

DOE/IG-0435

AUDIT  
REPORT

THE  
U.S. DEPARTMENT OF ENERGY'S  
AIRCRAFT ACTIVITIES



JANUARY 1999

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

January 7, 1999

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman  
Inspector General

SUBJECT: INFORMATION: Audit Report on "Review of the U.S. Department of Energy's Aircraft Activities"

BACKGROUND

On October 19, 1998, you asked that the Office of Inspector General (OIG) undertake a review of the Department of Energy's aircraft activities. You also requested that I report back to you within 90 days. We have gathered information concerning the number of aircraft, the level of utilization, and the cost of the Department's aircraft operations. We have also briefly summarized four issues that, in our judgment, may require management attention.

Prior to your request, the OIG had initiated a separate audit of aircraft and air service management programs at the Albuquerque Operations Office, which accounts for the largest percentage of the Department's total expenditures on aircraft activities. Based on this audit, we concluded that Albuquerque could reduce the overall cost of its aircraft activities. We also found that the Operations Office could discontinue air service between Albuquerque and Amarillo, Texas, if it relied on currently available commercial air services. We issued the draft report to the Albuquerque Operations Office on December 4, 1998. Although taking exception to some of the tentative audit conclusions, Albuquerque agreed to take aggressive actions to reduce the cost of aviation services and to cancel the shuttle service between Albuquerque and Amarillo. Discussions are proceeding to resolve any substantive differences between this office and Albuquerque.

RESULTS OF AUDIT

As of November 1998, the Department owned 30 operating aircraft, including 12 fixed wing planes and 18 helicopters. The aircraft are assigned to the Albuquerque, Nevada, and Savannah River Operations Offices, and the Bonneville and Western Area Power Administrations. Missions include:

- responding to nuclear emergencies,
- transferring classified cargo,
- transporting personnel performing mission related functions,
- patrolling powerlines,
- monitoring airborne radiation and pollution, and
- performing security missions.

Since 1994, the number of flight hours, and associated costs, of Departmental aircraft has declined. Between Fiscal Years 1994 and 1997, flight hours declined from 15,700 to 11,400 and operating costs from \$27.4 million to \$19.9 million.

During our review, we identified issues indicating a need for increased Departmental management oversight of aviation activities. For example, the independent review of the continuing need for aircraft has only been performed on a limited basis. As a result, application of Office of Management and Budget (OMB) guidance on documenting the continuing need for aircraft was inconsistent among field locations. We also noted that operating costs at the Albuquerque Operations Office were significantly higher than at other locations. In addition, Headquarters does not validate mission need when acquiring aircraft. Finally, we found that information reported to the General Services Administration (GSA) significantly understated the Department's use of aircraft rentals and charters.

To resolve these issues and ensure that they are coordinated on an agency-wide basis, the OIG suggests that the Department assign responsibility and authority to a Headquarters entity for:

- scheduling, managing, and coordinating periodic assessments of the continuing need for aircraft;
- identifying aircraft operations that are uneconomic and implementing appropriate corrective actions;
- validating the missions being used to justify aircraft acquisitions; and
- ensuring that accurate charter, contract, and rental information is collected and provided to GSA, as required by current Federal government policy.

As noted above, questions concerning the continuing need for aircraft and validation of missions used to justify aircraft acquisitions were of paramount concern. In this context, we noted that six of the planes currently in the Department's inventory are used for passenger transportation. This includes five turbo prop and one jet aircraft. In currently proposed acquisitions, the Department plans to procure two additional jets with international passenger transportation capability. As described in Appendix B, the Department reported that several of these planes have unique, contingency missions involving accidents or nuclear emergencies.

We did not, as part of this review, evaluate the nature of the contingency missions for these aircraft. Nor did we analyze the cost/benefit relationship of retention of aircraft for these purposes. However, in our judgment, the one-time and recurring costs to acquire and operate these aircraft are of such significance that the Department's senior decision-makers, who are in the best position to validate the continuing mission need, should periodically make such analyses. This should include: (1) assessing the practicality of using alternative sources for obtaining the needed air transportation and (2) evaluating the appropriateness of using the aircraft for passenger transportation purposes when such activities are found to be cost effective and mission related. We concluded that OMB requirements call for such action. This subject is discussed on Pages 5 and 6 of the report.

