United States General Accounting Office

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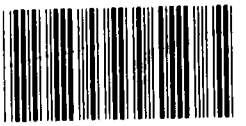
Briefing Report to the Chairman, Subcommittee on Aviation, Committee on Public Works and Transportation, House of Representatives

December 1986

AVIATION SAFETY

Federal Regulation of Public Aircraft



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

Resources, Community, and
Economic Development Division

B-225007

December 8, 1986

The Honorable Norman Y. Mineta
Chairman, Subcommittee on Aviation
Committee on Public Works
and Transportation
House of Representatives

Dear Mr. Chairman:

On July 18, 1985, you requested that we gather information on the use, maintenance, and safety of public aircraft (excluding military) in Alaska, and the extent to which Federal Aviation Administration (FAA) safety regulations apply to these aircraft. This briefing report contains the results of our work, which we presented to your office in an earlier briefing.

Public aircraft are defined by law as those aircraft used exclusively in the service of federal, state, or local government units. These aircraft can be either owned or hired by the governmental unit. Our review of applicable statutes and FAA regulations shows that public aircraft throughout the United States are subject to substantially fewer FAA safety regulations than civil (nonpublic) aircraft. Specifically, of the three basic types of FAA safety regulations--crew, maintenance, and operations--only a few operations regulations apply to public aircraft. No crew regulations (i.e., licensing and training) or maintenance regulations (i.e., maintenance and inspections) apply.

As agreed with your office, we gathered information on all government-owned aircraft in Alaska and a sample of government-hired aircraft. As further agreed, because of the absence of a complete data base on public aircraft, much of the information we obtained was based on interviews with public aircraft owners and operators. As requested by your office, we also obtained information on the effects of subjecting public aircraft to the same regulations as civil aircraft.

Our work identified a total of 140 public aircraft owned by governmental units in Alaska during fiscal year 1985. These 140 aircraft represent about 1.5 percent of all aircraft registered in Alaska and about 4 percent of the public

aircraft (excluding military) registered in the United States. Ninety-nine of the 140 aircraft were operated during fiscal year 1985--44 by the federal government, 46 by the state of Alaska, and 9 by local units of government. More than one-half of the governmental units in our sample (34 out of 64) hired aircraft in fiscal year 1985. The owned and hired aircraft performed a variety of functions ranging from the routine transportation of personnel and cargo--functions similar to civil aircraft--to more specialized missions such as search and rescue, firefighting, and wildlife surveys.

The number of owned and hired public aircraft nationally has grown substantially since the Congress in 1926 first exempted them from most federal safety regulations--over 3,200 owned public aircraft are now registered with the FAA. This has given rise to congressional and aviation community concern about whether and to what extent public aircraft should be required to adhere to safety regulations and be subject to FAA oversight. Although our review focused primarily on Alaska, FAA officials informed us that public aircraft perform virtually the same missions throughout the United States as they do in Alaska and that there would be substantial similarities throughout the United States in the extent to which FAA operations regulations might affect an agency's ability to carry out its mission. Likewise, they would anticipate similar views on compliance with maintenance and crew regulations as those held by public aircraft owners and operators in Alaska.

PUBLIC AIRCRAFT SAFETY

Although we were able to develop a relatively complete picture of the extent and use of public aircraft in Alaska, the results of our work are inconclusive concerning public aircraft safety. Unlike civil aircraft accidents, public aircraft accidents are not required by federal law to be reported to or be investigated by an independent party, such as the National Transportation Safety Board (NTSB). Similarly, the FAA does not know how well public aircraft are maintained or operated because it has no responsibilities for inspecting or otherwise overseeing them. As a result, there is no historical data base on which to make an informed assessment of public aircraft safety.

In the absence of a complete data base on public aircraft, the information we developed was based largely on the oral representations of public aircraft owners and operators.

All government units owning aircraft and nearly all operators of aircraft hired by government units said they voluntarily meet or exceed FAA aircraft maintenance and crew regulations. Nearly all said that since they were already voluntarily complying with FAA maintenance and crew regulations, required compliance would cause no adverse effects.

Public aircraft owners and operators also said they voluntarily adhere to most FAA safety regulations for aircraft operations, but exceptions were cited in such areas as flying overweight aircraft and not having aircraft airworthiness certificates. Governmental units noting these exceptions, including the U.S. Department of the Interior's Office of Aircraft Services and the Alaska Department of Public Safety, said that if they were required to meet all FAA operations regulations there would be adverse effects on their operations ranging from substantially increased costs to possible cessation of certain mission-related activities. Specific missions cited by the Department of Public Safety that could be adversely impacted included fish counting and law enforcement.

In terms of accidents, we were able to piece together information on the number of public aircraft accidents in Alaska during fiscal year 1985. We identified nine accidents--five involving government-owned aircraft and four involving government-hired aircraft. These accidents resulted in damage to the aircraft and minor injuries to one person, with no fatalities. The probable cause of each accident was pilot error, according to accident records and agency officials. Available information was insufficient to determine if any of these accidents could be attributable to the aircraft operating as public aircraft. The absence of sufficient information to make this determination was due, in part, to the lack of federal requirements for public aircraft accidents to be reported to and investigated by the NTSB.

CONCLUSIONS

Opinions on whether public aircraft should be subject to safety regulations differ. On the one hand, there is the view that subjecting public aircraft to additional FAA safety regulations is appropriate because (1) this will enhance the likelihood of compliance, (2) aircraft owned or used exclusively by the government should set an example and follow the same basic safety rules expected of private sector aircraft, and (3) a public aircraft that crashes can cause as much bodily injury and property damage as a similar civil aircraft. Others are of the view, however, that in the absence of a demonstrated systemwide safety problem,

there is no justification for extending FAA or NTSB oversight or for a requirement that public aircraft adhere to FAA safety regulations. However, the existence of a systemwide problem will be difficult to detect because no systemwide oversight or reporting mechanisms are in place to identify such problems.

Based on the limited data available, our review did not clearly demonstrate safety problems with public aircraft stemming from the absence of FAA and NTSB oversight of public aircraft. On the other hand, our review disclosed no persuasive reason why public aircraft accidents should not be reported to and investigated by NTSB or why public aircraft should not be expected to meet at least the minimum FAA maintenance and crew standards expected of civil aircraft. This conclusion also would apply to most FAA operations regulations. However, as indicated above, some government units in Alaska said compliance with several of the operations regulations would be expensive or could hamper their missions.

MATTERS FOR CONGRESSIONAL CONSIDERATION

We believe the Congress should consider whether FAA's crew, maintenance, and operations safety regulations should be applied to public aircraft. If the Congress decides the regulations should apply, provision could be made to permit waivers or deviations from operations regulations where necessary for mission-related reasons.

The Congress also should consider requiring the reporting of public aircraft accidents to NTSB and granting NTSB jurisdiction to investigate such accidents. If the Congress judges that additional information is needed before deciding the issue of whether public aircraft should continue to be exempt from FAA safety regulations, a grant of jurisdiction to NTSB also could serve the objective of establishing a data base on which to evaluate the safety record of those aircraft.[1]

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[1]Our conclusions and matters for congressional consideration do not apply to military aircraft. Although they qualify as public aircraft, at the request of your office military aircraft were not included in our review.

AGENCY VIEWS

There is no clear consensus among FAA and NTSB officials on whether FAA regulations should be extended to public aircraft. FAA Alaskan region officials, citing staffing constraints and the absence of a demonstrated public aircraft safety problem, do not believe public aircraft should be regulated. Conversely, FAA headquarters officials said that as a matter of principle they favored requiring most federally owned or hired public aircraft to adhere to safety regulations, with exceptions for some very specialized aircraft. However, they did not believe that regulations should be extended to state and local government units because no problem had been demonstrated on which to establish the need for regulation. FAA also did not want the role of deciding when an agency's mission was more important than adherence to safety regulations. Both NTSB regional and headquarters officials saw no reason why public aircraft should be exempt from FAA safety requirements.

Despite the lack of consensus on the issue of FAA regulation of public aircraft, most FAA and NTSB officials agreed that NTSB should be given the jurisdiction to investigate public aircraft accidents.

The agencies said that resource ramifications would be associated with extending safety regulations and reporting and investigation requirements to public aircraft. FAA is already stretched in carrying out its existing responsibilities. If regulating public aircraft were added to its responsibilities, personnel in addition to those currently needed would have to be hired and trained. The same is true of NTSB. FAA officials were not sure how many additional personnel would be needed. NTSB estimated that it would need 15 additional staff nationally.

Among the agency officials with whom we discussed the contents of this report were the Associate Administrator for Aviation Standards, FAA, and the Chairman, NTSB, and we have incorporated their comments where appropriate. At your request, however, we did not obtain written agency comments on a draft of this report. As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 14 days from the date of this letter. At that time, we will send copies of the report to the Secretary of Transportation; Administrator, FAA; and Chairman, NTSB. Copies will also be made available to other interested parties upon request.

If you have any questions or if we can be of any further assistance on this issue, please feel free to contact me at 275-3567, or Herb McLure, Associate Director, at 275-7783.

Sincerely yours,

J. Dexter Peach
Assistant Comptroller General

C O N T E N T S

TABLES

ABBREVIATIONS

FAA	Federal Aviation Administration
GAO	General Accounting Office
NOAA	National Oceanic and Atmospheric Administration
NTSB	National Transportation Safety Board
OAS	Office of Aircraft Services, U.S. Department of the Interior

OBJECTIVES OF OUR REVIEW

- Determine the number and use of government-owned aircraft (excluding military) in Alaska
- Determine, on a sample basis, the extent and use of government hiring of aircraft in Alaska
- Determine the extent to which public aircraft are required to follow FAA regulations
- Determine the extent to which public aircraft in Alaska voluntarily comply with FAA regulations they are not required to follow
- Identify accidents involving public aircraft in Alaska
- Determine the effects of subjecting public aircraft in Alaska to those FAA safety regulations they are not required to follow

OBJECTIVES, SCOPE, AND METHODOLOGY

Government entities--federal, state, and local--use both owned and hired aircraft to carry out activities ranging from transporting personnel for firefighting to studying wildlife. When these aircraft are used exclusively in the service of a government unit or subdivision, the law defines them as public aircraft. The Federal Aviation Administration (FAA), which regulates and has the authority to inspect other aircraft, has no jurisdiction over most aspects of the operation of public aircraft. Also, the National Transportation Safety Board (NTSB) is not required to investigate public aircraft accidents.

On July 18, 1985, Congressman Norman Y. Mineta, Chairman of the Subcommittee on Aviation, House Committee on Public Works and Transportation, requested that GAO review the use, maintenance, and safety of public aircraft (excluding military) in Alaska. Chairman Mineta's request recognized that this information might not be indicative of the rest of the United States.

As agreed with the Chairman's office, we organized our response under six objectives. Below are the objectives and the approaches we used to address them.

1. **Determine the number of aircraft owned by government units in Alaska as of September 30, 1985, and what they are used for.**

   We obtained from FAA a registration list of all aircraft owned by government units (excluding military units) in Alaska as of September 30, 1985. The list showed a total of 126 aircraft. To test the accuracy of the FAA list, we contacted all federal and state government units we were able to identify in Alaska. Using a variety of sources, we identified 57 federal and 18 state units. Because of the large number of local units, 465 by our count, we contacted only those local units identified on the FAA list as owning aircraft. We interviewed federal, state, and local government officials to verify information on the FAA list and to establish the number, types, and uses of the aircraft, including the hours flown in fiscal year 1985.

2. **Determine, on a sample basis, the extent of government hiring of aircraft in Alaska and what the aircraft are used for.**

   We contacted a statistically valid random sample of federal, state, and local government units in Alaska to gather information on how often they hired aircraft in fiscal year 1985, whom they hired aircraft from, types of aircraft hired, and what the aircraft were used for.

3. **Determine the extent to which public aircraft are subject to FAA regulations for crew, maintenance, and operations.**

With the assistance of the FAA Alaskan region's regulations specialist and an aviation safety inspector in the FAA headquarters project development branch, we reviewed and compared FAA regulations governing public aircraft and those governing other types of aircraft, including privately-owned aircraft and air taxis. First, we developed a list of those regulations that we considered were of the greatest importance to the safety of aircraft operations. FAA headquarters and the Alaskan region concurred that the regulations on the list were the most important ones. This list was then compared to the regulatory requirements for various types of aircraft operations, ranging from privately-owned aircraft to scheduled airline operations. We incorporated changes suggested by the FAA reviewers in headquarters and the Alaskan region. The FAA Alaska operations specialist reviewed our completed comparison and concurred with it.

4. **Determine the extent to which government units owning and hiring aircraft voluntarily comply with the FAA safety regulations they are not required to comply with.**

As agreed with the Chairman, information on compliance was based primarily on representations of the owners and operators of public aircraft. We contacted officials from government units owning aircraft as of September 30, 1985, and operators who were hired in September 1985 by the government units in our sample. We asked them which crew, maintenance, and operations regulations they voluntarily complied with, exceptions to their compliance, and the reasons for these exceptions. We also obtained the views of FAA and NTSB officials on whether these units voluntarily complied.

5. **Identify accidents involving public aircraft in Alaska and if the accident could be attributable to operation as a public aircraft.**

We interviewed officials from government units owning aircraft as of September 30, 1985; our sample of government units that hired aircraft in September 1985; aircraft operators used in September 1985; and FAA and NTSB officials. We also contacted representatives of newspapers and insurance companies in Alaska.

6. **Determine the effects of subjecting public aircraft in Alaska to FAA safety regulations they are currently not required to follow.**

While gathering information for objective 4, we asked officials from government units owning aircraft and aircraft

operators what effects, if any, they would experience if public aircraft were subject to additional FAA regulation. We also asked FAA and NTSB officials what impact regulating public aircraft would have on their missions.

WHAT ARE PUBLIC AIRCRAFT?

- Defined as aircraft used exclusively in the service of a government unit

  --can be owned or hired; however, length of time required for exclusive use has not been defined

- Public aircraft differ from civil aircraft in extent to which FAA regulations apply

DEFINITION OF PUBLIC AIRCRAFT

Public aircraft are defined in Section 101(36) of the Federal Aviation Act of 1958, as amended, as

> ". . . aircraft used exclusively in the service of any government or of any political subdivision thereof, including the government of any State, Territory, or possession of the United States, or the District of Columbia, but not including any government-owned aircraft engaged in carrying persons or property for commercial purposes."

