1) some agencies do not have cost accounting systems that capture aviation costs by the same categories or in the same detail as FAIRS and (2) some agencies do not collect aircraft costs quarterly. Furthermore, GSA officials expressed concern about the incomplete and inaccurate nature of the federal aircraft cost data in FAIRS. At the same time, one official acknowledged that GSA shared a responsibility for the agencies' data quality, but he said GSA had very limited resources to exert program oversight. The officials also supported changes to policies and authoritative guidance for increased resources to meet oversight requirements.

Federal Aviation Administration, Flight Inspection Program

Program Description

The Federal Aviation Administration's (FAA) Flight Inspection Program is one of six FAA flight programs, each of which utilizes government-owned aircraft and or commercial aviation services to fulfill its mission. The Flight Inspection Program's mission is to help ensure the integrity of airspace systems in the U.S. and abroad through inspection and testing of navigational aids and flight procedures at public, private, and military facilities. The Flight Inspection Program accomplishes this through airborne inspection and testing of ground-based equipment, satellite, and electronic signals in space that pilots used to safely navigate their aircraft. This mission requires that FAA operate aircraft with special communication and navigation devices that allow it to perform required inspections.

The Flight Inspection Program is headquartered in Oklahoma City, Oklahoma, where FAA centrally manages flight operations and aircraft maintenance. FAA also maintains an aircraft hangar and maintenance and repair facilities in Oklahoma City. The program has six domestic flight inspection field offices located throughout the country from which FAA aircraft are dispatched to inspect and test the U.S. airspace system.¹ The domestic flight inspection function includes inspection of U.S. military facilities and is governed by a memorandum of agreement (MOA) with the Air Force. Under the MOA, the Air Force provides FAA with staffing to support military contingency flight inspection missions. The program also has an international flight inspection field office located in Oklahoma City from which FAA aircraft conduct missions outside of the United States. These international missions include inspection of U.S. military facilities overseas, which are also governed by the MOA, as well as inspection of foreign airspace systems for countries that agree to reimburse FAA.

Aircraft Fleet and Operating Statistics

The Flight Inspection Program currently operates a fleet of 30 government-owned airplanes; composed of four different makes and models. The average age of these aircraft is about 14 years. The program does not contract for commercial aviation services. Table 12 below shows that according to data in the FAIRS database, the overall cost of and utilization of the Flight Inspection Program fleet aircraft has increased since fiscal year 2000, reflecting the increased workload of the program.

¹Domestic flight inspection field offices are located in Atlantic City, Atlanta, Battle Creek, Oklahoma City, Sacramento, and Anchorage.

Table 12: Cost and Utilization of Flight Inspection Aircraft, Fiscal Years 2000-2002

Fiscal years	Costs	Flight hours
2000	\$26,142,084	11,617
2001	\$30,850,449	14,030
2002	\$29,749,417	15,014
Total	\$86,741,950	40,661

Source: GAO's analyses of FAIRS database.

Aircraft Planning Process

Fleet management planning in the Flight Inspection Program comprises a mix of short- and long-range planning to help ensure the program has a cost-effective mix of aviation resources to achieve its mission. FAA officials indicated that flight operations managers perform short-range planning on a continual basis by assessing workload requirements and assigning available aircraft to meet those requirements. Managers try to ensure that they have the optimal mix of fleet aircraft spread around the country. Short-range fleet planning also requires managers to coordinate with the Air Force to ensure that sufficient aircraft are available to meet military needs under the MOA. Managers perform long-range planning, and such planning is designed to ensure the program has the most cost-effective mix of aircraft to meet its long-term mission requirements. Program officials completed the most recent long-range plan in July 2002.

Aircraft Acquisition Process

In 1999 FAA created the Aircraft Fleet Modernization Integrated Product Team (IPT) to help ensure that aircraft acquisition decisions are justified and based on defined mission requirements. Therefore, when Flight Inspection Program managers determine they need to acquire an aircraft, they begin the aircraft acquisition process by providing the IPT with a mission needs justification for acquiring the aircraft. Working with Flight Inspection Program managers, the IPT will prepare a requirements document that provides initial justification for acquiring an aircraft. Once the requirements document is approved by FAA's Associate Administrator for Air Traffic Services, IPT officials indicated they begin assessing the life cycle costs of different options, such as purchasing or leasing new aircraft or rehabilitating existing aircraft. Staff from FAA's finance office then independently reviews the life cycle cost analyses and, if it concurs that the assumptions underlying the aircraft requirements are justified, it forwards a procurement request to FAA's Joint Resources Council (JRC). This is a

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headquarters group of Associate Administrators that controls the funding for major capital projects. If this council authorizes funding, the FAA Administrator must make a final approval, and then the procurement process can begin.

To gain a better understanding of how the Flight Inspection Program has traditionally justified their aircraft acquisitions and the type of documentation used to support aircraft acquisition decisions, we asked program officials to provide documentation on four aircraft that they acquired. Since the Flight Inspection Program had not identified a need for new aircraft for a number of years, justifications for all four of the aircraft pre-dated FAA's creation of the IPT and its review process. Results from our review of these four aircraft are summarized in table 13.

Table 13: Documentation Supporting Four Flight Inspection Aircraft Acquisitions

Aircraft (type)	Acquisition date	Purchase price	Justification	A-76 study completed	Cost benefit analysis provided
Learjet 60 (airplane)	January 5, 1996	\$19,035,000	Aircraft needed to improve cost, reliability, and range over existing aircraft.	No	Yes
Beechcraft B300 (airplane)	October 21, 1988	a a		No	No ^a
Challenger CL-600 (airplane)	August 8, 1997	\$30,112,000	Aircraft needed to improve cost, reliability, and range over existing aircraft.	No	Yes
British Aerospace BAe-800A (airplane)	October 1, 1991	\$0	Obtained from U.S. Air Force to perform military flight inspection.	N/A	N/A

Source: GAO's analysis of GSA and FAA data.

^aThe program officials were unable to provide this information because they said records had been destroyed due to the length of time since the aircraft was purchased.

During our review, we learned that one of these aircraft was originally obtained by the U.S. Air Force and transferred at no cost to FAA, so we determined that our questions did not apply to that specific aircraft acquisition. As the table shows, the program officials were able to provide limited documentation supporting their justification for acquiring the remaining three aircraft. Specifically, program officials did not complete any A-76 studies, but they did complete cost benefit analyses for two of these three aircraft. Regarding completing A-76 studies, in commenting on a draft of this report, FAA officials stressed that they determined they were

exempt from completing reviews for these aircraft and that officials followed applicable agency policy in effect at the time they acquired these aircraft.

Aviation Metrics and Performance Management

Program managers track a number of aviation metrics to monitor the operation and maintenance of their aircraft. To help ensure that aircraft are available to accomplish their missions, the Flight Inspection Program's Maintenance and Engineering Division has implemented a fleet reliability program. According to FAA officials, this program not only judges the effectiveness of flight inspection aircraft, it is designed to improve effectiveness and reliability by making appropriate adjustments to the maintenance program based on fleet performance. FAA officials said the program has the following five objectives:

- ensure safety and reliability levels of the aircraft and its equipment,
- restore safety levels when a safety weakness is detected or has occurred,
- obtain information necessary to improve the reliability of parts and appliances,
- allow aircraft systems and components/parts to dictate the appropriate maintenance process and intervals, and
- provide economic criteria to reduce maintenance costs and increase aircraft availability.

Under this program, flight inspection officials indicated that maintenance staff established three key performance measures and associated performance goals and a system to track their ability to meet these goals. The three measures are dispatch reliability, scheduled completion rate, and aircraft availability. Dispatch reliability is the percentage of scheduled flights that depart within 30 minutes of scheduled departure times. The program's goals are 95 percent for domestic flights and 90 percent for international flights. Schedule completion rate is the percentage of scheduled flights completed without a mechanical cancellation. The program's goals are 95 percent for domestic flights and 90 percent for international flights. Aircraft availability is the total number of aircraft that are currently available to meet mission requirements. The program's goal is to have 22 of the 30 fleet aircraft available for use at any time. Maintenance

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staff produces a quarterly report comparing actual fleet performance with these goals. Program managers indicated that they track other operational statistics such as total flight hours, average daily flight hours, and cost per flight hour for each aircraft, and these measures can help determine if other Flight Inspection goals have been met, such as reducing the amount of en route time. In terms of assessing the cost-effectiveness of aircraft, Flight Inspection officials indicated that they have not periodically reviewed the cost-effectiveness of their entire fleet of aircraft to comply with OMB Circular A-126.

Safety Statistics

The Flight Inspection Program has not had any National Transportation Safety Board reportable accidents or incidents since 1995.

Department of Justice, Justice Prisoner and Alien Transportation System

Program Description

In 1995, the air fleets of the U.S. Marshals Service and the Immigration and Naturalization Service (INS) merged to create the Justice Prisoner and Alien Transportation System (JPATS). Operated by the U.S. Marshals Service, JPATS supports the federal judiciary by scheduling and transporting thousands of prisoners and criminal and administrative aliens each year to courts, hearings, and detention facilities around the country. JPATS also provides regular international flights for the removal of deportable aliens. JPATS' primary customers are the U.S. Marshals Service, the Bureau of Prisons (BOP), and the Bureau of Immigration and Customs Enforcement (BICE); but military and other civilian law enforcement agencies, including state agencies, also use JPATS to transport their prisoners.