We discussed the issues in this report with the Office of Environment, Safety and Health and the affected field organizations. Please feel free to contact me should you desire to discuss any of the issues further.

Attachment

cc: Acting Deputy Secretary  
Under Secretary

# **REVIEW OF THE DEPARTMENT OF ENERGY'S AIRCRAFT ACTIVITIES**

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## DEPARTMENTAL AIRCRAFT PROGRAM

Since the Manhattan Project, the Department and its predecessor organizations have owned and operated aircraft. Originally, planes were used to transport materials and personnel between remote locations not serviced by commercial flights. As the Department's missions expanded, so did the agency's use of aircraft. With the creation of the Department in 1977, for example, the agency assumed responsibility for the power marketing administrations (PMAs). The two largest PMAs, Bonneville and Western Area, made extensive use of sizeable aircraft fleets. Currently, the Department's 30 operating aircraft transport passengers performing mission-related functions and hazardous materials; conduct security operations, research and development activities, and aerial measurements; respond to radiological emergencies; and patrol powerlines and pipelines. Approximately 28 Federal and 114 contractor full-time equivalent employees are directly involved in operating the Department's aviation program.

### Department of Energy Aircraft

At the end of Fiscal Year 1997, the Department had 32 aircraft. These aircraft logged 11,379 flight hours and were operated at a cost of \$19.9 million. Table 1 provides detailed information relating to the location, number, utilization, operating cost, and missions of the Department's aircraft for Fiscal Year 1997--the most recent year for which complete data is available.

TABLE 1  
FISCAL YEAR 1997 AIRCRAFT INFORMATION

LOCATION	NUMBER OF AIRCRAFT	TOTAL FLIGHT HOURS	TOTAL OPERATING COSTS	MISSIONS <sup>1</sup>
Albuquerque Operations Office	8	2727	\$ 11,414,236	- transporting classified and hazardous cargo - responding to emergency situations
Nevada Operations Office	9 <sup>2</sup>	1788	2,098,281	- conducting air sampling, photography, radiation measurements, transporting radioactive materials - supporting Nuclear Emergency Search Team (NEST)
Bonneville Power Admin.	8	3605	1,982,335	- patrolling transmission lines and transporting people, tools and materials
Western Area Power Admin.	5	2369	2,595,586	- patrolling transmission lines and transporting people, tools and materials
Savannah River	2	890	1,772,326	- responding to security incidents - gathering airborne intelligence
<b>TOTALS</b>	<b>32<sup>3</sup></b>	<b>11,379</b>	<b>\$19,862,764</b>	

<sup>1</sup> As reported by the Department.

<sup>2</sup> Two helicopters and one fixed-wing King Air BE200 are based at Andrews Air Force Base.

<sup>3</sup> One of these aircraft was sold during Fiscal Year 1998. Another was a Western Area Power Administration helicopter which was destroyed in a crash in April 1997. This figure does not include one aircraft owned by Battelle Memorial Institute of which the Department is the primary user.

## Aircraft Trends

As the Department's mission has shifted away from weapons production, its requirements for aircraft have decreased. As a result, the number of aircraft, flight hours, and costs declined significantly over the past several years. Between Fiscal Years 1994 and 1997, the Department's aircraft inventory decreased 11 percent while total flight hours and total aviation operating costs each decreased 27 percent. Table 2 provides a summary of aircraft data for this period.

TABLE 2  
AIRCRAFT, COST, AND UTILIZATION DATA

	FY94	FY97
Number of Aircraft	36	32
Number of Flight Hours	15,700	11,400
Operating Cost	\$27.4 million	\$19.9 million

The site most affected by the decline in aircraft operations is the Albuquerque Operations Office, which accounted for over 57 percent of the \$7.5 million decrease in the Department's aviation program during the period. Two aircraft missions at Albuquerque have been reduced or eliminated. For example, daily passenger flights between six locations were eliminated and nuclear material deliveries across the Department's complex were reduced from three times a week to delivery on demand. The changes at Albuquerque resulted in an aircraft inventory reduction of one aircraft, a 56 percent decrease in flight hours, and a reduction in operating costs of \$4.3 million over the 4-year period. This information suggests that Albuquerque has reduced its aircraft costs. But as we noted during our concurrent review, Albuquerque can do more to reduce costs. Appendix A provides a detailed summary of Departmental aircraft by location, cost, and utilization data for Fiscal Years 1994 through 1997.

