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Report to the Congress; by Elmer B. Staats, Comptroller General.

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Civilian agencies in the Federal Government own over 650 aircraft worth at least $340 million. They lease, charter, or rent several thousand more annually. Millions of dollars are spent each year by agencies to acquire and operate the combined civilian Government aircraft fleet. This is done by each agency independently and without any Government-wide policy guidance. Findings/Conclusions: The differences in the policies and procedures for all aspects of aircraft operations among the agencies contribute to inefficient and uneconomical aircraft programs. Because there is no information system for the aircraft resources of the civil agencies, agencies do not have sufficient information to determine aircraft needs, methods to obtain aircraft services, aircraft utilization practices, maintenance and storage practices, uniform operating standards, and standard pilot qualifications. Recommendations: The Acting Director of the Office of Management and Budget should: require reevaluation of existing aircraft program needs and capabilities, even if this means releasing some aircraft or using an alternative source for support capabilities; develop overall policy to provide broad guidance for standardizing common civil agency aircraft program activities such as aircraft acquisition, utilization, maintenance, and storage; take action to bring about increased interagency cooperation regarding aircraft programs, with emphasis on greater interagency use of aircraft and support facilities and on identifying potentials for consolidation contracts and agreements for commercial aircraft services; and develop overall criteria for uniform cost systems and aircraft information systems that will standardize costs and identify agency aircraft and aircraft services that could be shared. OMB should investigate the possibility of having a single manager for common aircraft program activities. (Author/SC)

REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

Improvements Are Needed In Managing Aircraft Used By Federal Civilian Agencies

Office of Management and Budget

Civilian agencies acquire and operate aircraft independent of each other and without Government-wide policy guidance. There is a need for greater cooperation among these agencies to realize greater aircraft efficiency and economy.

Such cooperation should be supported by uniform information systems--including cost accounting systems--with data concerning common activities such as maintenance, storage, and acquisition practices.

LCD-77-430

DECEMBER 22, 1977

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164497(1)

To the President of the Senate and the
Speaker of the House of Representatives

This report describes how Federal civilian agencies are acquiring, operating, and managing aircraft independently and without any Government-wide guidance.

We initiated this review after preliminary research indicated decentralized management of aircraft programs, particularly utilization, maintenance, and logistical support, was inefficient and uneconomical. Because there is no concerted effort to establish Government-wide policies and procedures, these problems could continue to grow as aircraft become more supportive of civil agency responsibilities. We are recommending to the Acting Director, Office of Management and Budget, a number of actions we believe are needed to improve management of the agencies' aircraft programs.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), the Accounting and Auditing Act of 1950 (31 U.S.C. 67), and 10 U.S.C. 2313(b).

We are also sending this report today to the Acting Director, Office of Management and Budget; the Secretaries of Agriculture, the Interior, Transportation, and the Treasury; the Attorney General of the United States; and the Administrator, National Aeronautics and Space Administration.

Elmer B. Staats

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

IMPROVEMENTS NEEDED IN MANAGING AIRCRAFT USED BY FEDERAL CIVILIAN AGENCIES

D I G E S T

Civilian agencies in the Federal Government own over 650 aircraft worth at least $340 million. They lease, charter, or rent several thousand more annually. Millions of dollars are spent each year by agencies to acquire and operate the combined civilian Government aircraft fleet.

This is done by each agency independently and without any Government-wide policy guidance. Each agency has its own policies and procedures for all aspects of aircraft operations and there are extensive variations among agencies. These differences contribute to inefficient and uneconomical aircraft programs making Government-wide policy guidance for aircraft programs necessary.

Agencies do not have sufficient information to determine aircraft needs, methods to obtain aircraft services, aircraft utilization practices, maintenance and storage practices, uniform operating standards, and standard pilot qualifications. This is because no information system exists for aircraft resources of the civil agencies.

Agencies are not using uniform methods or systems to accumulate and report aircraft program costs. Many cost systems are incomplete. Therefore agencies do not have adequate cost information to compare various alternatives to satisfy their aircraft needs or better control aircraft operations. The Drug Enforcement Administration, for example, considers only operating costs such as fuel, oil, parts, labor, hangar, and miscellaneous expenses. Other agencies consider operating costs plus various direct

and indirect fixed costs such as depreciations, crew salaries and travel, administrative personnel costs, etc. (See pp. 32 to 35.)

Little has been done by agencies to coordinate aircraft programs. This has further contributed to inefficient and uneconomical operations throughout the Government.

Some agencies are recognizing the need for better management of aircraft programs. The Office of Aircraft Services has centralized control over all Interior Department aircraft programs in Alaska and is attempting to expand this control to the 48 continental States. (See pp. 12 and 13.)

Someone must take the lead to improve aircraft programs in Government. The Office of Management and Budget appears best suited to initiate action and obtain necessary agency cooperation. (See p. 37.)

The Acting Director, Office of Management and Budget, should:

--Require reevaluation of existing aircraft program needs and capabilities, even if this means releasing some aircraft or using an alternative source for support capabilities.

--Develop overall policy to provide broad guidance for standardizing common civil agency aircraft program activities such as aircraft acquisition, utilization, maintenance, and storage.

--Take action to bring about increased interagency cooperation, regarding aircraft programs, with emphasis on (1) greater interagency use of aircraft, maintenance capabilities, storage facilities, and training facilities, including military resources and (2) identifying potentials for consolidating contracts and agreements for commercial aircraft services.

--Develop overall criteria for uniform cost systems and aircraft information systems that will standardize costs and identify agency aircraft, their location as well as potential availability for sharing, and other services that could be shared, such as hangars, maintenance facilities, training facilities, and refueling.

These actions should be initiated promptly. After this is done, in the long term, greater opportunities for achieving economies and efficiencies lie in improvements on a Government-wide basis.

Although a single manager approach is but one of many ways for achieving Government-wide savings, the Government has used this approach, in many cases, to meet needs of different customers for common services and commodities. In deciding how Government-wide savings can best be achieved, the Office of Management and Budget therefore should look into the possibility of having a single manager for common aircraft program activities. The functions of such a manager could include responsibility and authority to monitor and formulate policies and procedures for common aircraft program activities. (See pp. 38 and 39.)

Most civilian agencies agreed that increased emphasis on interagency cooperation and coordination would provide greater economies and efficiencies. The Office of Management and Budget agreed that more uniformity in cost accounting systems is needed.

Several agencies believed that a uniform aircraft management information system could and should advance interagency aircraft sharing, particularly if such a system included information on aircraft type and location, expected availability, and the types of services that might be shared.

Most agencies, however opposed designating a single manager with responsibility for Government-wide aircraft programs

primarily because of the vast differences in agency aircraft requirements and types.

Although mission and administrative aircraft have different configurations and tasks, there are some activities--such as maintenance, storage, procurement, and pilot qualifications--that are common. It may be feasible and desirable, therefore, to standardize these activities on a Government-wide basis.

Centralized management is not the immediate or only solution to improving program weaknesses in management of civil agency aircraft programs. Based on the successful experiences of selected individual agencies, however, notably the Department of the Interior, it is an alternative that shows promise for achieving Government-wide economies and efficiencies.

The single manager approach has proven to be successful, in several cases, when the Government has had many different customers with a need for common services and commodities. (See pp. 41 and 42.)

Contents

ABBREVIATIONS

OMB	Office of Management and Budget
NASA	National Aeronautics and Space Administration

CHAPTER 1

INTRODUCTION

Today aircraft are being used more extensively than ever by civilian Government agencies to carry out assigned responsibilities. Agencies spend millions of dollars each year to acquire, operate, and maintain aircraft. Civilian agencies own more than 650 aircraft, ranging in size from small single engine aircraft costing less than $10,000 to large jet aircraft, such as a Boeing 747, costing many millions of dollars. Cursory information obtained from the agencies indicates the total value of the aircraft inventory is at least $340 million.

Since agencies perform many different programs, aircraft are used for a variety of purposes and, as a result, agencies use many different aircraft. Most aircraft are single or twin engine aircraft available from commercial sources costing from $8,000 to $580,000. These aircraft are generally propeller driven and fly slower than smaller jets (such as the Gulfstreams and Sabre Liners). The jets fly considerably faster but also cost considerably more money--approximately $2 million to $3 million.

In addition to owning aircraft, Federal agencies lease, rent, and charter several thousand aircraft. These aircraft services are normally obtained by individual agency field organizations; therefore, information was not readily available showing either the total aircraft or total costs involved. Discussion with agency officials revealed that obtaining aircraft services by these means is very common.

Most agencies place their aircraft into two general categories, depending on work type--mission aircraft and administrative aircraft. Experimental aircraft are a minor category of aircraft, generally used for research and development. (See p. 5.) Since we could not easily determine the value of these aircraft, they are included in this report, in the numerical inventory but not in the total dollar value.

MISSION AIRCRAFT

Mission aircraft primarily support special programs such as fire protection, law enforcement, and land surveys. These aircraft, often needing special equipment, enhance agency efforts to complete special programs. Their use as personnel transport aircraft is limited. Agency officials indicated

that the majority of aircraft owned by civilian agencies fall into this category. An example would be the aircraft used by the Forest Service to transport personnel that fight fires. (See p. 4.)

ADMINISTRATIVE AIRCRAFT

Administrative aircraft can be used to perform missions, but primarily transport cargo and personnel. These aircraft generally are not modified and do not contain special equipment. Administrative aircraft provide transportation normally associated with the services provided by companies that specialize in renting, chartering, or leasing aircraft. (See pictures on the following pages.)

SCOPE

With some exceptions, agencies independently operate and manage their aircraft programs without any Government-wide policy guidance. Because of this independence among agencies, we reviewed aircraft program management at various civilian agencies throughout the Federal Government. Our work was to identify the wide variations in aircraft programs among different agencies and to determine if the variations were warranted. We concentrated our work on six civilian agencies, but also briefly contacted others for limited information.

We made our review primarily at the following locations:

Department of the Interior:

Office of the Deputy Assistant Secretary of the Interior (Management)
Washington, D.C.

Office of Aircraft Services
Boise, Idaho

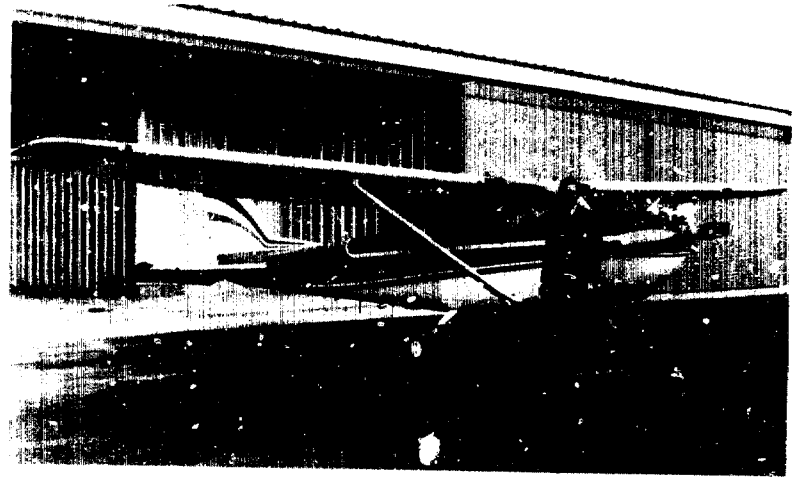
Bureau of Reclamation Headquarters
Washington, D.C.

Bureau of Reclamation
Denver, Colorado

Fish and Wildlife Service Headquarters
Washington, D.C.