JPATS transports prisoners and aliens for its customers on a cost-reimbursable basis; charging each customer a portion of its total fixed and variable costs based on the number of persons it transports for each customer on a given aircraft. JPATS accomplishes nearly all its air movements with aircraft that the U.S. Marshals Service owns or leases, including Boeing 727s, McDonnell Douglas 82s, and several smaller jets. JPATS is headquartered in Kansas City, Missouri, where a scheduling center and business management office are maintained. The seat of the air operations is located in Oklahoma City, Oklahoma, with operational hubs in Mesa, Arizona; Alexandria, Louisiana; Anchorage, Alaska; and the U.S. Virgin Islands.

Aircraft Fleet and Operating Statistics

JPATS currently has a fleet of 10 government-owned aircraft, 4 of which it uses to conduct flight operations, and 6 of which JPATS is attempting to dispose of through sale. The 4 aircraft comprise three different makes and models. The average age of all 10 aircraft is 28.5 years, and the average age of the 4 aircraft in use is 20.75 years.

Table 14 shows that according to data in the FAIRS database, the total cost of JPATS' fleet aircraft fluctuated during the period, while total flight hours declined. Also, JPATS' use of commercial aviation services has increased during the period. Fluctuations in the total cost data on fleet aircraft are partially attributable to JPATS taking out of service some large aircraft and relying more on commercial aviation services.

Table 14: Cost and Utilization JPATS Aircraft and Commercial Aviation Services, Fiscal Years 2000-2002

Fiscal years	JPATS owned aircraft		Commercial aviation services		Total JPATS program	
	Costs	Flight hours	Costs	Flight hours	Costs	Flight hours
2000	\$29,809,437	6,109	\$22,957,056	5,988	\$52,766,493	12,097
2001	\$41,733,772	5,449	\$25,699,656	6,010	\$67,433,428	11,459
2002	\$18,892,169	4,630	\$30,585,593	6,805	\$49,477,762	11,435
Total	\$90,435,378	16,188	\$79,242,305	18,803	\$169,677,683	34,991

Source: GAO analysis of FAIRS database.

Aircraft Planning Process

Fleet management planning at JPATS focuses on a mix of short and long-range planning, and is designed to help ensure that JPATS has a cost-effective mix of aviation resources to meet its customers' requirements. According to JPATS officials, short-range fleet planning is performed on an annual basis and is tied to the annual budget process. In developing short-range plans, JPATS and its three primary customers—BOP, U.S. Marshals, and BICE—determine the projected workload for an upcoming year, and determine whether the current mix of aircraft is adequate to cost effectively meet anticipated requirements. Based on anticipated budget amounts, the organizations agree on a final mix of aircraft and on a final expected number of prisoner and alien movements. According to JPATS officials, long-range fleet planning is done on a periodic, as needed basis, and helps JPATS ensure they have most appropriate aircraft to meet their long-term mission requirements. JPATS completed its most recent long-range fleet plan in 1997.

Aircraft Acquisition Process

JPATS officials indicated that their current process for justifying aircraft acquisitions was put into place about three years ago. This process begins when managers from a variety of JPATS offices, including business, operations, and security, along with managers from JPATS major customers, identify a need for additional aircraft. At this time, JPATS will prepare technical specifications of potential new aircraft and either contract for independent analyses or conduct in-house studies to determine the type and quantity of aircraft to acquire and whether to purchase or lease specific aircraft. During this time, JPATS conducts many meetings, process reviews, and cost-benefit and alternative analyses, according to JPATS officials. This typically would include preparing a life cycle costing of various aircraft acquisition options, but officials indicated

that there is no specific requirement about the level of analyses needed to justify acquisition decisions. Once JPATS reaches a conclusion about a specific option, it forwards its recommendation to the JPATS Executive Committee for review and approval. The committee is JPATS' board of directors, is chaired by the Assistant Attorney General, and includes senior managers from the U.S. Marshals Service, the BOP, BICE, and the Office of Detention Trustee. If the committee approves the aircraft acquisition, and funding is available, JPATS can acquire the aircraft.

To gain a better understanding of how JPATS has traditionally justified aircraft acquisitions, including the type of documentation used to support aircraft acquisition decisions, we asked JPATS officials to provide documentation on four aircraft that it acquired. Results from our review of these four aircraft are summarized in table 15.

Table 15: Documentation Supporting Four JPATS Aircraft Acquisitions

Aircraft (type)	Acquisition date	Purchase price	Justification	A-76 study completed	Cost benefit analysis provided
Airplane 1	May 11, 2000	\$971,000	Obtained to temporarily backfill for retired Sabreliner while waiting for Hawker funding.	No	No ^a
Airplane 2	November 19, 1996	\$4,268,000	Needed a larger aircraft to meet customer needs after JPATS formed.	No	No ^a
Airplane 3	December 3, 2001	\$8,000,000	Obtained as a long-term replacement for Sabreliner.	No	Yes
Airplane 4	April 19, 1995	\$1,994,950	Enabled U.S. Marshals Service (prior to JPATS) to use owned aircraft rather than charter for missions.	No	No

Source: GAO analysis of JPATS documentation and interviews.

Note: Information on aircraft type is not included because DOJ considers it to be sensitive law enforcement information.

^aJPATS officials stated they completed cost-benefit studies for these aircraft but could not find them.

As the table shows, JPATS officials were able to provide only limited documentation supporting their justification for acquiring these aircraft. Specifically, JPATS did not complete any A-76 studies and could provide a cost benefit review for only one of the four aircraft. It should be noted that for several, more recent planned acquisitions, JPATS has completed detailed cost-benefit analyses, which they believe is happening more

consistently since they implemented the Executive Committee approval process in 1999.

Aviation Metrics and Performance Management

JPATS officials indicated that they rely on eight performance metrics to monitor and assess their program. These metrics are composed of a combination of cost and performance metrics that JPATS routinely track and generally report on an annual, biannual, or monthly basis. These metrics include cost per flight hour, aircraft availability, and total flight hours per aircraft. Officials indicated that these metrics provide data to help managers assess the performance of each aircraft. JPATS officials stated that these metrics are used internally to assess the program, and are provided to each major customer so they can perform their own analyses of the program. In addition, JPATS officials indicated that they prepare a monthly report of operations, which includes a monthly income statement, and that such data is used to track cost performance and compare it with budgets. These reports are also shared with JPATS' major customers, and the information is used to make any changes in rates that JPATS charges. Officials indicated that, due to their ongoing analyses, they do not believe it is necessary to perform periodic assessments of their fleet to comply with OMB Circular A-126.

Safety Statistics

From April 1995 through October 2003, JPATS experienced one nonfatal, noninjury accident and one noninjury incident, both of which occurred during 2000. The accident occurred while landing during a training mission, and the incident occurred while transporting 86 federal prisoners. According to National Transportation Safety Board (NTSB) aircraft accident data, the accident was a result of the pilot's improper remedial action and his failure to maintain directional control of the airplane during landing. The incident occurred as a result of a material failure of a wing flap section due to inadequate maintenance according to results of a NTSB investigation.

Department of Interior, Fish and Wildlife Service

Program Description

The Fish and Wildlife Service (FWS') mission is working with others to conserve, protect, and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. To help accomplish this mission, FWS uses aircraft to conduct a variety of activities, including wildlife surveys, aerial photography, radio telemetry, fire reconnaissance, and law enforcement. Aircraft are used to support the Refuge, Migratory Bird Management, Fisheries and Habitat Conservation, Endangered Species, and Law Enforcement programs. The FWS aircraft program is headquartered in Albuquerque, New Mexico, and is directed by a National Aviation Manager. The program has seven Regional Aviation Managers spread throughout Alaska and the Lower 48 States who manage aircraft operations in their regions. As part of the Department of Interior (DOI), the FWS program falls under the policies and oversight of DOI's National Business Center-Aircraft Management Directorate (AMD). As a centralized aviation management oversight and support office for all DOI aviation activities, AMD establishes policy, oversees aviation safety, provides contract services, and maintains accounting and financial information for all aircraft use within DOI.¹

Aircraft Fleet and Operating Statistics

The FWS currently operates a fleet of 57 government-owned aircraft, 36 that are located in Alaska and 21 in the Lower 48 States. Of these aircraft, 56 are airplanes, and one is a helicopter, and the average age of 54 of these aircraft is about 22 years.² Table 16 shows that according to data in the FAIRS database, the overall cost of these fleet aircraft has declined slightly since fiscal year 2000, while utilization has fluctuated. FWS' cost and utilization of commercial aviation services also fluctuated over the period.

¹Eight bureaus in DOI have aircraft programs. The bureaus are the Bureau of Land Management, FWS, National Park Service, Minerals Management Service, Bureau of Indian Affairs, Bureau of Reclamation, U.S. Geological Survey, and Office of Surface Mining.

²AMD does not report data to FAIRS on three aircraft because they perform undercover operations, thus we had data on only 54 of the 57 aircraft.

Table 16: Cost and Flight Hours FWS Aircraft and Commercial Aviation Services, Fiscal Years 2000-2002

Fiscal years	FWS owned aircraft		Commercial aviation services		Total FWS program	
	Costs	Flight hours	Costs	Flight hours	Costs	Flight hours
2000	\$2,626,980	10,936	\$3,836,388	8,928	\$6,463,368	19,864
2001	\$2,532,318	9,610	\$3,407,924	5,811	\$5,940,242	15,421
2002	\$2,467,529	11,579	\$4,078,422	6,037	\$6,545,951	17,616
Total	\$7,626,827	32,125	\$11,322,734	20,776	\$18,949,561	52,901

Source: GAO analysis of FAIRS database.