## Aircraft Acquisitions

The Department has not acquired any aircraft since December 1994. The Albuquerque and Nevada Operations Offices and Bonneville and Western Area Power Administrations are currently planning to sell 11 aircraft and replace them with 6 newer models. Table 3 provides detailed information relating to proposed aircraft acquisitions.

TABLE 3  
PROPOSED AIRCRAFT ACQUISITIONS

ORGANIZATION	AIRCRAFT TO BE ACQUIRED	AIRCRAFT TO BE SOLD	MISSION JUSTIFYING THE AIRCRAFT ACQUISITION	VALUE OF NEW AIRCRAFT
Albuquerque	1-Gulfstream	1-DHC-7 fixed wing <sup>4</sup> 1-DC-9 fixed wing	Emergency response.	\$12 M
Nevada	1-Gulfstream  2-medium altitude and range helicopters	2-King Air BE200 fixed wing 2-BO-105-helicopter	Emergency response.  Radiation environmental surveys.	\$21.7 M
Western Area Power	1-helicopter	2-Bell Jet Ranger helicopters 1-helicopter (destroyed in crash)	Powerline inspection and repair.	\$1.3 M
Bonneville Power	1-helicopter	2-Jet Rangers	Passenger transport and airlift.	\$900,000

The six aircraft to be purchased will cost a total of approximately \$35.9 million. The Department plans to apply the proceeds from the sale of 11 existing aircraft, estimated at about \$11.9 million. The remaining funds of about \$24 million will need to be provided by Defense Programs and the Western Area Power Administration. Officials at the Bonneville Power Administration expect the sale of the two existing helicopters to pay for Bonneville's new helicopter.

#### Safety Issues

Safety issues have been a serious concern to the Department. From 1990 to 1992, the Department experienced 12 aviation accidents that resulted in 17 fatalities, 2 serious injuries, and the destruction of 7 aircraft. In 1994, the Department responded to safety concerns by establishing a Headquarters organization--EH-53--within the Office of Environment, Safety and Health, which is responsible for aviation safety. Since that time, there has only been one aviation accident. A Western Area Power Administration helicopter was destroyed, but there was no serious injury or loss of life.

#### Prior Office of Inspector General Reports

Since 1987, the Office of Inspector General has issued four audit reports on various aspects of the Department's aircraft activities. Each of the prior reports, summarized here briefly, addressed needed improvements in the management or cost-effective utilization of Department aircraft.

- December 1987
*Audit of the Department's Aircraft Management*, DOE/IG-0248
The Department did not have a comprehensive and effective system to manage its aircraft. Requirements of OMB Circular A-126 had not been fully implemented.

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<sup>4</sup> Aircraft sold November 1997.

- July 1991      *Management of the Ross Aviation, Inc. Contract Aircraft Major Spare Parts Inventory, WR-B-91-6*

Ross Aviation, Inc. was acquiring and maintaining excessive spare parts in inventory.
- September 1994      *Audit of Aircraft Management at the Albuquerque Operations Office, CR-B-94-05*

The Department could have saved \$2.2 million by eliminating a costly air service between Los Alamos and Albuquerque. (This service was eventually cancelled despite Albuquerque's non-concurrence with the Office of Inspector General audit finding.) Also, purchasing rather than leasing four aircraft could have saved \$8.6 million. Finally, leasing a seldom-used DC-9 led to \$1 million in unnecessary costs.
- September 1994      *Audit of Aircraft Management at the Bonneville Power Administration, CR-B-94-06*

Bonneville could have met mission needs with one less helicopter and one less plane. Annual savings of \$735,000 in operating costs were available. In addition, the excess aircraft could have been sold for \$1.5 million. Bonneville could also have saved \$839,000 by canceling the purchase of a replacement helicopter. (Bonneville officials initially agreed to review its operations in accordance with the OIG's recommendations. However, Bonneville officials stated that maintenance requirements and revised mission needs changed their decision to adopt the OIG's recommendations.)

