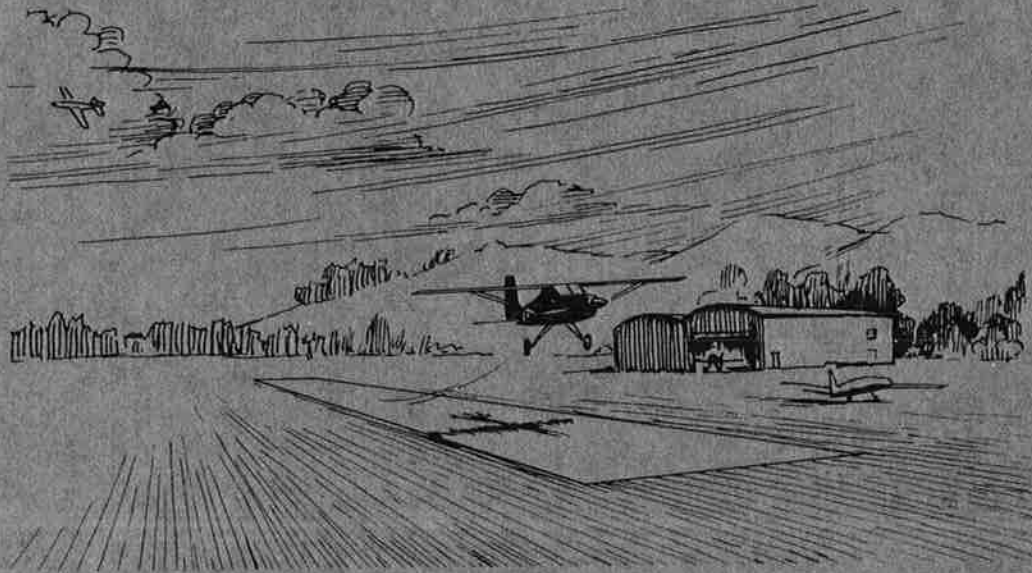


DOT-TSC-FAA-80-6

REPORT NO. FAA-MS-80-5

1978 GENERAL AVIATION ACTIVITY AND AVIONICS SURVEY



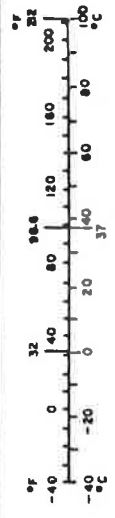
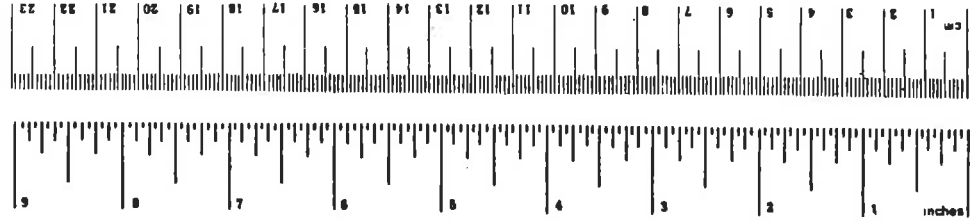
MARCH 1980
ANNUAL SUMMARY REPORT

U.S. DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
Office of Management Systems
Information and Statistics Division

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16. Abstract This report presents the results and a description of the 1978 General Aviation Activity and Avionics Survey. The survey was conducted during early 1979 by the FAA to obtain information on the activity and avionics of the United States registered general aviation aircraft fleet, the dominant component of civil aviation in the U.S. The survey was based on a statistically selected sample of about 13.3 percent of the general aviation fleet and obtained a response rate of 74 percent. Survey results are based upon responses but are expanded upward to represent the total population. Survey results revealed that during 1978 an estimated 39.4 million hours of flying time were logged by the 198,778 active general aviation aircraft in the U.S. fleet, yielding a mean annual flight time per aircraft of 197.7 hours. The active aircraft represented 85 percent of the registered general aviation fleet. The report contains breakdowns of these and other statistics by manufacturer/model group, aircraft type, state and region of based aircraft, and primary use. Also included are fuel consumption, lifetime airframe hours, avionics, and engine hours estimates.					
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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures				Approximate Conversions from Metric Measures			
Symbol	When You Know	Multiply by	To Find	Symbol	When You Know	Multiply by	To Find
LENGTH							
in	inches	2.5	centimeters	mm	millimeters	0.04	inches
ft	feet	30	centimeters	cm	centimeters	0.4	inches
yd	yards	0.9	meters	m	meters	3.3	feet
mi	miles	1.6	kilometers	km	kilometers	0.6	miles
AREA							
in ²	square inches	6.5	square centimeters	cm ²	square centimeters	0.16	square inches
ft ²	square feet	0.09	square meters	m ²	square meters	1.2	square yards
yd ²	square yards	0.8	square meters	ha ²	hectares (10,000 m ²)	0.4	square miles
mi ²	square miles	2.6	square kilometers	ha	hectares	2.5	acres
MASS (weight)							
oz	ounces	28	grams	g	grams	0.035	ounces
lb	pounds (2000 lb)	0.45	kilograms	kg	kilograms	2.2	pounds
		0.9	tonnes	t	tonnes (1000 kg)	1.1	short tons
VOLUME							
teaspoon	teaspoons	5	milliliters	ml	milliliters	0.03	fluid ounces
Tablespoon	tablespoons	15	milliliters	ml	milliliters	2.1	pints
fl oz	fluid ounces	30	milliliters	ml	milliliters	1.06	quarts
c	cup	0.24	liters	l	liters	0.26	gallons
pt	pint	0.47	liters	m ³	cubic meters	35	cubic feet
qt	quart	0.95	liters	m ³	cubic meters	1.3	cubic yards
gal	gallon	3.8	liters	m ³	cubic meters		
cu ft	cubic feet	0.03	cubic meters				
cu yd	cubic yards	0.76	cubic meters				
TEMPERATURE (exact)							
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature



PREFACE

This report presents the 1978 General Aviation Activity and Avionics Survey results compiled at the Transportation Systems Center (TSC) by the Statistical Design and Analysis Branch under Project Plan Agreement FA-043 sponsored by the Federal Aviation Administration (FAA), Office of Management Systems, Information and Statistics Division. The survey is the continuation of an FAA data collection program to gain information on the activities and avionics equipment of the general aviation aircraft fleet. The results represent the cumulative effort of several agencies within the Department of Transportation. TSC developed the survey method, sample design, and computer system for sample selection, data editing, and estimation of results. They also ran the system during survey production. Within the FAA, the Information and Statistics Division sponsored and coordinated the activities associated with the survey, the Data Systems Management Division was responsible for printing names, addresses and aircraft information on the questionnaires, and the Mike Monroney Aeronautical Center provided data tapes, conducted the telephone follow-up survey, and transferred the survey responses to machine readable forms.