Note: FWS officials stated that the FAIRS database was a subset of the data AMD maintained and that, therefore, was not the most accurate source of the use and cost of FWS aircraft. Also, there are three FWS aircraft used for undercover operations that are not listed in FAIRS and, therefore, not included in the table.

Aircraft Planning Process

Fleet management planning at FWS focuses on a mix of mid-to-long-range planning and is designed to help ensure that FWS has a cost-effective mix of aviation resources to achieve its mission. With respect to midrange planning, FWS, along with the other bureaus and AMD staff, develop a 5-year fleet replacement plan at an annual meeting of aviation managers. The plan outlines which specific aircraft the bureaus would like to replace for each of the next 5 years. According to the FWS National Aviation Manager, aircraft chosen for replacement are typically older aircraft or aircraft that have accumulated a significant amount of flight hours. The plan is updated each year and adjusted as aircraft are disposed or refurbished and as funding for replacement aircraft becomes available. In addition to this ongoing midrange planning, FWS also undertakes some long-range fleet planning. The manager said that, while FWS has not prepared a strategic assessment of its entire fleet, it has performed long-range assessments as fleet needs warrant. For example, FWS recently developed a long-term plan for replacing its entire fleet of nine migratory bird amphibious survey aircraft.

Aircraft Acquisition Process

The FWS Program Managers, National Aviation Manager, and Regional Aviation Managers are responsible for determining whether FWS needs to acquire additional aircraft. These managers can identify aircraft that need to be replaced either through the 5-year replacement planning process or by identifying additional aircraft that are needed to meet mission requirements. FWS can acquire aircraft or aviation services through purchase, lease, or through contracting for commercial aviation services.

With respect to purchasing or leasing new aircraft, once a need is identified, FWS managers are responsible for preparing an A-76 analysis to determine whether it is more cost-effective to purchase the aircraft and operate it with government pilots or to use some other combination of acquisition methods. This could include leasing an aircraft and operating it with government pilots or contracting out the entire operation. The National Aviation Manager said there was no specific requirement to conduct a life cycle cost analysis of different options. Once completed, the study would be sent to AMD for review. The AMD review focuses on whether the studies have been done correctly and whether the assumptions are accurate and sufficient to justify the aircraft acquisition. After the study is finalized, AMD will begin a competitive bid contracting process and ultimately select the best value option.

To gain a better understanding of how FWS has traditionally justified their aircraft acquisitions and the type of documentation used to support aircraft acquisition decisions, we asked the FWS National Aviation Manager to provide documentation on four aircraft that FWS acquired for the Lower 48 States. Results from our review of these four aircraft are summarized in table 17.

Table 17: Documentation Supporting Four FWS Aircraft Acquisitions

Aircraft (type)	Acquisition date	Purchase price	Justification	A-76 study completed	Cost benefit analysis provided
Bell 206B (helicopter)	April 10, 2001	\$661,319	Replaced aircraft that crashed; needed for waterfowl law enforcement.	Yes	Yes
Cessna 206G (airplane)	August 29, 2000	\$199,900	Replaced aircraft that was damaged; needed for migratory bird management program.	No ^a	No ^a
Aircraft 3 ^b (airplane)	April 4, 1990	\$81,358	Replaced aging Cessna 206 aircraft used for law enforcement.	No ^c	No
Partenavia P68 (airplane)	April 19, 2002	\$617,723	Replaced existing Cessna 185 single engine aircraft with twin-engine aircraft to increase mission effectiveness.	No ^d	No ^d

Source: GAO analysis of FWS documentation and interviews.

^aFWS officials stated that since this aircraft replaced one that had undergone justification and cost benefit analysis, and because studies had been completed for similar aircraft, documentation was not required for this replacement aircraft.

^bInformation on aircraft type is not included because DOI considers it to be sensitive law enforcement information.

^cProgram officials believe this aircraft was exempt from the A-76 process because it is used for law enforcement operations.

^dFWS officials stated that an A-76 justification and cost benefit analysis were performed for the initial aircraft purchased in this program, but not this particular aircraft.

As the table shows, the National Aviation Manager provided documentation on one A-76 study and a cost benefit analyses for one of the four aircraft. The other aircraft acquisitions were primarily justified based on A-76 studies from the older aircraft these newer ones were replacing or on A-76 and cost benefit analyses for other similar aircraft that FWS had acquired.

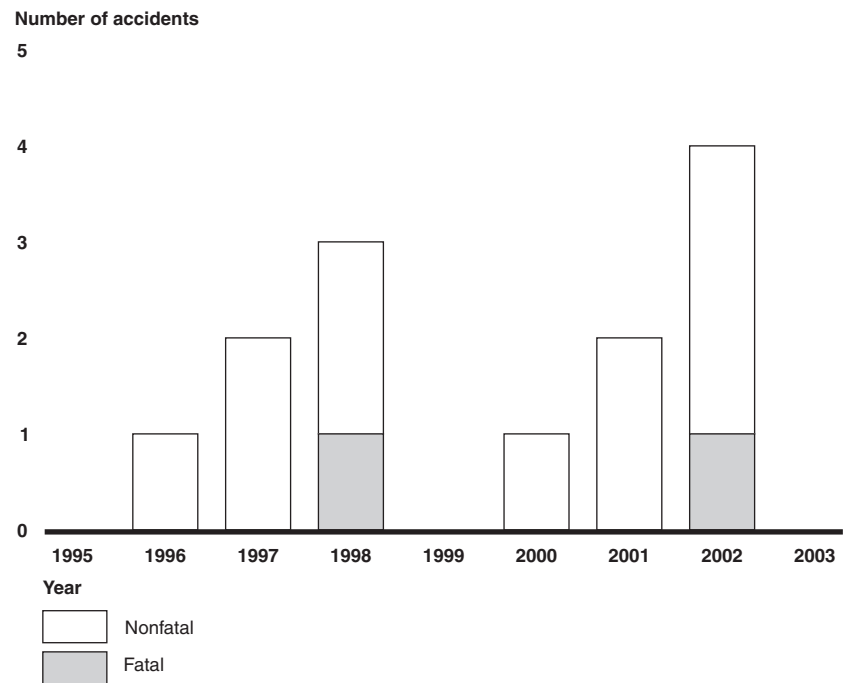
Aviation Metrics and Performance Management

According to the National Aviation Manager, FWS does not have an aviation metric performance management system. As the national manager, he does not routinely measure and track metrics such as aircraft dispatch reliability and aircraft availability. The manager stated that FWS maintenance personnel periodically monitor aircraft utilization data and will spot any issues such as increased maintenance problems. In commenting on a draft of this report, AMD indicated it has a report available that tracks the daily utilization, by aircraft, which could be used to monitor trends in utilization, or monitor how frequently an aircraft is flying. In addition, AMD stated that it has reporting tools which identify by aircraft, by month, by day, the number of hours the aircraft has been utilized, but does not currently track the aircraft's daily operational status. Operational status had been tracked in the past, through the daily availability charged to the aircraft, but was replaced with a monthly availability charge to reduce the paperwork and reconciliation burden that was identified in the field as resources have declined. Tracking the daily operational status is something that had been and can be done, but it takes a tremendous commitment of resources and time by the user agencies in the field that are also tasked with completing their mission, with fewer people. Further, every 5 years, AMD contracts for a review of the cost effectiveness of all the bureaus' fleet aircraft, to comply with OMB Circular A-126. FWS aircraft are part of this review, which helps AMD and its bureaus identify any aircraft that are too expensive to operate.

Safety Statistics

Between April 1995 and October 2003, FWS had 13 accidents, 2 of which were fatal, and resulted in 3 fatalities. Figure 9 illustrates the number of both fatal and nonfatal accidents by year.

Figure 9: U.S. Fish and Wildlife Service Aircraft Accidents, April 1995 – October 2003



Source: GAO analysis of NTSB data.

FWS accidents occurred more often during the landing phase of flight and on a variety of missions, including research and development, predator control, training, and passenger transportation missions. According to National Transportation Safety Board (NTSB) aircraft accident data, the most common causes of FWS accidents were personnel related. NTSB attributed the cause of 9 out of the 13 accidents to pilot error. Environmental related factors such as strong winds and icy terrain were the leading contributing factors. Table 18 summarizes the number of accidents that NTSB attributed to personnel, environment, and mechanical factors by primary cause and other contributing factors.

Table 18: Causes and Contributing Factors of U.S. Fish and Wildlife Service Aircraft Accidents

	Primary cause	Contributing factor
Personnel factors	9	
Environment factors		11
Mechanical factors	2	
Not determined	2	

Source: GAO analysis of NTSB aircraft accident data.

Note: Contributing factor columns may not equal the total number of accidents because a single accident may have none or multiple contributing factors.

U.S. Department of Agriculture, Forest Service Aircraft Program

Program Description

The mission of the U.S. Department of Agriculture (USDA) Forest Service is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. USDA Forest Service aircraft, either owned or contracted, are mostly used to fight forest fires through reconnaissance and photography, transporting personnel and materials to fight fires, and dropping retardant and water directly on fires. USDA Forest Service also utilizes their aircraft for such missions as law enforcement, forest health monitoring, and range management. USDA Forest Service also provides firefighting training to other federal, state, and local agencies, and contractors.