Public aircraft can be owned or hired by government units. Civil aircraft are any aircraft other than public aircraft. Civil aircraft include privately-owned aircraft and commercial aircraft, such as those used by small air taxis and scheduled airlines.

The distinction between public aircraft and civil aircraft is an important one because under the act public aircraft are subject to substantially fewer regulations than civil aircraft. In addition, FAA does not have jurisdiction to inspect public aircraft and NTSB is not required to investigate public aircraft accidents.

We reviewed the legislative history of the Air Commerce Act of 1926, the first law to define public aircraft, and subsequent legislation, to try to determine why public aircraft were largely exempted from federal regulation. Nothing in the legislative record of the 1926 Act, however, indicated why the Congress chose to exempt public aircraft from regulation. In reporting on an earlier, similar bill, the House Committee on Interstate and Foreign Commerce explained that the bill would exempt from regulation aircraft of the Army, Navy, Air Mail Service, and National Advisory Committee for Aeronautics. These agencies already had inspection and training systems; the House Committee felt that duplicate regulation was unnecessary. The Committee did not mention aircraft owned by state and local governments.

The act as passed exempted any "aircraft used exclusively in the governmental service" regardless of whether it was owned or hired and regardless of what type of governmental unit used the aircraft. It is not clear to us from the legislative record why public aircraft were not limited to federally owned and operated aircraft. We believe this might have occurred because, at the time the definition was first written, the Congress did not anticipate the use of so many aircraft by federal, state, and local government units.

There also has been confusion within FAA over the years as to when aircraft hired by government units qualified as public

aircraft. The statutory definition of public aircraft does not specify any minimum length of time necessary to constitute exclusive use.

A bill was introduced in the Congress in 1983 that would have excluded hired aircraft altogether from the definition of public aircraft, but the bill was not enacted. FAA has tried to eliminate confusion over the definition through correspondence with the FAA regions. In 1984 a memorandum to all FAA regions stated that in order for a government-hired aircraft to qualify as a public aircraft, it had to be used for some extended, continuous period of time, although the period of time was not defined.

FAA headquarters officials told us that they believe the confusion over the definition has been eliminated, except in the Alaska region. FAA Alaskan region officials said that they interpret the definition to mean that during any period of exclusive use by a government unit, no matter how brief (even one flight), the aircraft is a public aircraft. While we did not contact every FAA region to determine what interpretation of the definition each used, we did contact the general counsels in three regions who told us that they used the FAA headquarters interpretation. However, not all other agencies follow FAA's interpretation. Officials from the Department of the Interior's Office of Aircraft Services (OAS), which in fiscal year 1985 spent about $40 million on hired aircraft, told us that OAS uses the same interpretation as the FAA Alaskan region.

The manager of the FAA general law branch and the Acting Director for Flight Standards told us that FAA is working on formalizing the "exclusive use" definition for hired public aircraft through the rulemaking process to provide better guidance to the FAA regions and to help ensure that they are using a consistent definition of public aircraft. They also stated that a clear definition of public aircraft would reduce telephone calls from the regions requesting interpretations and allow FAA to provide more timely service to the aviation industry in answering questions regarding public aircraft.

In our opinion, formalizing a definition in the federal regulations through the rulemaking process will help FAA ensure that all FAA regions are using a consistent definition of public aircraft and that other government units are aware of and can accordingly comply with FAA's definition. The process of formalizing a definition through a rulemaking will also allow FAA to solicit comments from government units and the general public on their views of what the definition should be and any positive or negative effects on them. For example, when we contacted OAS headquarters officials in Boise, Idaho, they said that requiring an aircraft to be hired for a longer period of time than one flight so that it can operate as a public aircraft would cost

more. They explained that they use short-term hires to carry out mission-related work and they sometimes deviate from FAA regulations to perform the mission. They said that having to hire the aircraft for a longer period of time or having to purchase an aircraft just so it could operate as a public aircraft would exceed the agency's needs and would result in unnecessary costs to the government.

As agreed with the Chairman's office, we used the Alaskan region's definition of public aircraft for our work in Alaska.

EXTENT AND USE OF PUBLIC AIRCRAFT IN ALASKA

- Government-owned aircraft

  --140 in Alaska

  --most owned by federal and state government units

  --majority were single-engine planes

  --used primarily in specialized ways, such as wildlife surveys, search and rescue, and law enforcement

- Government-hired aircraft

  --hiring at all levels--federal, state, and local

  --most hires were for 1 day or less

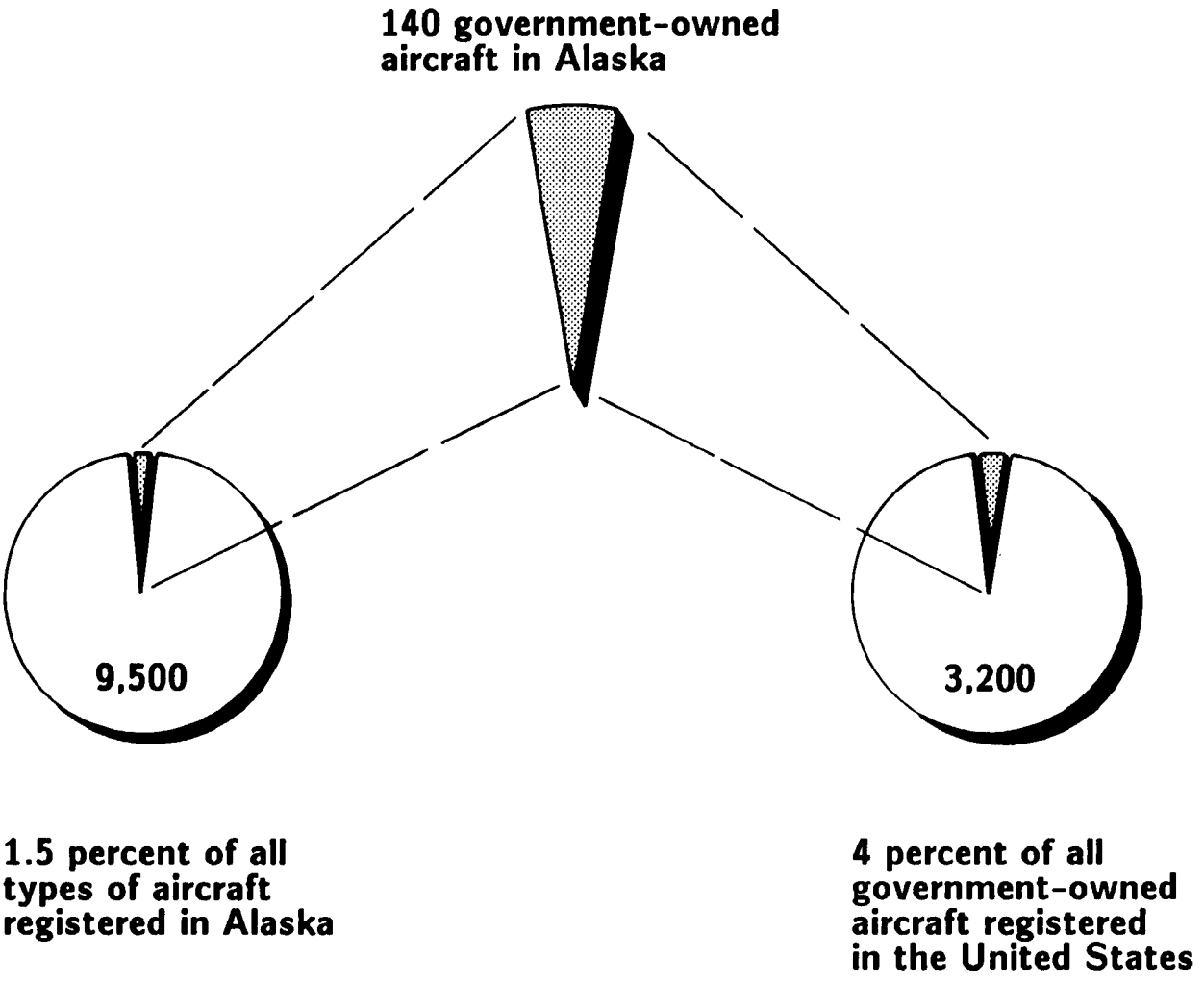
  --most hires were single-engine planes

  --at federal level, used primarily in specialized ways

  --at state and local levels, used primarily to transport passengers and cargo

Figure 3.1

Extent of Government-Owned Aircraft in Alaska



GOVERNMENT UNITS IN ALASKA OWNED 140 AIRCRAFT

As of September 30, 1985, the 140 government-owned aircraft--47 federal, 79 state, and 14 local--represented about 1.5 percent of the approximately 9,500 aircraft registered in Alaska. They also represented about 4 percent of the approximately 3,200 public aircraft (excluding military) registered in the United States as of September 30, 1985.

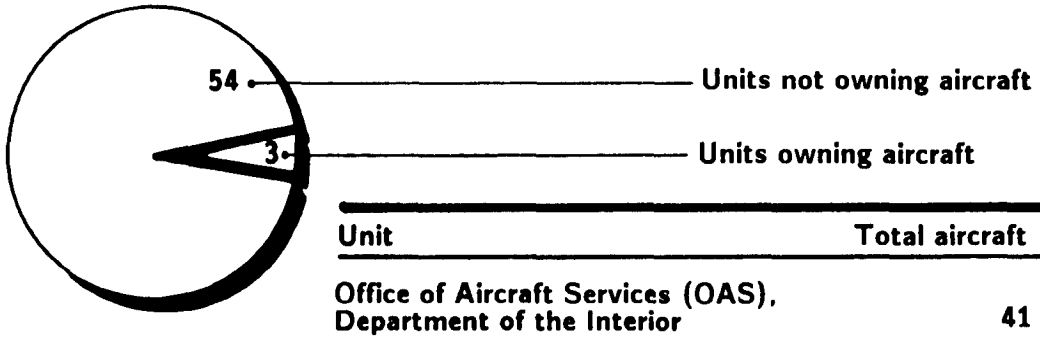
Of the 140 government-owned aircraft in Alaska, 99 were flown by eight government units in fiscal year 1985 for a total of 24,500 hours. This represents 3 percent of the 851,800 hours that all other aircraft in Alaska flew during the same period, according to FAA data.

While we found differences between the FAA registration data and the actual number of owned public aircraft in Alaska, it was not within the scope of our review to establish the accuracy of the registration data as it pertains to the total number of public aircraft in the United States or the total number of aircraft in Alaska.

Figure 3.2

Aircraft Owned by the Federal Government

57 federal government units identified by GAO



Unit	Total aircraft	Aircraft flown
Office of Aircraft Services (OAS), Department of the Interior	41	38
U.S. Marshal	2	2
Federal Aviation Administration	4	4
Total	47	44

Federal government units owned 47 aircraft

Three of the 57 federal government units in Alaska owned aircraft as of September 30, 1985.[1] These three units--OAS, U.S. Marshal, and FAA--owned a total of 47 aircraft, about one-third of the owned public aircraft we identified. Three of the 47 aircraft were new aircraft and were not in service in 1985. The remaining 44 federally-owned aircraft flew a total of 12,270 hours during fiscal year 1985. This amount is 50 percent of all the hours flown by federal, state, and local government-owned aircraft we identified in Alaska. Many of these aircraft were used for specialized purposes, such as wildlife surveys, search and rescue, and law enforcement.

Most of the aircraft were owned by OAS. OAS maintains and operates aircraft used by a number of agencies within Interior, such as the Fish and Wildlife Service, National Park Service, and Minerals Management Service.

Of the total 12,270 operating hours, OAS aircraft flew for 10,450 hours. The largest user of OAS aircraft, the Fish and Wildlife Service, flew for 6,650 hours. This agency is responsible for enforcing wildlife laws, performing wildlife surveys, and conducting other wildlife management activities. For example, as part of its waterfowl survey program, the agency must fly aircraft close enough to the ground to identify species, count birds, and in some cases, even count eggs in nests.

The U.S. Marshal acquired two aircraft during the year and flew them for 250 hours. These aircraft were used to transport marshals and prisoners to and from remote locations. They were also used in surveillance activities, search and rescue operations, and by the NTSB to reach accident investigation sites.

FAA flew its four aircraft for 1,600 hours during the year. It used specialized equipment installed in the aircraft to check the accuracy of navigational aids and procedures at the state's airports.

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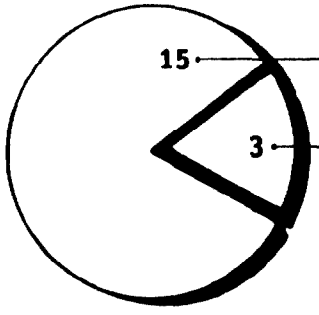
[1]Because different agencies within a federal department have different missions (such as the National Park Service and the Bureau of Indian Affairs within the Department of the Interior), we counted federal agencies rather than departments as government units. In this way we could more closely associate the agency's mission with its use of aircraft. Using this method we identified 57 federal units. In Alaska, all Department of the Interior aircraft are registered to OAS.

Figure 3.3

Aircraft Owned by State and Local Governments

18 state government units identified by GAO

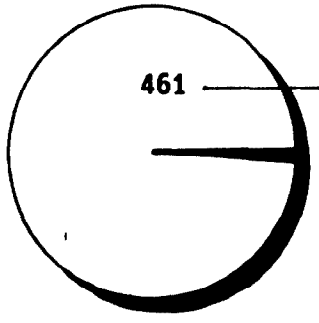


15 — Units not owning aircraft

3 — Units owning aircraft

Unit	Total aircraft	Aircraft flown
Department of Public Safety	45	39
Department of Natural Resources	11	7
University of Alaska		
Anchorage Community College	15	0
Tanana Valley Community College	8	0
Total	79	46

465 local government units identified by GAO



461 — Units not owning aircraft

4 — Units owning aircraft

Unit	Total aircraft	Aircraft flown
North Slope Borough Search & Rescue	5	4
North Slope Borough School District	1	1
Kuspuk School District	4	4
Fairbanks North Star Borough School District	4	0
Total	14	9

State and local units also owned aircraft

State agencies owned 79 aircraft--about 56 percent of the government-owned aircraft in the state. Thirty-three of these aircraft, mostly in the possession of two community colleges (part of the University of Alaska), were used to train mechanics and were not flown.