Fish and Wildlife Service
Denver, Colorado

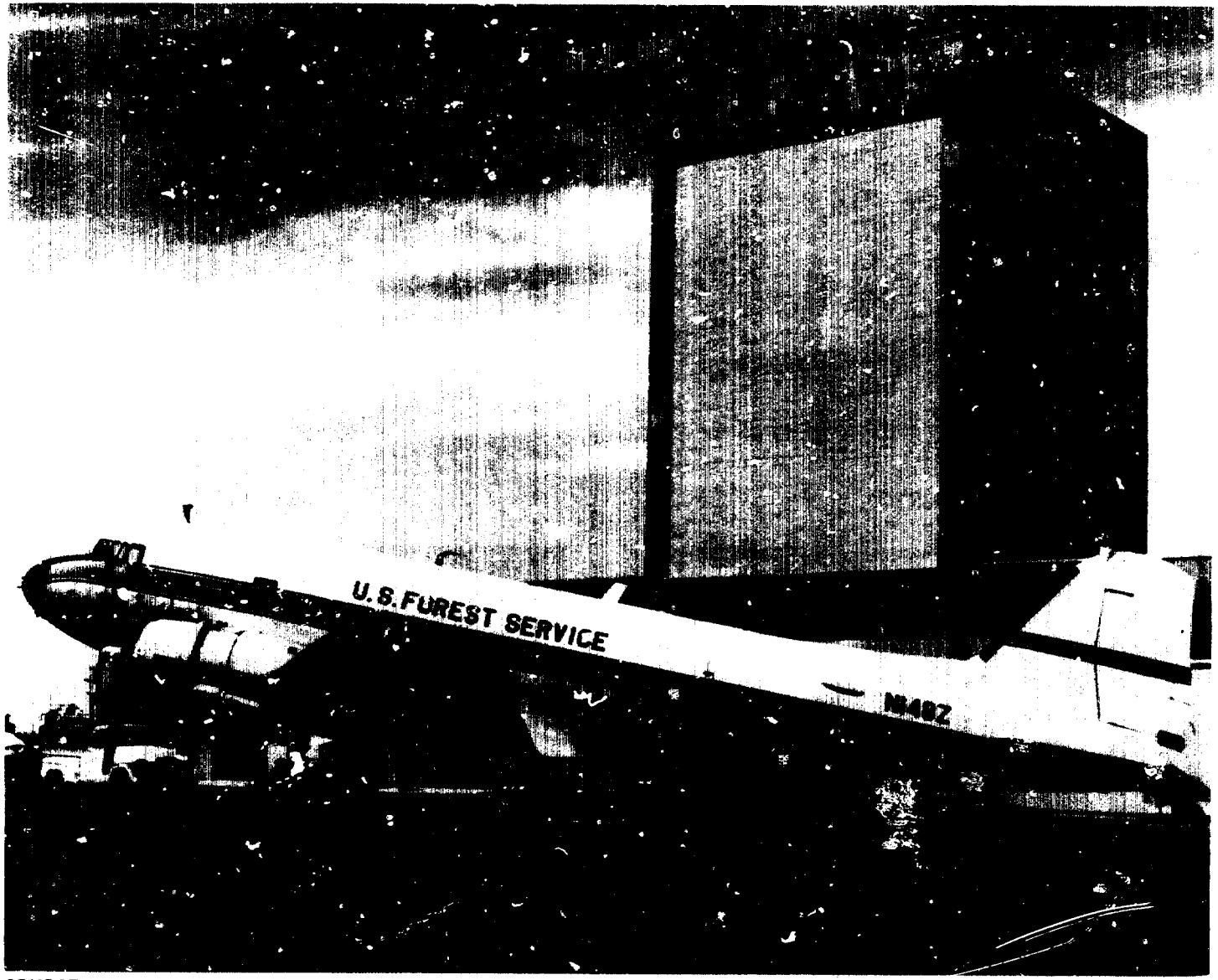
KINGAIRE



CESSNA 172

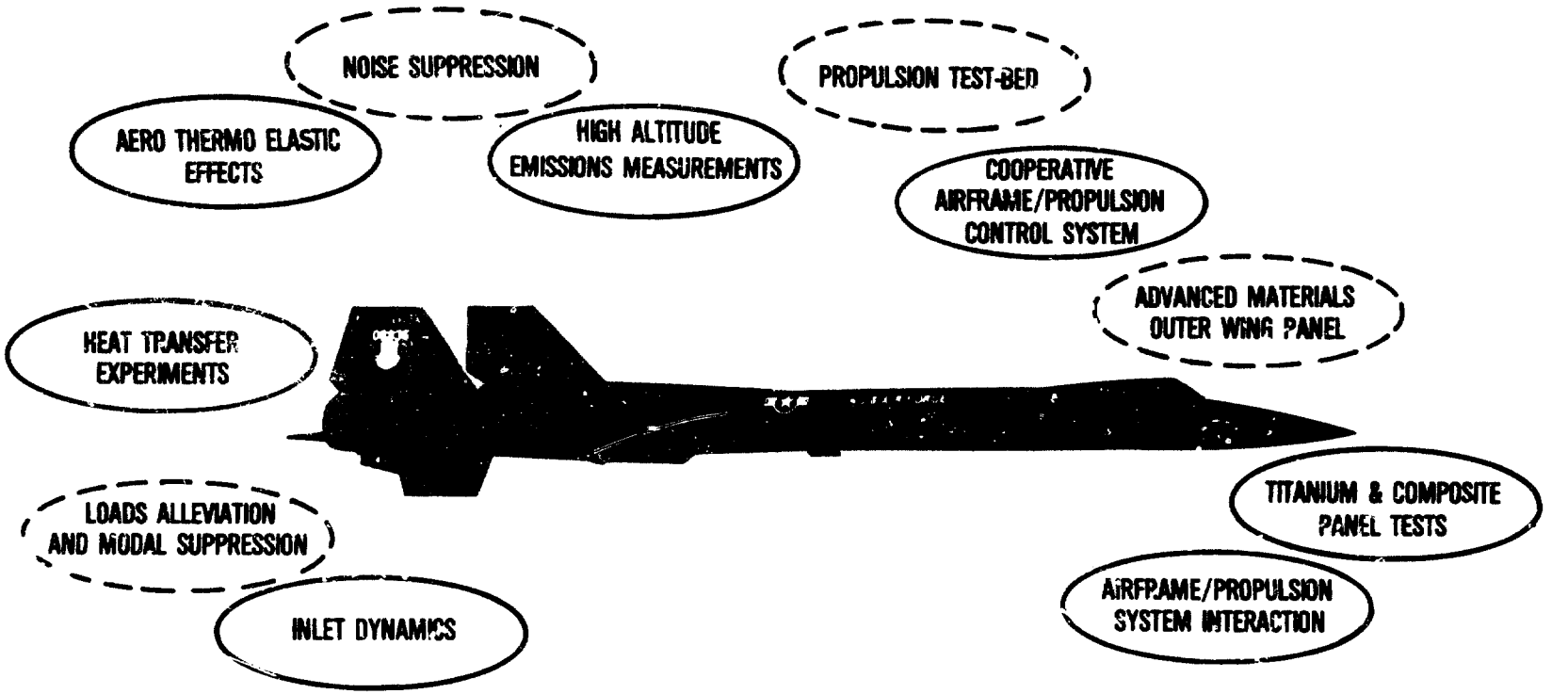
GULFSTREAM II

TURBO COMMANDER



SOURCE: U.S. FOREST SERVICE; DEPARTMENT OF AGRICULTURE

NASA YF-12 FLIGHT RESEARCH ACTIVITIES



SOURCE: NASA

U.S. Geological Survey Headquarters
Reston, Virginia

U.S. Geological Survey
Denver, Colorado

National Park
Service Headquarters
Washington, D.C.

National Park Service
Denver, Colorado

Department of the Treasury:
U.S. Customs Service Headquarters
Washington, D.C.

Department of Justice:
Drug Enforcement Administration Headquarters
Washington, D.C.

Drug Enforcement Administration
San Pedro, California

Department of Transportation:
Federal Aviation Administration Headquarters
Washington, D.C.

Federal Aviation Administration
Los Angeles, California

U.S. Coast Guard Headquarters
Washington, D.C.

U.S. Coast Guard
Long Beach, California

Department of Agriculture:

U.S. Forest Service Headquarters
Washington, D.C.

U.S. Forest Service
Ontario, California

U.S. Forest Service
Boise, Idaho

National Aeronautics and Space Administration:
National Aeronautics and Space Administration
Headquarters
Washington, D.C.

Jet Propulsion Laboratory
Pasadena, California

Dryden Flight Research Center
Edwards Air Force Base, California

Appendix II provides more details about these agencies and their aircraft programs. Appendix III lists all civilian agencies identified as having aircraft and the number of aircraft they operate.

We also sent questionnaires to 10 of these agencies concerning their policies and procedures for selected aspects of aircraft operations. A copy of the questions to each agency is included as appendix IV. The responses were too voluminous to include in this report. Therefore, in addition to references throughout the report, we have summarized selected information in appendix V.

CHAPTER 2

ISSUES INVOLVED IN MANAGING CIVILIAN AGENCY AIRCRAFT

Aircraft programs have been established independently within the agencies and are generally managed independently of one another. No single agency is responsible for the overall management of civilian agency aircraft programs, and there are no Government-wide policies and procedures for agencies to follow. There also has not been any concerted effort at this time to establish Government-wide policies and procedures. Because of the nearly 700 civilian aircraft involved worth at least $340 million (about $200 million for the U.S. Coast Guard alone), a better approach with careful consideration for many key factors is needed. At the agency level, some key factors are being considered, but further consideration and joint analysis in certain areas is required.

These areas include the level of aircraft operations, aircraft utilization, maintenance and storage practices, aircraft safety, and costs of operations.

DETERMINING THE LEVEL OF AIRCRAFT OPERATIONS IN CIVILIAN AGENCIES

Using aircraft to perform various specialized missions and carry out routine activities has become popular with many civilian agencies of the Federal Government. While it is evident that a need for aircraft exists, defining the appropriate level of operations--i.e., how many and what kind of aircraft are necessary--requires consideration of several issues. Of primary importance is the way agencies satisfy their needs. Other issues such as utilization, maintenance and storage practices, aircraft safety, and cost of operations also require careful consideration, particularly when assessing the effectiveness of aircraft programs throughout the Government.

MEETING NEEDS FOR AIRCRAFT SERVICES

How can the various aircraft needs of all civilian agencies be met at least cost to the Government, without sacrificing timeliness or safety? The answer is not simple because various factors must be considered:

--Is all of the civilian aircraft fleet necessary or can some be eliminated?

--What impact will greater interagency use of existing aircraft have on current or projected inventories?

--How and who should provide aircraft maintenance and storage?

--How safe are Government aircraft programs and what improvements can be made?

--What are the costs of aircraft programs and how might savings be achieved?

Indepth analyses and investigations are needed to adequately answer such questions for each agency or all agencies.

With the above we suggest that Government-wide needs can be established with some precision. In addition, we contend better aircraft programs can be achieved with greater cooperation and coordination.

The number of aircraft and cost of operations have increased significantly. In the past, each agency had only a few aircraft scattered throughout the country and the cost was relatively low; there was little need to cooperate and coordinate aircraft activities. But past experience is probably a poor guide and should not be used to determine what is best for the future. As will be seen in chapters 3 and 4, agencies have made only the most elementary efforts to coordinate aircraft program activities, and no efforts have been begun to establish Government-wide policies and procedures.

Considering staffing and budget constraints Federal agencies should first determine the level of services that can be provided. Also, it is important agencies continually insure that the most economical resources, necessary to accomplish their missions, are selected. Aircraft are but one alternative. Detailed analyses should be performed to answer the question about whether aircraft is the best alternative. This is necessary, whether aircraft are needed to transport people or to carry out special functions such as fire fighting, law enforcement, or scientific research. Current capacities, both within and outside the agency, should be evaluated to determine whether aircraft are essential or merely nice to have and whether, in fact, essential work is accomplished that couldn't be accomplished some cheaper way.

Such an evaluation has been prompted by an October 14, 1977, Department of Defense Audit Service report on administrative aircraft. This report recommended that military aircraft, used for administrative support needs, only be used when commercial airlines cannot satisfy the existing requirements. When the continual use of aircraft can no longer be justified, such aircraft and support capabilities should be eliminated. Recently, the House Committee on Appropriations instructed the Air Force to dispose of five 737 jet aircraft that could no longer be justified.

Similar analyses should be made to determine how aircraft services can best be provided. To accomplish this, consideration should be given to all possible methods, such as renting, chartering, leasing, purchasing, lease-purchasing, borrowing, or obtaining the aircraft from Government excess. For example, it may be less expensive to rent or borrow an aircraft if the agency only needs the aircraft for a short time. Longer term needs may be better satisfied by acquiring the aircraft through Government excess or by purchase. Sometimes a short-term need may exist; however, the flying conditions may be considered dangerous and the most practical solution may be a Government-owned aircraft piloted by Government personnel.

Needed guidance for some of these decisions is provided by Office of Management and Budget (OMB) Circular A-76. Once agencies decide an aircraft is needed, they are required to analyze whether the services should be provided by the private sector or through Government resources. We recognize the necessity for such an analysis and believe the circular has greatly assisted some agencies in this area.

However, OMB circular A-76 is not designed to deal solely with aircraft programs and therefore does not specifically address some key issues pertaining to aircraft programs. Before acquiring an aircraft, agencies should determine if aircraft services can be adequately provided from existing Government-owned resources. We are not necessarily suggesting that OMB Circular A-76 should be the means to specifically address this or other issues discussed in this report, but the problems identified throughout this report indicate specific guidance is necessary to deal with these issues. For example, we sent a questionnaire to several agencies asking about written policies and procedures to determine (1) the most appropriate mode of transportation and (2) the most appropriate aircraft to acquire. Some agencies indicated a lack of written policies and procedures in these areas. Other responses were unclear about the extent of policies

and procedures in these areas. (See apps. IV and V for further details.)

OTHER ISSUES TO BE CONSIDERED

Other issues, such as aircraft utilization, maintenance and storage practices, aircraft safety, and the cost of operations, should be considered when determining the most appropriate level of aircraft operations. Several agencies have established varying degrees of policies and procedures to guide them in managing these aspects of aircraft programs, but no common guidelines exist for all agencies to use under similar conditions so that aircraft use, maintenance, and storage can be consistent, coordinated, and shared. Without common minimum standards for pilot qualifications, aircraft maintenance, or equipment, not all persons flying under similar conditions are afforded the same safety level. Further complicating the above problems is the absence of a common information system to permit agencies to evaluate and compare aircraft programs. Management also needs to be able to assess aircraft programs to make responsive decisions to improve them. Information systems should be devised that tell managers whether aircraft needs can be met through existing capacities, how safe their programs are, what is the best method to use when performing maintenance, and many other things.

Another essential issue is the cost of existing aircraft programs. Accurate and reliable costs must be compiled so that comparisons can be made between Government aircraft services and private aircraft services. For example, continuing analyses of individual aircraft programs are needed to determine if the existing services can be performed more economically through other means. Similar comparisons are needed to determine if aircraft maintenance can be more economically provided by the Government or by contracted services. Potential for consolidating redundant capabilities in certain geographic areas should be analyzed periodically. In one case, as many as 18 airplanes are operated, maintained, and stored in the same area by nine different Government agencies; each has somewhat different aircraft policies.

The impact of more sophisticated and greater numbers of aircraft for a variety of uses is also an important consideration. New Government programs may require new, expensive aircraft services. At the same time, the current administration has fostered a policy for conserving energy. Therefore, careful assessment of the growing, sophisticated aircraft fleet is needed.

LIMITED APPLICATION OF CENTRAL MANAGEMENT

Limited attention has been given centralized management within some civil agencies; however, OMB has not given serious consideration to having a single manager for the aircraft used by civilian agencies. OMB officials stated they have not considered a central manager because they do not know if the benefits derived from central management are greater than those under the existing system.

While OMB has not considered centralizing civilian aircraft programs, nor provided any overall direction in this area, we believe more centralization of selected program activities would offer distinct advantages. We are not suggesting that centralization is the only solution for aircraft program activities but want to emphasize that some agencies have taken various measures to more centrally control or consolidate selected aircraft activities in recent years.

The Department of the Interior has made the most significant effort toward centralizing aircraft management. In July 1973, the Office of Aircraft Services was established to manage, direct, and coordinate the Interior Department's aircraft programs. This office has since taken control of the Interior's aircraft program in Alaska, and has control of the Interior's contracting and leasing for aircraft services in the 48 continental States. This office also maintains cost data for all the Interior aircraft and has established many standard aircraft policies and procedures that apply to all the Interior agencies. As evidenced in recent congressional testimony, these consolidation efforts have been successful in eliminating about one-half of the Interior's Alaskan facilities and maintenance personnel. The cost of operating the Interior's Government-owned aircraft in Alaska is expected to decrease from $2.2 million in fiscal year 1974 to less than $1 million in fiscal year 1977. Further discussions with Office of Aircraft Services officials indicated that the maximum number of personnel employed has decreased by about 25 percent while overall aircraft services increased considerably. For example, while the program costs increased from $14 million in fiscal year 1975 to a current $21 million the number of personnel needed to operate the programs dropped from 100 to 75.

While efforts by other agencies have been on a much smaller scale than those within the Department of the Interior, they are indicative of rather widespread concern for aircraft programs, particularly the possible need for a more centralized program.

For example, in 1974 a National Aeronautics and Space Administration (NASA) study of aircraft management recommended an aircraft office be established to serve as a focal point for overall aircraft management matters throughout the agency. As a result NASA now has a small headquarters staff for this purpose. Another agency, the Forest Service, has established a separate aviation organization in Washington that primarily coordinates technical and operational matters among the various Forest Service regions.

ANALYZING THE ISSUES

In general, each Federal civilian agency assumes that its aircraft program is running smoothly and is as good as those of other Federal agencies. But we found that this may not necessarily be true.

The basic management problems that exist under the present system of operations, therefore, revolve around the lack of

--coordination among agencies;

--differences in policies and procedures among agencies to firmly manage aircraft programs; and,

--a central data system to inform agencies of all aircraft resources.

Standardization in aircraft programs among different agencies can be accomplished by increasing interagency communication. Increased communication allows for establishing and delineating different policies and procedures to later produce agreement on mutually acceptable overall policies and procedures. But dramatic changes (such as consolidating agency aircraft activities) cannot be made until a correlation between overall and individual civilian Government aircraft operational needs is drawn. Through these efforts overall civilian Government aircraft resources can be most effectively managed while responsiveness to individual agency needs is assured.

The chapters that follow will deal in more depth with agency policies and procedures to manage aircraft resources, and various methods used to independently manage agency aircraft resources.

CHAPTER 3

DETERMINING CIVILIAN AIRCRAFT REQUIREMENTS

Accurate information from all agencies using aircraft is needed to determine the appropriate type and amount of aircraft services required to match these requirements with the existing aircraft resources in the Federal airfleet.

Detailed analyses of agency needs should be the starting point. Once determined, how can these needs be satisfied? The answer would include a determination of existing capabilities both within and outside the Government, plus, the economics of available services.

We found that agency requirements are not based on the above analysis. One reason is that agencies that need aircraft are not always aware of existing capabilities within other Federal agencies. Another reason is that agency personnel independently satisfy their aircraft requirements from their own resources without determining if their needs could be met from resources from other agencies. As noted in chapter 2, the Department of the Interior established an office that coordinates its aircraft procurements, leases, and operations. We believe that similar coordination, extended throughout other departments and possibly the entire Federal Government, could determine the maximum number of aircraft required to satisfy overall needs. This reassessment should include an evaluation of all capabilities, even though some of these may exist outside the agency.

MEASURING TOTAL AIRCRAFT NEEDS

Determining transportation needs is the first step in developing aircraft requirements. Detailed analyses are needed to determine if air transportation will provide the best service for the agency. These analyses should evaluate other modes of transportation and compare the benefits from each mode. Along with an evaluation of the other modes the analyses should include the extent and frequency of probable use. This should form the basis for decisions regarding the aircraft needed and the best method for obtaining the necessary services (i.e., outright purchase, lease, lease-purchase, charter, rent, loan, or interdepartmental transfer). In response to our questionnaire (apps. IV and V) and further inquiry most agencies indicated they were making some analysis on these aspects of aircraft operations. But the analyses were all somewhat different, lacking specific studies and quantitative information on expected aircraft needs.