The USDA Forest Service aircraft program operates within the Department of Agriculture and has its operational headquarters in Boise, Idaho, and its administrative headquarters are in Washington, D.C., where the Director of Fire/Aviation Management is located. The program is divided into nine regions. In each region, a Regional Aviation Officer manages the Fire and Aviation Management program of that region. According to USDA Forest Service officials, their aircraft program is the largest nonmilitary governmental aircraft program in the world, and their aircraft program spent approximately \$207 million in fiscal year 2000 on aviation services. This number can vary a great deal depending on the severity of the fire season. In fiscal year 2000, about 97 percent of total program spending went to private operators that the USDA Forest Service contracts with to fight fires and perform other logistical support. The remaining 3 percent was spent on USDA Forest Service-owned aircraft. Contractors are responsible for providing maintenance for their own aircraft. USDA Forest Service contracts out maintenance services for its owned aircraft to maintenance providers located near where the individual aircraft are stationed.

Aircraft Fleet and Operating Statistics

The USDA Forest Service owns and operates a fleet of 44 operational aircraft, mostly located throughout the Western United States. Of these aircraft, 42 are airplanes and 2 are helicopters. The average age of these aircraft is approximately 27 years. There is wide variation in the age of USDA Forest Service aircraft, with the oldest being a 1944 DC-3 used to drop firefighters into areas surrounding the fires, and the newest, a 2000 Cessna used for aerial photography. In addition to these aircraft, in 2003 USDA Forest Service took possession of 25 Cobra helicopters that the U.S. Army gave to them. These aircraft are being used for spare parts and only

one is operational. The nonoperational Cobras are not included in the aircraft statistics listed here.

According to data in the FAIRS database, the cost and utilization of USDA Forest Service fleet aircraft and commercial aviation services have fluctuated over the past 3 years. Costs and utilization of both fleet aircraft and commercial aviation services were significantly higher in fiscal years 2000 and 2002 than in fiscal year 2001. According to USDA Forest Service officials, this was primarily due to increased mission requirements resulting from the severe fire seasons those years. USDA Forest Service officials also indicated that costs rose in fiscal year 2002 due to increases in the costs of fuel and fire retardant. Table 19 shows the cost and utilization of program aircraft and commercial aviation services for fiscal years 2000-2002.

Table 19: Cost and Flight Hours USDA Forest Service Aircraft and Commercial Aviation Services, Fiscal Years 2000-2002

Fiscal years	USDA Forest Service owned aircraft		Commercial aviation services		Total USDA Forest Service program	
	Costs	Flight hours	Costs	Flight hours	Costs	Flight hours
2000	\$6,240,844	12,967	\$219,131,950	102,910	\$225,372,794	115,877
2001	\$4,747,609	10,503	\$176,140,267	78,240	\$180,887,876	88,743
2002	\$8,395,422	12,920	\$264,483,933	102,385	\$272,879,355	115,305
Total	\$19,383,875	36,390	\$659,756,150	283,535	\$679,140,025	319,925

Source: GAO analysis of FAIRS database.

Aircraft Planning Process

Fleet management planning at USDA Forest Service is mainly focused on the contracted commercial aviation aspect of their operations. This planning is mainly used to decide how to allocate their contracts during the following fire season. Each winter, the staff at each USDA Forest Service regional office study the past fire season in their area, look at long-term weather patterns, and use computer modeling to estimate how severe the upcoming fire season will be in their region. They then submit a budget request to the aircraft program headquarters. The headquarters staff reviews all the regions' budget requests and allocates an amount to each region based on funding availability. The same process holds true for USDA Forest Service-owned aircraft. If USDA Forest Service regional staff discovers a need to replace or rehabilitate an aircraft, the regional staff notifies headquarters and, if funding is available, or if Congress authorizes special funding, a replacement or rehabilitation can go forward. However,

according to the USDA Forest Service Operations Manager, it is likely that the USDA Forest Service will replace its owned aircraft with leased aircraft when they need to be replaced, at least for the next few years because funding for buying new aircraft is not expected.

Prior to 2003, the USDA Forest Service did not engage in long-term strategic planning for its aircraft program. However, due to accidents in the 2002 fire season, the bureau decided to begin looking more critically at its aviation operation. One result of this critical evaluation was a 5-year strategic plan that includes sections on safety, security, training, quality assurance, aircraft fleet, and cost effectiveness. The plan will be updated annually to adjust for changing conditions.

Aircraft Acquisition Process

With respect to purchasing or leasing new aircraft, once a need is identified, USDA Forest Service regional managers are responsible for preparing an A-76 analysis to determine whether it is more cost-effective to purchase the aircraft and operate it with government pilots or to use some other combination of acquisition methods. Once completed, the study is sent to USDA Forest Service headquarters for review and approval. If headquarters approves funding, USDA Forest Service regional staff will solicit bids. USDA Forest Service does not perform A-76 reviews when they solicit commercial aviation services.

To gain a better understanding of how the acquisition process works, and the type of documentation used to support aircraft acquisition decisions, we asked USDA Forest Service staff to provide documentation on four aircraft that they acquired relatively recently. Results from our review of these four aircraft are summarized in table 20.

Appendix VII
U.S. Department of Agriculture, Forest
Service Aircraft Program

Table 20: Documentation Supporting Four USDA Forest Service Aircraft Acquisitions

Aircraft (type)	Acquisition date	Purchase price	Justification	A-76 study completed	Cost benefit analysis provided
Cessna C550 (airplane)	June 8, 2001	\$5,184,000	Determined need for infrared scanning	Yes	Yes
Beechcraft E90 (airplane)	January 28, 1995	\$576,870	Determined need for lead plane in firefighting	No	No
Beechcraft A100 (airplane)	April 13, 1993	\$0	Replaced older aircraft	Yes	Yes
Bell 206A (helicopter)	July 20, 1988	\$0	Determined need for training helicopter	No ^a	No

Source: GAO analysis of USDA Forest Service documentation and interviews.

^aForest Service officials stated they completed an A-76 review for this aircraft but could not locate it.

As the table shows, the USDA Forest Service operations manager was able to provide detailed documentation supporting its justification for acquiring two of the four aircraft selected. For these two aircraft, USDA Forest Service officials provided an A-76 study and extensive studies documenting the need for these aircraft and evaluating the costs and benefits of acquiring different models of aircraft. For the Bell helicopter, the operations manager could not provide documentation from the time the helicopter was acquired. However, he provided a cost-benefit analysis completed a few years after the aircraft was acquired justifying the continued operation of the aircraft. Each analysis performed for each of these three aircraft included a discussion of the life cycle costs different options would incur. For the remaining aircraft, the Beechcraft E90, the operations manager stated that the task it performed was mandated by federal law, so USDA Forest Service staff did not feel an A-76 review or cost benefit analysis was warranted in that case.

Aviation Metrics and Performance Management

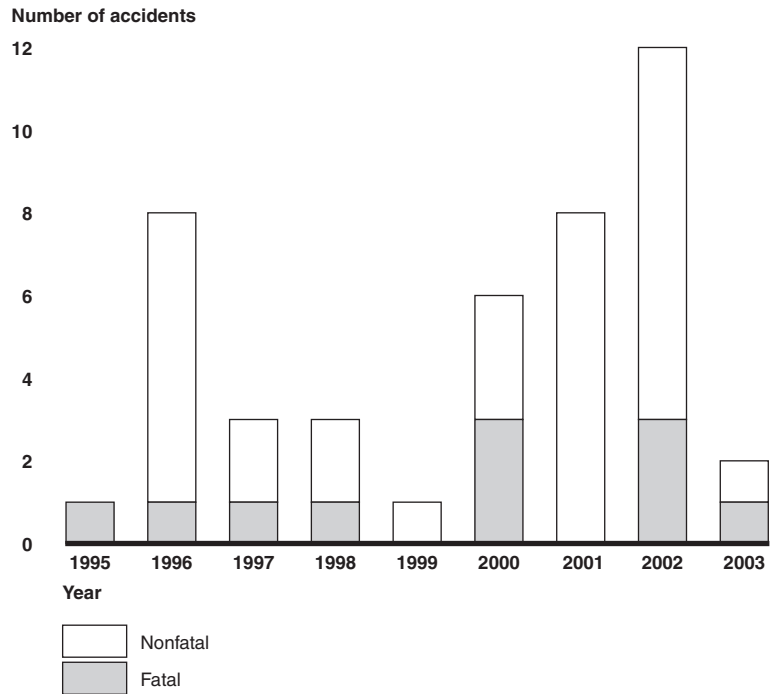
According to the USDA Forest Service operations manager, the USDA Forest Service tracks a limited number of statistics documenting the performance of aircraft they own. The metrics they track include cost per flight hour, fuel usage and costs, and time down for maintenance. Regional staff review these statistics, usually once a year, to evaluate how their aircraft are performing and to spot potential maintenance or operational problems early. For certain aircraft, such as those used for training, these statistics are reviewed on a more regular basis, as the information on costs is needed to set the rates charged to other agencies that may use the aircraft. These reports are also used when determining whether or not it is

time to replace USDA Forest Service existing aircraft. In terms of assessing the cost-effectiveness of aircraft, USDA Forest Service officials indicated that they have not periodically reviewed the cost-effectiveness of their entire fleet of aircraft to comply with OMB Circular A-126.

Safety Statistics

From April 1995 through October 2003, the USDA Forest Service has had 44 accidents with 11 resulting in 20 fatalities. Figure 10 shows the number aircraft accidents by year and indicates that 1996, 2001, and 2002 had the highest number of accidents. According to both a USDA Forest Service official and the Blue Ribbon Panel Report, the high number of accidents in 2000 through 2002 likely reflects that these years also had severe fire seasons.