Most of the 46 state-owned planes that flew during the year were used by the Department of Public Safety. The majority of the 8,700 hours flown--6,800--were for law enforcement activities and fish and wildlife patrols by the Alaska State Troopers.

The Division of Forestry of the Alaska Department of Natural Resources also owned aircraft that were used primarily for forest fire control and photography. Seven of its 11 planes were flown in fiscal year 1985 for a total of 660 hours.

At the local level we identified four units that owned a total of 14 aircraft, or 10 percent of the government-owned aircraft in the state. It is possible that some additional local units may have owned aircraft--we did not contact the other 461 local government units to verify that the FAA registration list was accurate.

The largest owner of aircraft at the local level was the North Slope Borough Search and Rescue. It used aircraft primarily for search and rescue and medical evacuation operations over an area of about 81,000 square miles, an area almost as large as Minnesota. The aircraft were flown for 590 hours during the year. School districts owned the remaining nine aircraft at the local level. Five aircraft were used for student flight training and four were used to train mechanics.

Figure 3.4

Government-Owned Aircraft: Types of Aircraft

- **64 percent were single-engine Piper or Cessna airplanes, such as the Piper Supercub**

- **36 percent were other aircraft, such as the de Havilland Beaver**

MAJORITY OF GOVERNMENT-OWNED AIRCRAFT WERE SMALL, SINGLE-ENGINE PLANES

The majority of the government-owned aircraft in Alaska were single-engine planes, similar to those sometimes used in general aviation. Sixty-four percent were single-engine Piper or Cessna airplanes, such as the Piper Supercub pictured at left. These aircraft generally carried from one to four passengers or up to a 1,200-pound payload.[2] The aircraft were used for such duties as animal tracking, wildlife patrols, and transporting personnel and cargo.

The remaining 36 percent of the aircraft were a variety of types, such as the Grumman Goose with seating for up to nine passengers or a payload up to 2,100 pounds. The de Havilland Beaver, pictured at the left, can carry up to seven passengers or a payload of up to 1,600 pounds and was used for such activities as transporting personnel and cargo. Four helicopters were also in this group; two were used by the Alaska Department of Public Safety for state trooper activities and two were used by the North Slope Borough for search and rescue missions.

The two largest aircraft, a two-engine Convair 580 and a North American Rockwell Saberliner jet, were registered to FAA. These aircraft were used to test and inspect state airport instrumentation and procedures.

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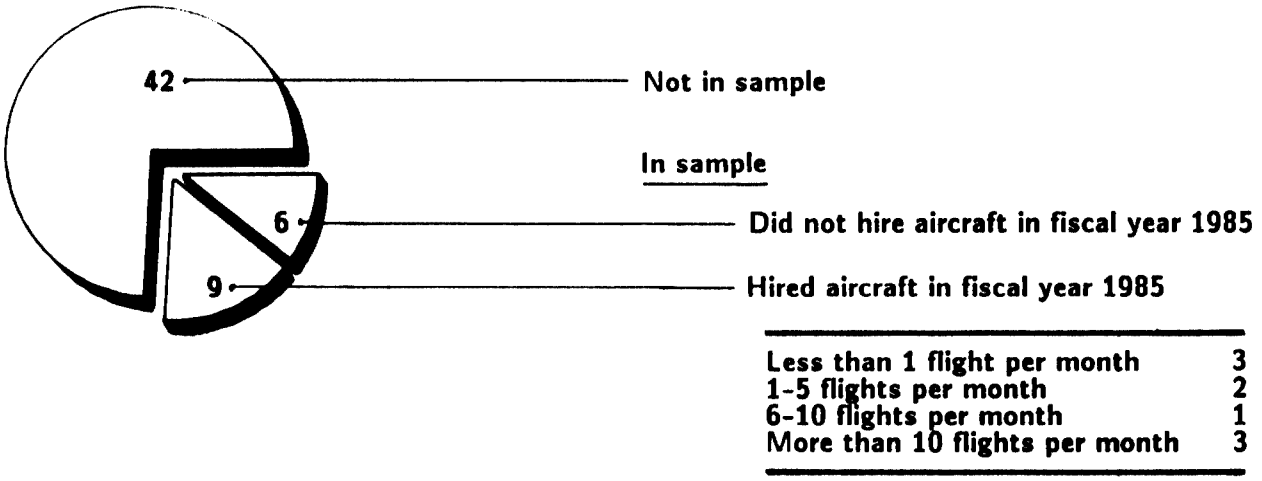
[2]Payload is the approximate maximum safe weight for passengers and cargo. The payload may decrease when the aircraft carries additional equipment, such as the floats needed for water landings.

Figure 3.5

Aircraft Hired by the Federal Government

57 federal government units identified by GAO



Less than 1 flight per month	3
1-5 flights per month	2
6-10 flights per month	1
More than 10 flights per month	3

MAJORITY OF FEDERAL UNITS HIRED AIRCRAFT

To gather information on aircraft hired by federal government units, we selected a random sample of 15 of the 57 federal units in Alaska. Nine of the 15 federal units said they hired aircraft in fiscal year 1985. Three of these units said they hired aircraft more frequently than 10 flights per month. The others hired aircraft for up to and including 10 flights per month. If we had contacted all 57 federal units in Alaska, we estimate that 34 federal units would have said they hired aircraft in fiscal year 1985.[3] In terms of the extent to which their total transportation needs were met with hired aircraft, five of the units said 10 percent or less, one said 62 percent, and three were unable to estimate. (See app. II for a list of units contacted and information on whether or not they hired aircraft in fiscal year 1985.)

Aircraft hired by federal units were used primarily in specialized ways similar to federally-owned aircraft. While the aircraft were used to carry passengers, cargo, or both, they were generally doing this in connection with specialized mission-oriented activities. These activities included geologic surveys, whale monitoring and research, inspecting off-shore oil rigs, surveying native historic sites, and transporting patients to medical facilities.

As requested, we also asked about September 1985 hiring, including the names of operators from whom aircraft were hired, type of aircraft hired, and purpose. Some units in our sample were not able to provide all data requested due to limitations in their recordkeeping systems. We did not determine if September was a representative month.

Seven of the nine federal units had aircraft under hire in September. The units hired aircraft from 1 time to 66 times. Of those units we sampled, FAA hired aircraft the most frequently in September 1985. It used them primarily to evaluate air traffic controllers' performance and transport technicians to remote airports to maintain or repair electronic equipment.

The length of time aircraft were under hire to units ranged from less than 1 hour for one unit to several months for two units. Although two units told us they hired a total of four aircraft for about 4 months in the summer and fall for studying whales and investigating native historic sites, the vast majority of hires for the federal units contacted were for 1 day or less. While all of the hires would qualify as public aircraft under the

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[3]We are 95 percent confident that if we contacted all 57 federal units in Alaska, between 21 and 45 units would tell us they hired aircraft in fiscal year 1985.

FAA Alaskan region's definition of public aircraft, very few would have qualified under the FAA headquarters definition.

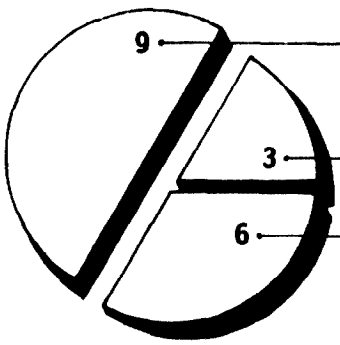
Federal government units appeared to rely more heavily on hired aircraft than owned aircraft to meet their air transportation needs. While only three federal units owned aircraft, nine federal units hired aircraft in September 1985. If we had contacted all federal units in Alaska, we estimate that 34 units would say they hired aircraft in September 1985.

For those units that both owned and hired aircraft, we were not always able to gather complete operating hour data on which to base a comparison. However, an OAS headquarters official in Boise, Idaho, provided information showing that aircraft owned by the Department of the Interior in Alaska were flown for about 11,000 hours at an operating cost of almost $1.9 million. This cost does not generally include the cost of purchasing the aircraft. This official also said that the Department of the Interior in Alaska hired aircraft for about 20,500 hours in fiscal year 1985 at a cost of over $10 million. An Alaska OAS official said that this may not include all of the hiring done by the Interior agencies because agencies sometimes hire aircraft without providing cost and usage data to OAS.

Figure 3.6

Aircraft Hired by State and Local Governments

18 state government units identified by GAO



Not in sample

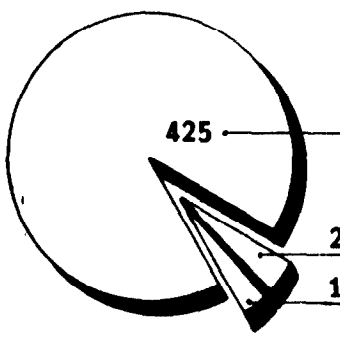
In sample

Did not hire aircraft in fiscal year 1985

Hired aircraft in fiscal year 1985

Less than 1 flight per month	0
1-5 flights per month	5
6-10 flights per month	1
More than 10 flights per month	0

465 local government units identified by GAO



Not in sample

In sample

Did not hire aircraft in fiscal year 1985

Hired aircraft in fiscal year 1985

Less than 1 flight per month	7
1-5 flights per month	11
6-10 flights per month	1
More than 10 flights per month	0

STATE UNITS HIRED AIRCRAFT MORE FREQUENTLY THAN LOCAL UNITS

For the state and local government units in Alaska, we selected a random sample of 9 of 18 state units and 40 of 465 local units. Six of the state units and 19 of the local units told us they hired aircraft in fiscal year 1985. State and local units did not hire aircraft as frequently as the federal units contacted. However, a greater percentage of the state units (67 percent) hired aircraft than the federal (60 percent). None of the local or state units said they hired aircraft for more than 10 flights per month, and only one state and one local unit said they hired aircraft for more than 5 flights per month. If we had contacted all 18 state units and 465 local units, we estimate that 12 state units and 221 local units would have told us they hired aircraft in fiscal year 1985.[4] (See app. II for list of units contacted.)

Most of the state and local units said that aircraft hired exclusively for their use filled only a small percentage of their total transportation needs. Four of the six state units that hired aircraft said those aircraft met 8 percent or less of their needs (the remaining units did not provide an estimate). Eleven of the 19 local units said that hired aircraft met 20 percent or less of their needs, two units said 50 percent, one said 75 percent, and one said 95 percent. Four did not provide an estimate. The local unit that hired aircraft for 95 percent of its transportation needs used aircraft to haul bulky cargo because, like many communities in Alaska, there were no roads to this community.

While federal units generally hired aircraft for specialized missions, both the state and local units we contacted said they used their hired aircraft primarily to transport passengers, cargo, or both. For example, at one unit the individual who arranged travel said that her agency hired aircraft when it was more cost-effective or convenient than using a scheduled air carrier. Examples of use in September 1985 included the state judicial branch, which transported individuals for jury duty, and a school district, which transported students to and from athletic activities.

The five state units that said they hired aircraft in September 1985 hired them from 2 to 31 times. The 12 local units told us they hired aircraft in September 1985 from 1 to 19 times. All the state and local units hired aircraft for periods of 6

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[4]We are 95 percent confident that if we contacted all 18 state units and all 465 local units in Alaska, between 7 and 15 state units and between 160 and 283 local units would say that they hired aircraft in fiscal year 1985.

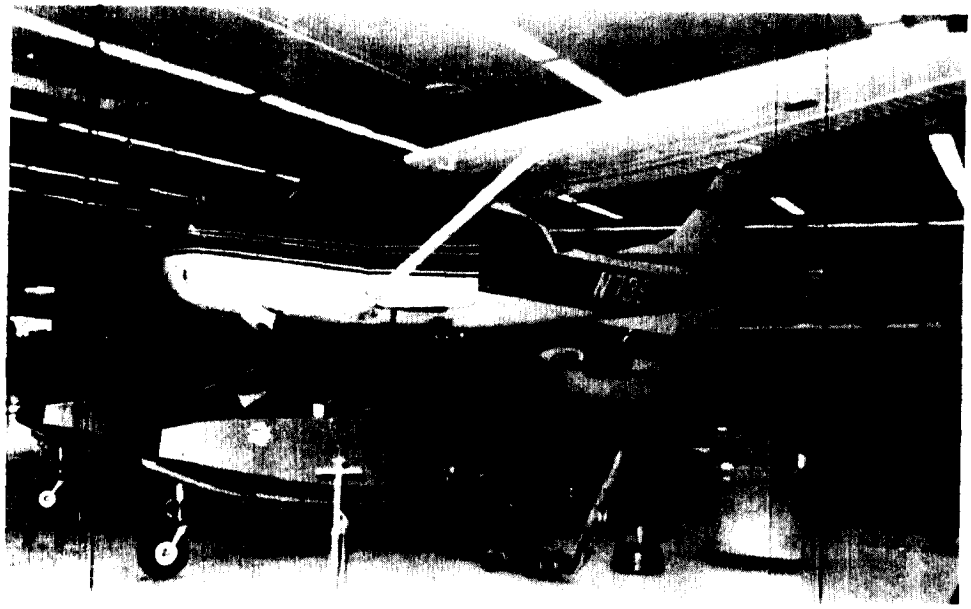
hours or less. Although these aircraft would be considered public using the FAA Alaskan region's definition of public aircraft, they would not be considered public under the FAA headquarters interpretation.

We found that more state and local units used hired aircraft than owned aircraft in September 1985 to meet their air transportation needs. However, due to incomplete operating hour statistics for hired aircraft, we were not able to compare operating hours for owned aircraft with hired aircraft.