In contrast to previous studies, a specific study was performed by the Department of the Navy for the U.S. Customs Service. The study was to update Customs' ability to counter smuggling activities by providing sufficient data on system requirements, characteristics, and operational conditions so that the most cost-effective air program could be implemented. We found no evidence of similar studies in any other agencies and, in fact, found that few agencies had a formal written policy that specifically stated what should be included in an analysis and how the analysis should be made. In no case did we find that the analyses were coordinated with other Government agencies.

Agencies contend that the informal analysis provides the information necessary to establish aircraft requirements. Although some factors needed to determine aircraft requirements may be considered without specifically coordinating requirements and formalizing the results, it is not possible to determine if requirements can be fulfilled by existing Government aircraft resources. A good illustration of recent coordination within the Interior Department aircraft office was brought to our attention when arrangements were made by the Interior's Office of Services to provide services to one Interior agency through another Interior agency's aircraft, thus precluding the acquisition of additional aircraft. This arrangement was made possible because the Interior Department's aircraft office oversees all aircraft operations for all agencies in the Department.

In addition, we question whether the agencies' informal analysis provides the quantitative information needed to develop requirements. In our review of an analysis prepared by the National Park Service in 1973 on the purchase of a $450,000 airplane, it was not possible, based only on the report's information, to determine if the service could be provided through some other mode or if the airplane would provide the most economical transportation. According to the fiscal year 1973 Senate hearings on this matter:

> "A seven-passenger aircraft is needed to provide logistical support at Glacier National Park, Montana. Aerial patrol of this large and isolated National Park is the most effective and efficient means for providing support to search and rescue operations, fire control and forest management activities, as well as ecological surveys. The aircraft will be based at Glacier and will provide primary aircraft support for Glacier and Yellowstone including activities associated with the duties of the State Coordinator who is responsible

for Service affairs in Montana. Secondary support will provide for other park areas of the Midwest Region such as Big Horn Canyon National Recreation Area. This size aircraft will provide adequate freight capacity.

"Commercial aircraft service is often neither available nor reliable in this mountainous area during much of the year. With a Service-owned aircraft, a primary benefit would be realized by the thoroughness and speed with which management objectives could be accomplished."

The National Park Service analysis provides no information on:

--How the airplane will be used, i.e., the number of hours the aircraft will be flown each year or how many years the aircraft will be needed; the number of passengers normally transported; or the amount and type of freight to be carried.

--The cost of alternative methods that could provide the same service (e.g., services provided by ground transportation rather than aircraft).

--How service is presently being provided in the area where the aircraft will be used.

In another instance, an agency quantified the information on its requirement for an aircraft because OMB specifically requested the agency to do so before approving the aircraft acquisition. OMB asked the agency for the following information about the proposed acquisition:

--A concise description of what information the airplane is to collect.

--Alternative methods that could be used to obtain the data.

--Cost estimates for acquiring the data by each alternative.

--The calculations used to arrive at the conclusions.

--If the agency were required to replace an aircraft presently operated for the proposed additional airplane, which aircraft could be disposed of, what is it currently being used for, and how many hours is it being flown each year?

In response, the agency said the aircraft will be used primarily to develop and apply electromagnetic methods of exploring geothermal, fossil fuel, radioactive, and ore mineral resources. They stated that the flight time would be 250 hours annually; however, considerably more time would be needed for installation and testing. They also stated that it would not be feasible to rent the aircraft because major modifications to the aircraft structure would be necessary. While modified, the aircraft would not be useful for other operations so rental would have to be full time. According to the budget justification presented by the agency, estimates for modification would exceed $65,000 while the remodifying cost to remove the additions would exceed $25,000. Based on a total probable cost of about $100,000 for the modification cycle the agency decided against renting an airplane.

Our review showed that the agency neither flew the aircraft for 250 hours nor made major modifications as they had indicated. We observed that during the first year of operation the agency flew the aircraft only 83 hours. Thirty-seven of the flight hours were for agency-related programs while the remaining forty-six hours were flown for pilot proficiency training.

We found that modification and remodification costs were highly overstated. The Aircraft Operations supervisor estimated only $3,800 would be needed to make minor changes to the aircraft structure. About the same amount probable cost would be needed to remodify the aircraft to its original condition. Based on this infornation the total modification and remodification costs would be approximately $7,600 or $92,400 less than the probable cost shown in the budget justification.

Based on the number of hours the agency used the aircraft the first year and the updated modification and remodification figures, it appears that the agency should have rented the aircraft rather than made an outright purchase. If acceptable arrangements could have been made to rent an aircraft from either a private contractor or another Federal agency the aircraft procurement would not have been necessary, and possibly have produced considerable savings to the Government.

OMB or a designated single manager needs quantified information to analyze all aircraft acquisitions. But, even if quantified information is provided by the agency there is no guarantee that the services are in fact required and could

not be provided at a lower cost. We recognize this problem and also recognize that OMB has neither the manpower nor the time to verify all information presented by the agency. But we also believe that if agencies are required to justify aircraft acquisitions with detailed analyses and periodic independent information verifications, a high potential exists for reducing the number of aircraft in the Government inventory.

SATISFYING AIRCRAFT NEEDS

Once aircraft requirements have been accurately defined, additional analyses are required to determine how the requirements will be satisfied. Should aircraft services be provided by federally owned aircraft or by aircraft in the private sector? If Federally owned aircraft are the most appropriate alternative, how will the aircraft services be provided? The most common method is to acquire aircraft--generally by outright purchase, lease-purchase, or transfer of excess to needy agencies. Aircraft are also borrowed from the Defense Department. While interagency use of aircraft is another alternative, it is often not considered because no overall Government aircraft information system exists to identify aircraft resources.

If aircraft services are provided by the private sector, the services are generally provided by lease, charter, rent, or contract. Services provided by any of these agreements may include the [illegible] the aircraft with maintenance and fuel, or any combination agreed on between the agency and the operator. Since private sector agreements are administered at agency field offices, we know neither the number of agreements nor the most common type of agreement.

OMB Circular A-76 is designed to assist agencies to determine if services should be provided by the Government or the private sector. Based on responses to our questionnaire (see app. V) most agencies indicated they are presently complying with the circular. While we did not determine if agencies are complying fully with the circular, our review showed that agencies interpret the circular differently and as a result comply in varying degrees. We also noted there has been no concerted effort within OMB to assure that all agencies fully comply with the circular when considering aircraft operations.

Aircraft procurement

According to agency officials, outright purchase is the most preferable method of meeting their aircraft needs and

is used whenever procurement funds are available. If procurement funds are not available when the aircraft is needed, but funding will be available later, agencies prefer (and do) lease-purchase aircraft. (See chart on p. 23 showing extensive use of lease-purchase arrangements.)

We reviewed in more detail a limited number of recent aircraft procurements--outright purchase and lease-purchases--to see if adequate consideration was given to alternative methods for providing required services. Federal agencies are prohibited by law (31 U.S.C. 638a) from acquiring aircraft unless specifically authorized by the Congress. Although OMB and the appropriate congressional committees subject agency requests for aircraft acquisitions to thorough reviews, we found little evidence that alternatives were considered before deciding to purchase or lease-purchase an aircraft. Based on discussions with agency personnel, we confirmed that consideration is only given to other alternatives if funds for outright purchase or lease-purchase are not available. If agencies were required to fully evaluate all possible methods for obtaining aircraft services the Government might be able to better use its existing fleet of aircraft and minimize the procurement of additional (and possibly unnecessary) aircraft.

Aircraft use

Consideration of the availability of aircraft already in the Government airfleet is very important when deciding how aircraft services should be provided. In this regard, as many requirements as possible should be met with existing aircraft before new purchases are made. Careful studies of existing Government aircraft capabilities are needed. Without such studies, no assurance exists that current capabilities cannot fulfill new or additional requirements. The following example illustrates a case where an overall aircraft management information system would have greatly assisted the agencies in evaluating their aircraft needs with a view toward making the greatest use of existing aircraft before acquiring additional aircraft.

In 1973 National Park Service purchased a Beechcraft Kingair for $445,000 with a nine-person seating capacity. The airplane is stationed in Denver and is primarily used to transport National Park Service personnel throughout the Western United States. (app. VI shows the number of passengers and locations during April and May 1975.) Since 1973 the aircraft has been flown about 500 hours each year.

A similar aircraft also stationed in Denver was purchased by the Bureau of Reclamation in 1976 at a slightly higher cost ($565,000). The airplane, a Rockwell International Aero

Commander 690A, has a similar seating capacity (eight people) and is used to haul passengers throughout the Western United States. Based on the first 5 months of operation it appears that the aircraft will be flown annually about the same number of hours as the National Park Service's Kingair. Bureau of Reclamation flight records indicate that the aircraft is rarely full, and in many instances only one or two passengers are aboard. For instance, during a 3-month period in 1976, the aircraft was only used to carry six or more passengers on 11 of 129 flights. The same general locations are served by both the Bureau of Reclamation and the National Park Service aircraft.

Since these two aircraft comprised only a small part of our review, we did not study in detail whether or not the transportation needs of the two agencies could have been satisfied with one aircraft in combination with commercial services. Our point is that the potential for using a single aircraft was not considered in evaluating transportation needs. Had a single aircraft been considered, it is entirely possible that one of the aircraft would not have been acquired.

Appendix VI shows the relatively low utilization of the National Park Service Aircraft and the potential for substituting commercial flights. This underscores the potential for possible use of a single government-owned aircraft by both agencies for service to points not served by commercial airlines.

Our inquiries disclosed that most agencies agree with interagency use of Government aircraft and have formulated written policies that allow the agencies to lend aircraft, if requested. But, based on discussions with the agencies, no formal program has been designed to identify other agencies' aircraft that could be shared. Without this information, agencies do not know what aircraft are available and, as a result, continue to satisfy their requirements with their own resources.

Another example where an aircraft management information system would greatly assist the agencies was found in the Los Angeles area, where many different agencies operate Government-owned aircraft. Some of these agencies supplement their aircraft with chartered aircraft from private companies. Similar aircraft are owned by at least three of the agencies. Based on flight records, one agency--National Aeronautics and Space Administration--uses one aircraft to transport personnel to and from a remote site. Since this aircraft cannot satisfy the agency's requirements, other aircraft are chartered from

commercial operators. During the last three fiscal years NASA chartered aircraft for approximately 300 hours each year.

Based on a review of the flight records of the two other agencies, it appears their aircraft could have been used by NASA to reduce its need to charter aircraft. Both agencies' aircraft averaged between 300 and 400 flight hours during fiscal year 1976.

At the time of our review NASA officials were not aware of the availability of the other aircrafts, but later contracted both agencies. NASA officials in both cases stated that satisfactory arrangements could not be made. NASA officials stated that one of the aircraft was considered an unreliable alternative because of aircraft configuration and availability problems. The other aircraft was on lease to the other agency and was not available for use by others during the lease period.

Although NASA did not take action to use other Government aircraft in the area, we believe, since NASA was unaware of the aircraft, the example illustrates the need for an aircraft management information system in this part of the country as well as other areas of the United States.

PRACTICES THAT WARRANT CHANGE

In addition to the need for a more indepth analysis of aircraft needs and alternatives for satisfying them, we noticed that some present practices should be changed. Though these practices appear to be confined to individual agencies, we feel they indicate the many problems that exist within the present system of decentralized aircraft operations. Since only a limited review was conducted, we do not know the extent that these practices exist but feel they warrant attention.

Sole-source purchases

Some of the agencies contacted are not soliciting bids from more than one manufacturer or dealer. According to agency personnel, bids are not solicited for a number of reasons, some of which are:

--Only one manufacturer builds the airplane that complies with agency specifications.

--Only one manufacturer or dealer can provide the required airplane when the airplane is needed.

--Only one manufacturer has an airplane available within the agency's budgeted funds.

In one case the agency did not prepare the contract specifications until after it was determined that only one dealer or manufacturer could provide the aircraft. The aircraft specifications were so similar that they appear to have been copied directly from the specifications included in the manufacturer's brochure. (See app. VII.) According to the agency a sole-source procurement was authorized because only one aircraft met their requirements.

Rather than predetermine which dealer or manufacturer could meet their needs, it appears that the agency should have first prepared the specifications based on their needs and then solicited bids from the different dealers and manufacturers. This may have given the agency a larger group of manufacturers and dealers to select from and increased competition, possibly resulting in a more favorable price.

Lease-purchases

Officials from various agencies stated that some aircraft procurements are made through lease-purchase rather than outright purchases because sufficient funds in any one fiscal year are not available. Consequently, some agencies lease aircraft and, some time in the future, purchase the aircraft by applying some of the lease costs to the total purchase price or allow the lease to expire, losing any money which could have been applied to the purchase. In those cases where agencies purchased the aircraft we found instances where the manufacturer or dealer allowed as much as 75 percent of the lease cost to be applied to the purchase price. In contrast, one manufacturer permitted the agency to apply only 48 percent of the lease cost to the purchase price.

Since our review covered only a limited number of agencies, we were unable to determine the total lease purchase made by all Federal agencies. However, we did identify the last 5 years' lease-purchases entered into by the following agencies:

Agency	Number of lease-purchased aircraft	Purchased	Returned	Presently under contract
Customs Service	16	5	5	6
Drug Enforcement Administration	13	3	3	7
Federal Aviation Administration	23	20	-	3
National Aeronautics and Space Administration	2	1	1	-
Office of Aircraft Services, Department of the Interior	2	2	-	-

As indicated, in a number of cases the agencies did not purchase the aircraft after they entered into a lease-purchase contract. In discussions with two agencies that did not exercise some of their lease-purchase options (the Drug Enforcement Administration and U.S. Customs Service), we were informed sufficient funds were not provided during subsequent years to exercise the options.

The Drug Enforcement Administration took delivery on four Piper Navajo PA-31-310 aircraft in April 1974 with the initial lease to be for a 12-month period and options to extend for 3 additional years. The contract provided they would pay $20,076 per month for the first year, $18,340 per month for the second year, $15,136 per month for the third year, and $13,688 per month for the last year. If at any point the agency exercised the purchase option, 75 percent of all moneys paid would be applied toward the original purchase price. The agency used the four aircraft for 12 months, exercised the purchase option on only one aircraft, and discontinued leasing the three remaining aircraft.

About the same time the Drug Enforcement Administration took delivery on their aircraft, the Customs Service entered into an initial agreement to lease-purchase 10 Maule Rocket aircraft. This agency agreed to pay $585 per month per aircraft for 5 years. As of December 1976 the Customs Service still had five aircraft under lease-purchase contract, but planned to return the aircraft some time during calendar year 1977. Over the duration of the contract, the combination of lease payments and purchase costs will exceed the cost of outright purchase by a large amount. An April 2, 1976,

Customs Service internal audit report criticized Customs' lease-purchase policies. The report indicated that leased aircraft arrangements are substantially more expensive than outright purchase. The report stated that lease payments for the Maule Rockets, a Beech-Duke Aircraft (leased in 1971), and a Cessna Citation will exceed the purchase cost by $572,844.

CHAPTER 4

GREATER CONTROL OVER AIRCRAFT PROGRAMS NEEDED

Aircraft operations consist of several facets, including maintenance, storage, aircraft standards, and pilot qualifications. Each facet requires consideration of various alternatives and establishment of policies and procedures to assure the most economical and safe operation possible while still meeting agency needs. To assure economically sound operations agencies need accurate and reliable cost information.