Figure 10: USDA Forest Service Aircraft Accidents, April 1995 – October 2003



Source: GAO analysis of NTSB data.

Most of the accidents occurred during the maneuvering phase of difficult firefighting missions such as retardant drops and external load operations.

Retardant drops involve dropping a chemical agent along the perimeters of a fire to keep it contained. External load operations require helicopters to fill a water bucket while hovering above a water source to aid suppressing the fire.

According to National Transportation Safety Board (NTSB) accident data, the most common causes of USDA Forest Service accidents were personnel related. NTSB attributed the cause of 24 out of the 44 accidents to pilot error or crew error, and the cause of one accident to an inadequate maintenance inspection. Table 21 summarizes the causes of USDA Forest Service accidents, as determined by NTSB.

Table 21: Causes and Contributing Factors of USDA Forest Service Aircraft Accidents

Primary cause or contributing factor	Number of times primary cause	Number of times contributing factor
Personnel factors	25	3
Environment factors	3	15
Mechanical factors	7	7
Not determined	9	

Source: GAO analysis of NTSB aircraft accident data.

Note: Contributing factor columns may not equal the total number of accidents because a single accident may have none or multiple contributing factors.

Federal Aviation Administration, Hangar 6 Program

Program Description

The Federal Aviation Administration (FAA) maintains an executive transportation function out of Hangar 6 at Washington Reagan National Airport near Washington, D.C. According to FAA officials, this service, commonly referred to as Hangar 6, utilizes four aircraft to transport passengers and cargo to locations throughout the world for which commercial service is either unavailable or not cost effective. Such missions include transporting staff of other agencies when Hangar 6 aircraft are available to do so. Also, Hangar 6 transports National Transportation Safety Board (NTSB) “go team” members to crash sites and flies FAA staff to special events when commercial service would be too time consuming. Furthermore, because commercial airlines cannot transport explosive materials, Hangar 6 transports explosives used in the Transportation Security Administration’s canine training program. In addition, FAA headquarters personnel also use Hangar 6 aircraft to ensure that they have enough hours of flight time for their pilot certificate to stay current, and Hangar 6 aircraft are available to assist in emergencies, such as in transporting air marshals to guard flights after September 11, 2001. Hangar 6 employs 10 pilots and 8 maintenance workers. Hangar 6 officials stated that they need 12 pilots to fully utilize their aircraft and that the planes are not fully utilized because of a lack of qualified pilots.

FAA leases two aircraft at Hangar 6 from the Cessna Finance Corporation. This company provides heavy maintenance for these aircraft. Of the remaining two aircraft at Hangar 6, one is owned by the National Aeronautics and Space Administration (NASA), which loans the plane to FAA, and FAA owns the fourth aircraft outright. FAA contracts out the heavy maintenance on these two aircraft on a set maintenance schedule.

Hangar 6 receives its funding through several sources. First, it receives an annual appropriation from Congress that has averaged approximately \$5.6 million over the past 3 years. This includes about \$1,080,000 it receives from NASA annually to defray the operational cost of the NASA aircraft FAA operates. In addition, other agencies that use Hangar 6 aircraft to transport their staff pay Hangar 6 about \$1 million per year.

Aircraft Fleet and Operating Statistics

As stated above, Hangar 6 operates a fleet of four airplanes composed of three separate makes and models for its missions. With the exception of the aircraft on loan from NASA, Hangar 6 acquired all of its current aircraft when new. The average age of Hangar 6’s aircraft is about 10 years, although two of their four aircraft entered service in 2003.

According to Hangar 6 data entered into the FAIRS database, the overall cost and utilization of aircraft has remained relatively stable since fiscal year 2000. Table 22 shows the cost and utilization of program aircraft for fiscal years 2000-2002.

Table 22: Cost and Utilization of Hangar 6 Aircraft, Fiscal Years 2000-2002

Fiscal years	Hangar 6 operated aircraft ^a	
	Costs	Flight hours
2000	\$3,814,127	1,323
2001	\$3,623,100	1,318
2002	\$4,386,898	1,366
Total	\$11,824,125	4,007

Source: GAO analysis of FAIRS database.

^aHangar 6 has not reported any cost or flight hours data for the NASA-owned G-III.

Aircraft Planning Process

Hangar 6 is part of FAA's Aviation Systems Standards (AVN) group. Hangar 6 officials stated that their long-term strategic planning is incorporated into AVN's long-term strategic planning process. However, in the most recent AVN strategic plan, there is no mention of Hangar 6. The 1988 AVN strategic plan was the most recent one FAA provided us mentioning Hangar 6. Hangar 6 officials stated that since their operation is so small, they are able to spot future needs early and without a formal long-term planning process.

Hangar 6 engages in some short-term fleet planning. For example, Hangar 6 officials stated that they discuss the capital needs of their program each year at the AVN strategic planning meeting. Also, when Hangar 6 staff identifies an upcoming need to acquire an aircraft, they can perform studies to determine how best to fill their needs. FAA may perform these studies or they can hire outside consultants to do the studies. For example, when two Hangar 6 aircraft were reaching the end of their lease, Hangar 6 officials performed a market survey, which asked potential customers how much they would use Hangar 6 aircraft under various scenarios. Based on the results of the survey, they hired Conklin and de Decker Associates to determine what aircraft best met the needs of their customers and to perform a cost-benefit analysis of these options.

Aircraft Acquisition Process

When Hangar 6 officials determine a need exists to acquire a new aircraft, they must identify a potential funding source. Unless Hangar 6 was to receive a special congressional appropriation, they would have to use their existing program funds to pay for the aircraft. If the funds come out of Hangar 6's Facilities and Equipment funds (as funding for FAA capital assets usually does), according to FAA rules, Hangar 6 must submit their proposal to the Integrated Product Team (IPT) for review, just as the Flight Inspection program does, as was discussed earlier. However, Hangar 6 officials stated that they have not used Facilities and Equipment funding to acquire aircraft.

However, if Hangar 6 uses operating funds to acquire an aircraft, officials stated they are exempt from the Investment Analysis process to determine the best option to meet their needs. In this instance, they only need to obtain the approval of the directors of the Aviation Systems Standards Division and the FAA Administrator. Also, there is no requirement to evaluate the life cycle cost of aircraft acquisition options and no IPT review is required when using operating funds to acquire an aircraft. One FAA manager admitted that this represented a loophole in the acquisition process.

To gain a better understanding of how Hangar 6 traditionally justified their aircraft acquisitions and the type of documentation used to support aircraft acquisition decisions, we asked officials to provide documentation on 6 aircraft that Hangar 6 either currently operates or recently returned to the lessee. Results from our review of these aircraft are summarized in table 23.

**Appendix VIII
Federal Aviation Administration, Hangar 6
Program**

Table 23: Documentation Supporting Acquisition of Current and Recently Disposed Hangar 6 Aircraft

Aircraft (type)	Acquisition date	Purchase or lease price	Justification	A-76 study completed	Cost benefit analysis provided
Gulfstream G-IV	May 25, 1989	Unknown	Aircraft purchased through congressional mandate	No	No
Gulfstream G-III	September 26, 2002	Unknown ^a	Unknown ^a	Unknown ^a	No ^a
Lear Jet 45	August 6, 1992	\$7.86 million lease over 10 years	Accident investigations and support of other agencies' operations	No	No ^b
Cessna Citation 560 XL	March 2003	\$11 million lease over 10 years	To replace aircraft for which lease were expiring	No	Yes
Cessna Citation 560 XL	March 2003	\$11 million lease over 10 years	To replace aircraft for which lease was expiring	No	Yes
Cessna Citation 560	June 1, 1992	\$8.4 million lease over 10 years	Accident investigations	No	No ^b

Sources: GAO analysis of GSA data and interviews with FAA.

^aNASA owns the Gulfstream G-III that Hangar 6 operates. FAA had no documents relating to the purchase of this aircraft.

^bFAA stated that they completed cost-benefit analyses for these aircraft but disposed of the records.

As the table shows, Hangar 6 officials provided some documentation showing the justification for acquiring the current and recent aircraft but no A-76 analyses for the aircraft. Also, they provided cost-benefit analyses on their most recent acquisitions, which included a life cycle cost analysis. Hangar 6 does not have any documentation on the NASA-owned aircraft they operate because NASA originally purchased the aircraft and retains the acquisition documentation for it. Nevertheless, Hangar 6 officials stated that they did not perform an analysis of the operational or financial impact acquiring this aircraft would have on their operations.

Aviation Metrics and Performance Management

Hangar 6 has no specific measures or metrics that they use to periodically measure the performance of their aircraft. Hangar 6 staff annually reviews statistics for its aircraft, such as aircraft downtime, maintenance costs, and total flight hours, in order to adjust aircraft utilization levels. Hangar 6 staff stated that their program is small enough that all staff maintains an intimate knowledge of all of Hangar 6's aircraft, so a formalized system is

**Appendix VIII
Federal Aviation Administration, Hangar 6
Program**

unnecessary. Also, Hangar 6 officials stated that they would use an aircraft's past history when deciding on what is the best aircraft for them to acquire. In terms of assessing the cost-effectiveness of aircraft, Hangar 6 officials indicated that they have not periodically reviewed the cost-effectiveness of their entire fleet of aircraft to comply with OMB Circular A-126.

Safety Statistics

The Hangar 6 operation did not have any accidents reportable to the National Transportation Safety Board from April 1995 through October 2003.