The author would like to acknowledge contributions to this report by Carolyn Edwards and Nicholas Soldo, AMS-220, who guided the project as sponsors and reviewed the report text. Thomas Cramer of Systems Development Corporation designed and programmed the entire computer system for the survey, and performed the production runs to produce the estimates printed in this report. He was assisted on several of the final report programs by James Guarente, Fred Doten, and Sidney Shapiro, also of SDC.

Distribution: ZMS-348D.

EXECUTIVE SUMMARY

This report presents the results of the second General Aviation Activity and Avionics Survey, conducted in 1979 by the Federal Aviation Administration to obtain information on the activities and avionics of the 1978 general aviation aircraft fleet, the major component of civil aviation in the United States. The FAA selected a statistically designed sample of about 13.3 percent of the registered general aviation fleet to participate in the survey. The sampled aircraft represented all states and FAA regions, and all of the major manufacturer/model groups of aircraft. The survey was conducted through a mailed questionnaire, with a telephone follow-up survey of a sample of non-respondents, yielding in total a response rate of 74 percent.

Some important survey findings appear below:

- o An estimated 39.4 million hours of flying time were logged by the 198,778 active general aviation aircraft in the U.S. fleet during 1978. These aircraft had a mean annual flight time per aircraft of 197.7 hours and represented 85 percent of the registered general aviation fleet.
- o Turboprop aircraft flew over 510 hours per aircraft during 1978, more than any other aircraft type. Moreover twin engine turboprops with thirteen or more seats flew more than 1000 hours per aircraft. In contrast, single engine piston powered aircraft averaged fewer than 175 hours per aircraft during the year.
- o The most common primary use of a general aviation aircraft was personal for an estimated 48 percent of the active fleet, followed by business for 22 percent of the fleet, and instructional for 7 percent of the fleet.
- o The most populous region in terms of based aircraft was the Great Lakes Region, housing an estimated 17 percent of all registered general aviation aircraft, followed closely by the Western Region with 16 percent. The most populous state was California, housing 13 percent of the registered aircraft.
- o Over 80 percent of the general aviation aircraft had two-way VHF communication equipment, over 50 percent were equipped with 4096-code transponders, over 50 percent had at least one component of an instrument landing system, and over 75 percent had some form of navigation equipment.
- o An estimated 37 percent of the active general aviation fleet flew by instrument flight rules (IFR) at some time during 1978.

- o The general aviation aircraft fleet consumed an estimated 1,281 million gallons of fuel during 1978, 518 million gallons of aviation gasoline and 763 million gallons of jet fuel.

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1. INTRODUCTION

1.1 GENERAL

1.1.1 Purpose of Survey

The purpose of the General Aviation Activity and Avionics Survey is to provide the Federal Aviation Administration (FAA) with information on the activity and avionics of the general aviation fleet. Figure 1.1 underscores the importance of general aviation to the United States civil air fleet. During calendar year 1978 general aviation composed almost 99 percent of the U.S. civil air fleet¹, accounted for over 84 percent of civil operations at FAA towered airports², and logged close to 85 percent of the total hours flown by the U.S. civil air fleet³. The information obtained from the survey enables the FAA to monitor the general aviation fleet so that it can, among other activities, anticipate and meet demand for National Airspace System facilities and services, assess the impact of regulatory changes on the general aviation fleet, and implement measures to assure the safe operation in the airspace of all aircraft.

1.1.2 Background

Prior to the current survey method, the FAA used the Aircraft Registration Eligibility, Identification, and Activity Report, AC Form 8050-73 in its data collection program on general aviation activity and avionics. The form, sent annually to all owners of civil aircraft in the U.S., served two purposes: (1) Part 1 was the mandatory aircraft registration renewal form; (2) Part 2 was voluntary and applied to general aviation aircraft only, asking questions on the owner-discretionary characteristics of the aircraft such as flight hours, avionics equipment, base location, and use. In 1978, the FAA replaced AC Form 8050-73 with a new system:

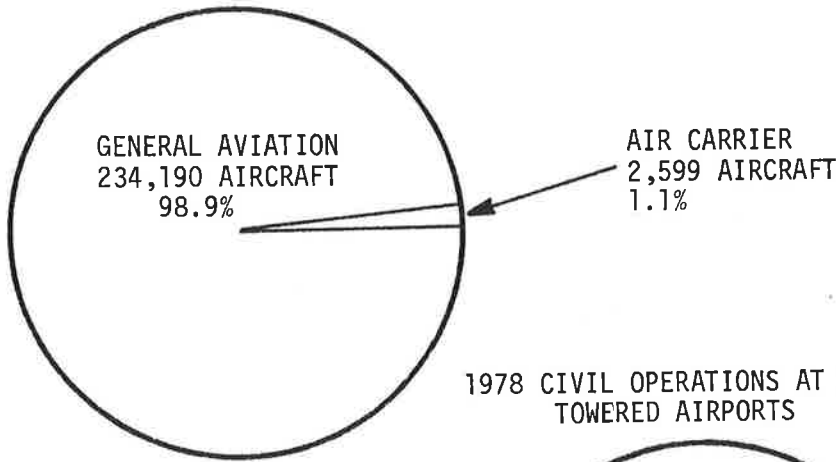
¹Census of U.S. Civil Aircraft, Calendar Year 1978, U.S. Department of Transportation, Federal Aviation Administration, (Washington DC, 1979), p.3.

²FAA Air Traffic Activity, Calendar Year 1978, U.S. Department of Transportation, Federal Aviation Administration, (Washington DC, 1979), p. 2.