## **SUGGESTED MANAGEMENT ACTIONS**

We identified issues during our review indicating a need for more centralized management of the Department's aviation activities. For example, we found that an independent review of the continuing need for aircraft has only been performed on a limited basis. We also noted that operating costs at the Albuquerque Operations Office were significantly higher than at other locations and that no Headquarters organization had the responsibility to monitor such costs. In addition, Headquarters does not validate mission need when approving aircraft acquisition. Finally, we found that information reported to the General Services Administration (GSA) significantly understated the Department's use of aircraft rentals and charters.

Our conclusions are consistent with an April 1995 and a November 1998 study by the Office of Environment, Safety and Health. The 1995 study recommended establishing a Headquarters program

office with responsibility for overall management, budget, budget allocation, contract management, property management, and operations of aviation services within the Department. The objective of such an office would have been to centrally manage Department aircraft, reduce costs, and more fully utilize the Department's aircraft. The 1998 study concluded that without more program office involvement there is no Headquarters line management to address DOE aviation issues or to effect program improvements.

As currently configured, EH-53 is charged with aviation safety and has a limited role in the review of aircraft justifications. However, neither EH-53 nor any other Headquarters organization has overall aircraft activity management authority.

#### Assess the Continued Need for Aircraft

Office of Management and Budget Circular A-126 requires an agency to periodically review its aircraft operations and justify the continuing need for aircraft. This requirement is not consistently met by the Department. There is no schedule of reviews or a common understanding of how often such reviews should occur.

The need to periodically review and independently justify the continuing need for aircraft is underscored in a separate report being issued by the Office of Inspector General. The Albuquerque Operations Office used a plane no longer having a valid mission (i.e. transporting classified materials and cargo) to transport passengers between Albuquerque, New Mexico, and Amarillo, Texas. A commercial air carrier provided daily service between the same two cities at a significantly lower cost (\$185 versus \$1474 per round trip). Albuquerque has indicated that it will cancel this shuttle service but intends to keep this aircraft for mission related needs.

**Suggestion to enhance aircraft operations:** The Department should assign responsibility and authority to a Headquarters entity for scheduling, managing, and coordinating periodic assessments of the continuing need for aircraft.

#### Review Cost and Utilization Data

As noted, the Office of Inspector General has reported on a number of opportunities to decrease aircraft costs. Costly practices were identified at both the Albuquerque Operations Office and the Bonneville Power Administration. There are indications that aircraft costs are not adequately monitored or controlled. Our concurrent review at Albuquerque, for example, indicated that opportunities existed for the Department to save as much as \$5.7 million over 2 years in aircraft operating costs at that location alone.

There appears to be a need for an independent Headquarters organization to identify costly aircraft operations. This organization should have the authority to take action to reduce the cost of uneconomic aircraft activities. To illustrate the nature of our concern, we compared the costs to operate a Beechcraft-200 at various Department sites. Our analysis showed a significant variance in operating costs per flight hour. As shown in Table 4, costs at Albuquerque appear to be high in comparison to other sites.

TABLE 4  
FISCAL YEAR 1997 BE-200 OPERATIONS COST AND UTILIZATION DATA

Location	Aircraft ID#	Cost	Flight Hours	Cost Per Flight Hour
Albuquerque	N7232R	\$807,357	321	\$2,515
Nevada	N6451D	153,360	143	1,072
Nevada	N185XP	144,901	137	1,058
Bonneville	N63791	417,859	459	910
Bonneville	N2748X	393,725	521	756

**Suggestion to enhance aircraft operations:** The Department should assign responsibility and authority to a Headquarters entity for identifying costly aircraft operations, analyzing the comparative costs of these operations relative to industry standards, and ensuring actions are implemented throughout the complex to make aircraft activities as cost effective as possible.