SAVINGS POSSIBLE THROUGH CONSOLIDATION OF AIRCRAFT MAINTENANCE

To be an effective tool to carry out the various agency missions, aircraft must be carefully maintained. Maintenance can be performed by Government capabilities or private companies, or by a combination of these methods. In fact, agencies are using all three. However, at least two additional factors should be considered to obtain acceptable service at the least cost to the Government:

--Are there agencies with inhouse maintenance capabilities that could support agencies without such capabilities?

--Can maintenance contracts for several agencies be consolidated to negotiate better prices?

Sixteen of the 20 agencies perform some Government aircraft maintenance with personnel and equipment operated or controlled by the Government. But the agencies with facilities, personnel, and equipment generally maintain only their own aircraft even though other agencies have similar aircraft and are contracting commercially for aircraft maintenance.

The Federal Aviation Administration has a maintenance facility in the Los Angeles area which is used primarily to maintain their own aircraft. However, there are other agencies with aircraft in the area (such as Drug Enforcement Administration, Forest Service, and NASA) which contract for their maintenance with commercial companies. At one time, the Federal Aviation Administration provided storage and some maintenance for Drug Enforcement Administration aircraft, but the agreement was terminated because the aircraft could be stored and more conveniently operated at

another location closer to the Drug Enforcement Administration Office. At the time of our review, the Federal Aviation Administration stated there was excess space at this facility that we believe could be used by other agencies.

NASA operates aircraft in the Los Angeles area similar to one of the Federal Aviation Administration Los Angeles aircraft, but has its maintenance performed by a commercial contract. Subsequent to our bringing the matter to the attention of NASA officials, they indicated that a satisfactory arrangement with the Federal Aviation Administration could not be worked out and the cost of maintenance would be equal to NASA's existing commercial contract. Although a satisfactory arrangement could not be made, the fact remains that no interagency communication had taken place prior to our inquiry.

Several agencies have consolidated aircraft maintenance activities at a department or agency level. For example, when the Office of Aircraft Services was established in 1973 to manage all aircraft in the Interior Department, they inherited two maintenance facilities in Anchorage, Alaska. In November 1975, they closed one facility and consolidated the entire function into a single facility, stating that the efficiency of operating out of one facility will have a significant impact on the productivity of maintenance personnel.

Currently, consolidation efforts have been attempted only within a department or agency but similar efforts could be applied to all civilian agencies. Such a consolidation effort could be accomplished through extensive coordination and cooperation from all agencies involved, but more likely consolidation can succeed with a single or central manager responsible for aircraft maintenance.

POTENTIAL FOR REDUCING THE COST OF AIRCRAFT STORAGE

Aircraft must be stored in one manner or another when not actually being flown. Based on climate, location, agency needs, and other considerations, aircraft are stored in small individual hangars, large hangars with other aircraft, heated or unheated hangars (see p. 27 for photograph of unheated hangar), or merely tied down on parking ramps. Recognizing that aircraft must be stored at locations most suitable to their mission needs and in a manner which allows full use, there is still a potential to obtain better use of present Government facilities and to economize by consolidating storage requirements under fewer contracts wherever possible.

UNHEATED HANGAR

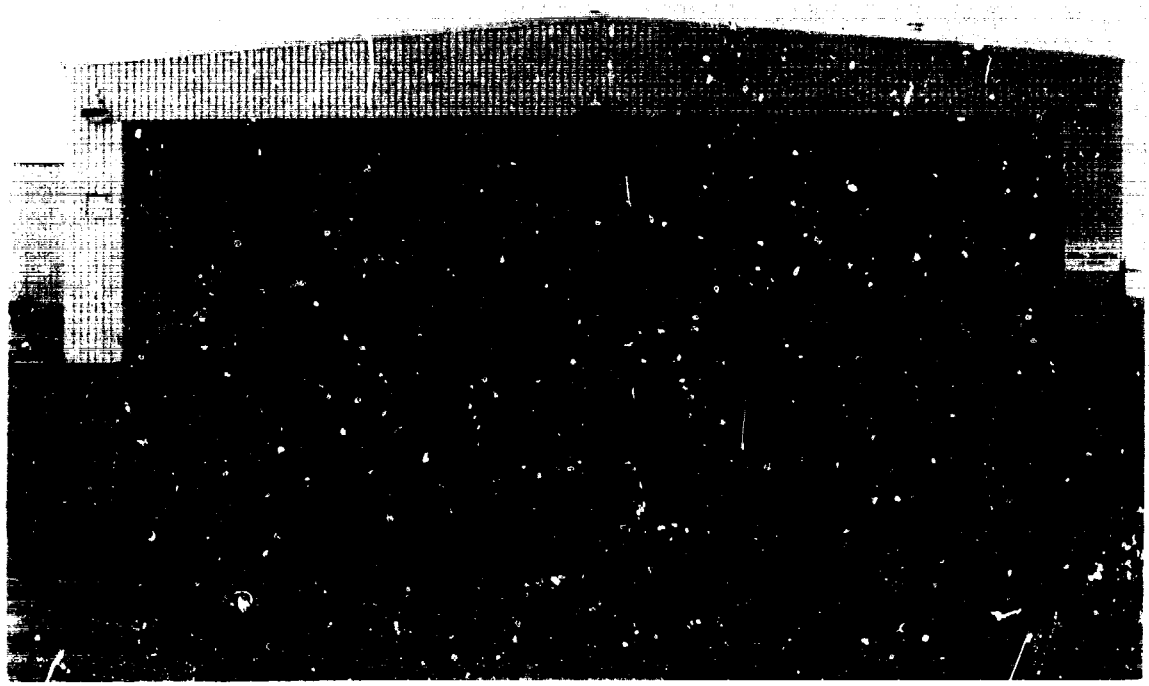
Eight civilian agencies and one Defense agency store aircraft at two airports in the Denver metropolitan area. Two of the civilian agencies own the facilities where their aircraft are stored, and six agencies lease space independent of each other. The following schedule shows the number of aircraft operated by Federal agencies in the Denver area.

Aircraft Storage by Agencies in the Denver Area

Agency	Number of aircraft	Ownership of hanger facility
Army Readiness Command	3	Non-Federal
Bureau of Reclamation	1	Federal
Drug Enforcement Administration	2	Non-Federal
Federal Aviation Administration	1	(a)
Forest Service	1	Non-Federal
Fish and Wildlife Service	1	Non-Federal
Geological Survey	4	Non-Federal
National Park Service	1	Non-Federal
National Science Foundation	4	Federal

a/Using Army Readiness Command Space.

As shown, most of the agencies have not consolidated their aircraft storage needs. For example, the National Park Service leases commercial hangar space at the same airport where the Bureau of Reclamation owns a hangar that is large enough to accommodate an additional aircraft, similar to the Service's aircraft. With such an arrangement it appears the Government's total cost for storing aircraft could be more than necessary.



BUREAU OF RECLAMATION HANGAR

Military airfields are another potential source for storing civil agency aircraft. By using military storage facilities whenever available it would be possible to eliminate some existing commercial contracts. Some agencies are currently making extensive use of military airfields. For example, the Customs Service keeps most of their aircraft at military installations near cities along the Eastern, Southern, and Western borders of the United States. In contrast, the Environmental Protection Agency leases storage facilities for 10 aircraft at a commercial airport near Las Vegas, Nevada, while there is a major Air Force base about 15 miles away.

We believe that a focal point must be established before extensive consolidation efforts can be expected. As far as we know, agencies have no system for determining what resources are available from other Government agencies or how to consolidate needs with other agencies for joint contracting benefits. There must be a central point where agencies can find out who has similar needs, what storage space is available, what the costs will be, and all other pertinent information.

Since the General Services Administration has a significant responsibility to procure and supply services for use by executive agencies, and since they are presently involved in leasing aircraft storage space for some agencies, they could be an appropriate focal point (or data base) for aircraft storage and availability needs for all civilian agencies.

NEED TO ESTABLISH UNIFORM AIRCRAFT STANDARDS

To enhance safety, it is necessary that airworthiness standards be established for aircraft used by Government agencies. The Federal Aviation Act of 1958 technically exempts aircraft owned or operated by a Government entity from the normal airworthiness certification requirements for all other aircraft operators. Nevertheless, agencies have generally established their own standards of airworthiness.

Understandably, aircraft airworthiness requirements will differ, depending on the aircraft's use. For example, airworthiness standards for aircraft used for routine travel may be less stringent than the standards for aircraft used to direct firefighting operations (where aircraft are flown over mountainous terrain, close to the ground, and through extensive smoke and heat). But standards for aircraft used for similar operations should be the same. For example, passengers in aircraft used primarily for routine travel should be provided the same level of safety regardless of the agency which operates the aircraft. Similarly, the airworthiness of aircraft used in firefighting operations by one agency should be the same as the standards in other agencies using aircraft for a similar purpose.

Common standards would assure the same safety level for all personnel using the aircraft, facilitate the availability of aircraft for other agencies's use, and reduce the duplication of inspection efforts by several agencies.

Both the Forest Service and the Bureau of Land Management use aircraft to control forest fires on public land, but each has its own established standards of acceptability. In 1975, a fire occurred on Bureau of Land Management lands which required the assistance of nearby Forest Service crews. Transportation of Forest Service fire crews to the fire was dependent upon a helicopter contracted and inspected by the Bureau of Land Management. Because the Forest Service felt the Bureau's contracted equipment failed to meet Forest Service specifications, its personnel refused to ride in the

helicopter and the fire burned approximately 3,500 acres. Forest Service officials felt the incident was isolated and not indicative of their general relationship with the Bureau of Land Management. However, the incident does point out the kind of problem that can arise without common standards.

Agencies also duplicate inspection efforts. For example, both the Forest Service and the Office of Aircraft Services send inspectors to certain contractors to certify their equipment and pilots, thus subjecting the operators to two inspections. These two agencies attempted a joint inspection effort for 1 year but could not agree on continuing this effort and have apparently decided to perform separate inspections in the future which will again be duplicative.

Differences in standards and duplicative services among agencies have not gone unnoticed. For example, a helicopter association complained in 1975 to the Forest Service about lacking standard contract provisions among agencies, stating that the association had arrived at mutually acceptable standards with the Office of Aircraft Services but not with the Forest Service. The association cited such lack of coordination as expensive and precluding joint agency use of particular aircraft. Since that time the Office of Aircraft Services and the Forest Service have standardized several aspects of aircraft contracting, including the use of air tankers, medium helicopters, and large helicopters, but differences still exist.

NEED TO ESTABLISH STANDARD PILOT QUALIFICATIONS

Pilot qualifications, like aircraft standards, lend themselves to some degree of standardization. Special uses of aircraft such as fire control and game counting may warrant special kinds of pilot qualifications, but whenever passengers are transported in Government-owned or operated aircraft, they should be afforded a common safety level. Consequently, we believe that agencies who allow pilots to transport other personnel in aircraft should all have similar minimum qualifications when similar flying environments exist, particularly when flying conditions can and do change without advance notice.

To fly an aircraft for hire in private industry, a pilot must possess a commercial pilot's license (which includes an instrument rating and a minimum of 250 hours of flight time) and a second class medical certificate. Minimum pilot qualifications differ widely between Government agencies.

The National Weather Service requires the very minimum amount of experience and qualifications for their pilots. They must possess only a Federal Aviation Administration private pilot license (minimum of 40 flight hours experience) and a third-class medical certificate (the least thorough of all air medical certificates). Pilots are also required to fly a minimum of 48 hours annually or else have a proficiency check yearly.

Prior to 1975, Fish and Wildlife Service pilots had very limited requirements--basically only a private pilot license and a second-class medical certificate were required. Since 1975 the Office of Aircraft Services has standardized the minimum pilot requirements for all the Interior Department bureaus. The minimum requirements are now

--a commercial pilot license,

--an instrument rating,

--a Federal Aviation Administration second-class medical certificate, and

--500 total flight hours.

Of the agencies reviewed, NASA appears to have the highest minimum pilot standards for administrative aircraft. NASA requires an airline transport pilot certificate (the highest Federal Aviation Administration pilot certificate available), an instrument rating, a first-class medical certificate (the most stringent medical examination), 5 years experience as a pilot, and 2,500 total flight hours as a pilot.

The following schedule shows of the minimum pilot requirements established by some agencies:

Minimum Pilot Requirement of Selected Agencies

Agency	Pilot certificate	Instrument rating	Medical certificate	Total flight hours
National Weather Service	Private	No	Third class	40
Federal Aviation Administration	Commercial	Yes	Second class	250
Department of the Interior	Commercial	Yes	Second class	1,500
Drug Enforcement Administration	Commercial	Yes	Second class	250
Forest Service	Commerical	Yes	Second class	1,500
National Aeronautics and Space Administration	Airline transport	Yes	First class	2,500

Even though the schedule indicates that each agency has different minimum requirements, the schedule shows that most agencies require pilots to possess a commercial pilot license and have at least 250 hours of flight experience. We did not evaluate any agency requirements but did find such a wide range of requirements to be questionable, because in every case pilots are allowed to transport passengers.

We recognize that some agencies do not need full-time pilots, and consequently use existing personnel to fulfill flight needs whenever possible. Nevertheless, passengers have a right to expect an acceptable safety level.

Agencies with extremely high pilot qualifications, on the other hand, may have established unnecessary requirements. NASA pilots transport passengers the same way as many other agencies, yet are required to have much greater qualifications. However, NASA does not believe its standards should be considered extremely high or unnecessary, in view of the responsibilities of its aircraft commanders.

Again, it appears that there should be a focal point where agencies can become aware of other agency policies and procedures, or a single manager who could establish common policies and procedures and maintain acceptable minimum standards that allow expansion to meet special needs.

BENEFITS OF UNIFORM COST INFORMATION

Cost is a major consideration in evaluating most Government programs, and aircraft programs are no exception. It is imperative that agencies be able to identify the costs associated with providing aircraft services to determine if benefits are worth these costs. Any system should provide sufficient cost data to allow for comparisons with other means for obtaining the service, including what similar services cost other agencies. Therefore, as a minimum there should be similarity among the various agency systems, or methods for maintaining aircraft operating costs, to allow reasonable cost comparisons.

We did not attempt to extensively evaluate the systems or methods used by agencies for maintaining and using aircraft programs costs. From observation only, some appeared better than others and it became evident from discussions with agency officials that this is one area that leads to problems in attempting to effectively evaluate aircraft programs.

We found that the methods being used by civil agencies to supervise aircraft operations vary from unsophisticated manual operations (which include only the most elementary cost elements) to rather complex systems (which have been computerized and include numerous cost elements). The result of these differing methods is that some agencies have detailed cost information to base management decisions on and others do not.

For example, the Drug Enforcement Administration only accumulates costs in their aircraft reports for fuel, oil, parts, labor, hangar, and other miscellaneous expenses, excluding such items as aircraft depreciation, pilot salaries, and administrative personnel costs. Conversely, NASA reports aircraft costs in much more detail, but similarly makes no allowance for depreciation, since its input are for internal operating cost reports. Also, where agency reports did contain depreciation, the input could not be realistically compared with the various depreciation schedules used by private industry. The Office of Aircraft Services also breaks down the various elements of aircraft costs in considerable detail (including depreciation) but the format differs from other agencies. The following schedule shows the various cost elements used by these three agencies and, as can be seen, some costs have been excluded.