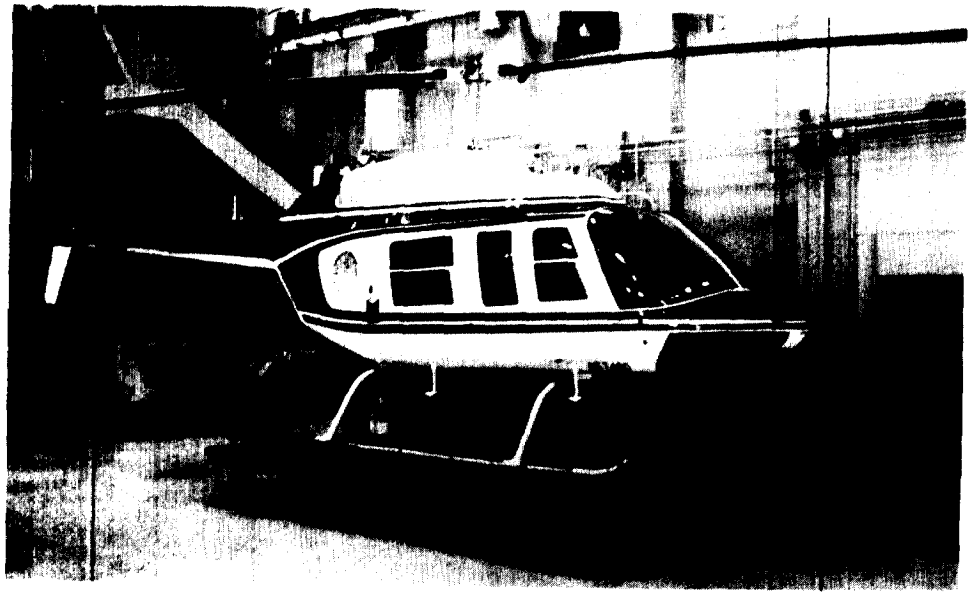
Figure 3.7

Government-Hired Aircraft: Types of Aircraft

- **Most were single-engine airplanes**



- **Others included various types of helicopters**



GOVERNMENT UNITS HIRED MANY SMALL, SINGLE-ENGINE AIRCRAFT

As was the case with government-owned aircraft, the majority of aircraft hired in September 1985 by government units sampled were single-engine airplanes. The airplanes hired most frequently by government units in our sample were small Cessna planes, such as the one pictured at the left, with maximum seating of from three to six passengers, or maximum payloads ranging from about 500 to 1,300 pounds. Single-engine aircraft like these were used by state and local units for both transportation of passengers and cargo and by federal units for their mission-oriented work such as geologic field work.

Other aircraft hired in September 1985 included twin engine airplanes with maximum seating ranging from 4 to 19 passengers. These aircraft were used by federal units for such work as whale monitoring and research and by other units to transport passengers. The largest aircraft hired was a C-119, with a payload of up to 20,000-pounds, that was used to haul cargo for a Native Alaskan village.

In addition to airplanes, several government units, primarily federal, hired helicopters. The helicopters generally could seat up to six passengers and were used for mission-type work such as aerial surveys and hydrologic data collection. The helicopter pictured here is a Bell 206B.

Section 4

EXTENT TO WHICH SAFETY REGULATIONS APPLY TO PUBLIC AIRCRAFT

- FAA safety regulations for civil aircraft

  --regulations fall into three basic categories--crew, maintenance, and operations

  --extent of FAA regulations depends on size of the aircraft and nature of the operator's activities

  --however, civil aircraft must meet certain minimum crew, maintenance, and operations regulations regardless of size of aircraft or nature of operations

- FAA safety regulations for public aircraft

  --no crew or maintenance regulations apply

  --only a few operations regulations apply, such as following air traffic rules

  --public aircraft need not be certified as airworthy

  --aircraft are not required to be inspected by FAA

FAA REGULATIONS CAN BE DIVIDED INTO THREE CATEGORIES--CREW, MAINTENANCE, AND OPERATIONS

The FAA civil aircraft safety regulations can be divided into three main categories--crew, maintenance, and operations. Crew regulations cover licensing, training, and testing of pilots and other crew members. Maintenance regulations cover maintenance and inspection programs, and operations regulations include air traffic rules, aircraft registration, and necessary equipment (radios, transmitters, etc.).

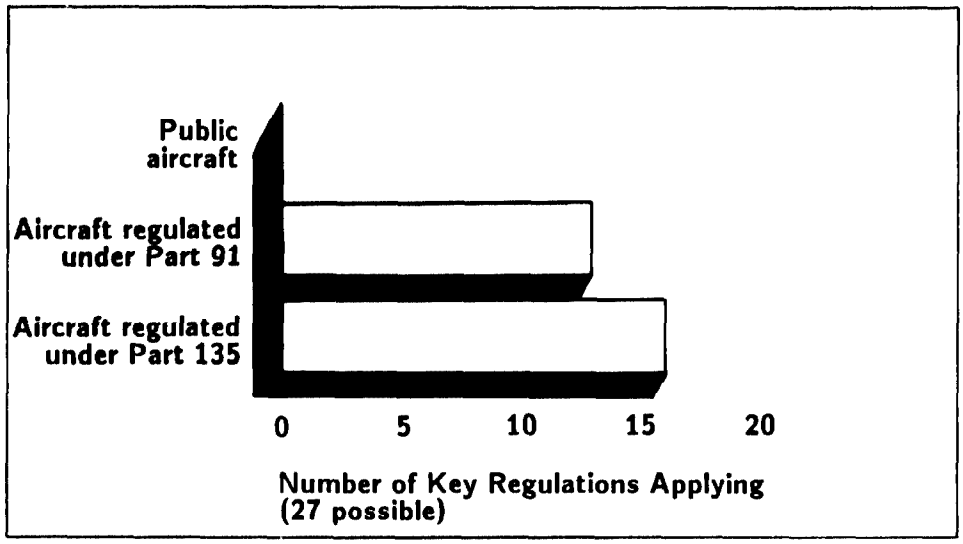
The extent to which FAA regulations apply to an aircraft depends on its size and the nature of the operator's activities. The FAA regulations contain a number of parts, and different parts apply to aircraft based on their size and type and the activities they are used for. For example, all aircraft are subject to at least some Part 91 regulations, which are generally less stringent than Parts 135 or 121. Part 135 specifies additional rules that must be followed by air taxi operators--those with aircraft seating 30 passengers or less and payloads of 7,500 pounds or less. Part 121 specifies additional rules that must be followed by air carrier operators--those whose aircraft seat more than 30 passengers or carry more than 7,500 pounds.

Regardless of aircraft size or type of operation, all civil aircraft must meet certain minimum crew, maintenance, and operations regulations. They are also subject to FAA surveillance inspections that are made to help ensure operator compliance with regulations. However, public aircraft are not required to meet any crew or maintenance regulations and only some operations regulations. Further, they are not required to have an FAA airworthiness certificate or to be inspected by FAA.

If there were no distinction made between public aircraft and civil aircraft, most government units operating aircraft in Alaska would be regulated by FAA under Parts 91 or 135. Therefore, we limited our comparisons in this section primarily to public aircraft and those two categories. For a more detailed comparison of these and other FAA regulations, see appendix III.

Figure 4.1

Crew-Related Regulations



Regulations applying to public aircraft

- **none**

Examples of regulations not applying to public aircraft

- **pilot must, at a minimum, have a private pilot's license**
- **pilot must meet training and testing requirements**
- **pilot must have medical certificate**
- **other crew (co-pilot, engineer) must have medical certificate**

NO FAA CREW REGULATIONS APPLY TO PUBLIC AIRCRAFT

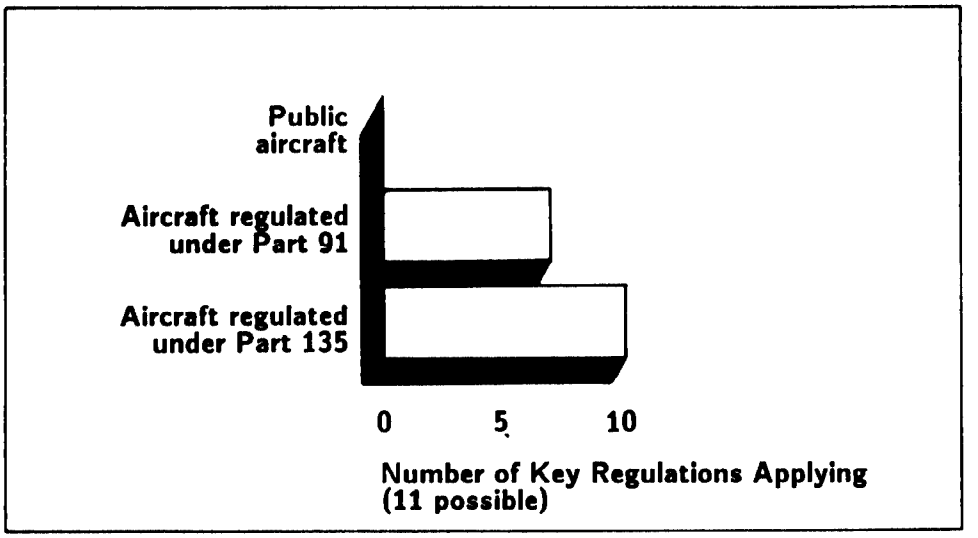
We identified 27 key crew regulations. None of these regulations apply to public aircraft. By comparison, Part 91 aircraft are subject to 13 of the key regulations and Part 135 aircraft are subject to 16. The remaining regulations apply to other types of aircraft such as Part 121 air carriers. These regulations are shown in appendix III.

Part 91 contains the minimum crew regulations for civil aviation. For any pilot other than a student, the minimum licensing requirement under Part 91 is a private pilot's license. The pilot must also have a current medical certificate. In addition, the pilot may need an instrument rating if flying in weather conditions less than the minimums allowed for flight under visual flight rules.

Part 135, which pertains to air taxi and other commercial operators of helicopters and small airplanes, adds additional regulations not in Part 91. For example, the pilot must have a commercial certificate or an airline transport certificate, depending on the type of operation and the size of aircraft. (An airline transport certificate has more stringent requirements than a commercial certificate.) The co-pilot is required to have a commercial certificate. Both pilot and co-pilot must have an instrument rating and both positions are subject to initial and recurrent flight training requirements and to limitations on the number of hours of flight duty within a 24-hour period. In addition, the pilot is subject to minimum requirements for hours of flying experience.

Figure 4.2

Maintenance Regulations



Regulations applying to public aircraft

- none

Examples of regulations not applying to public aircraft

- record of maintenance
- maintenance manual
- inspector certified by FAA
- annual inspection

NO FAA MAINTENANCE REGULATIONS APPLY TO PUBLIC AIRCRAFT

We identified 11 key maintenance regulations. Again, no maintenance regulations apply to public aircraft. By comparison, Part 91 aircraft are subject to 7 of the key regulations, Part 135 aircraft are subject to 10. The remaining regulations apply to other aircraft types, such as those operated by Part 121 air carriers. These regulations are shown in appendix III.

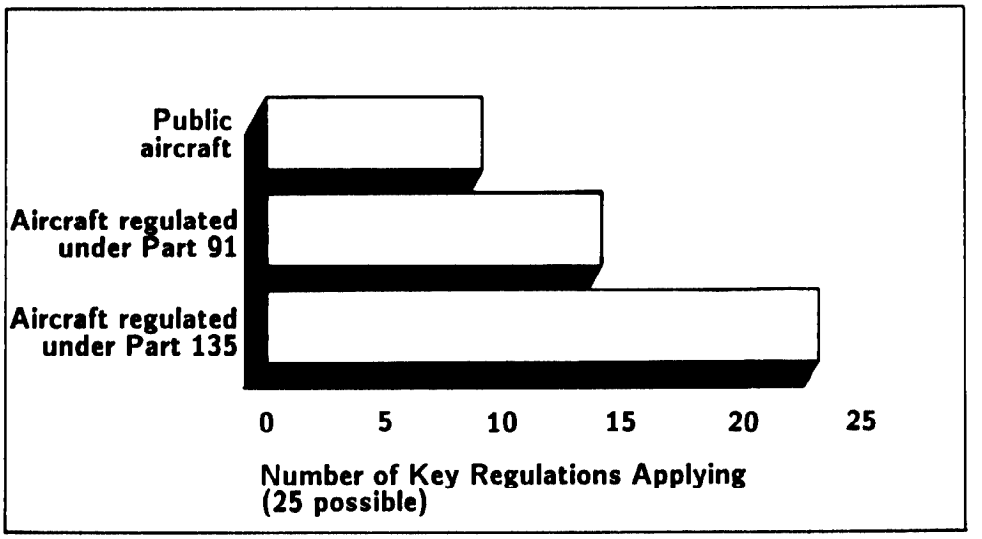
Part 91 operators are required to have an aircraft maintenance program. As part of this program, the aircraft must be inspected at least once annually by a person authorized by the FAA, such as an FAA-certified mechanic. With FAA approval, a Part 91 operator may choose a program other than the annual program. An example of this would be a progressive maintenance program in which the components of the aircraft are inspected at various times throughout the year. However, the maintenance program is still required to provide for a complete inspection of the aircraft within each 12 calendar months. The operator is also required to have a maintenance manual, which since 1981 has normally been supplied by the manufacturer. For aircraft over 12,500 pounds, the manual must be approved by FAA. After maintenance the aircraft must be approved for return to service by a person authorized by FAA to inspect the aircraft, such as a certified mechanic. An entry must also be made in the maintenance record to document the work that was done. The regulations do not require that the person performing the maintenance be different from the person inspecting the aircraft.

Part 135 operators must meet additional regulations. In addition to the annual aircraft inspection, an inspection must be performed after every 100 hours of flight time. Unlike the regulations applicable to Part 91 operators, the person inspecting Part 135 aircraft cannot be the same person who performed the maintenance. For aircraft seating less than 10 passengers, the operator may use the manufacturer's maintenance manual. FAA must approve a maintenance program for aircraft seating 10 or more passengers. Like Part 91, Part 135 requires records of maintenance and inspections performed. In addition, Part 135 requires that certain aircraft failures, malfunctions, or defects, such as a false fire warning during flight, be documented in a mechanical reliability report.

The above requirements for inspections of Part 91 and Part 135 operators should not be confused with the inspections performed by FAA to monitor and exercise oversight of an operator's compliance with FAA regulations. FAA surveillance inspections are in addition to the annual and 100-hour inspections that operators are required to have performed under the regulations.

Figure 4.3

Operations Regulations



Examples of regulations applying to public aircraft

- radio and navigational equipment on board
- obey instructions in controlled air space
- follow instrument flight rules
- maintain safe distances

Examples of regulations not applying to public aircraft

- airworthiness certificate
- no operation under influence of drugs or alcohol
- maximum aircraft weight

SOME FAA OPERATIONS REGULATIONS DO APPLY TO PUBLIC AIRCRAFT

Operations is the only category in which FAA regulations pertain to public aircraft. Of the 25 key regulations we identified, public aircraft are subject to 9, while Part 91 aircraft are subject to 14 and Part 135 aircraft are subject to 23. The remaining regulations apply to other types of aircraft, such as those flown by Part 121 air carriers, and are shown in appendix III.