Analyze New Aircraft Acquisitions

The Department's planned acquisitions (illustrated in Table 3) were in various stages of the approval process. Each requesting office is required by Office of Management and Budget Circular A-76 to perform an in-house versus a contracted out analysis. Also, the Congress must authorize all aircraft acquisitions.

An apparent weakness in the acquisition approval process is that no independent entity within the Department validates the mission proposed by the requesting operations office. That responsibility lies with the program office, which funds the requesting aviation site activities. We noted that the Albuquerque and Nevada Operations Offices are each currently planning to acquire a similar mid-size jet for what appeared to be the same or similar missions. Each organization justified its planned purchase in terms of an emergency response mission and the ability to transport an emergency response team anywhere in the continental United States within 6 to 8 hours. Each request was analyzed separately. Albuquerque's acquisition has been approved and approval for Nevada's acquisition is pending. To prevent possible overlap of services, a Headquarters office needs to have sufficient responsibility and authority to evaluate aircraft acquisitions from a Departmentwide perspective.

**Suggestion to enhance aircraft operations:** The Department should assign responsibility and authority to a Headquarters entity for validating the missions being used to justify aircraft acquisitions.

Ensure the Accuracy of Charter Aircraft Data

The Department is required to report all aircraft rentals and charters to GSA. In Fiscal Years 1996 and 1997, the Department reported 966 and 280 charter flight hours costing \$1,010,751 and \$127,684, respectively. Based on our analysis, charter information reported to GSA was significantly understated. For example, in Fiscal Years 1996 and 1997 Western Area Power Administration and the Oak Ridge Operations Office actual charter costs totaled about \$206,000 and \$133,000, respectively. However, the

Department reported to GSA total charter costs of about \$38,000 and \$36,000 for these fiscal years. As a result, at just these two sites, the Department, for Fiscal Years 1996 and 1997, understated charter costs by approximately \$168,000 and \$97,000, respectively.

We were unable to assess the overall cost effectiveness or appropriateness of the Department's use of chartered aircraft. However, without accurate information, the Department has no basis for ensuring that its chartered aircraft activities are cost effective.

**Suggestion to enhance aircraft operation:** The Department should assign responsibility and authority to a Headquarters entity for ensuring that accurate charter, contract, and rental information is collected and provided to GSA.