Elements of Aircraft Costs

Drug Enforcement Administration	National Aeronautics and Space Administration	Office of Aircraft Services
Fuel	Indirect and fixed costs:	Direct maintenance:
Oil	Airframe	Scheduled maintenance
Parts	Insurance	Unscheudled maintenance
Labor	Engine and component overhaul	Avionics
Hanger	Contract fees	Modifications
Other	Formal training	Parts
	Overhead:	Fixed costs:
	Operations and administrative personnel	Crew salary
	Buildings maintenance	Crew travel
	Utilities	Mechanic salary
	Hanger rent	Mechanic travel
	Special tools and ground support equipment	Fuel purchase
	Other	Lease and taxes
	Direct operating costs:	Administrative
	Crew expenses:	Depreciation
	Pilots	Reserves:
	Flight mechanics	Scheduled overhaul
	Cabin attendants	Unscheduled overhaul
	Navigator	Accident
	Other crew	
	Travel and per diem	
	Fuel:	
	Government	
	Commercial	
	Oil	
	Water-methanol	
	Landing and parking fees and ramp service costs	
	Other	
	Direct maintenance costs:	
	Routine maintenance:	
	Labor (mechanics)	
	Labor (special)	
	Materials	
	Component rental	
	Major maintenance:	
	Labor	
	Materials	
	Component rental	
	Other	

There are also differences in recording costs as current expenses or as capitalized improvements, which are normally depreciated over a rumber of years. For example, some agencies record all aircraft costs as they are incurred rather than recording depreciation costs for major items such as engines throughout the life of the item. This results in fluctuations of cost from one period to another and makes it difficult at best to compare one agency's operating costs with another's or with commercial operations.

By contrast the Office of Aircraft Services uses a cost accounting system that anticipates engine overhaul and accident costs. Consequently, costs are charged against each aircraft based on hours flown. These amounts are accrued in

reserve accounts which can be reduced when actual costs are incurred. Such a method tends to reduce large fluctuations in operating costs and provide a more realistic and effective basis for comparing Government aircraft operation against the private sector.

We also found that some agencies do not account for costs for individual aircraft, but accumulate costs by aircraft type. This may provide a basis for averaging costs to individual aircraft, but it also precludes evaluation of whether individual aircraft are cost effective.

In summary, this discussion on accounting is not intended to be conclusive. Instead, it points to a problem which could be solved by agency coordination and strong central leadership so that Government aircraft program costs are kept in a uniform manner and management decisions are consistently supported.

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS, AND AGENCY COMMENTS

CONCLUSIONS

The use of aircraft by Government civil agencies has drastically increased in recent years. More than 650 aircraft are owned by agencies and several thousand additional aircraft are rented, leased, and chartered annually. As a result, millions are spent each year to acquire and operate aircraft.

For many years agencies were concerned only with meeting their individual aircraft needs. Aircraft use was more limited and costs were not nearly as high. These factors gave agencies little incentive to communicate and coordinate with each other about aircraft programs, and agencies continued to go their separate ways. As aircraft use and operating costs increased there has been little change in agencies' attitudes regarding interagency coordination.

Our review of civil agency aircraft programs clearly shows that management of these programs is highly decentralized throughout the Government. In fact, each agency independently established policies and procedures for all aspects of aircraft programs with very little overall Government-wide guidance. Each agency also has its own aircraft program and there is only limited communication or coordination among agencies.

In addition, there is no central data base for aircraft program management within the Government to which agencies can refer for information concerning such key aspects as aircraft ownership, Government-wide aircraft utilization, maintenance and storage practices, aircraft safety practices, and aircraft operating costs. Without such information, agencies must rely on their individual systems which are in many cases incomplete and inadequate.

At the same time the lack of uniform cost systems makes it difficult to compare aircraft program costs of the various agencies with each other or with the costs for similar services available from commercial sources. Thus, it is virtually impossible to determine how and by whom aircraft services should be provided to assure least cost to the Government.

We believe this decentralized system, which lacks (1) uniform policies and procedures in many areas of aircraft programs, (2) an adequate aircraft program information system, and (3) a cost system to provide an adequate basis for comparing alternatives has created a lack of overall management control and contributed to inefficient and uneconomical aircraft operations within the Government.

To provide civil agencies an opportunity to realize greater aircraft program efficiencies and economies, common direction is needed so that more commonality exists among civil agencies aircraft program policies and procedures. To increase the communication and coordination among agencies, a structured system to facilitate the exchange of aircraft program information among agencies is also needed. This structure, at a minimum, should include a management information system--including a cost accounting system--which would include information concerning activities such as maintenance, storage, and acquisition practices.

If an information system was developed and the data was used by aircraft program managers when making decisions regarding common activities such as maintenance and storage, we believe that the program would be more efficient and economical. In the long run, we believe that even greater economies and efficiencies could be achieved if the civil agencies aircraft programs were coordinated by a single manager rather than operated independently. While a single manager may not be needed to identify actions which should be taken, we believe a single manager, with the strong leadership inherent in such a position, could make and implement difficult decisions which might be needed, such as consolidation. Appointing a single manager has proven to be an effective way to improve the overall management of support activities. The Defense Logistics Agency and the General Services Administration are two examples.

RECOMMENDATIONS

Someone must take the lead if economies and efficiencies are to be made in the civilian agency aircraft program. Such leadership should provide the framework to make it possible for civil agencies to systematically establish and evaluate needs and analyze alternatives to meeting these needs. Also, this framework should assist the development of Government goals and set broad policies for reaching these goals through uniform concepts, procedures, and practices among the agencies.

Logically it appears that OMB, with its policymaking authority and Government-wide interest, is in the best position to lead Federal civil agencies in making needed improvements and establishing a solid aircraft program.

Therefore, we recommend that the Acting Director, OMB:

--Require reevaluation of existing aircraft program needs and capabilities, even if this means releasing some aircraft or using an alternative source for support capabilities.

--Develop overall policy to provide broad guidance for standardizing common civil agency aircraft program activities such as aircraft acquisition, utilization, maintenance, and storage.

--Take action to bring about increased interagency cooperation, regarding aircraft programs, with particular emphasis on (1) greater interagency use of aircraft, maintenance capabilities, storage facilities, and training activities, including military resources and (2) identifying potentials for consolidating contracts and agreements for commercial aircraft services.

--Develop overall criteria for uniform cost systems and aircraft information systems that will standardize aircraft program costs and identify agency aircraft, their location as well as potential availability for sharing, and other aircraft related services that could be shared, such as hangars, maintenance facilities, training facilities, and refueling.

These actions need to be initiated promptly in order that economies can be achieved similar to those achieved by the Interior Department's Office of Aircraft Services. After this is done, in the long term, we believe there would be greater opportunities for achieving economies and efficiencies if improvements were made on a Government-wide basis.

We realize numerous approaches exist for achieving Government-wide efficiencies and economies; however, in many cases when the Government has wanted to meet the needs of different customers, having a need for common services or commodities, a single manager approach has been used to

provide such services and commodities efficiently and economically. We believe, therefore, that in deciding how Government-wide savings can best be achieved, the Acting Director, OMB, should give serious consideration to having a single manager for common aircraft program activities. The functions of such a manager could include responsibility and authority to monitor and formulate policies and procedures for common aircraft program activities; acquire necessary aircraft; consolidate aircraft use, maintenance, training, and storage where appropriate; establish minimum aircraft operating standards and pilot qualifications; and insure cost systems are controlling costs and agency managers are evaluating all available alternatives before deciding how aircraft services should be provided.

We recognize that a single manager is but one approach to achieving Government-wide savings. Also, we realize that this approach could require alteration to existing management structures. However, the single manager approach has worked on previous occasions when the Government has wanted to improve its support of common services and commodities used by different customers.

AGENCY COMMENTS AND OUR EVALUATION

Most of the agencies agreed that increased emphasis on interagency cooperation and coordination would provide greater economies and efficiencies in the Government's civilian aircraft programs. However, some agencies questioned the need for increased standardization because of the diversity of assigned missions among the agencies.

OMB agreed that more uniformity in cost accounting systems is needed. Several agencies also believed that a uniform aircraft management information system could and should advance interagency aircraft sharing, particularly if it included such information as aircraft type and location, expected availability, and the types of services that might be shared.

Most agencies opposed the recommendation that a single manager be designated who would have responsibility for aircraft programs Government-wide primarily because of the vast differences in agency aircraft requirements and types. OMB said a well-constructed case had not been made for many of our conclusions and recommendations and urged that additional efforts be directed toward:

--Making a determination that the management deficiencies reflect widespread problems rather than isolated incidents of poor management decisions.

--Developing a position that the inadequacies of the current management approaches to aircraft management have in the past and will in the future have a substantial cost impact on Government.

--Identifying and measuring the specific benefits to be gained by the creation of a single aircraft management entity to oversee the diverse aircraft requirements of the many agencies and departments.

Management weaknesses reflect widespread problems

The examples cited in the report were used to illustrate aircraft program weaknesses. We have additional examples that further demonstrate the need for better management of aircraft programs. Furthermore, the responses to our questionnaire, in our opinion, indicate widespread program weaknesses exist. For example, in response to the question, "Does the agency have written policy and procedures to determine the most appropriate mode of transportation?" only 3 of 10 agencies that responded said yes (see p. 76). In response to the question, "Does the agency have written policy and procedures to select the most appropriate type of aircraft?" only 1 of the 10 agencies responding indicated the affirmative. Agency responses to these and other questions in our questionnaire lead us to conclude that the examples we identified are not isolated cases but illustrative of widespread problems.

Current management practices have substantial cost impact

We believe that the savings that have accrued to the Interior Department since a separate office was established to manage selected aircraft programs within the Department demonstrates that centralized management of selected aircraft program activities can be more efficient and economical. During recent congressional testimony, Department officials stated that this office has taken control of all aircraft programs by the Interior in the State of Alaska, and has control of the Department's contracting and leasing of aircraft services in the 48 continental States. They also maintain cost data for all of the Department's aircraft and have established many standard aircraft policies and procedures which are applicable to all agencies in the Department of the Interior. These consolidation efforts have been successful, resulting in the elimination of about one-half of the Alaskan facilities and maintenance personnel. The cost of

operating the Interior's Government-owned aircraft in Alaska, alone, is expected to decrease from $2.2 million in fiscal year 1974 to less than $1 million in fiscal year 1977. Further, the number of people employed by the Office of Aircraft Services has decreased by about 25 percent while overall aircraft services increased considerably. For example, while the program costs increased from $14 million in fiscal year 1975 to a current $21 million, the number of personnel needed to operate the programs dropped from 100 to 75.

Measuring benefits of single manager approach

We did not attempt, nor is it feasible at this time, to measure the specific benefits to be gained by the creation of a single manager for civil agency aircraft programs.

Moreover, we do not suggest that centralized management is the immediate or only solution to improving management of civil agency aircraft programs. However, based on past experiences, it is an alternative that should be considered especially in view of the economies and efficiencies gained by the Interior Department when it established the Office of Aircraft Services.

Also, the single manager approach has proven to be successful within the Government when many different customers have needed a common service or commodity. For example, the General Services Administration was established in 1949 partly because the Hoover Commission found that three major internal activities of Government suffered from a lack of central direction--supply, records management, and the operation and maintenance of public buildings. Section 2 of the Federal Property and Administrative Services Act of 1949, which established the General Services Administration, states: "It is the intent of the Congress in enacting this legislation to provide for the Government an economical and efficient system * * *" through the use of a central manager that would standardize management policies and procedures for providing common supplies and services, as well as related activities; and increasing the use of available resources.

The Department of Defense is also successfully using centralized management in a number of areas.

--Military Airlift Command.

--Defense Logistics Agency.

--Defense Communications Agency.

--Military Sealift Command.

Also, on November 26, 1975, the Secretary of Defense designated the Army the single manager for conventional ammunition for the Department of Defense. As single manager the Army is responsible for the procurement, maintenance, renovation, and storage of conventional ammunition. 1/ The Secretary of Defense believes that this arrangement will

--improve management of ammunition production, planning, and scheduling;

--improve interservice asset visibility;

--improve storage sites selection; and

--centralize control of modernization planning and decisionmaking.

Prior to designating the Army the single manager, ammunition management was handled by a coordinating group and working committees operating under the Joint Logistics Commanders. This approach was not completely effective because the individual services retained the final approval authority for all recommendations made by the groups/committees. As a result it could not be effective in such areas as depot closures or consolidations. Nevertheless, although this concept was not a full commitment towards single management until November 1975, it did provide centralized visibility which is an important aspect of the single manager concept.

Mission versus administrative aircraft

A number of the agencies indicated that it would be extremely difficult to establish standard policies and practices for all civil agency aircraft because many aircraft are classified as mission aircraft (see p. 1 for description). We recognize that differences exist between mission and administrative aircraft. However, aircraft program activities

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1/Prior to designating a single manager, these responsibilities belonged to the individual services.

are common to both mission and administrative aircraft--such as maintenance, storage, procurement, and pilot qualifications--and thus it should be feasible to establish standard policies and practices. For example, regardless of the aircraft's tasks, it must be adequately maintained. Thus, it should be feasible to establish standard policies that would address questions such as:

--How often should maintenance be performed?

--Where should the maintenance be done? (A commercial maintenance facility or particular agency's maintenance facility.)

--What level of maintenance is acceptable within and among Government agencies?

CONCLUSION

After thorough evaluation and consideration of comments on our draft report by OMB and several civil agencies, we still believe there is potential for savings and better service through increased intra- and inter-agency coordination of aircraft programs. Therefore, we think our recommendations should receive prompt and serious attention from the Acting Director, Office of Management and Budget.

APPENDIX I

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

SEP 29 1977

Mr. Victor L. Lowe
Director, General Government
Division
United States General Accounting Office
Washington, D. C. 20548

Dear Mr. Lowe:

Thank you for the opportunity to review and comment on the draft of a GAO report entitled, "Improvements Are Needed in Management of Aircraft Used By Federal Civilian Agencies." We note that you have provided copies of the draft report for comment to the agencies discussed therein and therefore we will not provide a lengthy discussion of the adequacy of the current aircraft management practices of the various agencies.

Following a review of the report by the Office of Management and Budget, my general reaction is that a well-constructed case has not been made for many of the report's conclusions and recommendations. We would urge that additional efforts be directed toward such areas as:

-- determining whether the management deficiencies noted in the draft report reflect a widespread problem rather than isolated incidents of poor management decisions.

-- establishing whether the inadequacies of the current management approaches to aircraft management have in the past and will in the future have a substantial cost impact on government.

-- identifying and measuring the specific benefits to be gained by the creation of a single aircraft management entity to oversee the diverse aircraft requirements of the many agencies and departments.

Our additional comments are directed primarily toward the recommendations which are presented for the Office of Management and Budget's consideration:

-- We do not agree that the agencies should be relieved of the accountability of managing a well-run aircraft operations program through the establishment of a

APPENDIX I

central management function for government-wide aircraft operations. In cases, such as cited in the report, where questionable management practices are identified, these practices should be corrected by the responsible agency rather than by the creation of another layer of management oversight. Additionally, we believe that the report does not adequately recognize and assess the complexity of establishing the single management concept for aircraft procurement and operations.

-- In view of the multiplicity of agency aircraft needs to carry out their responsibilities, the report is not convincing that the benefits of increasing standardization of such functions as aircraft acquisition, utilization, maintenance, storage, and operating standards would be substantial and in excess of the expense of standardization efforts. We would note that both the Office of Management and Budget and the appropriate congressional committees have subjected agency requests for aircraft acquisitions to thorough reviews. To assist in these reviews, we do believe that improvements are desirable in the area of more uniformity (e.g., the use of a standardized accounting system) for determining the past and projected costs of aircraft operations.

-- There is, no doubt, room for improvement in the area of increased inter-agency cooperation regarding aircraft operations. The draft report should be expanded to address the level of potential additional benefits to be gained from such efforts.

-- In the interests of minimizing the need for aircraft for the purpose of transporting government personnel, we believe that each agency and department should develop a written policy on the use of government aircraft for the transportation of personnel.

In summary, we recognize that continued improvements can be made in the manner in which many civilian agencies use aircraft. It is our opinion, however, that many of the report's conclusions and recommendations are premature without a more rigorous review of the issue.

Again thank you for the opportunity to review and comment on this report.

Sincerely,

James T. McIntyre, Jr.
Deputy Director

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

P. O. Box 2417
Washington, D. C. 20013

5700

August 18, 1977

Mr. Henry Eschwege, Director
Community and Economic Development Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Eschwege:

Thank you for the opportunity to review and comment on the draft report, "Improvements Are Needed in Management of Aircraft Used by Federal Civilian Agencies" (LCD-77-430, July 3, 1977).