Most of the regulations contained in Subpart B of Part 91 apply to all aircraft operating within the United States, including public aircraft. This part sets out right-of-way rules. It also requires aircraft to follow air traffic controller clearances and instructions; fly above minimum altitudes; maintain safe distances from other aircraft; and when operating under visual flight rules, fly only when there is adequate visibility. It requires navigational equipment and current weather forecasts. In addition, radios are required in some cases.

Other portions of Part 91 generally apply to civil aircraft but not to public aircraft. These regulations include having fire control equipment on board, conducting no operations while under the influence of alcohol or drugs, and operating aircraft within the maximum weights allowed. In addition, a public aircraft is not required to have an airworthiness certificate. This certificate is issued by FAA and attests to the fact that the individual aircraft conforms to the manufacturer's type certificate[5] and is safe to fly. According to FAA, a certificate is issued without an expiration date, but it can be revoked if the aircraft is found not to be airworthy.

Part 135 operators must have, in addition to an airworthiness certificate for each aircraft, an operating certificate issued by FAA to persons or organizations engaged in transporting passengers and/or cargo for compensation or hire. FAA must approve the management structure of the operator as well as the qualifications of the management staff. Part 135 operators must also have load manifests. In addition, some aircraft must be equipped with weather detection equipment, cockpit voice recorders, and ground proximity devices. None of these regulations apply to public aircraft.

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[5]A type certificate is issued by FAA to a manufacturer and assures that a new design for a particular type of aircraft complies with applicable FAA rules and standards.

Section 5

GOVERNMENT-OWNED AIRCRAFT: EXTENT OF VOLUNTARY COMPLIANCE WITH FAA REGULATIONS

- All eight government units owning and operating aircraft in Alaska told us they meet or exceed Part 91 crew and maintenance regulations

- However, five of the eight told us they do not always conform to certain of the Part 91 operations regulations, such as

  --flying over the weight allowed by FAA

  --operating aircraft without airworthiness certificates

  --flying in weather conditions that do not meet FAA minimums

- We found differing opinions within FAA and between NTSB and FAA on the extent of compliance

UNITS CLAIM VOLUNTARY COMPLIANCE WITH CREW AND MAINTENANCE REGULATIONS BUT CITE EXCEPTIONS TO OPERATIONS REGULATIONS

Officials from all eight government units owning and operating aircraft as of September 30, 1985, told us that at a minimum they followed Part 91 regulations for crew and maintenance. However, officials in five of the eight units said that they did not always comply with all operations regulations. The deviations generally occurred in the execution of their missions. Our work was based on discussions with officials from the government units, FAA, and NTSB. It was not within the scope of our review to verify the extent of their actual compliance.

We do not know whether government unit officials in the other 49 states would say that they were voluntarily complying with the crew and maintenance regulations but not all of the operations regulations. However, due to the similarities in missions between many government units, such as search and rescue, we believe that we would encounter many of the same deviations in the operations area.

We found differing opinions among FAA officials and between FAA and NTSB officials regarding the extent of government units' voluntary compliance with the FAA regulations and the effect, if any, on safety. In terms of firm evidence, however, neither FAA nor NTSB were in a position to verify whether compliance was occurring to the extent public aircraft operators claimed. This is because FAA has little or no jurisdictional authority to inspect public aircraft and NTSB has no responsibility to investigate accidents involving them.

Crew regulations

Officials from all eight units told us that, at a minimum, they followed Part 91 crew regulations. As discussed on pages 39 and 41, these regulations do not apply to public aircraft.

Three units--U.S. Marshal, OAS, and the North Slope Borough Search and Rescue--stated that their pilots complied with Part 135 regulations. A fourth unit--the Alaska Department of Natural Resources--said its pilots met Part 91. A fifth unit--the Alaska Department of Public Safety--told us that its pilots met either Parts 91 or 135. The sixth--FAA--stated that it required its own pilots to meet Part 121 regulations that govern air carrier operators. Part 121 requires an air transport certificate, the highest pilot rating available.

The remaining two units--the North Slope Borough School District and the Kuspuk School District--said that they required their instructors to be FAA-certified flight instructors. FAA regulations require flight instructors to have an air transport certificate or a commercial pilot certificate.

All the units told us that the records they kept ranged from those required by Part 91 to those required by Parts 135 and 121, such as for training and hours of flight time. For example, the Alaska Department of Natural Resources Division of Forestry said that it followed Part 91, which requires that the pilot keep records of his/her flights and experience. The North Slope Borough Search and Rescue said it followed Part 91 and some of Part 135, which requires the operator to maintain records, such as pilot experience and duties. FAA said it followed Part 121, which requires the operator to maintain records such as pilot training and hours of flight time, in addition to those kept by the pilot. For Parts 135 and 121 aircraft, these records are not required to be submitted to FAA but must be available for its inspection.

Maintenance regulations

All eight units also told us that they voluntarily maintained their aircraft according to at least Part 91. One unit, FAA, stated that it maintained its aircraft under the more stringent Part 121. All government units also said they kept maintenance records required by the FAA regulations they follow.

Three of the eight government units--Alaska Department of Public Safety, FAA, and OAS--told us they operated FAA-certified maintenance facilities in which they maintained most of their aircraft. Another unit--the North Slope Borough Search and Rescue--repaired some of its own aircraft and contracted the remainder out. Because of its insurance company's requirements, the Borough contracted with a private consulting firm to provide semiannual assessments of the quality of the Borough's aircraft operation, including maintenance. The remaining four government units told us they contracted out the maintenance and inspections of their aircraft.

Operations regulations

Three of the eight government units--FAA, Kuspuk School District, and the North Slope Borough School District--told us that they complied with at least Part 91 of the regulations. The remaining five said they complied with most of the regulations but did cite some deviations. Since we did not verify the extent to which the units were actually complying, the deviations noted are those mentioned by the government unit officials.

Part 91 sets out air traffic and operating rules, some of which apply to public aircraft, such as maintaining a safe distance from other aircraft. Two units--the North Slope Borough Search and Rescue and the U.S. Marshal--said that occasionally they flew in weather conditions that did not meet FAA minimums. This is one of the few FAA regulations that apply to public aircraft. Part 91 does allow aircraft operators to request a

waiver from FAA for operations that deviate from regulations. However, the manager of the FAA Flight Standards District Office in Fairbanks, Alaska, said that a waiver would not be approved to allow units to avoid the regulations relating to weather minimums because it would not be safe.

Both the Alaska Department of Natural Resources and OAS operated some aircraft without airworthiness certificates. This would not be allowed if public aircraft were subject to the same regulations as other aircraft. The Alaska Department of Natural Resources operated five T-28-B aircraft and one de Havilland Beaver which were ex-military aircraft and did not have airworthiness certificates. These aircraft were acquired through the U.S. Forest Service. They were used for forest fire operations and photographic activities. The OAS aircraft, a de Havilland Beaver, was used by the Fish and Wildlife Service. This aircraft's original airworthiness certificate was no longer valid because it was structurally and mechanically modified and the modifications had not been approved by FAA. This aircraft was the only aircraft of its kind. It was modified specifically to perform long-range surveys of birds. In addition to adding a turboprop engine, the airframe was lengthened, additional fuel tanks were installed, and the controls were modified to allow the pilot to fly and observe safely.

Two units--OAS and the Alaska Department of Public Safety--told us they sometimes operated some of their aircraft on some missions in an overweight condition. For example, the Public Safety aircraft supervisor said that they fly overweight because they carried survival gear and, in many cases, extra fuel. Public aircraft are not required to comply with weight regulations. The two units used the planes for activities ranging from fish counting to law enforcement. Officials at both agencies said they had unsuccessfully tried to get FAA waivers for overweight operations. The FAA Associate Administrator for Aviation Standards said FAA has the authority to waive regulations if it can be shown that an "equivalent level of safety" would be obtained through alternative procedures. However, he added that certain regulations, such as weight limits and airworthiness certificates, are fundamental safety rules and would not be waived.

FAA AND NTSB PERSPECTIVES ON VOLUNTARY COMPLIANCE OF GOVERNMENT-OWNED AIRCRAFT

There were different perspectives and opinions within FAA and between FAA and NTSB about the extent to which government units owning public aircraft in Alaska are voluntarily complying with FAA regulations. There also were differences of opinion between FAA and NTSB about the effect of any noncompliance on safety. In terms of firm evidence, however, neither FAA nor NTSB were in a position to verify whether compliance was occurring to the extent public aircraft operators claim. This is because FAA has little or no jurisdictional authority to inspect public aircraft and NTSB has no responsibility to investigate accidents involving them.

Despite the lack of formal inspection jurisdiction over public aircraft, several working-level FAA inspectors in Alaska told us they had knowledge or impressions of some aspects of owned public aircraft compliance with FAA regulations through periodic visits to five of the eight government units that owned and flew aircraft. For example, the FAA Anchorage Flight Standards District Office maintenance inspector, who visited OAS and the Alaska Department of Public Safety at least annually to inspect their FAA-certified repair station activities, believed the two units were doing a good job of maintaining their public aircraft. He based his views on his evaluation of the facilities, review of maintenance manuals, and limited inspection of some public aircraft. Similarly, FAA Fairbanks Flight Standards District Office inspectors who visited the North Slope Borough School district and the North Slope Borough Search and Rescue believed, on the basis of their discussions with North Slope staff and inspection of some aircraft, that those two units complied with at least FAA Part 91 regulations. However, they did not document their inspections. Also, the North Slope Borough Search and Rescue personnel themselves told us they did not always comply with the FAA operations regulation on weather minimums that they are required to follow.

The FAA Regional Flight Standards Division manager in Alaska cautioned us that the contacts that his inspection personnel may have had with some government units in Alaska would include only a small portion of the airworthiness and operations inspections that would be performed if public aircraft were subject to FAA regulations. For Part 135 operators, FAA is required to perform at least annual inspections of an operator's base of operations, crew records, and maintenance records and to make spot checks of some aircraft. There are no minimum requirements for FAA inspections of aircraft operating under Part 91, although FAA inspectors have the authority to perform any inspections they believe are necessary.

The Regional Flight Standards Division manager told us that he believed that government units were probably not in full compliance with all the regulations. However, on the basis of his knowledge of public aircraft operations in Alaska and the lack of a demonstrated safety problem, he did not believe the operation of these aircraft constituted a safety problem.

Headquarters FAA officials believed that if FAA were to inspect all government-owned and -operated aircraft in Alaska, it undoubtedly would find that every aircraft was out of compliance with at least some FAA regulations. However, they said that there was really no way for FAA to check the impact on safety or potential safety because the government units probably did not keep the kinds of records needed to make such a determination. They added that this makes it difficult to show whether public aircraft are in fact complying or whether a safety problem exists. Also, as previously mentioned, the government units in Alaska claimed that they do maintain proper records, at least for Part 91.

The investigator-in-charge of the NTSB Alaska office said that under an interagency agreement with the U.S. Marshal, NTSB investigators use the Marshal's aircraft to reach accident investigation sites. The investigator-in-charge said that in connection with these flights he checked both the maintenance of the aircraft and the qualifications of the crew. He stated that on the basis of these inspections he believed the Marshal was complying with FAA regulations. He did not, however, believe that other government-owned aircraft in Alaska, except those operated by the State of Alaska Department of Public Safety, were in compliance.

The NTSB headquarters Director of Field Operations said that maintaining and operating government aircraft to the same FAA standards as civil aircraft would take adequate knowledge, commitment, and resources. He said that NTSB's general sense is that most government-owned and -operated aircraft are not operated and maintained to FAA standards. He said that this general sense is based on the agency's experience, but he had no documentation to support this view.

Section 6

GOVERNMENT-HIRED AIRCRAFT: EXTENT OF VOLUNTARY COMPLIANCE WITH FAA REGULATIONS

- 44 of 46 operators contacted said they continue to comply with FAA regulations while under hire to government units to the same extent they do while under hire to nongovernmental units

  A variety of reasons were cited for compliance, such as

  --belief that FAA regulations still apply while under hire to government units

  --safety, insurance, or contract requirements

- 2 of 46 operators contacted said they do not comply with certain FAA regulations

  --one operator said that occasionally an unauthorized passenger is carried

  --one operator does not have an FAA-approved maintenance plan and can operate only as a public aircraft

  --one additional operator (not in our sample) was pointed out as operating a plane that does not have an airworthiness certificate and can operate only as a public aircraft

- FAA officials in Alaska said they believed that hired aircraft comply; an NTSB official in Alaska said he did not believe that all operations regulations were complied with

MOST OPERATORS OF HIRED AIRCRAFT SAID THEY COMPLIED WITH FAA REGULATIONS

We contacted 46 of the 50[6] aircraft operators identified by government units in our sample as having supplied aircraft in September 1985. Forty-four of the 46 operators told us they complied with FAA regulations when under hire to government units to the same extent they did when under hire to nongovernment units. All 44 were regulated under Part 135 of the FAA regulations and as such were subject to numerous crew, maintenance, and operations regulations as well as to periodic inspection by FAA of their compliance with regulations.

When we asked the operators why they continued to meet the FAA regulations when hired by government units, 30 operators said they believed FAA required them to meet the regulations. On the basis of their responses to our questions, we believe that many of these operators believed they had to comply with the regulations because they did not fully understand the definition of public aircraft used by the FAA Alaskan region or, alternatively, were not aware that public aircraft are not subject to most FAA regulations. The remaining 14, most of whom seemed to understand the definition of public aircraft, cited reasons such as safety considerations, insurance company requirements, and requirements of federal or state agencies hiring their aircraft. For example, Department of the Interior agencies in Alaska can hire only from operators who operate under Part 135 and have been approved by OAS.

The remaining two operators told us that they did not always voluntarily comply with the FAA regulations. One operator, who was regulated under Part 135, told us he did not always comply with all the regulations for operations when under hire to a federal or state government unit. One of the pilots explained that occasionally when carrying an external load of cargo in a sling suspended from a helicopter, an individual not essential to the operation was carried in the aircraft. This is not allowed by the regulation governing external load operations for helicopters.[7]

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[6]We did not include 4 of the 50 because one could not be reached, two did not provide usable responses, and information on one, OAS, was included in our government-owned aircraft section.