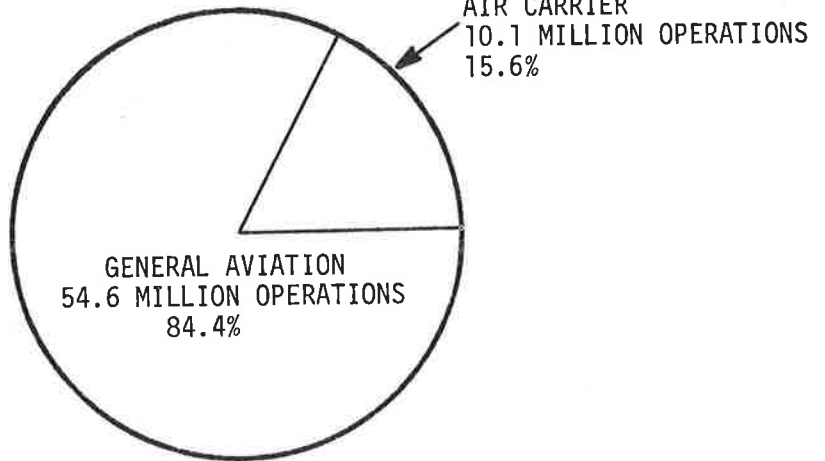
Note: General aviation as used in this report combines both general aviation and air taxi from the source above.

³Air Carrier: Census of U.S. Civil Aircraft Calendar Year 1978, U.S. Department of Transportation, Federal Aviation Administration, (Washington DC, 1979), p. 23. General Aviation: Table 2-1.

1978 U.S. CIVIL AIR FLEET



1978 CIVIL OPERATIONS AT FAA TOWERED AIRPORTS



1978 FLYING TIME

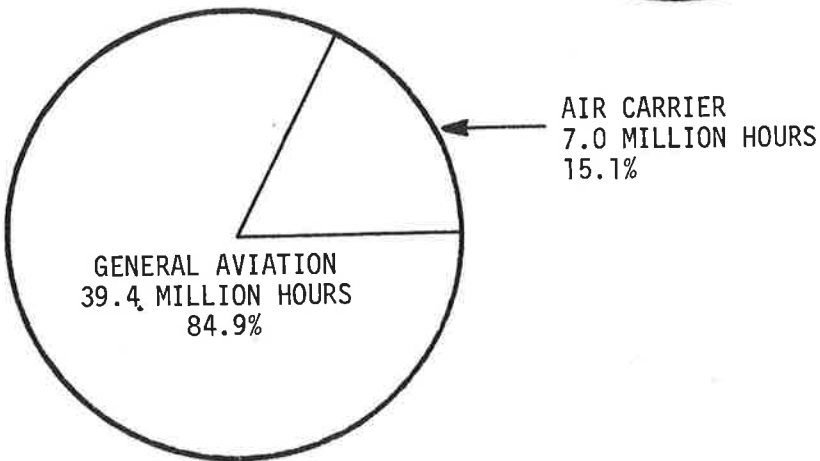


FIGURE 1.1 A CONTRAST OF GENERAL AVIATION AND AIR CARRIER ACTIVITY IN 1978

Part 1 was replaced by a triennial registration program; Part 2 was replaced by the General Aviation Activity and Avionics Survey, FAA Form 1800-54. (See Appendix A3.) The survey was to be conducted annually based on a statistically selected sample of general aviation aircraft, requesting the same type of information as Part 2 of AC Form 8050-73. The first General Aviation Activity and Avionics Survey took place in 1978, collecting data on the 1977 general aviation aircraft fleet. The 1978 statistics in this report were derived from the second survey which took place in 1979. Benefits resulting from the new method of data collection included quicker processing of the results, improved data quality, and a considerable savings in time and money to both the public and the Federal Government. Specifically, the public reporting burden was reduced by an estimated 13,000 hours annually, and the cost savings to the public and Government were estimated to be one million dollars annually.

1.2 SURVEY COVERAGE

1.2.1 Aircraft

The General Aviation Activity and Avionics Survey covers, through a stratified probability sample, all general aviation aircraft registered in the United States. The term "general aviation", as used for this survey, is defined as all aircraft in the U.S. civil air fleet except those operated under Federal Aviation Regulations Parts 121 and 127. These two parts cover the operations of fixed wing aircraft and rotorcraft, respectively, that 1) have been issued a certificate of public convenience and necessity by the Civil Aeronautics Board authorizing the performance of scheduled air transportation over specified routes and a limited amount of non-scheduled operations, and 2) are used by large aircraft commercial operators. General aviation thus includes aircraft operated under:

- Part 91: General operating and flight rules.
- Part 123: Certification and operations: air travel clubs using large airplanes.
- Part 133: Rotorcraft external load operations.
- Part 135: Air taxi operators and commercial operators of small aircraft.
- Part 137: Agricultural aircraft operations.

General aviation offers such varied services as air taxi, air cargo, industrial, agricultural, business, personal, instructional, research, patrol, and sport flying. General aviation aircraft range in complexity from simple gliders and balloons to four engine turbojets.

Certain aircraft meeting the general aviation criteria have been excluded from the survey. This group consists of aircraft registered to dealers, aircraft in the process of being sold or with registration pending, and aircraft for which not enough information was available to categorize them properly for sampling purposes.

1.2.2 Geographic

The sample survey covers general aviation aircraft registered with the United States Aircraft Registry as of December 31, 1978. Over 99 percent of these aircraft are registered to owners living in the 50 states and Washington DC, with about 0.2 percent (583 aircraft) registered in Puerto Rico and other U.S. Territories, and 0.2 percent (449 aircraft) registered to owners living in foreign countries.¹

1.2.3 Content

Appendix A3 contains a copy of the survey questionnaire, FAA Form 1800-54. The questionnaire requests the owner to provide information on the sampled aircraft's characteristics and uses for various time periods:

- 1) Hours by use, IFR hours, and fuel consumption for entire calendar year 1978,
- 2) Airframe hour reading and location of aircraft base as of December 31, 1978, and
- 3) Avionics equipment currently on board.

1.3 SAMPLE DESIGN

1.3.1 Sample Frame and Size

The Aircraft Registration Master File, maintained by the FAA Mike Monroney Aeronautical Center in Oklahoma City, provided the sample frame, the list of aircraft from which the sample was selected, for the survey. This file is the official record of registered civil aircraft in the U.S., containing one record per aircraft.