The report's central thesis is that Federal civilian agencies operate aircraft independently of one another and that there is no Government-wide body of policy to guide aircraft operations. It concludes that this lack of centralization and uniformity is not efficient, and recommends that management of aircraft should be concentrated in one agency and that OMB develop uniform policies and procedures to provide guidance to agencies using aircraft.

In view of the extremely wide range of missions performed by aircraft operated by a large number of civilian agencies, revealed only in part by the draft report, it is difficult to find support for the findings and recommendations either in the report itself or in the realities of the various agency situations. We can agree in part that individual agency direction in the form of written policies and direction needs strengthening, that aircraft cost accounting systems have shortcomings and that coordination of aircraft use among agencies in certain geographical areas could and should be improved. However, we do not agree that the best route to improvement in these areas is to centralize the management of aircraft services under a single organization.

Most of the differences in the management of aircraft by the different agencies arise from the profound differences in agency missions. There is a consequent variety of specialized aircraft needs and operating requirements, and the availability of commercial aircraft services capable of responding to these needs effectively and economically varies markedly.

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If policies and procedures applicable to such a variety of specialized aviation missions are to be responsive and effective in implementing mission objectives, they must be formulated on the basis of expertise and experience in these different missions. The Forest Service has a fairly comprehensive grasp of the policies and procedures needed to make effective, efficient and economical use of contract air tankers cascading retardant chemicals on fires, for instance. Similarly, the Treasury Department undoubtedly has the expertise to formulate proper policies and procedures to control air-to-air interdiction of smuggling operations across national borders. These typical--but wholely different--missions by their very nature must be guided by specific and different direction if they are to be conducted effectively. This applies to such matters as choice of methods (contract vs. force account; ownership vs. lease), aircraft selection, numbers and locations, maintenance support, pilot qualifications, operating procedures and other important policy issues.

Even where different agencies fly similar missions, such as point-to-point personnel transport, opportunities to standardize policies and procedures can be quite limited. For example, the contention that pilot qualifications for passenger hauling should be similar for all agencies ignores the variety of conditions under which transportation of personnel occurs. Necessary pilot qualifications for a charter or agency pilot flying himself and/or one or two agency officials from one small town to another (there being no commercial airline service) in Visual Flight Rules conditions during daylight in a single-engine Cessna are one thing. They are another thing entirely where two pilots are flying forty to ninety employees halfway across the country at night under Instrument Flight Rules conditions in a highly sophisticated Turboprop Electra. The FAA, as well as the agencies, recognizes such differences and sets pilot qualifications at different levels accordingly.

A centralized aviation management agency would require a sizable staff of aviation specialists expert in each of the large variety of agency aviation missions and their requirements. This staff would presumably be transferred to the central agency from the user agencies. While the content of the policy and procedures laid down by the central manager would likely be as varied and specialized as current agency direction for the same variety of missions, a central agency would likely tend to be less responsive to the needs of user agencies.

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We believe [illegible] further evaluation of agency aviation operations is needed. [illegible] criterion should be responsiveness to agency mission needs rather than the theoretical advantages of standardization, uniformity and central control of these activities.

Sincerely,

John R. McGuire

JOHN R. McGUIRE
Chief

APPENDIX I

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

SEP 1 : 1977

Mr. Henry Eschwege
Director, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

Enclosed are our comments on the proposed report to the Congress entitled, "Improvements Are Needed in Management of Aircraft Used by Federal Civilian Agencies," LCD-77-430.

Sincerely,

Deputy Assistant Secretary
Policy, Budget and Administration

Enclosure

APPENDIX I

Department of the Interior
Comments on
GAO Draft Report
"Improvements Are Needed in Management
of Aircraft Used by Federal Civilian Agencies"

We agree with many of the general concepts presented in the draft report, but we believe that the report does not present sufficiently definitive evidence to determine whether to adopt the specific recommendations made. Neither does it provide an adequate basis for analyzing other alternatives. A further study is needed to determine the costs and benefits of centralized management versus the present arrangement.

When undertaking the study, a distinction should be drawn between the problems associated with centralized management of (1) administrative aircraft and (2) mission aircraft. For instance, such a study may prove that it is feasible to centralize the management of administrative aircraft, but not mission aircraft. Additionally, the study should consider not only direct aircraft operating costs, but also the extra costs to the users in arranging for aircraft, and potential losses of effective work accomplishment because of the need to accommodate schedules established by others.

The DOI responses to the specific GAO recommendations are as follows:

1. GAO Recommendation: Someone must take the lead in improving aircraft operations throughout the Government. Logically, it appears that OMB is in the best position to initiate the necessary action and direct the necessary agency cooperation to improve aircraft operations.

Response 1. We believe a final decision on this recommendation should be deferred pending completion of the study suggested above.

2. GAO Recommendation: OMB designate a single manager for Government-wide aircraft operations who will have the necessary responsibility and authority to develop policies and procedures for aircraft operations; acquire necessary aircraft; consolidate aircraft use, maintenance, training, storage where appropriate; establish uniform aircraft operating standards and pilot qualifications; and establish a satisfactory cost system for controlling costs and making comparisons with the commercial industry to determine how aircraft services should be provided.

Response 2. This recommendation would also have to be held in abeyance until the aforementioned study is completed. It should be noted, however, that while our consolidation efforts do not encompass all Departmental aircraft activities, existing centralization has proven to enhance both efficiency and cost effectiveness. This process has been associated with the establishment of a single source of authority and responsibility

APPENDIX I

for managing the aircraft operations while assuring the organizations who must deal with this central manager the operational latitudes to assure the maintenance of quality aircraft operations.

3. GAO Recommendation: Develop within OMB overall policy guidance which can be provided to the agencies owning and operating aircraft for the specific purpose of increasing standardization of such functions as aircraft acquisition, utilization, maintenance and storage, operating standards, and accounting for aircraft operation costs.

Response 3. We assume OMB will address your recommendation regarding its function. However, if a lead agency is designated to develop policy guidance and if the recommended study would provide for a designated manager, the overall policy guidance should be issued to the designated manager rather than directly to the agencies.

4. GAO Recommendation: Initiate appropriate action to require increased interagency cooperation regarding aircraft operations with particular emphasis on greater utilization of each other's aircraft, maintenance capabilities, storage facilities, and training activities; identifying potential for consolidating contracts and agreements for commercial aircraft services; and developing policies and procedures for aircraft operations which are more uniform throughout the Federal Government.

Response 4. We agree with this recommendation.

5. GAO Recommendation: OMB develop an adequate cost system and aircraft information system that would identify the type of aircraft available by agency and location, as well as their availability and other services that could be shared such as hangars, maintenance facilities, refueling, and services, etc.

Response 5. The above recommended study should address the cost effectiveness of this recommendation. If this recommendation is accepted, a single manager may be necessary for implementation. We have found in Interior that our successes in developing and implementing an effective cost system and a centralized information system have been where our Office of Aircraft Services (OAS) has had financial responsibility to pay for all costs associated with the operation and, therefore, has been able to assure that all cost, as well as all utilization, information is being captured and properly defined in the system.

(GAO note 2, p.66.)

APPENDIX I

UNITED STATES DEPARTMENT OF JUSTICE

WASHINGTON, D.C. 20530

Address Reply to the Division Indicated and Refer to Initials and Number

SEP 13 1977

Mr. Victor L. Lowe
Director
General Government Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Lowe:

This letter is in response to your request for comments on the draft report entitled "Improvements are Needed in Management of Aircraft Used by Federal Civilian Agencies."

We concur with the general recommendations that appropriate action be initiated for increasing interagency cooperation with particular emphasis on greater utilization of each other's aircraft, maintenance capacities, storage facilities and training activities; identifying the potential for consolidating contracts and agreements for commercial aircraft; and developing policies and procedures which, to the extent possible, are more uniform throughout the Federal Government.

We also concur with the recommendation suggesting development of a uniform aircraft information system that will identify types of aircraft by agency and location, as well as indicate availability and types of services which could be shared.

We also believe, as the report suggests, that there is a need for increased standardization of such functions as aircraft acquisition, maintenance, safety, storage, and accounting for operating costs. Aircraft operating standards, on the other hand, depend to a large extent upon the particular mission assigned to the agency in question and do not lend themselves to strict standardization. As a consequence, we believe it would be difficult to achieve consolidation of uniform operating policies and procedures under a single, well-coordinated activity because of the wide spectrum and diversity of assigned missions among the agencies. However, we do believe operating standards and pilot qualifications are areas in which minimum standards can be developed, and we believe

they should be, but each agency should also be free to employ additional standards it determines to be appropriate.

The report discusses mission aircraft (aircraft with special equipment used to enhance the efforts of the agency to complete special programs) and administrative aircraft (aircraft used primarily as a mode of transportation for people and things). In the main, the report appears to be directed to the use of aircraft for routine transportation. The use of aircraft in the Department by the Federal Bureau of Investigation (FBI), Drug Enforcement Administration (DEA), and Immigration and Naturalization Service (INS) is devoted to criminal investigations and law enforcement missions, which only collaterally and occasionally involves transportation per se. The use of aircraft in enforcement operations involves many features that are not directly addressed in the report.

Page 12 of the report states that "Detailed transportation analyses should be performed to answer the question as to whether aircraft are the best mode. This is necessary, whether aircraft are needed to move people from one location to another or as a mobile platform for carrying out special functions such as fire fighting, law enforcement, or scientific research." We do not believe all special functions should be consolidated under the single term of "transportation." A distinction should be made between the varied types of missions. The use of aircraft by the Department in criminal matters and law enforcement missions involves such things as border patrol, aerial photography, surveillance, command and control, airborne radio relay, undercover operations and surveying remote mountain locations for clandestine landing strips and remotely grown poppy fields. None of these activities is normally considered to be transportation, and, as stated previously, standardization of such diverse activities would be difficult, if not impossible.

The report also raises the issue as to the options available for obtaining aircraft, such as purchase, lease, lease-purchase, rental, charter, etc. Many of the needs of the government for aircraft can possibly be fulfilled by the private sector if the needs fall within the realm of the routine moving of persons or things from one place to another. However, in law enforcement the private sector very often is unable or unwilling to provide specialized aviation activities required. Many private operators

are unwilling to risk the exposure of personnel and equipment to the possible hostile acts of criminals, including gunfire. Many times contract pilots are unwilling to place themselves in a situation which could be considered dangerous, thus not fulfilling an aviation requirement in connection with a criminal or counterintelligence matter. In such cases, a government-owned aircraft piloted by government law enforcement personnel would be the answer.

The report indicates a basic management problem as "the lack of and differences in policies and procedures among agencies to firmly manage aircraft operations." While we recognize the importance of government-wide policy guidance in some areas, the fact that there are differences in policies and procedures among agencies does not necessarily constitute inefficient or ineffective operation of aircraft assets, as the procedures being followed may be well suited to that agency and provide it with data necessary for sound management control. For example, the report indicates that agencies are not using uniform methods or systems to accumulate and report aircraft operating costs. The fact that different methods or systems are in use does not necessarily mean that these systems are not satisfactory for the particular agency involved. In fact, the costs developed by the agency may be of more value than those developed through uniform standards because of the type of agency mission involved. Moreover, cost alone should not be the only overriding factor concerning the aircraft operations of an agency. In other words, the cheapest way is not necessarily the best way. In an attempt to preserve the life of a kidnap victim, the FBI, for example, would not necessarily choose an inexpensive piece of equipment, or operate it in the most economical way. The end result would be the overriding factor. Cost is only one factor and must be weighed against the benefits derived.

On page 14 the report states, "Without common standards for pilot qualifications, aircraft maintenance, or equipment not all persons are afforded the same level of safety." This is not necessarily true. Some agencies may have extremely strict standards while others may be more lenient, but still within acceptable safety levels. INS aircraft, for example, are used in border patrol activities every moment that it is possible to safely operate them. To

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make the operation of the aircraft as safe as possible, restrictions imposed by the Federal Aviation Administration as well as INS standards are rigidly enforced. While we agree that strict air worthiness standards should be set as a minimum, we believe each agency desiring stricter standards should be allowed to set them. Similarly, we recognize that there are different standards set by the various agencies to establish pilot qualifications. Again, agencies whose pilots transport other personnel in aircraft should have similar minimum qualifications, but this requirement should not prevent a particular agency from exercising stricter standards if it so desires.

(See GAO note 2, p. 66 .)

We appreciate the opportunity to comment on the draft report. Should you have any further questions, please feel free to contact us.

Sincerely,

Kevin D. Rooney
Assistant Attorney General
for Administration

APPENDIX I

NASA

National Aeronautics and
Space Administration

Washington, D.C.
20546

Reply to Attn of W

August 10, 1977

Mr. R. W. Gutmann
Director, Procurement and
Systems Acquisition Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Gutmann:

Thank you for the opportunity to review and comment on the draft report entitled "Improvements Are Needed In Management of Aircraft Used by Federal Civilian Agencies", which was prepared by GAO's Logistics and Communications Division.

The enclosed comments emphasize the NASA view that the draft report does not properly recognize (1) the vast differences in the respective agency civilian aircraft requirements, (2) the lack of commonality within the Government-wide aircraft inventory, and (3) the magnitude of the air worthiness requirements and other technical aspects of the single management concept, as tentatively proposed by GAO. Our reasons for suggesting that this matter should be studied more carefully are set forth in the enclosure. Other comments concerning clarification or corrections of the text are keyed to specific parts of the report.

We will be pleased to discuss our comments with GAO representatives, if desired.

Sincerely,

Kenneth R. Chapman
Assistant Administrator for
DOD and Interagency Affairs

Enclosure

APPENDIX I

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION COMMENTS ON THE GAO DRAFT REPORT ENTITLED "IMPROVEMENTS ARE NEEDED IN MANAGEMENT OF AIRCRAFT USED BY FEDERAL CIVILIAN AGENCY"

General Comments:

NASA would interpose no objection to a workable plan wherein one Federal agency would be responsible for national policy guidelines that would improve efficiency and reduce costs, provided that such guidelines are developed with full awareness of the specialized requirements for advanced aeronautical and space flight research, all weather air transportation, etc. NASA recognizes the possibility of Government-wide benefits from commonality and uniform control in certain areas, i.e., the transportation of passengers aboard government aircraft. However, NASA would strongly object to single management of the operational aspects, because of the various types of flight operations involved and the inherent needs for flexibility in this area. Within that context, NASA believes that the GAO has oversimplified today's overall federal civilian aircraft activity by failing to identify the vast differences in agency requirements, the lack of commonality within the federal aircraft inventory and underestimating the magnitude of the airworthiness requirements and other technical aspects of such a proposal.

The airworthiness standards alone are so varied in complexity that only a very few general maintenance practices or procedures would apply across the federal aircraft inventory.

The pilot qualifications and training requirements vary to the same degree as the specialized maintenance programs, e.g., advanced research test pilots must have background and experience in the various sciences, in addition to flight experience in many different types of aircraft.

Aircrew personnel involved in the operation of transport type aircraft must have qualifications, experience, and specialized training similar to the commercial airlines if they are to operate effectively in the same environment. By the same token, the aircrew qualifications for the safe operation of small unsophisticated single-engine aircraft in good weather conditions need not be as high as for the more complex operations.

In summary, the aircraft operating requirements within the federal civilian agencies are vastly different and any plan to standardize these activities or bring them under single-point management should be viewed in light of these differences and the general mix of the overall aircraft inventory. We feel that a more in-depth study and analysis is needed before any conclusion can be drawn or recommendation made.

[See GAO note 2, p. 56.]