/S/  
Office of Inspector General

DOE AIRCRAFT COST  
AND UTILIZATION  
DATA

DOE FIELD OFFICE/ AIRCRAFT MODEL	FY94		FY95		FY96		FY97	
	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST
<b>ALBUQUERQUE:</b>								
DC-9	867	\$3,397,211	544	\$2,662,690	749	\$2,728,034	525	\$2,621,972
DC-9	688	2,815,134	503	2,376,990	856	2,739,970	498	2,729,407
DC-9	711	3,117,837	684	3,172,112	492	2,480,461	311	2,270,912
Lear-35	433	683,690	421	791,534	379	940,789	319	887,268
King Air BE-200	302	690,967	361	693,330	285	1,522,182	321	807,357
deHavilland DHC-6	1232	1,739,132	330	882,251	223	532,285	130	306,141
deHavilland DHC-6	409	703,766	407	638,116	344	1,073,819	351	723,720
deHavilland DHC-6	972	1,427,898	1444	1,793,385				
deHavilland DHC-7	533	1,136,651	478	1,133,084	449	1,316,607	272	1,067,459
<b>Totals</b>	<b>6147</b>	<b>\$15,712,286</b>	<b>5172</b>	<b>\$14,143,492</b>	<b>3777</b>	<b>\$13,334,147</b>	<b>2727</b>	<b>\$11,414,236</b>
<b>NEVADA:</b>								
King Air BE-200 (A)	6	\$103,648	115	\$481,126	135	\$259,796	143	\$153,360
King Air BE-200	10	107,659	81	515,444	161	298,860	137	144,901
Cessna Citation II	207	534,393	295	1,336,869	308	584,389	291	384,479
Convair 580/600	181	622,716		87,074				
BO-105	192	394,306	213	574,463	175	291,423	217	213,173
BO-105	322	564,594	191	418,964	212	348,244	13	17,610
BO-105 (A)	187	404,077	200	465,074	150	261,514	181	176,472
BO-105	360	498,942	138	246,112	266	463,631	254	365,923
BO-105	280	860,436		1,077				
Bell-412					28	64,643	326	436,404
Bell-412 (A)							226	205,959
<b>Totals</b>	<b>1745</b>	<b>\$4,090,771</b>	<b>1233</b>	<b>\$4,126,203</b>	<b>1435</b>	<b>\$2,572,500</b>	<b>1788</b>	<b>\$2,098,281</b>
<b>BONNEVILLE:</b>								
King Air BE-200	377	\$354,600	442	\$476,967	506	\$418,201	459	\$417,859
King Air BE-200	403	321,525	595	375,240	559	451,336	521	393,725
Bell-206	421	79,710	81	37,427				
Bell-206	588	180,601	450	188,984	381	151,522	333	151,693
Bell-206	535	199,575	650	277,573	509	168,698	435	193,806
Bell-206	482	122,287	546	151,078	465	163,592	515	226,853
Bell-206	509	137,456	571	143,063	450	154,207	453	197,739
Bell-206	475	186,052	471	189,288	451	249,256	395	207,543
Bell-206			408	116,231	487	178,735	494	193,117
<b>Totals</b>	<b>3790</b>	<b>\$1,581,806</b>	<b>4214</b>	<b>\$1,955,851</b>	<b>3808</b>	<b>\$1,935,547</b>	<b>3605</b>	<b>\$1,982,335</b>
<b>WESTERN:</b>								
Bell-206 L-1	385	\$130,097	402	\$54,276	385	\$174,422	190	\$397,904
Bell-206 B-III	421	123,235	461	132,249	400	177,681	740	540,936
Bell-206 L-1	489	502,689	604	188,746	709	231,457	648	737,498
Bell-206	400	424,563	616	226,764	737	254,192	607	665,874
Bell-206 B-III	320	129,749	317	160,839	378	171,968	184	253,374
Bell-412					41	46,600		
<b>Totals</b>	<b>2015</b>	<b>\$1,310,333</b>	<b>2400</b>	<b>\$762,874</b>	<b>2650</b>	<b>\$1,056,320</b>	<b>2369</b>	<b>\$2,595,586</b>
<b>SAVANNAH RIVER:</b>								
BK-117	449	\$873,843	376	\$874,881	393	\$749,727	543	\$1,082,891
BK-117	342	665,963	270	628,373	378	720,329	347	689,435
<b>Totals</b>	<b>791</b>	<b>\$1,539,806</b>	<b>646</b>	<b>\$1,503,254</b>	<b>771</b>	<b>\$1,470,056</b>	<b>890</b>	<b>\$1,772,326</b>
<b>IDAHO:</b>								
Bell-412	487	\$911,785	568	870,453	122	\$513,010		
Bell-412	733	882,570	288	689,209	109	503,431		
<b>Totals</b>	<b>1220</b>	<b>\$1,794,355</b>	<b>856</b>	<b>\$1,559,662</b>	<b>231</b>	<b>\$1,016,441</b>		
<b>OAKLAND:</b>								
F-27		\$1,384,000						
<b>Totals</b>		<b>\$1,384,000</b>						
<b>TOTALS</b>	<b>15708</b>	<b>\$27,413,357</b>	<b>14521</b>	<b>\$24,051,336</b>	<b>12672</b>	<b>\$21,385,011</b>	<b>11379</b>	<b>\$19,862,764</b>