Between the 1977 and 1978 survey cycles several changes occurred to this file which had an impact on the sample population and frame, and ultimately on the survey results. In January, 1978, FAA implemented a new procedure for maintaining the file, known as triennial revalidation. Instead of requiring all owners to

¹Source: FAA Aircraft Registration Master File as of December 31, 1978.

revalidate and update their aircraft registration annually, FAA required revalidation for only those owners who had not contacted the registry for three years. The less frequent updating affected the accuracy of the file and its representativeness. Two major consequences for the survey results are discussed below:

- 1) The accuracy of owners' names and addresses deteriorated causing the number of questionnaires returned by the post office to double from 1977 to 1978. This partially accounted for a lower survey response rate in 1978.
- 2) The file contained a residue of aircraft which under the old revalidation system would have been deregistered and purged from the file, but remained under the new system. Consequently, the population counts were inflated resulting in artificially large increases in the estimates of the number of active general aviation aircraft from 1977 to 1978.

Also during this period the entire Aircraft Registration System was installed on a new computer system. At the same time FAA modified many of the updating and processing procedures. It is quite possible that these changes affected the registration file, although it is not known in what way.

Finally, new legislation required two categories of aircraft, formerly ineligible, to be registered with the U.S. Registry, namely:

- 1) aircraft owned by individual citizens of foreign countries who are permanent residents of the U.S., and
- 2) aircraft owned by non-U.S. corporations which are organized and doing business under U.S. law as long as the aircraft are based and used primarily in the U.S.

The definition of a registered general aviation aircraft changed from 1977 to 1978 to include the two new groups. It is estimated that these aircraft comprise less than one half percent of the general aviation fleet.

Thus these changes discussed above affected the contents of the Aircraft Registration Master File and consequently the survey results. While it is difficult to quantify the effects of the changes, FAA estimates that they caused the survey results to overestimate population and hours flown by not more than five percent.

All aircraft identified as general aviation in the file according to the definition in Section 1.2.1 comprise the sample frame with the following exceptions:

- 1) Aircraft registered to dealers.
- 2) Aircraft with "Sale Reported" or "Registration Pending" appearing in the record instead of the owner's name.

- 3) Aircraft with a known inaccurate owner's address.
- 4) Aircraft with missing state of registration, aircraft make-model-series code, or aircraft type information.

For calendar year 1978, the sample frame consisted of 233,952 general aviation aircraft records from which 31,208 records were sampled, yielding a 13.3 percent sample. Table 1-1 and Figure 1.2 show the distribution of the sample compared to that of the population by aircraft type. Table 1-2 and Figure 1.3 show similar distributions by FAA region. (See Appendix B for the FAA regional map.) These displays clearly demonstrate the disproportionality of the sample to the population, an intended result of the sample design to gain efficiency and to control errors.

1.3.2 Description of Sample Design

The sample design employed was a stratified, systematic design from a random start. The sample was selected from a two-way stratified frame matrix. The two stratification criteria were:

- 1) State or territory of aircraft registration.
- 2) A variable called make-model index constructed from the thirteen aircraft types and the 300+ aircraft manufacturer/model groups of 20 or more general aviation aircraft as defined by the FAA's Service Difficulty Reporting (SDR) Program. (See Appendix C for the names and definitions of these groups.)

The 54 levels of the state criterion and the 327 levels of the make-model index yielded a matrix of 54 by 327, or 17,658 cells (strata) among which the frame was divided for sampling.

The FAA's primary requirement was for estimates of mean annual flight hours per aircraft, necessitating optimal determination of sample sizes based on flight hour variation within the cells, and not on cell size. Hence, the sample was not proportional to cell size, and a sampling fraction was determined for each cell with a non-zero population. Sampling was then performed systematically from a random start within individual cells.

Initially, each aircraft in the sample was given a weight which was the inverse of its cell's sampling fraction, and which corresponded to the number of aircraft in the sample frame represented by that aircraft. When all responses to the survey were tallied, each weight was adjusted in two ways: one, according to the response rate for the aircraft's make-model index, and the other according to the response rate for the aircraft's state of registration, counting an aircraft for which no survey questions were answered as a non-respondent and an aircraft for which at least one question was answered as a respondent. The make-model

TABLE 1-1 SAMPLE AND POPULATION DISTRIBUTIONS BY AIRCRAFT TYPE

TYPE	POPULATION	SAMPLE SIZE	SAMPLE AS % OF POPULATION
Fixed Wing			
Piston			
1 engine, 1-3 seats	80,293	12,361	15.4
1 engine, 4+ seats	108,648	7,985	7.3
2 engines, 1-6 seats	17,089	2,247	13.1
2 engines, 7+ seats	8,571	1,784	20.8
Other Piston	379	301	79.4
Turboprop			
2 engines, 1-12 seats	2,597	389	15.0
2 engines, 13+ seats	597	207	34.7
Other Turboprop	107	98	91.6
Turbojet			
2 engines	2,180	536	24.6
Other Turbojet	633	356	56.2
Rotorcraft			
Piston	5,027	2,165	43.1
Turbine	2,654	579	21.8
Other	5,177	2,200	42.5
TOTAL	233,952	31,208	13.3

TABLE 1-2 SAMPLE AND POPULATION DISTRIBUTIONS BY REGION OF REGISTERED AIRCRAFT

REGION	APPROXIMATE POPULATION	SAMPLE SIZE	SAMPLE AS % OF POPULATION
Alaskan	6,602	827	12.5
Central	16,642	2,552	15.3
Eastern	24,012	4,653	19.4
European (Foreign)	448	175	39.1
Great Lakes	41,294	3,760	9.1
New England	8,239	2,842	34.5
Northwestern	15,955	2,501	15.7
Pacific	607	601	99.0
Rocky Mountain	13,343	3,239	24.3
Southern	37,330	4,997	13.4
Southwestern	31,916	2,521	7.9
Western	37,564	2,540	6.8
TOTAL	233,952	31,208	13.3