[7]This regulation was not included in our comparison of key FAA regulations applicable to various categories of aircraft.

The second aircraft operator hired in September 1985 by a government unit included in our sample said that he complied voluntarily with FAA regulations except for having an FAA-approved maintenance plan. The operator's executive director stated that the operator attempted to get FAA to approve its maintenance plan. However, FAA said the operator would have to make some changes to the plan such as including inspection procedures to be followed after hard landings. The operator did not get the maintenance plan approved.

Because this operator flew only as a public aircraft, he was not periodically under FAA's jurisdiction like the other 45 operators in our sample. The operator, a joint air transport enterprise of two Alaska Native government units, carried only cargo for government units for compensation. During fiscal year 1985, this operator said that he earned between $600,000 and $700,000 in gross revenue. Aircraft engaged in carrying persons or property for commercial purposes are not, by definition, public aircraft. However, FAA Alaskan region officials stated that since this operator was doing business only with other government units and did not hold itself out to the public, even though reimbursed for services, they did not consider this to be carrying persons or property for commercial purposes.

The operator's aircraft was a leased C-119, a former military aircraft that lacked a standard airworthiness certificate. It did possess a restricted airworthiness certificate that limited its use to the special purposes for which the aircraft was certified.[8] However, according to an FAA inspector, the certificate was not currently valid since the aircraft did not have an FAA-approved maintenance plan (required by Part 91 regulations for large aircraft over 12,500 pounds but not for public aircraft). Despite this, the plane could technically be flown as a public aircraft regardless of whether it had a standard or restricted airworthiness certificate.

This C-119 was the only aircraft having a restricted airworthiness certificate that was hired by a government unit in our September 1985 sample. Two other operators we contacted said they had aircraft with restricted airworthiness certificates, but

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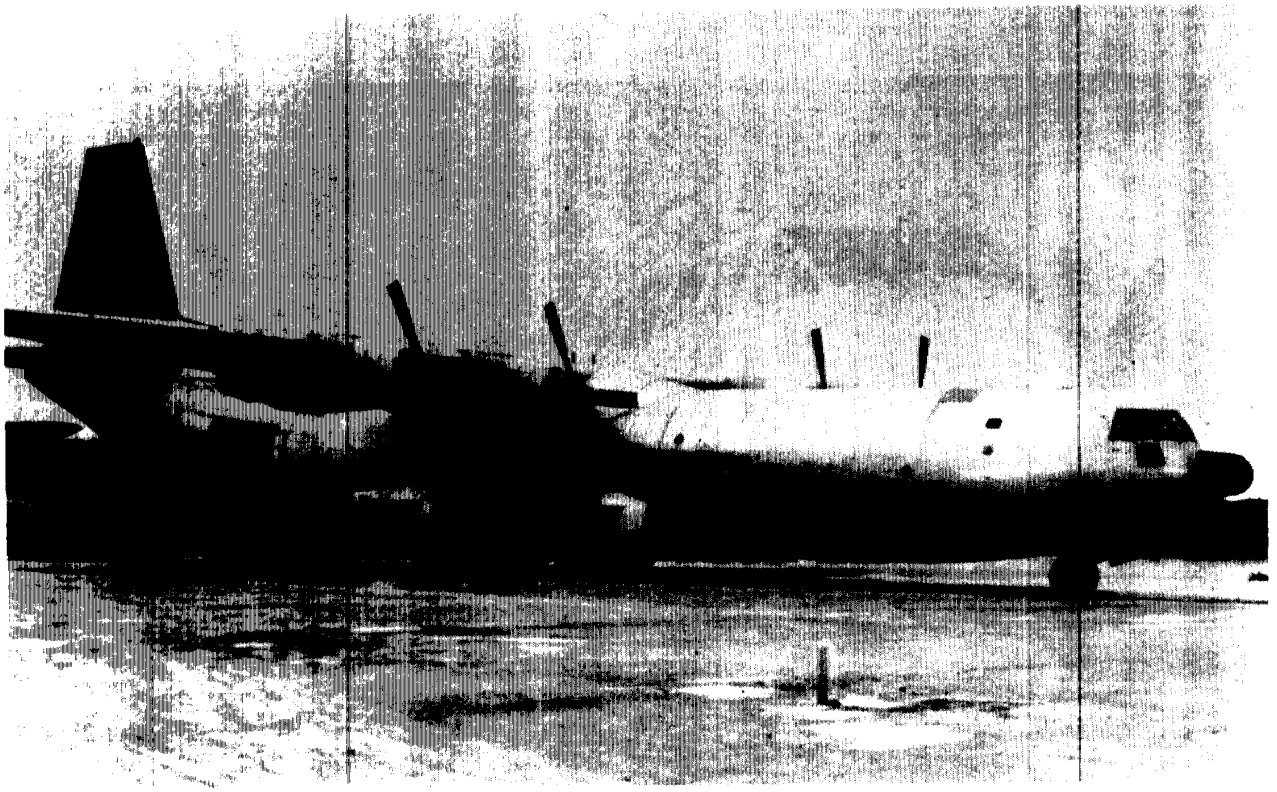
[8]Restricted certificates may be issued to any aircraft for a special purpose, including surplus military aircraft not having a standard certificate and to some imported aircraft manufactured outside of FAA's jurisdiction. The regulations limit the restricted aircraft's uses to the special purposes for which it received the certificate, such as crop dusting, and limit the passengers to crew members and individuals essential to the operation. The regulations also set out operating limitations, such as prohibiting operation over densely populated areas and in a congested airway unless approved by the FAA Administrator.

they were not hired in September 1985 by government units in our sample. These two operators used these restricted aircraft to transport fuel sold as part of their business.

Figure 6.1: C-119 ex-military aircraft

In addition, FAA officials told us of one privately-owned aircraft operating in Alaska (not in our sample), a military surplus C-133, that did not have an airworthiness certificate and therefore could operate only as a public aircraft. Despite several attempts, we were unable to contact the owner to gather information on the frequency of use. An FAA Flight Standards District Office official in Anchorage told us that he thought the C-133 had been used once in 1985 to transport a fully assembled 747 engine to King Salmon, Alaska, for the state of Alaska. He also said that the C-133 was the only available aircraft that could transport the engine needed by a disabled 747. The NTSB investigator-in-charge of the Alaska office told us that the C-133 was used twice by the U.S. Army in fiscal year 1985 to haul armored personnel carriers. He said that the C-133 had also been in Dutch Harbor, Alaska, for an unknown purpose.

Figure 6.2: C-133 aircraft which can fly only as a public aircraft



FAA AND NTSB PERSPECTIVES ON VOLUNTARY COMPLIANCE OF GOVERNMENT-HIRED AIRCRAFT

FAA Alaskan region officials said that they believed that aircraft hired by government units from Part 135 operators probably continued to comply with regulations to the same extent as when they were being used for nonpublic operations. The manager of the Fairbanks Flight Standards District office said that many aircraft operators do not know what public aircraft are or that they are not required to meet many FAA regulations. For that reason, they continue to operate according to Part 135. However, the manager of FAA's Alaskan region Flight Standards Division indicated to us that this does not mean that these operators do not have problems, as indicated by their high incidence of accidents and the number of FAA enforcement actions involving Part 135 operators in Alaska. FAA is trying to correct these problems.

The NTSB investigator-in-charge of the Alaska office said that he believed that government-hired aircraft complied with crew and maintenance regulations. However, he said he did not believe they complied with all of the operations regulations.

EXTENT OF PUBLIC AIRCRAFT ACCIDENTS

- Public aircraft accident data are not readily available because, unlike civil aircraft accidents, public aircraft accidents are not required to be reported under federal law

- By piecing together information from other sources, however, we identified nine accidents in Alaska involving public aircraft in fiscal year 1985; five involved government-owned aircraft and four involved government-hired aircraft

- The public aircraft accident rate was slightly higher than that for general aviation, but there were no fatalities; however, the validity of this accident rate is open to challenge because public aircraft sometimes engage in more specialized and dangerous activities than general aviation

- Officials in Alaska attributed all nine public aircraft accidents to pilot error, but NTSB headquarters officials caution that pilot error is a general category that may not fully describe why the accident occurred

- Information was insufficient to determine if any of the accidents could be attributable to operation as a public aircraft

PUBLIC AIRCRAFT INVOLVED IN NINE ACCIDENTS

Data on all public aircraft accidents are not available from any single source. Although all civil aircraft accidents are required by federal law to be reported to the NTSB, the federal agency responsible for investigating them, no such requirement exists for public aircraft accidents.

Alaska passed a law in 1984 that requires owners of state and municipal aircraft to report accidents to the state and NTSB. In addition, the state is to request NTSB to investigate all such accidents. Despite this law, the state did not request NTSB to investigate any accidents in fiscal year 1985, even though three of the accidents we identified involved aircraft owned by the state agency responsible under the law for reporting them to NTSB. Our contacts with various other organizations in Alaska, such as insurance companies, newspapers, and the Air Force air rescue center, disclosed that they did not have information specifically on public aircraft safety problems or accidents.

We were able, however, to identify nine accidents that involved public aircraft in Alaska in fiscal year 1985. Five involved government-owned aircraft; four involved government-hired aircraft. Because we contacted all the government units owning aircraft in Alaska, we believe that we identified all accidents involving government-owned aircraft. However, the number of accidents involving government-hired aircraft is probably understated since we contacted only 54 out of the 540 units that could have hired aircraft during the year.

No deaths resulted from the nine public aircraft accidents we identified. During the same period in Alaska, general aviation (civil aircraft operating under Part 91) had 158 accidents resulting in 36 deaths. Based on FAA data on the number of operating hours, this represents 18.86 accidents per 100,000 hours for general aviation, compared to 20.40 accidents per 100,000 hours for public aircraft owned and operated by government units.[9] An NTSB headquarters official advised us that the public aircraft data may not be comparable to general aviation accident rates because operating hours do not reflect differences in missions between public and civil aircraft. For example, public aircraft perform search and rescue missions in poor weather. He also said the operating hours do not include aircraft takeoffs and landings, which are very important in any comparison. However, an FAA aviation safety official advised us

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[9]We also wanted to compare accident rates between public and air taxi aircraft in Alaska, but data on operating hours by state were not available for air taxi aircraft, according to an FAA safety official.

that takeoff and landing data are not available for general aviation or public aircraft.

Table 7.1

Accidents Involving Government-Owned Aircraft (Fiscal Year 1985)

Government unit	Aircraft	Accident	Probable cause
Alaska Dept. of Public Safety (Fish and Game)	de Havilland single-engine float plane (DHCMKI)	Would not leave water on takeoff--ran into land	Pilot error ·procedures and directions not followed ·air speed not obtained ·air handling not maintained
Alaska Dept. of Public Safety	Single-engine Piper (PA-18)	Crosswind blew plane over during attempted takeoff	Pilot error ·failure to maintain directional control ·should have taken off into the wind
	Single-engine Piper (PA-18)	After landing, plane's tail rose and plane rolled on its back	Pilot error ·failure to maintain directional control ·improper flare (landing angle) and touch-down ·improper landing
U.S. Dept. of the Interior--OAS	Single-engine Piper (PA-18)	Unsuccessful takeoff from a road	Pilot error ·failure to obtain flying speed ·unsuitable takeoff terrain
National Oceanic and Atmospheric Administration	Bell Helicopter (Model 205) (U.S. Army)	Struck ground after encountering white-out conditions	Pilot error ·improper in-flight planning and decisions ·improper in-flight weather evaluation

GOVERNMENT-OWNED AIRCRAFT ACCIDENTS

The five accidents that government-owned aircraft were involved in during fiscal year 1985 resulted in substantial damage to the aircraft, but there were no fatalities to the pilot or passengers and only one accident involved minor injuries. Three of the aircraft were owned by the state of Alaska, one by OAS, and one by the Army (on loan to the National Oceanic and Atmospheric Administration).

Agency officials advised us that the probable cause of four of the five accidents was pilot error and that all the pilots involved in the accidents had FAA pilot licenses. According to the investigator-in-charge of the NTSB Alaska office, the remaining accident, involving an Alaska Department of Fish and Game float plane, also appeared to have been caused by pilot error, although a final determination had not been made.

Four of the five accidents were investigated by the government unit operating the aircraft. Only the National Oceanic and Atmospheric Administration (NOAA) accident was investigated by NTSB at NOAA's request. Although NTSB does not have the authority to initiate an investigation of public aircraft accidents, it can investigate if requested by the government unit involved. The investigator-in-charge stated that the probable cause of the NOAA accident appeared to be pilot error.

We also discussed with the NTSB investigator-in-charge of the Alaska office the four accidents investigated by the government unit operating the aircraft, including the Fish and Game float plane accident. After examining the available information we had obtained, he said that those accidents also appeared to have been caused by pilot error. The NTSB Chairman told us, however, that it is generally difficult for NTSB to make an accurate judgment as to probable cause when it is not involved in the investigation. He further cautioned that pilot error is a general category that may not fully describe why the accident occurred. For example, an accident may be attributed to pilot error although the underlying cause may have been the pilot's lack of training for the special mission performed.

The information concerning the five accidents was insufficient to determine if any of the accidents could be attributable to factors such as those cited by the NTSB Chairman, or if the accidents, including the one investigated by NTSB, could be attributed specifically to the aircraft operating as a public aircraft.

Table 7.2

Accidents Involving Government-Hired Aircraft (Fiscal Year 1985)

Government unit	Aircraft	Accident	Probable cause
City of Shungnak	Twin-engine C-119 (Stebbins/ Ambler Air Transport)	Landed short of runway--ripped off landing gear	Pilot error · improper approach · inadequate aircraft handling · improper touchdown point
U.S. Dept. of the Interior--Geological Survey	Single-engine Cessna 185 (Foster Aviation)	Crashed while attempting takeoff from road in crosswind	Pilot error · failure to maintain directional control in gusty winds · unsuitable takeoff terrain
U.S. Dept. of the Interior--Fish and Wildlife Service	Bell Helicopter (Model 206B) (Kenai Air Alaska)	Hit rising terrain while herding wild cattle	Pilot error · failure to see and avoid ground · misjudgment of distance and altitude
Association of Village Council Presidents	Single-engine Cessna 172P (Camai Air)	Blown sideways into a pond while landing	Pilot error · failure to maintain airspeed · improper climb-out · stall unintentional

GOVERNMENT-HIRED AIRCRAFT ACCIDENTS

The four accidents that involved aircraft hired by government units resulted in no fatalities or injuries. In all four cases the pilots were licensed by FAA. The aircraft sustained substantial damage in three of the accidents and minor damage in the fourth. Two of the aircraft were hired by Department of the Interior agencies and two were hired by local government units.