Consideration Concerning Aircraft Maintenance - Ch. 4, page 37. The NASA QA-80 at JPL was previously owned and operated by FAA in Los Angeles. NASA is therefore aware of the local maintenance arrangements in the Los Angeles area. However, we elected to utilize available commercial facilities at Burbank, near JPL, and have continued to do so primarily because of operational considerations. Other factors considered were the avoidance of cost and nonproductive time that would be involved in shuttling between Los Angeles and Burbank for minor maintenance which is available at Burbank on a 24-hour/day basis.

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Pilot Qualifications - Page 47, para. 1. In view of the responsibilities of aircraft commanders, NASA does not believe that our standards should be considered extremely high or unnecessary.

Benefits of Uniform Information - Page 49, para. 1. As stated, NASA makes no allowance for depreciation on Administrative Aircraft Cost Reports (NASA Form 1085). Reason--these are internal reports for capturing annual operating costs. In the past, these reports included depreciation, but this input was subsequently deleted because it could not be realistically compared with the various depreciation schedules used by private industry.

(See GAO note 2, p. 66 .)

G. Fernandez
Assistant Associate Administrator for
Center Operations (Systems Management)

8 AUG 1977
Date

APPENDIX I

OFFICE OF THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

ASSISTANT SECRETARY
FOR ADMINISTRATION

September 9, 1977

Mr. Henry Eschwege
Director
Community and Economic
Development Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Eschwege:

In response to your letter of July 8, 1977, there are enclosed two copies of the Department's comments on your draft report entitled, "Improvements Are Needed in Management of Aircraft Used by Federal Civilian Agencies".

Sincerely,

for William B. Saxbe
Edward W. Scott, Jr.

Enclosures

APPENDIX I

DEPARTMENT OF TRANSPORTATION REPLY
TO
GAO DRAFT REPORT OF JULY 1977
B-7224-LCD-77-430
ON
IMPROVEMENTS ARE NEEDED IN MANAGEMENT OF
AIRCRAFT USED BY FEDERAL CIVILIAN AGENCIES

SUMMARY OF GAO FINDINGS AND RECOMMENDATIONS

This GAO review was designed to identify the wide variations between aircraft operations in the different agencies and to determine if the variations were warranted or greater efforts should be undertaken to coordinate aircraft activities between the agencies, or perhaps consolidate all aircraft operations under a single activity. The review concentrated primarily on 11 civilian agencies, and included FAA and Coast Guard.

According to the report, civilian agencies in the Federal Government own in excess of 650 aircraft with a value of at least $340 million, and lease, charter, or rent several thousand more each year. Millions of dollars are spent each year by agencies to acquire and operate the combined civilian government fleet of aircraft.

GAO found that:

(1) Agencies acquire and operate their aircraft independent of each other and without the aid of any government-wide policy guidance. Each agency has its own policies and procedures for all aspects of aircraft operations and there are extensive variances among agencies.

(2) There is no central data base or information system in existence for aircraft resources of the civil agencies.

(3) Agencies are not using uniform methods or systems to accumulate and report aircraft operating costs, and many cost systems are incomplete.

(4) Little effort has been made by agencies to coordinate with one another on aircraft operations.

GAO concludes that the existing decentralized system has created a lack of overall management control and contributed to inefficient and uneconomical aircraft operations within the Federal Government. In summary, the report recommends that the Office of Management and Budget consider the following:

(1) Designate a single manager for government-wide aircraft operations.

(2) Develop within OMB overall policy guidance which can be provided to the agencies owning and operating aircraft.

(3) Initiate appropriate action to increase inter-agency cooperation regarding aircraft operations.

(4) Develop an adequate cost system and aircraft information system.

DEPARTMENT OF TRANSPORTATION POSITION

It is the opinion of the Department of Transportation that the information presented in this draft report does not provide clear and convincing evidence that the actions contemplated by the recommendations are, in fact, needed. The report contains insufficient factual data to support GAO's contention that civil agency aircraft operations are inefficient and uneconomical to the extent that the establishment of centralized management control and direction are justified. Thus, the report appears to rely basically on an assumption that centralization is inherently better than decentralization, and that the problems attributed to decentralization will be corrected by centralization. Basing our judgment on the information made available to us in the report, we cannot agree with this assumption.

In the draft report (Page 2), GAO recognizes a distinction between mission aircraft and administrative aircraft. Beyond this point, however, GAO puts little emphasis on this essential distinction. GAO discusses such aspects as consolidation of support services, inter-agency utilization, and use of commercial sources. In so doing, the impression is given that these opportunities extend across the entire fleet of civil agency aircraft.

While a statistical breakout is not given, GAO acknowledges (Page 2 of the report) that the majority of aircraft owned by the civilian agencies fall into the mission category. We believe that the opportunities for improvement which GAO discusses are extremely limited in the case of mission aircraft. In this regard, we should point out that of the 655 owned aircraft cited in the report, 241 are operated by this Department. Of this 241, only 2 would fall under the administrative category. We feel that GAO, in presenting its findings and in developing its recommendations, has not given proper consideration to the unique characteristics and operating requirements of mission aircraft. For instance, the Coast Guard must have aircraft immediately available to handle search and rescue emergencies, fisheries patrols, and oil spills. Also, the FAA must have specially equipped aircraft for testing air navigation and air traffic control devices. For these reasons, we believe that our mission aircraft are not amenable to centralized management and control.

(See GAO note 2, p.66.)

(signed) William P. Davis

Deputy Assistant Secretary for Administration

APPENDIX I

OFFICE OF THE SECRETARY OF THE TREASURY
WASHINGTON, D.C. 20220

AUG 23 1977

Dear Mr. Lowe:

The Department of the Treasury appreciates the opportunity to comment on the GAO draft report, "Improvements are Needed in Management of Aircraft Used by Federal Civilian Agencies" - 947224-LCD-77-430 (MA-249).

We support the recommendation for a single manager for directing governmentwide aircraft operations for all Administrative type aircraft; however, the policies, procedures and standards for Mission type aircraft should be separately defined and directed specifically to the requirements of the particular mission.

In regard to mutual assistance, the Customs Service has always worked closely with other Federal organizations in making its aircraft available for support of official missions and in coordinating operations whenever possible. For operations, storage and maintenance, it utilizes existing military bases. Regarding training, we support a requirement that all pilots be placed under the GS 2181 series, where adequate standards exist.

Detailed comments on various aspects of aircraft program management follow:

Policy, Procedures and Standards

The report demonstrates there are widely divergent policies and procedures in managing civilian aircraft operations. We agree that it would benefit all to have a central organization that defines policy and procedures. However, each category - Administrative and Mission type aircraft - should have a separate set of policies and procedures. Within the category of Mission aircraft, each type mission must be addressed, e.g., law enforcement. Provision should also be made for periodic reviews and controls. Assuming that adequate resources are available for establishment of a central management organization, centralization of policies, procedures and standards should improve management of aircraft operations.

Procurement

While we support central definition of policy and procedures for aircraft procurement, we are of the opinion that central procurement would not be beneficial to the Customs mission or to the U. S. Government. Evaluating aircraft for performance of Customs' missions requires an intimate knowledge of the operating environment and tactical problems.

Customs requires aircraft for a specialized purpose - the interception, tracking, surveillance and arresting of smugglers. In this respect, Customs' requirements are more akin to those of the armed services. This requires aircraft with performance tailored to the characteristics of the "enemy" and equipped with sophisticated electronic and communication equipment.

Customs' experience indicates that the cost for other agencies (GSA and DOD) to handle procurements might run to an additional 5% to 20% of the purchase/lease price.

Maintenance

Presently, Customs uses both contract and military maintenance and materiel support for its aircraft. When aircraft are based on military establishments, military logistics support is available, usually at least cost to the government. A centralized directed maintenance would have to consider such specialized arrangements.

Training

Establishing uniform training and pilot qualifications is fully supported by Treasury. Customs presently operates under the GS 2181 series for pilots and conforms to the requirements established for this series.

Sincerely,

William F. Hausman
Director
Office of Operations

Mr. Victor I Lowe
Director
General Government Division
U.S. General Accounting Office
Washington, D. C. 20548

GAO notes: 1. Page references in this appendix may not correspond to page numbers in this final report.

2. The deleted comments pertain to data revised as per letter replies.

APPENDIX II

DESCRIPTION OF SELECTED AGENCIES OPERATING AIRCRAFT

BUREAU OF RECLAMATION

The Bureau of Reclamation, a bureau of the Department of the Interior, is responsible for locating, constructing, operating, and maintaining works for the storage, diversion, and development of waters for the reclamation of arid and semiarid lands in the 17 continental Western States. This bureau is also responsible for the sale, interchange, or transmission of electric power and energy generated at several powerplants. They use aircraft to inspect dam projects and transmission lines, and for personnel transportation.

This bureau presently owns 10 aircraft based at 8 locations, and has the maintenance performed by both in-house capabilities and commercial services.

DRUG ENFORCEMENT ADMINISTRATION

The Drug Enforcement Administration, a bureau of the Department of Justice, has a primary responsibility to enforce the laws and statutes relating to narcotic drugs, marihuana, depressants, stimulants, and hallucinogenics. They use aircraft to conduct domestic and international investigations of major drug traffickers. For the most part, this agency uses aircraft for undercover operations, and intelligence gathering.

The Drug Enforcement Administration currently owns 22 aircraft, leases 7 with option to purchase, and has 17 on loan from the military. Most of their owned aircraft were obtained through seizure or from Customs Service. Drug Enforcement Administration aircraft are stationed at more than 25 cities across the Nation. Major maintenance is performed at Addison, Texas, by a commercial contractor and minor maintenance is contracted out at the various aircraft locations.

FEDERAL AVIATION ADMINISTRATION

The Federal Aviation Administration, an agency of the Department of Transportation, is charged with regulating air commerce to foster aviation safety, promoting civil aviation and a national system of airports, achieving efficient use of navigable airspace, and developing and operating a common system of air traffic control and air navigation. The Federal Aviation Administration uses aircraft to monitor the

APPENDIX II

accuracy of the air navigation facilities and systems for research and development, for training flight personnel, for evaluating new aircraft and equipment, for transportation, and for many other functions.

This agency currently owns 69 aircraft, leases 3 with an option to purchase, and has 1 on loan from another agency. The aircraft are located throughout the United States and a few are stationed abroad. Aircraft maintenance is performed primarily by in-house capabilities at facilities within the domestic United States and overseas, but commercial contractors are used to some extent.

FISH AND WILDLIFE SERVICE

The Fish and Wildlife Service, a bureau of the Department of the Interior, is responsible for wild birds, mammals, inland sport fisheries, and specific fishery research activities. This bureau uses aircraft for wildlife surveys and research, aerial photography, enforcement of migration, bird laws, and aerial hunting for predatory animals.

The Fish and Wildlife Service uses the Office of Aircraft Service aircraft for Alaska's needs, but owns and operates 23 aircraft in the 48 continental States. The aircraft are located at 18 cities across the country and are maintained by commercial services at the locations where the aircraft are located.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

The National Aeronautics and Space Administration's activities include research for the solution of flight problems within and outside the Earth's atmosphere, and developing, constructing, testing, and operating aeronautical and space vehicles. This agency uses aircraft to support these programs and others, and to transport personnel and equipment to various locations.

They presently own 81 aircraft and have 20 on loan from the military services. Of the owned aircraft, only eight are designated as administrative aircraft and used primarily for transportation of passengers. The aircraft are based at nine locations in the United States. Their aircraft are maintained through a combination of in-house capabilities and commercial contracts.

NATIONAL PARK SERVICE

The National Park Service is another bureau of the Department of the Interior. They are responsible for all national parks, historic sites, and recreation areas. This bureau uses aircraft to transport personnel to various locations and for mission-oriented activities with personnel transport being a secondary convenience.

They own nine aircraft located in seven locations throughout the country. The National Park Service has most aircraft maintenance performed by commercial contract at the aircraft's location; however, Government services are used at one location.

OFFICE OF AIRCRAFT SERVICES

The Office of Aircraft Services is a unit within the Office of the Secretary, Department of the Interior. It was established in 1973 to be responsible for all aircraft services needed by the bureaus and offices within the Department of the Interior including the

--Bureau of Reclamation,

--Fish and Wildlife Service,

--U.S. Geological Survey,

--National Park Service,

--Bureau of Land Management, and

--Bonneville Power Administration.

The Office of Aircraft Services began by assuming control of aircraft operations in Alaska. The entire aircraft fleet, related equipment and facilities, and personnel whose duties were directly involved in managing, operating, and maintaining bureau aircraft in Alaska were transferred to the Office of Aircraft Services. All aspects of aircraft services used by the Interior Department in Alaska, except chartering, are now controlled by the Office of Aircraft Services. The Alaska operation consists of 27 owned aircraft and 1 aircraft on loan from the Navy. Most maintenance is performed in-house at a central point in Anchorage, Alaska.

The Office of Aircraft Services has not assumed full control of Interior's aircraft services in the 48 continental States. Bureaus still own and operate aircraft independently. However, this office does provide all aircraft contract services

APPENDIX II

to the bureaus as well as advice and assistance. There are presently 61 aircraft in the 48 continental States owned by Interior bureaus and offices, and 2 on loan from the military.

U.S. COAST GUARD

The U.S. Coast Guard, though an agency within the Department of Transportation, is a branch of the Armed Forces. This agency has responsibilities including search and rescue, law enforcement, and marine environmental protection on the high seas or on the navigable waters of the United States. To carry out their responsibilies, they use primarily military type aircraft unlike most of those of the other civilian agencies.

The Coast Guard owns and operates 172 aircraft stationed at 29 locations throughout the United States and Puerto Rico. Major aircraft maintenance is performed at a central facility in North Carolina while minor maintenance is performed at Coast Guard stations where the aircraft are based.

U.S. CUSTOMS SERVICE

The U.S. Customs Service, a bureau of the Department of the Treasury, engages in activities for the collection and protection of revenue, the prevention of fraud and smuggling, the processing and regulation of carriers, cargo, mail, and people into and out of the United States; and performs a variety of functions for other Government agencies in safeguarding agriculture, business, health, security, and related consumer interests. Aircraft are their major weapon against the smuggling of contraband by air.

Customs owns 56 aircraft, leases 6 with an option to purchase, and has 11 on loan from the military. The aircraft are stationed along the Eastern, Southern, and Western borders of the United States. Customs maintains their aircraft through a contract with a commercial company that stations maintenance personnel at the aircraft base.

U.S. FOREST SERVICE

The U.S. Forest Service, an agency of the Department of Agriculture, manages the national forests and grasslands. They are responsible for protecting these lands from fire, epidemics of disease and insect pests, erosion, floods, and water and air pollution. They use aircraft extensively to prevent, contain, and extinguish forest fires.

They own 34 aircraft which are stationed at 19 locations and lease or contract for several hundred during the fire season each year. Aircraft maintenance is done primarily by contract with commercial operators; however, one small Government facility is maintained in California.

U.S. GEOLOGICAL SURVEY

The U.S. Geological Survey, a bureau of the Department of the Interior, is responsible for classifying public lands, and examining geologic structure, mineral resources, and products of the national domain. The U.S. Geological Survey uses aircraft for such activities as topographic mapping, and developing and applying electromagnetic methods in the exploration for geothermal fossil fuel, radioactive, and ore mineral resources.

They currently own and operate six aircraft, and have one on loan from the Air Force. They are located at Denver, Colorado; Flagstaff, Arizona; and Menlo Park, California. All aircraft maintenance is furnished by commercial contract.