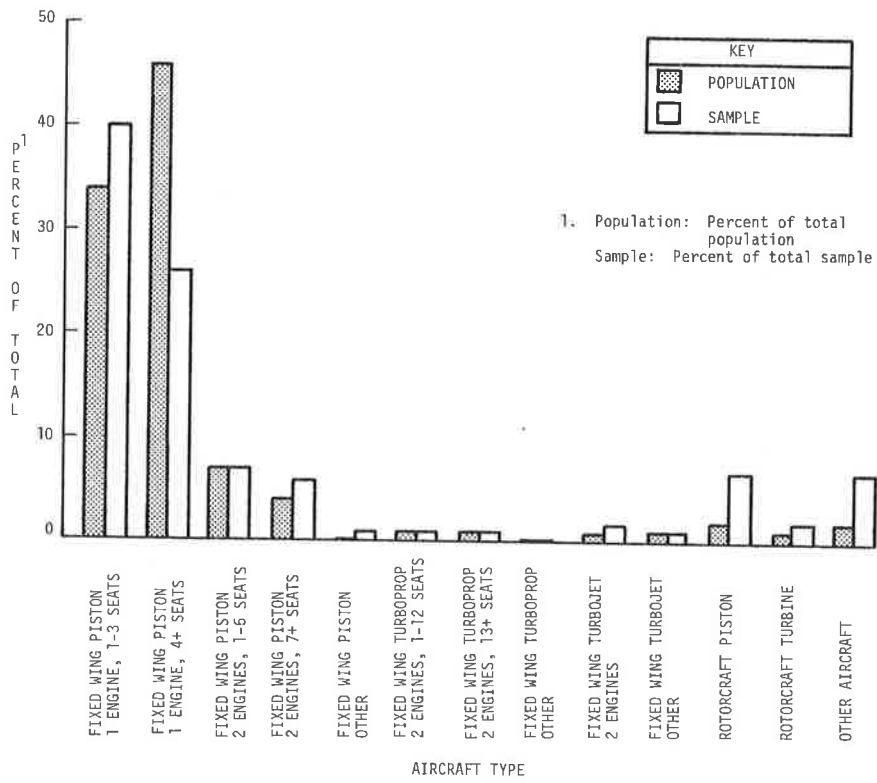


FIGURE 1.2 COMPARISON OF POPULATION AND SAMPLE DISTRIBUTIONS BY AIRCRAFT TYPE

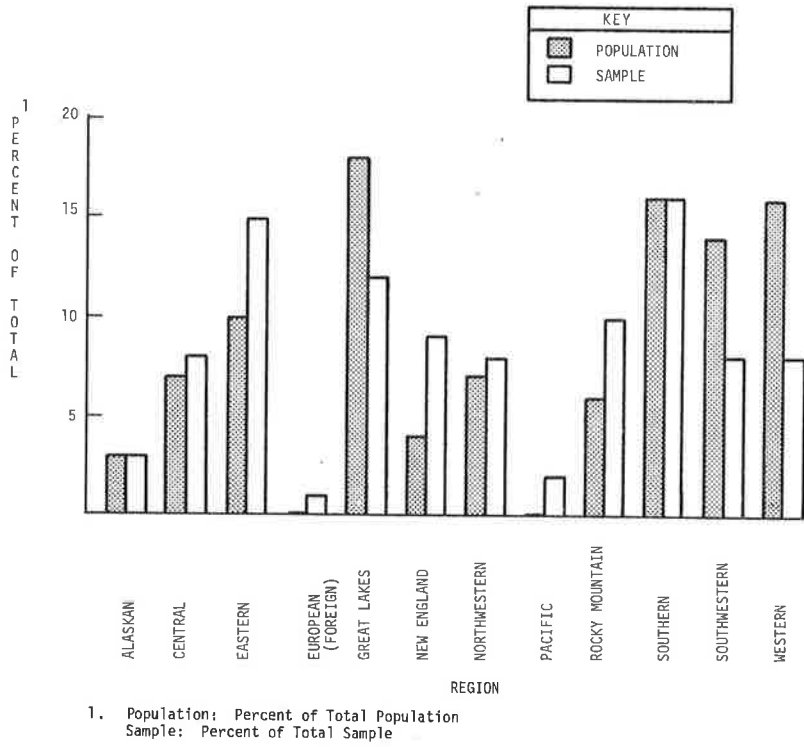


FIGURE 1.3 COMPARISON OF POPULATION AND SAMPLE DISTRIBUTIONS BY REGION OF REGISTERED AIRCRAFT

index adjustment is described below; the state adjustment is analogous.

- 1) Non-respondents' weights were changed to zero.
- 2) The weights of all responding aircraft in make-model indices where there were fewer than five telephone follow-up contacts were adjusted uniformly by dividing the initial weight by the response rate.
- 3) In make-model indices where there were five or more telephone follow-up contacts, the weights of the mail respondents remained unchanged, and the weights of the telephone respondents were increased by dividing their initial weights by the proportion of non-respondents contacted by telephone.

This method of weight adjustment has several attributes. It actually incorporates the response rates into the final weights and simplifies estimation procedures. In addition, 3) above removes non-response bias from the affected make-model indices and states of registration by weighting the telephone sample of mail non-respondents to adjust for the remaining non-respondents. When calculating final estimates, the state weights are used for all state and regional estimates, the make-model index weights for all other estimates.

1.3.3 Error

Errors associated with estimates derived from sample survey results fall into two categories: sampling and non-sampling errors.¹ Sampling errors occur because the estimates are based on a sample -- not the entire population. Non-sampling errors arise from a number of sources such as non-response, inability or unwillingness of respondents to provide correct information, differences in interpretation of questions, mistakes in recording or coding the data obtained, and others. The following sections discuss the two types of errors.

1.3.3.1 Sampling Error - In a designed survey, the sampling error associated with an estimate is generally unknown, but a measurable quantity known as the standard error is often used as a guide to the magnitude of sampling error. The standard error measures the variation which would occur among the estimates from all possible samples of the same design from the same population. It thus

¹ Standards for Discussion and Presentation of Errors in Data, U.S. Department of Commerce, Bureau of the Census, (Washington DC, 1974), pp. 11-14.

measures the precision with which an estimate approximates the average result of all possible samples or the result of a survey in which all elements of the population were sampled.

Through sample design techniques, the statistician can control the sizes of standard errors on a few key variables, known as design variables, in the survey. In the General Aviation Activity and Avionics Survey, the design variables were the mean annual hours flown per aircraft by aircraft type, by aircraft manufacturer/model group, and by state of aircraft registration. The sample was designed to produce standard errors on these variables at levels specified by the FAA. No controls were placed on the standard errors of the non-design variables.

Thus every estimate resulting from a sample survey, whether it be for a design or non-design variable, has sampling error associated with it. The user of survey results must consider this error along with the point estimate itself when making inferences or drawing conclusions about the sample population. A large standard error relative to an estimate indicates lack of precision and, inversely, a small standard error indicates precision. To facilitate the comparison of estimates and their errors, the tables in Section 2 of this publication display standard errors for all estimated quantities. In some cases, the tables contain the percent standard error, which is the standard error divided by the corresponding estimate. The paragraphs below explain the proper interpretation and use of the errors.