NTSB investigated two of the four accidents that the operators had reported to them. These accidents involved aircraft hired by the U.S. Geological Survey and the Association of Village Council Presidents. The investigator-in-charge of NTSB's Alaska office stated that both these accidents appeared to have been caused by pilot error. NTSB did not investigate the remaining two accidents. However, after reviewing the information we had obtained on the accidents, the NTSB official said both of these accidents also appeared to be caused by pilot error. (See p. 63 for the NTSB Chairman's comments on accidents that NTSB did not investigate.)

All accidents involved aircraft on charter or contract from Part 135 operators, except one that involved an aircraft that was used only as public aircraft. This aircraft was a C-119 operated by an Alaska native air transport enterprise and hired by the city of Shungnak to haul sewer pipe. This operator, whom we previously discussed on pages 37 and 54, did not have an FAA-approved maintenance plan and hired out his aircraft only to government units. While attempting to land, the C-119 hit a 1-1/2-foot gravel upslant prior to the beginning of the gravel runway and broke off the right landing gear. This caused the aircraft to go off the runway approximately 1,300 feet from the point of impact. The accident report prepared by the pilot, who had an FAA airline transport certificate, indicated that the end of the runway was improperly marked due to a construction project to lengthen the runway that was underway at the time of the accident and due to limited visibility because of smoke from a forest fire. However, after reviewing the accident report, an NTSB official told us that the probable cause of the accident was pilot error. He said that it appeared that the planned landing approach was improper.

Again, because insufficient data on the accidents were available, we were not able to determine whether the accidents, including those investigated by NTSB, could be attributed specifically to the aircraft operating as a public aircraft. In addition, it was not clear whether two of the operators knew they were operating public aircraft since they reported the accidents to NTSB.

EFFECTS OF EXTENDING FAA REGULATIONS

- Government-owned aircraft: little or no effect if subjected to FAA crew and maintenance regulations. However, about one-half of the government units said their missions would be adversely affected if they had to comply with all operations requirements.

- Government-hired aircraft: nearly all of the operators (45 of 46) said little or no effect from more extensive regulation of public aircraft; one operator said he would be put out of business.

- FAA and NTSB would need more staff

  --FAA officials said regulating public aircraft would have some effect on agency workload and staffing

  --NTSB officials estimated 15 additional staff would be needed nationwide for public aircraft accident investigations

EFFECTS OF EXTENDING REGULATION OF OWNED AND HIRED AIRCRAFT WOULD VARY

Three of the eight government units owning and operating aircraft said they would be adversely affected if they had to comply with FAA regulations for operations. None said they would be adversely affected by crew and maintenance regulations. One aircraft operator hired by government units said it would be adversely affected if it was subjected to all FAA regulations. FAA officials in Alaska and NTSB headquarters officials said regulating public aircraft would require additional staffing.

Government-owned aircraft

The eight federal, state, and local government units owning and operating aircraft as of September 30, 1985, said that there would be little or no effect if FAA regulations for crew and maintenance were made mandatory for public aircraft. However, three of the eight said that there would be adverse effects if additional operations regulations were required.

According to the Regional Director of OAS, regulation under Part 91 for operations would cause Interior programs to suffer economic and operational consequences. Some activities would have to be curtailed until larger aircraft were procured. For example, if aircraft such as the Piper Supercub could not be flown overweight, some animal surveys and tracking activities would have to be curtailed. The Turbo Beaver, which lacks an airworthiness certificate, would have to be grounded if a certificate could not be obtained. This would halt long-range waterfowl surveys until a suitable aircraft could be located and purchased. The director said that the effects of regulation would not be impossible to overcome, but they would require time and money to engineer new methods of operation and acquire new aircraft and facilities. He did not estimate the cost of complying with the regulations.

The Alaska Department of Public Safety aircraft supervisor said that the Department would be seriously affected by Part 91 operations regulations. He explained that if he could not fly his Piper Supercub overweight, his operation would either cease or he would have to operate illegally. He also said that no other available aircraft could perform the regional missions such as anti-poaching, fish counting activities, and state trooper law enforcement work performed by the Piper Supercub.

The senior aviation officer, Alaska Department of Natural Resources, Division of Forestry, told us that regulations under Part 91 operations would have an effect on the department's six operating aircraft that do not have airworthiness certificates. He estimated that the cost of obtaining airworthiness certificates for five of the aircraft would range up to $100,000

per aircraft for a restricted certificate. The remaining aircraft would receive a standard airworthiness certificate at a cost of about $80,000.

The FAA Administrator may issue a certificate of waiver authorizing the operation of an aircraft in deviation of one or more of the Part 91 flight rules if he finds that the proposed operation can be safely conducted under the terms of the certificate of waiver. For example, we found that two of the government units had waivers permitting them to conduct operations such as waterfowl surveys that require low-altitude flying. FAA headquarters officials told us that the maximum weight requirements for aircraft or the requirement that aircraft have airworthiness certificates are not waived because they are fundamental safety rules.

Government-hired aircraft

Of the 46 operators we contacted who supplied aircraft to government units in September 1985, 45 said they would experience little or no effect from FAA regulation of public aircraft since they are now regulated when under hire to nongovernmental customers.

The remaining operator said he would be put out of business if the regulations required that public aircraft meet civil aircraft standards. This operator is the Alaska Native air transport enterprise which operates a leased surplus military C-119 aircraft used to transport other government units' cargo for compensation. (See pp. 37, 54, and 65.) Since his one operating aircraft did not have a valid airworthiness certificate, he could operate it only as a public aircraft. To obtain a valid airworthiness certificate, he would need an FAA-approved maintenance plan, as required by FAA maintenance regulations, which he has been unable to obtain.

The operator of the C-119 told us that he served communities that commercial operators did not. In addition, he said his C-119 was able to land on short airstrips with oversize loads. A 1981 FAA memorandum noted that there are no other cargo planes with a payload similar to the C-119 that can land in many of the smaller communities. The operator said that his rates were 20 to 30 percent lower than other carriers in Alaska because his aircraft capacity was larger and, consequently, he could haul more cargo in a single trip to communities with short runways.

Also, while we were unable to contact the owner of the C-133, as discussed on page 55, we believe he might also be unable to continue operating his aircraft since it did not have an airworthiness certificate and the FAA Alaska Flight Standards Division manager said it would cost millions of dollars to obtain one and thus would not be practical.

With the possible exception of the business now handled by the operators using surplus military aircraft without valid airworthiness certificates, it does not appear that regulating hired public aircraft would create additional business for commercial operators. These surplus military aircraft would have to discontinue hauling cargo, if subjected to regulation, because the aircraft now in use would not be allowed to fly. None of the other hired aircraft would have this problem.

FAA

FAA Alaskan region officials estimated that if public aircraft were required to meet additional regulations, they would need up to four additional staff to monitor public aircraft. The additional staff would be used to carry out operations and maintenance inspections of the aircraft and other regulatory and enforcement activities.

FAA headquarters officials said that although increased regulation would affect their workload and staffing needs, the precise impact was unknown. They said that their resources were already stretched thin in their effort to carry out their current responsibilities.

NTSB

NTSB headquarters officials said that if NTSB had the authority to investigate all accidents, including those involving public aircraft, an additional 15 staff would be needed nationwide. However, they cautioned that NTSB cannot currently perform all civil aircraft accident investigations because of resource constraints.

MATTERS FOR CONGRESSIONAL CONSIDERATION

- Congress should consider whether FAA's crew, maintenance, and operations safety regulations should be applied to public aircraft

- Congress should consider requiring the reporting of public aircraft accidents to NTSB and granting NTSB jurisdiction to investigate such accidents

CONCLUSIONS, MATTERS FOR CONGRESSIONAL CONSIDERATION, AND VIEWS OF AGENCY OFFICIALS REGARDING THE REGULATION OF PUBLIC AIRCRAFT

Since 1926, when the Congress first exempted public aircraft from most safety regulations, many changes have taken place in how these aircraft are used. Today, many agencies and governmental units at all levels own and hire planes, there are more planes, and the range of missions has grown significantly. Excluding military aircraft, public aircraft today perform a wide variety of functions ranging from the routine transportation of personnel and cargo--functions similar to private sector aircraft activity--to more specialized and hazardous missions, such as firefighting, search and rescue, law enforcement, and wildlife surveys. The number of owned federal, state, and local aircraft has grown to a fleet of over 3,200, exclusive of the military, as of September 1985 (app. IV). This is greater than the number of all aircraft that existed in the United States in 1926. In addition, an unknown but significant number of aircraft hired by government units operate as public aircraft.

Although we were able to obtain a relatively complete picture of the extent and use of public aircraft in Alaska, the results of our work are inconclusive concerning the nature and extent of safety problems involving public aircraft. While we did not find clear evidence of safety problems stemming from the absence of FAA and NTSB oversight, a major limitation of our work is that it was based primarily on the oral representations of public aircraft owners and operators. We did not verify their representations and we inspected no aircraft. Given the absence of FAA and NTSB oversight and jurisdiction, these agencies also do not have information about the safety record of public aircraft or their adherence to safety regulations.

Notwithstanding these information shortfalls, our review also disclosed no cogent reasons why public aircraft accidents should not be reported to and investigated by NTSB or why public aircraft should not be expected to meet at least the minimum maintenance and crew standards expected of all other aircraft. This conclusion also would apply to most FAA operations regulations. However, as indicated earlier, several governmental units in Alaska said that compliance with them would be costly or could handicap the carrying out of their missions.

Although our review focused primarily on Alaska, FAA officials told us that public aircraft perform virtually the same missions throughout the United States. Therefore, they said there would be substantial similarities throughout the United States with regard to which FAA operations regulations might affect an agency's ability to carry out its mission. Likewise, they said they would anticipate comparable views in the rest of

the United States on compliance with maintenance and crew regulations. Public aircraft operators in Alaska did not believe that compliance with the crew or maintenance regulations would affect the execution of their missions.

MATTERS FOR CONGRESSIONAL CONSIDERATION

We believe the Congress should consider whether FAA's crew, maintenance, and operations safety regulations should be applied to public aircraft. If the Congress decides the regulations should apply, provision could be made to permit waivers or deviations from operations regulations when necessary for mission-related reasons.

The Congress also should consider requiring the reporting of public aircraft accidents to NTSB and granting NTSB jurisdiction to investigate such accidents. If the Congress judges that additional information is needed before deciding the issue of whether public aircraft should be exempt from FAA safety regulations, a grant of jurisdiction to NTSB also could serve to establish a data base on which to evaluate the safety record of these aircraft.

Our conclusions and matters for congressional consideration are not intended to apply to military aircraft. Although they qualify as public aircraft, at the request of the Chairman's office, military aircraft were not included in our review.

Views of FAA and NTSB officials

There was no clear consensus among FAA and NTSB officials on whether FAA safety regulations should be extended to public aircraft. Views ranged from keeping regulations as they are to requiring public aircraft to meet the same regulations as nonpublic aircraft. However, despite the lack of consensus on this issue, most officials agreed that NTSB should be given jurisdiction to investigate public aircraft accidents. Benefits cited included developing a data base of information on the safety of public aircraft and the possible prevention of some accidents through analysis of the data base.

FAA Alaskan region officials were the only ones who did not believe that at least some public aircraft should meet the same regulations as civil aircraft. They said no safety problem had been demonstrated with these aircraft and they already had their hands full trying to regulate Parts 135 and 121 aircraft.[10]

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[10]On May 14, 1986, GAO testified before the Subcommittee on Aviation, House Committee on Public Works and Transportation, on FAA's problems, including the lack of adequate staffing, in providing effective oversight of the nation's airlines.

FAA headquarters officials said that as a matter of principle they generally favored subjecting most federal units that owned and operated public aircraft to the same safety regulations as civil aircraft, with exceptions for some very specialized aircraft such as those used by the Forest Service for firefighting activities. However, FAA did not want to be placed in the position of having to decide when an agency's mission is more important than safety considerations. Also, FAA headquarters officials did not believe that state and local government units should be regulated by the federal government because no safety problem had been demonstrated.

Both NTSB regional and headquarters officials saw no reason why public aircraft should be exempt from FAA safety requirements. The Alaska investigator-in-charge said that he favored FAA regulation because it would set out the minimum regulations that public aircraft would have to meet. NTSB headquarters officials said that perhaps FAA should be given the authority to regulate public aircraft, but it probably could inspect them only on a limited basis since FAA was having trouble meeting its inspection responsibilities for civil aircraft. FAA officials were not sure how many additional personnel would be needed if safety regulations were extended to public aircraft.

Most FAA and NTSB officials agreed that NTSB should be given the jurisdiction to investigate all public aircraft accidents. Officials said that this would provide a number of benefits. NTSB could develop a data base on public aircraft accidents that would show if public aircraft did in fact present a problem; make recommendations to operators; identify systemic problems that could perhaps prevent other accidents; and identify pilot violations that could be reported to FAA for enforcement action. To do this NTSB estimated that it would need 15 additional staff nationally.