Department of Justice, Drug Enforcement Administration

Program Description

The Drug Enforcement Administration's (DEA) Aviation Division (OA) provides support to DEA's operational and intelligence elements within the rest of DEA in order to detect, locate, identify, and assess illicit narcotics-related trafficking activities; to dismantle drug trafficking organizations and cartels in the United States and foreign countries; and to assist other federal, state, and local law enforcement agencies involved in the deterrence of illicit narcotics-related activities. Also, DEA assists foreign governments with operational and logistical drug enforcement activities.

OA's Office of Aviation Operations is headquartered out of a secured facility on the grounds of Alliance Airport in Ft. Worth, Texas. Alliance Airport has three runways, one of which is over 7,000 feet long and can handle the largest jets in operation today. DEA also maintains 37 other aviation locations throughout the world. These include 30 domestic and 7 overseas locations, such as Miami; Seattle; Ft. Worth; Bogotá, Colombia; and Lima, Peru. Minor maintenance is performed at the aircraft's location, but DEA contracts with Vertex-L3 Aerospace to perform heavy maintenance on their aircraft at Alliance Airport in Ft. Worth.

A DEA Special Agent in Charge is assigned to administer OA. Also, DEA has four Aviation Resident Offices (ARO) within the United States that oversee the major metropolitan areas of Houston (South Central ARO), Los Angeles (Western ARO), Miami (Southeastern ARO), and Newark/New York (Northeastern ARO). Other areas are managed by Area Supervisors who are based at the Office of Aviation Operations, with the exception of the Southeastern Aviation Group whose Area Supervisor is based at the Southeastern ARO. Additionally, the Aviation Intelligence Group and the Operational Support Group, which are based at the Office of Aviation Operations, provide air intelligence and aviation support to all domestic field divisions through the use of specialized aircraft. OA receives funding directly through budgetary appropriations to DEA.

Aircraft Fleet and Operating Statistics

DEA's fleet consists of 107 aircraft, including 50 single engine and 14 twin-engine turboprop fixed wing airplanes, 29 single engine and 12 twin-engine helicopters, and two twin-engine jets. DEA acquired 20 of these aircraft through seizure. Of the 107 aircraft, 6 are leased and 5 are unserviceable and are being kept for parts. DEA's aircraft have an average age of 19.65 years.

According to the Federal Aviation Interactive Reporting System (FAIRS) database, both the cost and hours flown for DEA's aircraft have remained relatively steady since fiscal year 2000 (see table 24).

Table 24: Cost and Utilization of DEA Aircraft, Fiscal Years 2000-2002

Fiscal years	Costs	Flight hours
2000	\$14,465,542	22,898
2001	\$15,842,357	22,957
2002	\$14,453,567	23,633
Total	\$44,761,466	69,488

Source: GAO analysis of FAIRS database.

Aircraft Planning Process

Currently, DEA has contracted with Conklin and deDecker Associates to perform a long-term strategic plan to evaluate the performance and composition of its aircraft fleet. Also, in the Conference Report (H.R. Conf. Rep. 108-10) for the Consolidated Appropriations Resolution, 2003 (P.L. 108-7), the conferees directed that DEA complete a 5-year master plan for its aircraft fleet. This plan evaluated the utilization of the current fleet and reviewed potential replacement scenarios. The plan states that most DEA aircraft have a useful life of no more than 25 years. Therefore, many portions of DEA's fleet will need to be replaced or rehabilitated in the next several years. DEA officials, however, stated implementing such plans is often difficult because of budgetary levels or new mission requirements; therefore, when doing strategic planning, they focus on shorter time frames than other organizations might.

DEA's officials stated that OA is an organization that must respond to the needs of DEA field elements. According to the Aviation Division's Assistant Special Agent in Charge, because of this, they respond to needs regardless of cost, much like a fire department, although they use competitive bids and other cost saving procedures to try to keep costs down.

Aircraft Acquisition Process

Once funding for aircraft assets is approved, DEA's Aviation Division compiles a "One-Year Advance Procurement Plan" that includes a discussion of the need to be filled. OA then prepares a Statement of Work identifying the DEA needs to be filled and requests bids from private

companies for aircraft to fill these needs. A technical evaluation panel then is created to determine the best aircraft to fill the need. Cost is considered in this evaluation but is not necessarily the determining factor.

Occasionally, Congress will mandate that DEA purchase a particular type of aircraft and include funds to do so. This bypasses the normal budget process.

To gain a better understanding of the traditional acquisition process for DEA aircraft, and the type of documentation used to support acquisition decisions, we asked DEA to provide documentation on several of their aircraft. Results from this request are summarized in table 25.

Table 25: Documentation Supporting 6 DEA Aircraft Acquisitions

Aircraft (type) ^a	Acquisition date	Purchase price	Justification	A-76 completed	Cost benefit analysis provided
Helicopter 1	August 16, 1993	\$159,398	Need for surveillance aircraft; affordable	No	No ^b
Airplane 1	October 11, 2001	\$3,304,760	Need for cargo and passenger transportation	No	No ^b
Airplane 2	February 13, 2002	\$8,600,000	Need for passenger transportation	No	No ^b
Airplane 3	April 25, 2002	\$379,575	Need for surveillance aircraft	No	No ^b
Airplane 4	December 20, 1999	\$4,458,749	Need for twin-engine aircraft	No	No ^b
Helicopter 2	October 15, 2001	\$1,606,374	Need for surveillance aircraft	No	No ^b

Source: GAO analysis of DEA documents and interviews.

^aInformation on aircraft type is not included because DOJ considers it to be sensitive law enforcement information.

^bAccording to DEA, cost-benefit analyses for these aircraft were performed, but not written down or recorded.

As table 25 shows, DEA was able to provide detailed information about the acquisition date and purchase price for the selected aircraft, but not the other information we requested. DEA does not complete any analyses to comply with Circulars A-76 and A-126. DEA officials stated that they are “mission exempt” from these requirements since they are a law-enforcement agency. Therefore, no analysis is completed of whether or not an aircraft would be more cost-effective if a private contractor operated it

for DEA, and there is no requirement to perform an analysis of an aircraft's life cycle costs prior to acquiring it. However, periodically, DEA will hire a consultant to perform a cost-benefit analysis of a portion of their fleet. For instance, in 1996 DEA hired Conklin and de Decker Associates to analyze the cost-effectiveness of their turboprop fleet. This is similar to an A-126 review. DEA staff determine their needs on an ongoing basis, and the justification and cost-benefit calculations for individual aircraft are not recorded formally. DEA officials provided no studies or documents that assess the projected costs over the life of an aircraft versus those of a similar model (also known as life cycle cost analysis).

Aviation Metrics and Performance Management

DEA's contractor, Vertex L-3 Aerospace, tracks certain aspects of DEA aircraft performance in a detailed fashion. They collect information on such statistics as operational readiness, cost per flight hour, and total maintenance costs. They track these statistics for each model of aircraft and produce quarterly spreadsheets showing the trends for each aircraft and each model. These spreadsheets are provided to several DEA staff members with responsibility for various areas of the aviation operation. These staff members meet quarterly to evaluate the contractor's performance and decide upon any incentive payments for good performance.

Also, other DEA staff members are charged with reviewing these statistics and determining if action needs to be taken regarding specific aircraft, such as additional unscheduled maintenance, contacting the manufacturer, or taking the aircraft out of service because of a safety issue. These staff members have input when DEA is deciding on what aircraft are best suited to fill its future needs so that past trends can be taken into account. When new aircraft are being acquired, the technical evaluation panel looks at the past performance of aircraft already in the DEA fleet to see if similar aircraft should be acquired or avoided.

Safety Statistics

From April 1995 through October 2003, the DEA had three accidents and one incident. The accidents occurred in 1998 and 2001, and the incident occurred in 2002. In the 1998 occurrence, a DEA helicopter descended into the ground during a training mission, and this resulted in one fatality. According to the National Transportation Safety Board (NTSB) aircraft accident data, this accident was a result of the instructor pilot's failure to control the helicopter during a demonstrated autorotation. Contributing to the accident were the lack of Instructor Pilot Standardization Procedures

and Specific Flight Demonstration Procedures. According to DEA, they have addressed these deficiencies and altered flight procedures accordingly by restricting procedures for aircraft operation both in training and on missions. Both 2001 accidents occurred while on law enforcement missions, and were both due to mechanical failure. The 2002 incident took place during a positioning flight, and NTSB is still investigating the cause.

Department of State, International Narcotics and Law Enforcement Program

Program Description

The State Department's Bureau for International Narcotics and Law Enforcement Affairs Office of Aviation (INL/A) is responsible for assisting host nations eradicate illicit drug crops and detect, monitor, and interdict drug trafficking operations. The crops INL/A seeks to eradicate include marijuana, coca, and opium poppy. To accomplish these missions, INL/A uses helicopters and airplanes in South America and Pakistan. Through its contract with DynCorp, INL/A undertakes aerial eradication of illicit drug crops in Colombia, supports manual eradication of drug crops in Peru and Bolivia, and provides border security in Pakistan. The operations in Colombia are often times in hostile environments, which can place aircraft and personnel under small arms fire. The programs aviation operations are headquartered and managed at Patrick Air Force Base located in Florida. As the aircraft program's contractor, DynCorp performs major maintenance and initial pilot training at Patrick Air Force Base and flies and maintains U.S. aircraft and trains foreign personnel at various locations in Bolivia, Colombia, and Peru. Training for some of the spray aircraft is also conducted at Kirtland Air Force Base in New Mexico. This training helps simulate the mountainous environments of Colombia.