An estimate and its standard error make it possible to construct an interval estimate with prescribed confidence that the interval will include the average value of the estimate from all possible samples of the population. Table 1-3 below shows selected interval widths and their corresponding confidence.

TABLE 1-3 CONFIDENCE OF INTERVAL ESTIMATES

WIDTH OF INTERVAL	APPROXIMATE CONFIDENCE THAT INTERVAL INCLUDES AVERAGE VALUE
1 Standard error	68%
2 Standard errors	95%
3 Standard errors	99%

As an example, from Table 2-6 a 95 percent confidence interval for the number of active rotorcraft with piston engines would be $2822 \pm 2(115)$ or (2592, 3052). One would say that the number of active rotorcraft with piston engines lies somewhere between 2592 and 3052 with 95 percent confidence.

1.3.3.2 Non-Sampling Error - Non-sampling error can be reduced through survey design, although the amount of reduction is difficult, if not impossible, to quantify in any given design. Nevertheless, through controlled experiments, various techniques have been identified which limit non-sampling error. Several of these techniques were incorporated into the design of the general aviation survey and are itemized below:

- o The second mailing and telephone survey of a sample of non-respondents were conducted in addition to the original mailing to improve the response rate, since a low response rate is a major cause of non-sampling error. 74 percent of those aircraft sampled responded to at least one question of the survey. While acceptable, this rate nevertheless represents a decrease in response from 1977 when the survey achieved an 80 percent response rate. Possible causes of the decrease include:
 - 1) The deterioration of aircraft owners' names and addresses in the Aircraft Registration Master File, the sample frame. This increased the number of questionnaires returned undelivered by the postmaster from around 500 in 1977 to over 1000 in 1978, hence decreasing the response rate.
 - 2) The inadvertent omission of the postpaid return envelopes from the materials sent out in the first mailing. Although the envelopes were mailed to the owners in a separate mailing and were included in the second mailing of the survey, it is likely the omission had some adverse effect on the response rate.
 - 3) Repeated sampling of aircraft in both 1977 and 1978. Due to the design of the sample to achieve specified precision in estimates for states and manufacturer/model groups of aircraft, it is impossible to avoid sampling some of the same aircraft in consecutive years. Owners of such aircraft may have been less willing to respond in 1978 than in 1977.

While the second cause above was peculiar to the 1978 survey, the first and third causes reflect situations which will not improve. An 80 percent response rate may thus be an unreasonable expectation for future surveys.

Tables 1-4 and 1-5 show the response rates broken down by FAA region and aircraft type, respectively. The lowest response rate for any region was 48 percent for the European (Foreign) Region due to mail delivery and telephone contact difficulties. The Pacific and Alaskan Regions rates were low at 62 percent for similar reasons. These three regions together, however, represented only about 3 percent of the active U.S. general aviation fleet. Twin engine fixed wing piston aircraft with 7 or more

TABLE 1-4 RESPONSE RATES BY REGION

Region	Response Rate (%)	Region	Response Rate (%)
Alaskan	62	Pacific	62
Central	76	Rocky Mountain	75
Eastern	76	Southern	72
European (Foreign)	48	Southwestern	74
Great Lakes	78	Western	74
New England	77		
Northwestern	74	TOTAL	74

TABLE 1-5 RESPONSE RATES BY AIRCRAFT TYPE

Aircraft Type	Response Rate	Aircraft Type	Response Rate
Fixed Wing			
Piston		Turbojet	
1 engine, 1-3 seats	76	2 engines	75
1 engine, 4+ seats	74	Other	74
2 engines, 1-6 seats	72		
2 engines, 7+ seats	63		
Other	72		
Turboprop		Rotorcraft	
2 engines, 1-12 seats	74	Piston	75
2 engines, 13+ seats	74	Turbine	80
Other	76	Other	74
		TOTAL	74

seats had the lowest response rate at 63 percent of any of the aircraft types, but these aircraft represented less than 4 percent of the fleet.

- o The telephone sample of mail non-respondents also helped to minimize bias in results caused by differences in attributes between respondents and non-respondents.
- o The survey questionnaire was designed and tested to minimize misinterpretation of questions by the aircraft owners.
- o To assure the owners of the confidentiality of their responses, the questionnaire cover letter informed them that the intended use of the responses was "only to produce summary statistics and not to disclose individual operations nor to make changes to your aircraft records."¹
- o Comprehensive editing procedures insured the accuracy of the data transcription to machine readable form and the internal consistency of responses.
- o The official and most accurate source of information available on the general aviation fleet, the FAA Aircraft Registration Master File, was used as the sampling frame.

1.4 SURVEY METHOD

The main method of collecting data for this survey was the mail questionnaire, sent to the owners of the sampled aircraft in two mailings. The first mailing on March 8, 1979, covered all 31,208 aircraft in the sample and had a response rate of 56 percent as shown in Table 1-6 below. This was about 76 percent of the total responses to the survey. The second mailing conducted on April 9, 1979, included only those aircraft in the sample that had not yet responded. The second mailing had a response rate of 35 percent which accounted for 21 percent of the total responses to the survey. The combined response rate for the two mailings was 72 percent of the sample.

A telephone follow-up survey was conducted during June and early July using the same questions appearing in the mail survey. A sample of the mail non-respondents was selected for the telephone survey weighing most heavily those states and make-model groups in the sampling strata that had the lowest mail response rates. Of a total telephone sample of 3076 aircraft, only 790, or 26 percent, responses could be obtained due to difficulty in

¹See Appendix A1.

obtaining telephone numbers, finding owners at home, and obtaining cooperation of owners over the telephone. Nevertheless, the 790 telephone responses contributed the remaining three percent of the responses and increased the overall response rate of the survey to 74 percent.