AIRCRAFT OPERATED BY CIVILIAN AGENCIES AND THE U.S. COAST GUARD 1/

Agency	Owned						Borrowed	Leased (with option to purchase)	Grand total
	Outright purchase	Lease purchase	Surplus or excess	Confiscated or seized	Other	Total			
Animal and Plant Health Inspection Service, Department of Agriculture	8	-	75	-	-	83	5	-	83
Agriculture Research Service, Department of Agriculture	4	-	1	-	-	5	1	-	6
Bureau of Land Management, Department of the Interior	-	-	1	-	-	1	-	-	1
Bureau of Reclamation, Department of the Interior	10	-	-	-	-	10	-	-	10
Drug Enforcement Administration, Department of Justice	-	3	4	7	8	22	17	7	46
Environmental Protection Agency	2	1	3	-	-	6	4	-	10
Energy Research Development Administration	1	8	4	-	-	13	1	-	14
Federal Aviation Administration, Department of Transportation	32	19	18	-	-	69	1	3	73
Fish and Wildlife Service, Department of the Interior	17	-	6	-	-	23	1	-	24
National Aeronautics and Space Administration	51	4	-	-	26	81	20	-	101
National Oceanic and Atmospheric Administration	2	-	2	-	-	4	2	3	9
National Park Service, Department of the Interior	5	4	-	-	-	9	-	-	9
National Science Foundation	5	2	-	-	-	7	-	-	7
Office of Aircraft Services, Department of the Interior	4	2	2	-	23	31	1	-	32
Tennessee Valley Authority	10	-	5	-	-	15	1	-	16
U.S. Coast Guard, Department of Transportation	159	-	13	-	-	172	-	-	172
U.S. Customs Service, Department of the Treasury	3	5	33	15	-	56	11	6	73
U.S. Forest Service, Department of Agriculture	18	1	15	-	-	34	-	-	34
U.S. Geological Survey, Department of the Interior	2	-	4	-	-	6	1	-	7
Total	341	49	166	22	57	655	66	19	744

1/As of January 7, 1977.

APPENDIX III

APPENDIX IV

QUESTIONS IN QUESTONNAIRE

TO SELECTED AGENCIES

1. When a mode of transportation is needed, who decides whether air, automobile, bus, rail, or truck will be used, and how is the determination made? Our primary concern is that agencies may be using aircraft services for moving cargo or personnel even though less expensive means are available.

2. If formal written policy and procedures have been established (based on question 1 above), provide a copy. If no written policy or procedures have been formulated, what assurance do you have the selected mode of transportation is appropriate?

3. After a determination is made air transportation should be used, how do you select the type of aircraft to meet your needs?

4. If formal written criteria have been established (based on question 3 above), provide a copy. If procedures have not been established, how do you know the proper type of aircraft has been selected?

5. After the type of aircraft is selected, how do you determine the best method of obtaining the necessary service (i.e., outright purchase, lease, lease-purchase, rental, charter, contract, loan, inter-departmental transfer, confiscation, or through excess)?

6. Do you use the guidelines included in OMB Circular A-76 to identify the most appropriate method of providing the air services, or has the agency developed new guidelines?

7. If OMB Circular A-76 guidelines are not used to ascertain the best method of providing air services, provide a copy of the procedures used. If neither A-76 nor agency guidelines are used, how does the agency know the best method has been selected?

8. After aircraft have been selected and acquired, how are you assured that a continuing need exists to retain the aircraft?

9. If formal written criteria have been established (based on question 8 above), provide a copy. If procedures have not been established, how do you know whether aircraft should be:

   --retained,
   --provided by a different source, or
   --eliminated?

10. For each aircraft listed on Attachment II, provide answers and documentation to the following questions (a) through (i).

(a) When was the aircraft acquired by your agency?

(b) How was the aircraft acquired (outright purchase, lease, lease-purchase, rental, charter, contract, loan, inter-departmental transfer, confiscation, or through excess)?

(c) How many flight hours was the aircraft used in each of the fiscal years 1974, 1975, and 1976 (12 month periods only; do not include the transition quarter)?

(d) Were the current official justification policy and criteria (as indicated in questions 2, 4, 6, and 7) in effect at the time of aircraft acquisition?

(e) If the current policy and criteria were not in effect at the time of acquisition, what policy and criteria were in effect? Provide a copy if applicable.

(f) Prior to acquisition of the aircraft, was an analysis made and recorded justifying:

--why air transportation was needed,
--why the type of aircraft was selected, and
--why the method of providing the service was selected?

If analyses were prepared, provide copies. If not, why not?

(g) Were analysis prepared periodically reflecting the continued need of the aircraft? If so, please provide copies of all analyses. If not, why not?

(h) If no written analysis to justify acquisition of the aircraft were made, how did you determine at the time of acquisition that:

--air service was necessary,
--the type of aircraft was appropriate, and
--the method of providing the service was the most economical?

(i) If no written analyses for retention of the aircraft have been prepared, what are the reasons you continue to keep the aircraft?

APPENDIX IV

11. What programs currently exist, or are planned, to reduce government travel costs which will effect the use of government owned aircraft (including any plans in response to the July 24, 1976, Presidential Memo)?

12. What actions have been taken by your agency in the past two or three years to reduce air travel costs to the government?

APPENDIX V

SUMMARY OF AGENCY WRITTEN

RESPONSES TO GAO QUESTIONNAIRE

Does the agency have written policy and procedures to determine the most appropriate mode of transportation?

	Yes	No	No response	Unclear response
Bureau of Reclamation				X
Drug Enforcement Administation				X
Federal Aviation Administration	X			
Fish and Wildlife Service				X
National Aeronautics and Space Administration	a/X			
National Park Service				X
Office of Aircraft Services		X		
U.S. Customs Service			X	
U.S. Geological Survey	X			
U.S. Forest Service				X

a/Policy requires selection of most economical mode.

APPENDIX V

Does the agency have written policy and procedures to selection the most appropriate type of aircraft?

	Yes	No	Unclear response
Bureau of Reclamation		a/X	
Drug Enforcement Administration		a/X	
Federal Aviation Administration			X
Fish and Wildlife Service			X
National Aeronautics and Space Administration	b/X		
National Park Service		a/X	
Office of Aircraft Services		a/X	
U.S. Customs Service			X
U.S. Geological Survey		a/X	
U.S. Forest Service		a/X	

a/Response indicated informal policy and procedures.

b/Policy requires selection of most economical mode.

APPENDIX V

Does the agency comply with OMB Circular A-76 which requ an analysis of Government-owned aircraft versus contract services?

	Yes	No	Unclear response
Bureau of Reclamation	X		
Drug Enforcement Administration		X	
Federal Aviation Administration	X		
Fish and Wildlife Service	X		
National Aeronautics and Space Administration	X		
National Park Service	X		
Office of Aircraft Services	X		
U.S. Customs Service		X	
U.S. Geological Survey	X		
U.S. Forest Service	X		

Does the agency have written policy and procedures to assure a continuing need exists to retain aircraft?

	Yes	No	No response	Unclear response
Bureau of Reclamation	X			
Drug Enforcement Administration	X			
Federal Aviation Administration	X			
Fish and Wildlife Service	X			
National Aeronautics and Space Administration	X			
National Park Service		a/X		
Office of Aircraft Service	X			
U.S. Customs Service			X	
U.S. Geological Survey		a/X		
U.S. Forest Service		X		

a/Response indicated informal policy and procedures.

NATIONAL PARK SERVICE FLIGHTS AND COST DATA APRIL AND MAY 1975

Date	Number of passengers	Trip	Estimated National Park Service cost	Cost of airline ticket
April 1	1	Grand Canyon to Denver	$489.60	$ 106.00
2	5	Denver-Jackson-Helena-return	856.80	1,010.00
7	5	Denver-Reno-Sacramento	657.90	520.00
8	5	Sacramento-Lakeview-Winnemucca	290.70	(a)
9	7	Winnemucca-Reno-Sacramento	183.60	(a)
10	7	Sacramento-Denver	596.70	602.00
16	8	Denver-Tarrington-Denver	244.80	(a)
17	3	Denver-Larned	214.20	177.00
18	3	Larned-Denver	260.10	177.00
20	2	Denver-Page-Denver	581.40	440.00
22	6	Denver-Hays-Norman-Manhattan	703.80	(a)
23	3	Manhattan-Lawrence-Denver	504.90	(a)
25	2	Denver-Page-Denver	657.90	440.00
28	3	Denver-Vernal-Denver	428.40	(a)
May 2	2	Denver-Vernal-Denver	413.10	(a)
13	3	Denver-Page	351.90	330.00
14	3	Page-Denver	275.40	330.00
15	2	Denver-Jackson-Denver-Page	933.30	496.00
16	7	Page-Salt Lake City	244.80	357.00
18	5	Salt Lake City-Phoenix-Denver	795.60	725.00
19	6	Denver-Nucla-Phoenix	428.40	(a)
20	4	Phoenix-Denver	413.10	268.00
22	2	Denver-Cheyenne-Helena	443.70	206.00
23	2	Helena-Livingston-Denver	428.40	(a)
28	7	Denver-Santa Fe-Denver	489.60	(a)
31	8	Denver-Santa Fe-Denver	459.00	(a)

a/Commercial airlines did not service the locations serviced by this trip.

APPENDIX VI

COMPARISON BETWEEN BUREAU OF RECLAMATION (BOR) SPECIFICATION

REQUIREMENTS AND MANUFACTURER'S DESCRIPTION OF AIRCRAFT

BOR specification requirements

OPTIONAL EQUIPMENT:

Seating Plan: 1 Bench Seat
2 Rear facing seats
1 Toilet
Copilot Vacuum Flight Group
Rapid Response Vertical Speed Ind., Pilot
Whelan (3) Light Strobe System
Emergency Locator Transmitter
Fixed Taxi Lights on MLG
Sun Visors, Windshield - Pilot & Copilot
Sun Visors, Eyebrow - Pilot & Copilot
Large Table, Right Side w/U.S. Map
Storage Drawers under Rear Seat
Vinyl Rug Cover
Glass Holders (4)
LH and RH Storage/Refreshment Console with full height decorative bulkhead
Relief tube with overboard Drain
Coat Rod in Baggage Compartment
Chime for "No Smoking/Fasten Seat Belt" Sign

AVIONICS:

One (1) Comflite Foundation Kit
Two (2) Collins VHF-20A VHF COMM, No. 1 w/Dual Heads
One (1) Collins VIR-30AGM NAV with G/S and MKR, No. 1 NAV Unit
One (1) Collins VIR-30AG NAV with G/S, No. 2 NAV Unit
One (1) Collins FD-112V Flight Director with AP-106 A/P; includes Sperry C-14 Slaved Compas, Collins 332D-11A Vertical Gyro, Control Wheel Steering for Pitch and Roll, Automatic Pitch Trim for Autopilot, Manual Electric Pitch Trim for Aircraft. RMI Bearing Pointer of FD-112V has NAV No. 1, NAV No. 2 and ADF Switching
One (1) Collins 331A-3F Pictorial NAV IND (HSI) on Right Hand Panel
One (1) Collins 332C-10 RMI with Dual Needles and VOR/ADF Switching
One (1) Collins DME-40 DME System with 339F-12A
One (1) Collins TDR-90 Transponder
One (1) Collins ALT-50 Radio Altimeter System
One (1) King KDF-805 ADF System (Read-out on 332C-10 RMI)
One (1) Bendix RDR-1200 Weather Radar w/Radome
One (1) IDE 519-22702-532 Encoding Altimeter
Two (2) Flitronics PC-15B Inverters
Bendix RNS-3400 Two Waypoint R-Nav System, No. 1 Nav
Second Sperry C-14 Compass, tied to 331A-3F and RMI card
Altitude Alerter for IDC Altimeter, IDC P/N 540-22722-034

Manufacturer's description of aircraft

OPTIONAL EQUIPMENT:

Seating Plan "A"
Copilot Vacuum Flight Group
Rapid Response Vertical Speed Ind., Pilot
Whelan (3) Light Strobe System
Emergency Locator Transmitter
Fixed Taxi Lights on MLG
Sun Visors, Windshield - Pilot & Copilot
Sun Visors, Eyebrow - Pilot & Copilot
Large Table, Right Side w/U.S. Map
Storage Drawers under Rear Seat
Vinyl Rug Cover
Glass Holders (4)
Full Height Refreshment Console, Left
Full Height Refreshment Console, Right
with Liquor Drawer Decanters
Ice/Waste Drawer with Cover
Relief Tube with Overboard Drain
Coat Rod in Baggage Compartment
Chime for "No Smoking/Fasten Belt" Sign

AVIONICS:

One (1) Comflite Foundation Kit
Two (2) Collins VHF-20A VHF COMM, No. 1 w/Dual Heads
One (1) Collins VIR-30AGM NAV with G/S and MKR, No. 1 NAV Unit
One (1) Collins VIR-30AG NAV with G/S, No. 2 NAV Unit
One (1) Collins FD-112V Flight Director with AP-106 A/P; includes Sperry C-14 Slaved Compass, Collins 332D-11A Vertical Gyro, Control Wheel Steering for Pitch and Roll, Automatic Pitch Trim for Autopilot, Manual Electirc Pitch Trim for Aircraft. RMI Bearing Pointer of FD-112V has NAV No. 1, NAV No. 2 and ADF Switching
One (1) Collins 331A-3F Pictorial NAV IND (HSI) on Right Hand Panel
One (1) Collins 332C-10 RMI with Dual Needles and VOR/ADF Switching
One (1) Collins DME-40 DME System with 339F-12A
One (1) Collins TDR-90 Transponder
One (1) Collins ALT-50 Radio Altimeter System
One (1) King KDF-805 ADF System (Read-out on 332C-10 RMI)
One (1) Bendix RDR-1200 Weather Radar w/Radome
One (1) IDC 519-22702-532 Encoding Altimeter
Two (2) Flitetronics PC-15B Inverters

APPENDIX VII

APPENDIX VIII

PRINCIPAL OFFICIALS

RESPONSIBLE FOR

ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
OFFICE OF MANAGEMENT AND BUDGET		
DIRECTOR:		
James T. McIntyre (acting)	[illegible]. 1977	Present
Bert Lance	Jan. 1977	Oct. 1977
James T. Lynn	Feb. 1975	Jan. 1977
Roy L. Ash	Feb. 1973	Feb. 1975
DEPARTMENT OF AGRICULTURE		
SECRETARY OF AGRICULTURE:		
Bob Bergland	Jan. 1977	Present
John A. Knebel	Nov. 1976	Jan. 1977
Earl L. Butz	Dec. 1971	Oct. 1976
DEPARTMENT OF THE INTERIOR		
SECERTARY OF THE INTERIOR:		
Cecil D. Andrus	Jan. 1977	Present
Thomas S. Kleppe	Oct. 1975	Jan. 1977
Stanley K. Hathaway	June 1975	Oct. 1975
Kent Frizzell	May 1975	June 1975
Rogers C. B. Morton	Jan. 1971	Apr. 1975
DEPARTMENT OF JUSTICE		
ATTORNEY GENERAL OF THE UNITED STATES:		
Griffin B. Bell	Jan. 1977	Present
Richard Thornburgh (acting)	Jan. 1977	Jan. 1977
Edward H. Levi	Feb. 1975	Jan. 1977
William B. Saxbe	Jan. 1974	Feb. 1975
Robert H. Bork, Jr. (acting)	Oct. 1973	Jan. 1974
Elliot L. Richardson	May 1973	Oct. 1973

APPENDIX VIII

	Tenure of office	
	From	To
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION		
ADMINISTRATOR:		
Robert A. Frosch	June 1977	Present
Alan M. Lovelace (acting)	May 1977	June 1977
James C. Fletcher	Apr. 1971	May 1977
DEPARTMENT OF TRANSPORTATION		
SECRETARY OF TRANSPORTATION:		
Brock Adams	Jan. 1977	Present
William Coleman	Mar. 1975	Jan. 1977
John W. Barnum (acting)	Feb. 1975	Mar. 1975
Claude S. Brinegar	Feb. 1973	Feb. 1975
DEPARTMENT OF THE TREASURY		
SECRETARY OF THE TREASURY:		
W Michael Blumenthal	Jan. 1977	Present
William E. Simon	May 1974	Jan. 1977
George P. Shultz	June 1972	May 1974

(947224)