APPENDIX I

LIST OF GOVERNMENT UNITS IN ALASKA

OWNING AIRCRAFT AS OF SEPTEMBER 30, 1985

	Owned aircraft	Flew aircraft in fiscal year 1985
Federal Units		
Federal Aviation Administration	X	X
Department of the Interior, Office of Aircraft Services	X	X
U.S. Marshal	X	X
State Units		
Department of Natural Resources	X	X
Department of Public Safety	X	X
University of Alaska (Anchorage Community College and Tanana Valley Community College)	X	
Local Units		
Kuspuk School District	X	X
North Slope Borough School District	X	X
North Slope Borough Search and Rescue	X	X
Fairbanks North Star Borough School District	X	—
Total	10	8

LIST OF GOVERNMENT UNITS SAMPLED AND WHETHER THEY HIRED AIRCRAFT IN 1985

	Hired aircraft in Fiscal year 1985	Hired aircraft in Sept. 1985
Federal Units		
Bureau of Indian Affairs (Department of the Interior)	X	X
U.S. Congress	X	X
Environmental Protection Agency	X	X
Federal Aviation Administration (Department of Transportation)	X	X
U.S. Geological Survey (Department of the Interior)	X	X
Minerals Management Service (Department of the Interior)	X	X
Veterans Administration	X	X
Farmers Home Administration (Department of Agriculture)	X	
Federal Bureau of Investigation (Department of Justice)	X	
U.S. District Courts		
Employment Standards Administration (Department of Labor)		
Federal Communications Commission		
Immigration and Naturalization Service (Department of Justice)		
Probation Office (U.S. Courts)		
Small Business Administration	—	—
Total - 15 sampled	9	7

APPENDIX II

	Hired aircraft in Fiscal year 1985	Hired aircraft in Sept. 1985
State Units		
Department of Community and Regional Affairs	X	X
Judicial Branch	X	X
State Legislature	X	X
Department of Natural Resources	X	X
University of Alaska	X	X
Office of the Governor	X	
Administration Department		
Department of Corrections		
Department of Revenue	—	—
Total - 9 sampled	6	5
Local Units		
Boroughs		
Kodiak Island	X	X
Fairbanks-North Star		
Haines		
Incorporated communities		
Ketchikan	X	X
Kotlik	X	X
Marshall	X	X
Nunapitchuk	X	X
Stebbins	X	X
Akiak	X	
Kasigluk	X	
Anderson		
Eagle		
Kiana		

APPENDIX II

	Hired aircraft in Fiscal year 1985	Hired aircraft in Sept. 1985
Native governments		
Tetlin	X	X
Kewthluk	X	
St. Mary's	X	
Angoon		
Anvik		
Chalkyitsik		
Clarks Pont		
Emmonak		
Govolin		
Gulkana		
Kokhanok		
Ketchikan		
Mekoryuk		
Nenana		
Nuisqsut		
Pitka's Point		
Saint Paul		
Tok		
Yakutat		
School districts		
Haines	X	X
Matanuksa-Susitna	X	X
Sand Point	X	X
Yukon-Koyukuk	X	X
Cordova City	X	
Skagway City	X	
Native Health and Social Service Providers		
Kodiak Area Native Association	X	X
North Pacific Rim	X	–
Total - 40 sampled	19	12

COMPARISON OF FEDERAL AVIATION ADMINISTRATION REGULATIONS FOR

PUBLIC AIRCRAFT AND AIRCRAFT OPERATING UNDER PARTS 91, 121, 125, AND 135

Regulations	Public Aircraft	Part 91 Aircraft[1,2]	Part 121 Air Carrier Aircraft[1]	Part 125 Travel Club Aircraft[1]	Part 135 Air Taxi and Commuter Aircraft[1]
CREW REGULATIONS					
Pilot in command	.	X	X	X	X
Private pilot license	.	X	.	.	.
Commercial certificate	.	X	.	X	X
Airline transport certificate	.	.	X	.	X
Instrument rating	.	X	X	X	X
Minimum flight time requirements	.	.	.	X	X
Flight duty time limitations	.	.	X	X	X
Initial & recurrent testing/training	.	X	X	X	X
Medical certificate required	.	X	X	X	X
Co-Pilot/Pilot	.	X	X	X	X
Commercial certificate	.	X	X	X	X
Instrument rating	.	X	X	X	X
Airline transport certificate	.	.	X	.	.
Minimum flight time requirements	.	.	X	.	.
Flight duty time limitation	.	.	X	X	X
Initial & recurrent testing/training	.	.	X	X	X
Medical certificate required	.	X	X	X	X
Flight Engineer	.	X	X	X	.
Flight duty time limitation	.	.	X	X	.
Initial & recurrent testing/training	.	.	X	X	.
Medical certificate required	.	X	X	X	.
Navigator	.	.	X	X	.
Flight duty time limitation	.	.	X	X	.
Initial & recurrent testing/training	.	.	X	.	.
Medical certificate required	.	.	X	X	.
Flight Attendants	.	X	X	X	X
Initial & recurrent testing/training	.	.	X	X	X

Notes: X means requirement applies
. means requirement does not apply

[1]As supplemented by Parts 43, 47, 61, and 63 (and for Parts 121, 125, and 135, by Part 91, subpart B).
[2]Restricted aircraft fall under Part 91.

APPENDIX III

Explanatory Notes or Citations

61.3a

125.81; 135.243b,c; Per FAA, required if operation for hire, e.g., aerial spraying

121.437a; 135.243a required for in 10-30 passenger or multiengine aircraft in passenger-carrying operations

121.441 has to have proficiency in required areas of App. F; 125.291; 135.297 within last 6 months; Per FAA 61.3e requires instrument Rating if flight under IFR

125.281a, 1200 hrs flight time, 500 hrs x-country, 100 hrs night; 135.243b,c Visual Flight Rules (VFR): 500 hrs flight time, 100 hrs x-country, 25 hrs night; Instrument Flight Rules (IFR): 1200 hrs flight time, 500 hrs x-country, 100 hrs night

121.415,.419 and .427; 125.287; 135.293,.345g,.347 and .351; For Part 91, per FAA, 61.107 and .129, requires training for private and commercial certificate.

61.3; Per FAA, not required for public aircraft

61.55a; 91.213a; 121.385 c1,2; 135.99,.101 required for IFR passenger operations; Per FAA, 125.263 requires copilot if required by aircraft type certificate

121.437b; 125.283; 135.245; Per FAA, required for Part 91 if operating for hire; eg, corporate pilot, 61.118, .120, .139;

121.437c; 125.283; 135.245; Per FAA, 61.3e requires instrument rating if operating under IFR.

121.437a for copilot in aircraft with 3 or more pilots

121.415,.419,.424,.427 and .441 within 12-24 months; 125.87; 135.293,.345.,347 and .351

61.3

91.211a, if aircraft is larger than 80,000 pounds type certified before 1/2/64; required by type certificate after 1/1/64; 121.387,25.1523, if aircraft is larger than 80,000 pounds type certified before 1/2/64; required by type certificate after 1/1/64; 125.263 if required by type certificate

63.35; 121.415,.419,.425 and .433; 125.265b,.293

63.3,.31

63.3

91.215 does not apply to restricted aircraft; 121.391; 125.269; 135.107, 1 attendant if there are more than 19 passengers

121.415g,.421,.427 and .433c; 125.289; 135.295,.301,.349 and .351

APPENDIX III

Regulations	Public Aircraft	Part 91 Aircraft[1,2]	Part 121 Air Carrier Aircraft[1]	Part 125 Travel Club Aircraft[1]	Part 135 Air Taxi and Commuter Aircraft[1]
MAINTENANCE REGULATIONS					
Aircraft airworthiness condition					
By operator	.	.	X	X	X
By pilot in command	.	X	X	X	X
Maintenance recording required	.	X	X	X	X
Mechanical reliability reports required	.	.	X	X	X
Maintenance manual required	.	X	X	X	X
Inspector personnel FAA certified	.	X	X	X	X
Maintenance personnel duty time limit	.	.	X	.	.
Maintenance program and inspections					
Continuous airworthiness maintenance/ inspection program	.	X	X	X	X
Progressive, 100-hour or yearly maintenance inspection program	.	X	.	.	X
Aircraft must be approved for return to service after any maintenance work, by FAA authorized person	.	X	X	X	X
Separation of maintenance and inspection functions required	.	.	X	X	X
OPERATIONS REGULATIONS					
Registered as a U.S. aircraft with FAA	X	X	X	X	X
Airworthiness certificate	.	X	X	X	X
May not take off at more than maximum aircraft weight	.	X	X	X	X
Operating certificate from FAA	.	.	X	X	X
Management personnel and qualifications as specified by FAA	.	.	X	X	X
Crewmember compliance with currency and experience requirements	.	.	X	X	X
Aircraft load manifest	.	.	X	X	X
Flight plans required					
Visual flight rules	.	.	X	X	.
Instrument flight rules	X	X	X	X	X
Weather reports and minimums					
Minimums specified	X	X	X	X	X
Current reports & forecasts required	X	X	X	X	X

Notes: X means requirement applies
. means requirement does not apply

[1]As supplemented by Parts 43, 47, 61, and 63 (and for Parts 121, 125, and 135, by Part 91, subpart B).
[2]Restricted aircraft fall under Part 91.

Explanatory Notes or Citations

121.363; 125.73e,.243a1; 135.411,.413 and .421, and as per Parts 91 & 43

91.29b

91.165,.173; 121.380; 125.243a4; 135.439

121.703; 125.323,.409,.411; 135.415

91.163c if required by aircraft manual (As per FAA, almost all aircraft after 1981 have a maintenance manual. Prior to 1981, dependent on individual aircraft.) 121.367,.369; 125.71,.249; 135.21a

43.7; 65.91,.92,.93; 91.169a1,2; 121.371; 125.251; 135.429

Per FAA, 91.169f for large aircraft over 12,500 pounds; 121.25b6,.45b6,.369b; 125.247e; 135.419 authority for continuous inspection/maintenance program on passenger aircraft; 135.425 and .427b

91.169; 135.411 seating for nine passengers or less

43.5,.7; 91.167; 121.371a,.379; 125.243; 135.443b3

47.1

91.27 applies to all civil aircraft

91.31 (per FAA requires compliance with type certificate which sets out maximum aircraft weight); 91.5, 121 subpart I; 125 subpart D; 135 subpart I

121.59; 125.25 must be Director of Operations, qualifications not listed; 135.37 and .39

121.683; 125.401; 135.63a4,.299b

121.665; 125.405,.383; 135.63c multiengine aircraft only

121.597,.667; 125.351; 125.53 & 135.79 require flight locating procedures for flights where no flight plan is filed.

91.115 for IFR in controlled airspace.

91.105 for VFR, .116 for IFR

91.5 for a flight under IFR or not in vicinity of an airport; 121.599,.601; 125.359,.361.,363; 135.211,.213 except under VFR, if none available, pilot observation ok

APPENDIX III

Regulations	Public Aircraft	Part 91 Aircraft[1,2]	Part 125 Part 121 Air Carrier Aircraft[1]	Part 135 Travel Club Aircraft[1]	Air Taxi and Commuter Aircraft[1]
No operations under influence of drugs or liquor	.	X	X	X	X
Must maintain safe distance from other aircraft	X	X	X	X	X
Rules applicable for right of way	X	X	X	X	X
Minimum altitudes required	X	X	X	X	X
Pilot must obey air traffic controller clearances and instructions in controlled air space	X	X	X	X	X
Aircraft and equipment					
Emergency locator required	.	X	X	X	X
On-board weather detection equipment required	.	.	X	X	X
Cockpit voice recorder required	.	.	X	.	X
Flight recorders required	.	.	X	.	.
Ground proximity warning system required	.	.	X	.	X
Radio and navigational equipment	X	X	X	X	X
Redundancy required	.	.	X	X	X
Proving tests required	.	.	X	.	X
Fire control equipment	.	X	X	X	X

Notes: X means requirement applies
. means requirement does not apply

[1]As supplemented by Parts 43, 47, 61, and 63 (and for Parts 121, 125, and 135, by Part 91, subpart B).
[2]Restricted aircraft fall under Part 91.

APPENDIX III

Explanatory Notes or Citations
61.15,.16; 91.11
91.52a,b except scheduled air carriers, turbojets. Exceptions include agricultural spray planes
Not applicable for aircraft operated only in Alaska, Hawaii & certain parts of Canada; 121.357; 125.223 135.173,.175 (passenger service in multiengine large transport aircraft only)
121.359; 135.151 for some turbojet passenger operations
121.343 operation over 25,000 feet or turbine powered
121.360 large turbine powered aircraft; 135.153 for some turbojet passenger operations
91.33b2,3,.87; 121.305; 125.203a,b; 135.161 VFR at night or over the top, 135.165 required for IFR.
121.305j,.347 and .349; 125.203c; 135.165 passenger turbojet, over water or under IFR
121.163 100 hrs flight time, 10 hrs night; 135.145 turbojet or aircraft requiring 2 pilots under VFR, 25 hrs flight time, 5 hrs night
91.193c; 121.309c; 125.161; 135.155 passenger operations; not required for restricted aircraft

AIRCRAFT REGISTERED TO GOVERNMENT UNITS (EXCLUDING MILITARY) IN THE UNITED STATES[a]

State	Federal	State and local	Total
Alabama	13	107	120
Alaska	46	80	126
Arizona	3	65	68
Arkansas	0	36	36
California	23	322	345
Colorado	11	40	51
Connecticut	0	3	3
Delaware	0	3	3
District of Columbia	124	9	133
Florida	10	278	288
Georgia	3	103	106
Hawaii	5	4	9
Idaho	7	7	14
Illinois	1	127	128
Indiana	2	69	71
Iowa	0	65	65
Kansas	1	35	36
Kentucky	1	11	12
Louisiana	1	84	85
Maine	0	19	19
Maryland	3	20	23
Massachusetts	0	7	7
Michigan	0	92	92
Minnesota	2	37	39
Mississippi	2	85	87
Missouri	2	83	85
Montana	2	26	28
Nebraska	1	32	33
Nevada	12	26	38
New Hampshire	0	3	3
New Jersey	1	20	21
New Mexico	13	19	32
New York	0	80	80
North Carolina	3	65	68
North Dakota	0	13	13
Ohio	9	129	138
Oklahoma	1	51	52
Oregon	9	28	37
Pennsylvania	0	41	41
Rhode Island	0	3	3
South Carolina	3	32	35
South Dakota	1	20	21
Tennessee	5	52	57
Texas	87	159	246

State	Federal	State and local	Total
Utah	3	18	21
Vermont	0	1	1
Virginia	18	28	46
Washington	2	81	83
West Virginia	0	9	9
Wisconsin	3	45	48
Wyoming	0	8	8
Total	**433**	**2,780**	**3,213**

[a]Source: FAA Aircraft Registration Master File as of September 30, 1985. This information may be used as an indication of the number of public aircraft in the United States. However, as illustrated by our work in Alaska, there are some inaccuracies in the FAA list and therefore in this tabulation.

(341095)

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