TABLE 1-6 SUMMARY OF RESPONSE INFORMATION BY SURVEY PHASE

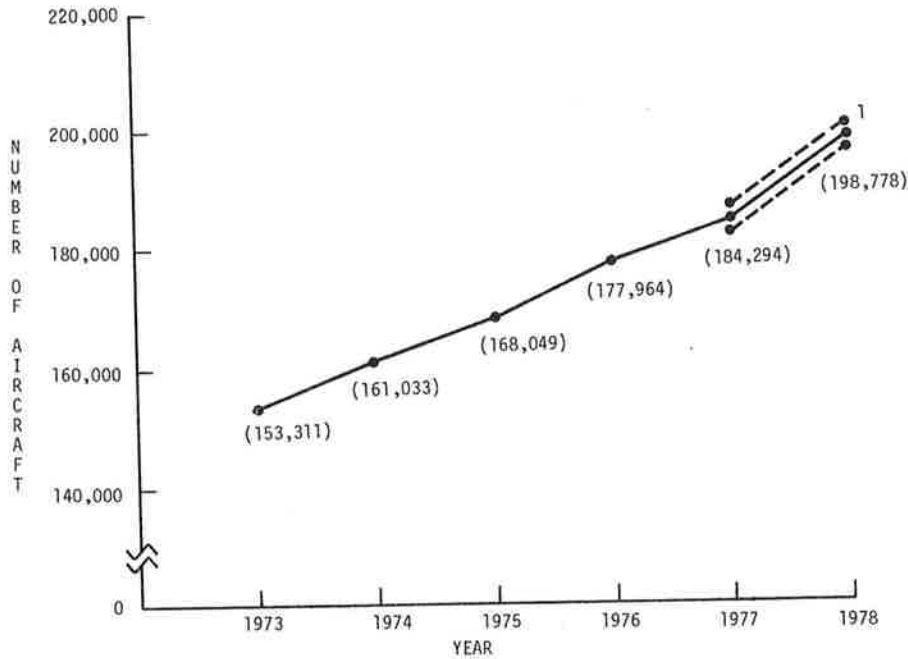
SURVEY PHASE	SAMPLE SIZE (S)	NUMBER OF RESPONSES (R)	RESPONSE RATE (R/S X 100%)	PORTION OF TOTAL RESPONSE [(R/TOTAL R) X 100%]
FIRST MAILING	31,208	17,620	56%	76%
SECOND MAILING	13,588	4,766	35%	21%
COMBINED MAILINGS	31,208	22,386	72%	97%
TELEPHONE SURVEY	3,076	790	26%	3%
TOTAL	31,208	23,176	74%	100%

1.5 SUMMARY OF SURVEY RESULTS¹

1.5.1 National Scene

Results of the General Aviation Activity and Avionics Survey at the national level revealed that during 1978 an estimated 39.4 million hours of flying time were logged by the 198,778 active general aviation aircraft in the U.S. fleet, yielding a mean annual flight time per aircraft of 197.7 hours. These active aircraft comprised 85 percent of the registered general aviation fleet. The statistics for 1978 showed a 10.1 percent increase in flying hours, a 7.9 percent increase in the number of active aircraft in the general aviation fleet, and a 1.8 percent increase in mean hours per aircraft over the comparable figures for 1977. Longer term trends for these variables are found in Figures 1.4, 1.5, and 1.6. From 1973 to 1978 both the active fleet and the total hours flown exhibited growth trends which increased at approximately the same rates, but mean hours per aircraft showed more year-to-year variation. As the quotient of total hours divided by active fleet size, mean hours are sensitive to small differences between the growth rates of total hours and fleet size. Consequently, mean hours dip from about 195 hours per aircraft in 1973 and 1974 to about 191 hours per aircraft in 1975 and 1976, then climb to a level of about 194 hours per aircraft in 1977 and about 198 hours in 1978.

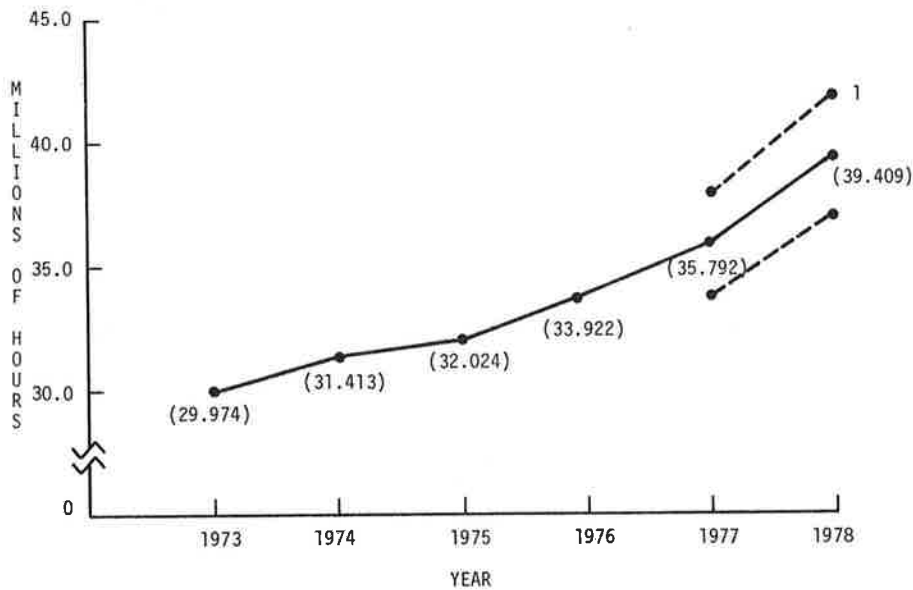
¹See Section 1.3.1 for a discussion of effects of changes in the sample frame on the survey results.