Aircraft Fleet and Operating Statistics

According to INL/A officials, the program has 154 operational aircraft, consisting of 33 airplanes and 121 helicopters. These aircraft are composed of 10 major makes and models, and the average age of all INL/A aircraft, including nonoperational aircraft, is about 26 years. Many of these aircraft were previously in military service, and over 110 of these aircraft were acquired since January 2002 as funding for this program increased dramatically in support of Plan Colombia.¹ Table 26 shows that, according to data INL/A entered into the FAIRS database, the overall cost and utilization of fleet aircraft also has significantly increased since fiscal year 2000.

¹In July 2000, the United States agreed to provide about \$860 million for fiscal years 2000 to 2001 to support Plan Colombia, the Colombian government's \$7.5 billion, 6-year counter narcotics plan. This amount was in addition to previously programmed U.S. assistance of over \$300 million for the same period and almost doubled U.S. counter narcotics assistance to Colombia compared with fiscal year 1999 levels.

Table 26: Cost and Flight Hours INL/A Aircraft, Fiscal Years 2000-2002

Fiscal years	INL/A owned aircraft	
	Costs ^a	Flight hours
2000	\$20,724,587	19,820
2001	\$33,696,589	20,824
2002	\$91,672,382	32,306
Total	\$146,093,588	72,950

Source: GAO analysis of FAIRS database.

Note: INL/A reported total commercial aviation services costs and flight hours of \$880 and 1 flight hour respectively during this period.

^aAn INL/A official stated that total program costs were probably close to \$200 million annually, but that an exact figure could not be determined due to the complex nature of the program's financial transactions involving foreign governments and embassies.

Aircraft Planning Process

Fleetwide planning for INL/A aircraft is primarily short-term in nature and revolves around identifying aircraft capability to meet current and next-year mission requirements. Officials at Patrick Air Force Base indicated that this short-term focus is due to the nature of the program's mission requirements, which are greatly affected by broader international drug control priorities. Officials indicated that INL/A has never undertaken any long-term strategic assessment to determine potential mission requirements and the optimal mix of aircraft to meet such requirements. As such, officials could not provide a long-term fleet management plan that identified anticipated aircraft requirements, and strategies for ensuring the program had the most cost-effective mix of aircraft. Officials indicated that they intend to prepare a long-term plan in the near future.

Aircraft Acquisition Process

INL/A officials stated that program managers in the field are responsible for identifying any shortfalls in aircraft capabilities and whether additional aircraft are needed. If new aircraft requirements are identified, field managers and the Chief of Operations at Patrick Air Force Base develop a justification. The justification must be reviewed and approved by the Program Director at Patrick Air Force Base and then by the Department's Assistant Secretary responsible for the INL/A. Once all approvals and funding are obtained, contracting officials in Washington, D.C., proceed with a procurement. A program manager in Washington, D.C., indicated that this was somewhat of an informal process; there were no set criteria for the type and extent of documentation required to develop a justification

and obtain final approval. Typically, once a need is identified, the Chief of Operations tasks DynCorp to prepare a study and come up with a recommendation on a specific aircraft to purchase. The Chief of Operations then incorporates this into a power point presentation, which he uses to obtain funding approval from officials in either Washington, D.C., or an embassy.

To gain a better understanding of how INL/A has traditionally justified its aircraft acquisitions and the type of documentation used to support aircraft acquisition decisions, we asked officials to provide documentation on four aircraft that INL/A recently acquired. Results from our review of these four aircraft are summarized in table 27.

Table 27: Documentation Supporting Four Recent INL/A Aircraft Acquisitions

Aircraft (type)	Acquisition date	Purchase price	Justification	A-76 study completed	Cost benefit analysis provided
Cessna 208B (airplane)	May 13, 2002	\$1,200,000	Needed for increasing training missions, replaces existing C212	No	No
Air Tractor 802 (airplane)	January 24, 2002	^a	Congress mandated increased crop spraying under Plan Colombia	No	No
Sikorsky UH-60 (helicopter)	July 1, 2002	^a	Directed by Congress under Plan Colombia	N/A	N/A
Bell UH-1H II (helicopter)	June 1, 2002	^a	Directed by Congress under Plan Colombia	N/A	N/A

Source: GAO analysis of INL/A documentation and interviews.

^aINL/A officials did not provide us with requested information on the purchase price.

During our review, we learned that one of these aircraft was recently acquired by the U.S. military and provided to INL/A under Plan Colombia, and Congress mandated INL/A acquire another of these aircraft. Therefore, we determined that our questions did not apply to these specific aircraft acquisitions. As the table shows, INL/A was able to provide only limited documentation supporting its aircraft acquisition decisions for the remaining two aircraft. Specifically, INL/A could not provide any OMB Circular A-76 cost comparison studies. Further, INL/A officials could not provide any detailed study or cost benefit analyses supporting these acquisitions. While they indicated they had prepared Power Point

presentations to obtain funding approval, they could not locate or provide these documents.

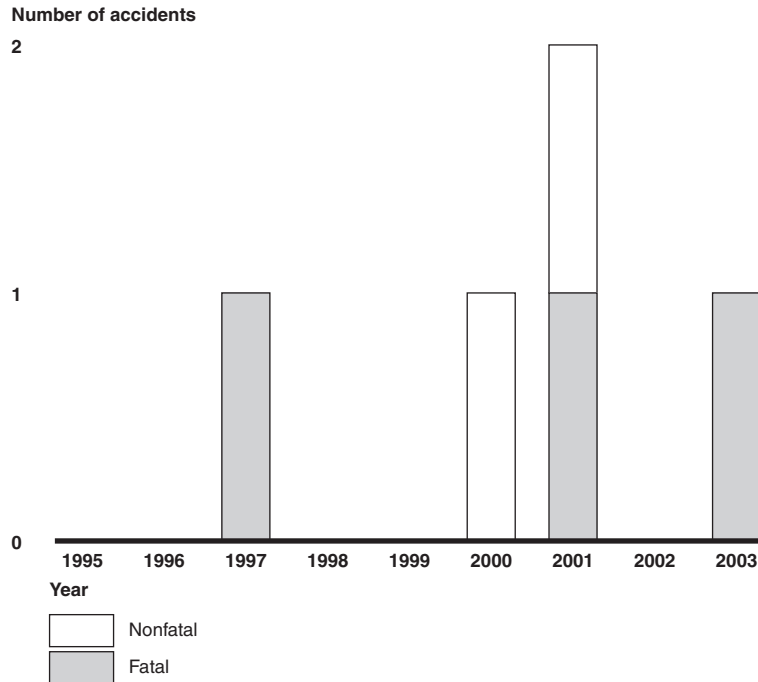
Aviation Metrics and Performance Management

As part of its contract with DynCorp, INL/A officials indicated they have established operational readiness requirements for its aircraft. This requirement is designed to ensure that DynCorp keeps the aircraft mission capable and a flies them a sufficient number of hours to achieve its mission. To help evaluate DynCorp's performance, INL/A maintains an information system which tracks, on a monthly basis, operational readiness for each group of aircraft at each location. An official indicated the operational readiness is the primary aviation metric that it used to help manage its operations, and help spot if aircraft are having problems in meeting mission requirements. In terms of assessing the cost effectiveness of aircraft, INL/A officials indicated that they have not periodically reviewed the cost-effectiveness of their entire fleet of aircraft to comply with OMB Circular A-126.

Safety Statistics

From April 1995 through October 2003, INL/A had five accidents with three resulting in a total of three fatalities. Figure 11 shows the number of both fatal and nonfatal accidents from 1995 to 2003.

**Figure 11: Bureau of International Narcotics and Law Enforcement Affairs
Accidents, April 1995 – October 2003**



Source: GAO analysis of NTSB data.

The accidents occurred during crop eradication, training, and maintenance ferry missions at various phases of flight including the maneuvering, descent, cruise, and climb phases.

According to National Transportation Safety Board (NTSB) aircraft accident data, the causes of the accidents varied. Pilot error contributed to three accidents. In two cases, NTSB does not list the cause. NTSB did not list the cause of the 2001 fatal accident because the pilot and the plane are missing. Another fatal accident occurred during a crop eradication flight in Colombia. NTSB does not list a final cause for this accident because the Government of Colombia has primary authority to conduct this accident investigation. Table 28 summarizes the number of accidents that NTSB attributed to personnel, environment, and mechanical factors by primary cause and other contributing factors.

Appendix X
Department of State, International Narcotics
and Law Enforcement Program

Table 28: Causes and Contributing Factors of the Bureau of International Narcotics and Law Enforcement Affairs Aircraft Accidents

	Primary cause	Contributing factor^a
Personnel factors	2	1
Environment factors		
Mechanical factors	1	
Not determined	2	

Source: GAO analysis of NTSB aircraft accident data.

^aContributing factors columns may not equal to the total number of accidents, because a single accident could have none or multiple contributing factors.

Comments from the General Services Administration



GSA Office of Governmentwide Policy

MAY 14 2004

Ms. JayEtta Z. Hecker
Director, Physical Infrastructure Issues
General Accounting Office
441 G Street, NW.
Washington, DC 20548

Dear Ms. Hecker:

Thank you for the opportunity to comment on the draft General Accounting Office (GAO) Publication GAO-04-645, "Federal Aircraft: Inaccurate Cost Data and Weaknesses in Fleet Management Planning Hamper Cost Effective Operations." Our markup is enclosed. Following are some general comments.