**MISSIONS OF CURRENT  
(FY98) DOE AIRCRAFT**

<b>DOE FIELD OFFICE/ AIRCRAFT MODEL</b>	<b>MISSION<sup>5</sup></b>
<b>ALBUQUERQUE:</b> Fixed Wing: 3 DC-9s	<ul style="list-style-type: none"> <li>- Carry classified and hazardous DOE cargo</li> <li>- Transport time critical, classified and/or hazardous materials to various DOD Military First Destinations</li> <li>- Used in emergency situations (e.g. NEST, Accident Response Group, etc.)</li> </ul>
Lear-35	<ul style="list-style-type: none"> <li>- Transport hazardous and/or classified materials that are time sensitive to ongoing R&amp;D programs</li> <li>- Used in emergency situations (e.g. Accident Response Group)</li> </ul>
King Air BE-200	<ul style="list-style-type: none"> <li>- Transport hazardous and/or classified materials that are time sensitive to ongoing R&amp;D programs</li> <li>- Used in emergency situations (e.g. Accident Response Group)</li> </ul>
2 deHavilland DHC-6s	- R&D for Sandia and Lawrence Livermore
<b>NEVADA:</b> Fixed Wing: 2 King Air BE-200s	<ul style="list-style-type: none"> <li>- Supports the Department and civil nuclear reactor facilities with air sampling, radiation measurements &amp; radiocative materials transportation</li> <li>- Used in emergency situations (e.g. NEST)</li> </ul>
Cessna Citation II	<ul style="list-style-type: none"> <li>- Photography, multispectral and radiation surveys</li> <li>- Used in nuclear emergency response situations</li> </ul>
Helicopters: 4 BO-105s	<ul style="list-style-type: none"> <li>- Radiation measurements, multispectral and thermal scanner surveys, photo and video oblique flights, and providing support for site security mission</li> </ul>
2 Bell-412s	<ul style="list-style-type: none"> <li>- Radiation measurements, multispectral and thermal scanner surveys, photo and video oblique flights, and providing support for site security mission</li> </ul>
<b>BONNEVILLE:</b> Fixed Wing: 2 King Air BE-200s	- Transportation of passengers, parts and equipment
Helicopters: 6 Bell-206s	<ul style="list-style-type: none"> <li>- Transmission line patrols using low level photography, thermovision or heat emission</li> <li>- Used to transport people, tools and materials in emergency situations</li> </ul>
<b>WESTERN:</b> Helicopters: 4 Bell-206s	<ul style="list-style-type: none"> <li>- Transmission line patrols using low level photography, thermovision or heat emission</li> <li>- Used to transport people, tools and materials in emergency situations</li> </ul>
<b>SAVANNAH RIVER:</b> Helicopters: 2 BK-117s	<ul style="list-style-type: none"> <li>- Respond to security incidents and provide rapid transportation for the Special Response Team</li> <li>- Providing airborne intelligence gathering/relay station, airborne firing platform, rappel vehicle, escort/response vehicle, routine patrol of the general site and assistance to law enforcement</li> </ul>

<sup>5</sup> As reported by the Department.

### SCOPE AND METHODOLOGY

We reviewed Federal Property Management Regulations, Department of Energy Directives, and internal Departmental procedures. The scope of our effort did not include a verification of data (including computer-processed data) or an in-depth evaluation of the justification or utilization of the aircraft. The information provided was obtained at DOE Headquarters, primarily from reports prepared by field activities. We also held discussions with representatives of the Office of Field Support, the Albuquerque and Oak Ridge Operations Offices, the Bonneville and Western Area Power Administrations, and the Office of Management and Budget.

This audit was conducted in accordance with generally accepted auditing standards for performance audits, which included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy our audit objectives. Audit work was performed at Department of Energy Headquarters during October and November 1998. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit.

**CUSTOMER RESPONSE FORM**

The Office of Inspector General has a continuing interest in improving the usefulness of its products. We wish to make our reports as responsive as possible to our customers' requirements, and, therefore ask that you consider sharing your thoughts with us. On the back of this form, you may suggest improvements to enhance the effectiveness of future reports. Please include answers to the following questions if they are applicable to you:

1. What additional background information about the selection, scheduling, scope, or procedures of the audit would have been helpful to the reader in understanding this report?
2. What additional information related to findings and recommendations could have been included in this report to assist management in implementing corrective actions?
3. What format, stylistic, or organizational changes might have made this report's overall message more clear to the reader?
4. What additional actions could the Office of Inspector General have taken on the issues discussed in this report which would have been helpful?

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