The draft report's title obscures the audit's scope, findings, and recommendations. We suggest a clearer title such as "Federal Aviation: Further Improvements Needed in Acquisition, Cost Accounting, Performance Measurement, and Oversight". As defined by regulation, Federal aircraft are those aircraft that the Federal Government owns. Therefore, your title inadvertently excludes the many aircraft the Federal Government leases, contracts, charters, and rents. Our data, though not entirely complete, reveals that about 50% of annual operating costs is spent on these commercial aircraft. Additionally, about 50% of annual operating costs attributed to Federally-owned aircraft is spent in the commercial sector for aircrews, maintenance, fuel, facilities, and other products and services. As your draft report shows, improvements are needed across the board.

Regarding the Federal Aviation Interactive Reporting System (FAIRS), we agree that the cost data is too understated at this point to draw concrete conclusions about cost effectiveness. However, we have seen incremental improvements each year largely as a result of our data stewardship actions like training, technical assistance, and data reconciliation. In fact, our 2003 cost data is very close to the estimates in your draft report. Our 2004 cost data should be even better, as we have recently made improvements to FAIRS including additional internal controls and mandatory cost elements. We are confident that the inventory and flight hour data are more accurate and useful. For example, the inventory data persuasively shows that we have an aging fleet badly in need of modernization. Our flight hour data convincingly shows that the aircraft support law enforcement, fire fighting, resources management, scientific research, humanitarian assistance, and many other vital missions.

U.S. General Services Administration
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**Appendix XI
Comments from the General Services
Administration**

- 2 -

In the safety area, we are pleased that you found that all the agencies examined produced evidence of strong programs, even though their oversight processes varied. We also note that in several places in the draft report you refer to "183 accidents" from 1995 to 2003, and in several others you refer to "183 accidents and incidents" over the same period. As you know, the criteria for accidents are much different from the criteria for incidents, and the causal factors and other conclusions can also be quite different. We ask that you clarify this.

Finally, the draft report correctly highlights the "gap" between Federal aviation policies and operations – namely enforcement. Enforcement is a responsibility at all levels of Federal aviation including General Services Administration, agencies that operate aircraft, OMB, and pertinent congressional oversight committees. We look forward to working with all responsible parties involved to help "close the gap". However, we oppose interfering in other agencies internal management controls for which they are accountable. Our specific steps will, of course, be included in action plans generated as the audit process unfolds.

If you have questions or need further information, please contact Mr. Peter Zuidema, Director, Aircraft Management Policy, (202) 219-1377, or peter.zuidema@gsa.gov.

Sincerely,



G. Martin Wagner
Associate Administrator

Enclosure

Comments from the Department of Justice



U.S. Department of Justice

Washington, D.C. 20530

May 20, 2004

JayEtta Z. Hecker
Director, Physical Infrastructure Issues
General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Hecker:

On April 26, 2004, the General Accounting Office (GAO) provided the Department of Justice (DOJ) a copy of its draft report entitled *Federal Aircraft: Inaccurate Cost Data and Weaknesses in Fleet Management Planning Hamper Cost Effective Operations* (GAO-04-645/540051) with a request for comments. We appreciate the opportunity to review the draft report. While the Department agrees with much of the report, we are concerned by the implications of several statements contained therein. The following formal comments will clarify such information and we request that they be incorporated into the final report.

First on page 22 of the report, the GAO states that "in 2003, Congress mandated that DEA produce a 5-year strategic plan for its aircraft program. The plan included some recommendations on replacing portions of its fleet, including its aging OH-6 helicopters, but did not include a detailed analysis of how many flight hours would be required of its fleet and what mix of aircraft would be best suited to DEA's mission."

In its 5-Year Plan for Aviation Support (FY 2003 to FY 2008) DEA's recommendation focused on replacement and modernization of the portion of its fleet that could reasonably be accomplished by FY 2008. DEA does not have the aircraft replacement base resources for a complete turnover of the fleet to an ideal mix of aircraft within five years, or the luxury of scheduling a date certain for the replacement of each of its aircraft. Instead, DEA chose to focus on planning for what could realistically be accomplished within a five-year period. The report responded to a Congressional Reporting Requirement in which the five-year period was the parameter specified by the House Commerce, Justice, State and the Judiciary Appropriations Subcommittee.

Additionally, it should be noted that DEA's changing focus makes it impractical to attempt to estimate flight hours per year. As the Aviation Division responds to the needs of DEA's field divisions, flight hours as well as the types of missions performed vary. The Aviation Division's operational funds are applied to different aircraft based upon the fluctuating needs of DEA. For this reason, the program is funded as a collective operation requiring managers to apportion resources to meet changing priorities.

Now on p. 21.

Ms. JeyEtta Z. Hecker

Now on p. 23.

On page 24 of the report, the GAO noted that "Circular A-76 explicitly states that programs should file A-76 reviews in most instances because although the mission of the program may be inherently governmental, the aircraft does not necessarily have to be government owned or operated. In addition, we found that some of these programs had hired contractors to perform the same aviation functions for them, which contradicted their views that the missions were inherently governmental, and thus needed to be completed by government employees using government owned aircraft."

The Department believes that the Aviation Division is exempt from A-76 reviews due to the nature of the work being performed by DEA. While there are instances where contract employees are utilized for missions that could possibly be performed by a commercial entity, these instances are exceptions to the norm and would not justify an aircraft used only for commercial purposes. The majority of missions performed by the Aviation Division are inherently governmental and require the use of law enforcement officers or other specialized DEA employees. These missions include but are not limited to surveillance missions, undercover use of aircraft, and prisoner transportation. The process of determining the cost for this type of mission commercially is irrelevant because it simply cannot be accomplished by civilian personnel.

Now on p. 32.

Finally on page 34, the GAO reports that "the USDA Forest Service, DEA, and FWS subject themselves to internal reviews of their operations... The USDA Forest Service and DEA elected to undergo program reviews that are initiated and performed internally."

It is extremely important to note that DEA's internal reviews in the areas of safety and training use guidelines established by outside agencies. The reviews are not arbitrarily defined nor are they conducted solely upon DEA guidelines. Additionally, the Aviation Division plans to undergo an ARMS (Aviation Resources Management Survey) review in the next year and will undergo an internal DEA Office of Inspections review in July 2004, in part, utilizing ARMS guidelines and checklists.

We hope these comments will be beneficial in preparing your final report. If you have any questions concerning the Department's comments in this matter, please feel free to contact Vickie L. Sloan, Director, Audit Liaison Office, Justice Management Division on (202) 514-0469.

Sincerely,



Paul R. Corio
Assistant Attorney General
for Administration

Comments from the Department of Agriculture



United States
Department of
Agriculture

Forest
Service

Washington Office

14th & Independence SW
P.O. Box 96090
Washington, DC 20090-6090

File Code: 5700

Date: MAY 21 2004

Ms. JayEtta Z. Hecker
Director, Physical Infrastructure Issues
General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Hecker:

Thank you for the opportunity to review the draft report on federal aircraft GAO-04-645, "Inaccurate Cost Data and Weaknesses in Fleet Management Planning Hampering Cost Effective Operations."

We are continually attempting to improve the systems, which assist us in cost effective operations and believe the report assists us in accomplishing those goals. The following comments on the draft report are consolidated from those received from within the Forest Service.

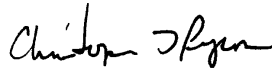
We agree with virtually all of the comments that specifically identify a Forest Service need for improvement. We believe that in most cases we have complied with OMB Circular A-76 and A-126 but realize we can improve in the areas outlined in the draft report.

We share GAO's concerns about the Federal Aviation Interactive Reporting System (FAIRS). We believe it is a good starting point toward improved reporting. However, it is our opinion that the FAIRS is difficult to use and could be designed more efficiently. For example, FAIRS currently captures over one hundred cost elements, making it cumbersome and unwieldy.

In conclusion, we believe the GAO draft report on federal aviation has provided an accurate assessment of Forest Service cost data. We welcome the suggested improvements to FAIRS and would like to be an active participant in any future updates.

Contact Larry Brosnan at 202-205-1497 with any further questions.

Sincerely,

for 
DALE N. BOSWORTH
Chief



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Comments from the Department of the Interior



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

MAY 21 2004

Ms. JayEtta Z. Hecker
Director, Physical Infrastructure Issues
U.S. General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Ms. Hecker:

Thank you for providing the Department of the Interior the opportunity to review and comment on the draft U.S. General Accounting Office report entitled, "Federal Aircraft: Inaccurate Cost Data and Weaknesses in Fleet Management Planning Hamper Cost Effective Operations," (GAO-04-645) dated April 26, 2004. In general, we agree with the findings that pertain to the Department, except as indicated in the enclosure. Although the recommendations are not directed to the Department, we generally agree with them.

The enclosure provides comments from the U.S. Fish and Wildlife Service and the National Business Center. We hope our comments will assist you in preparing the final report.

Sincerely,

for Assistant Secretary for Fish
and Wildlife and Parks

Enclosure

GAO Contacts and Staff Acknowledgments

GAO Contacts

JayEtta Z. Hecker (202) 512-2834
Gerald L. Dillingham (202) 512-2834
Glen Trochelman (312) 220-7729

Staff Acknowledgments

In addition to those individuals named above, Kimberly Berry, Vashun Cole, Michael LaForge, David Lehrer, David Lichtenfeld, Miguel Lujan, and Ray Sendejas made key contributions to this report.

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