1. The dotted lines represent a 95% confidence interval for the 1977 and 1978 true values. See Section 1.3.3.1.

Source: Table 1-8

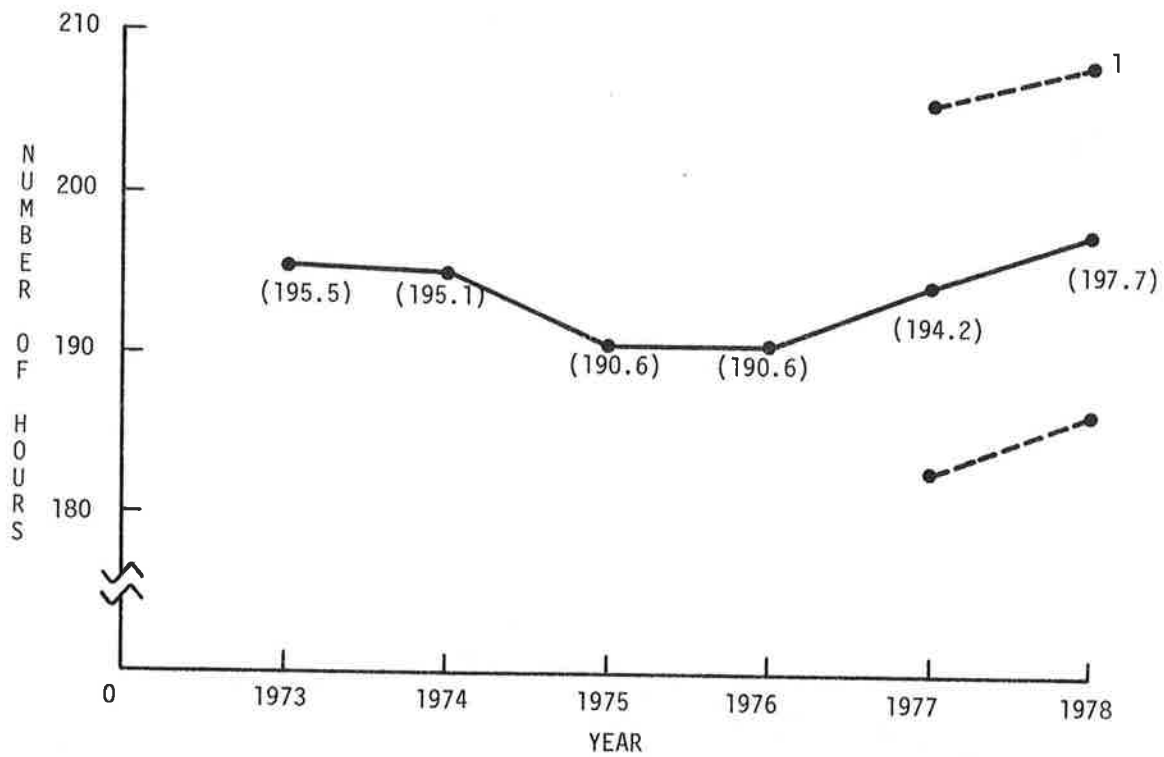
FIGURE 1.4 GENERAL AVIATION ACTIVE FLEET SIZE 1973 - 1978



1. The dotted lines represent a 95% confidence interval for the 1977 and 1978 true values. See Section 1.3.3.1.

Source: Table 1-7

FIGURE 1.5 GENERAL AVIATION TOTAL FLYING TIME 1973 - 1978



1. The dotted lines represent a 95% confidence interval for the 1977 and 1978 true values. See Section 1.3.3.1.

FIGURE 1.6 MEAN ANNUAL FLYING TIME PER GENERAL AVIATION AIRCRAFT 1973 - 1978

1.5.2 Results by Aircraft Type

Although both the total flight time and the active aircraft count for the general aviation fleet grew at about the same annual rate (5.63 percent and 5.33 percent, respectively) from 1973 through 1978, significant deviations from these mean fleet rates occurred among the individual aircraft types. The following two tables illustrate this point. Tables 1-7 and 1-8 contain the five-year trends in growth for total hours flown and active aircraft, respectively. The last column in both tables is the compound annual growth rate for the aircraft type from 1973 to 1978. In Table 1-7 the fastest growth of any type in terms of total hours flown occurred to the turbine-powered rotorcraft with an average annual growth rate of 22.51 percent. They were followed by the turbojets, twin engine at 11.36 percent and "other" at 14.61, and twin engine turboprops with 1-12 seats at 10.91 percent. In con-

TABLE 1-7 GROWTH OF GENERAL AVIATION TOTAL HOURS FLOWN BY AIRCRAFT TYPE 1973 - 1978

AIRCRAFT TYPE	(THOUSANDS OF HOURS)						COMPOUND ANNUAL GROWTH RATE IN %
	1973 ¹	1974 ¹	1975 ¹	1976 ¹	1977 (Standard Error)	1978 ² (Standard Error)	
FIXED WING							
1-engine piston 1-3 seats	9,722	9,436	9,447	9,640	8,973 (629)	10,111 (570)	0.79
1-engine piston 4+ seats	12,025	12,994	13,467	14,688	15,944 (824)	17,746 (992)	8.09
2-engine piston 1-6 seats	3,243	3,367	3,374	3,220	3,630 (202)	3,644 (241)	2.36
2-engine piston 7+ seats	1,724	1,868	1,793	2,081	2,322 (102)	2,439 (189)	7.19
Other piston	84	95	84	84	96 (5)	104 (7)	4.36
2-engine turboprop 1-12 seats	572	663	787	785	892 (37)	960 (49)	10.91
2-engine turboprop 13+ seats	508	540	484	521	625 (60)	622 (63)	4.13
Other turboprop	37	42	36	20	32 (5)	24 (3)	-8.29
2-engine turbojet	595	690	755	844	1,043 (49)	1,019 (44)	11.36
Other turbojet	89	63	71	67	122 (11)	176 (30)	14.61
ROTORCRAFT							
Piston	654	729	686	753	609 (90)	806 (79)	4.27
Turbine	515	697	796	950	1,259 (93)	1,421 (135)	22.51
OTHER	207	227	244	270	245 (16)	338 (20)	10.30
TOTAL AIRCRAFT	29,974	31,413	32,024	33,922	35,792 (1,073)	39,409 (1,199)	5.63

¹FAA revised data as of December, 1978.

²See Section 1.3.1 for description of changes in the sample frame between 1977 and 1978.

trast, single engine piston airplanes with 1-3 seats experienced very little growth and "other" turboprops experienced a decline in usage during the period. In general, it was the activity of the larger, more sophisticated aircraft in the general aviation fleet that grew faster than the other components of the fleet. Similar results are shown in Table 1-8 for the active aircraft counts.

There was a great deal of variation in activity among the general aviation aircraft types in terms of three measures resulting from the survey: total hours flown, number of active aircraft, and mean hours flown. Figure 1.7 highlights the variation, as well as the relationship of these three measures to each other. Distance along the vertical axis indicates mean flight hours per aircraft, distance along the horizontal axis indicates the relative portion of the active fleet belonging to each aircraft type, and the area within each box is proportional to the total flying

TABLE 1-8 GROWTH OF ACTIVE GENERAL AVIATION FLEET BY AIRCRAFT TYPE 1973 - 1978

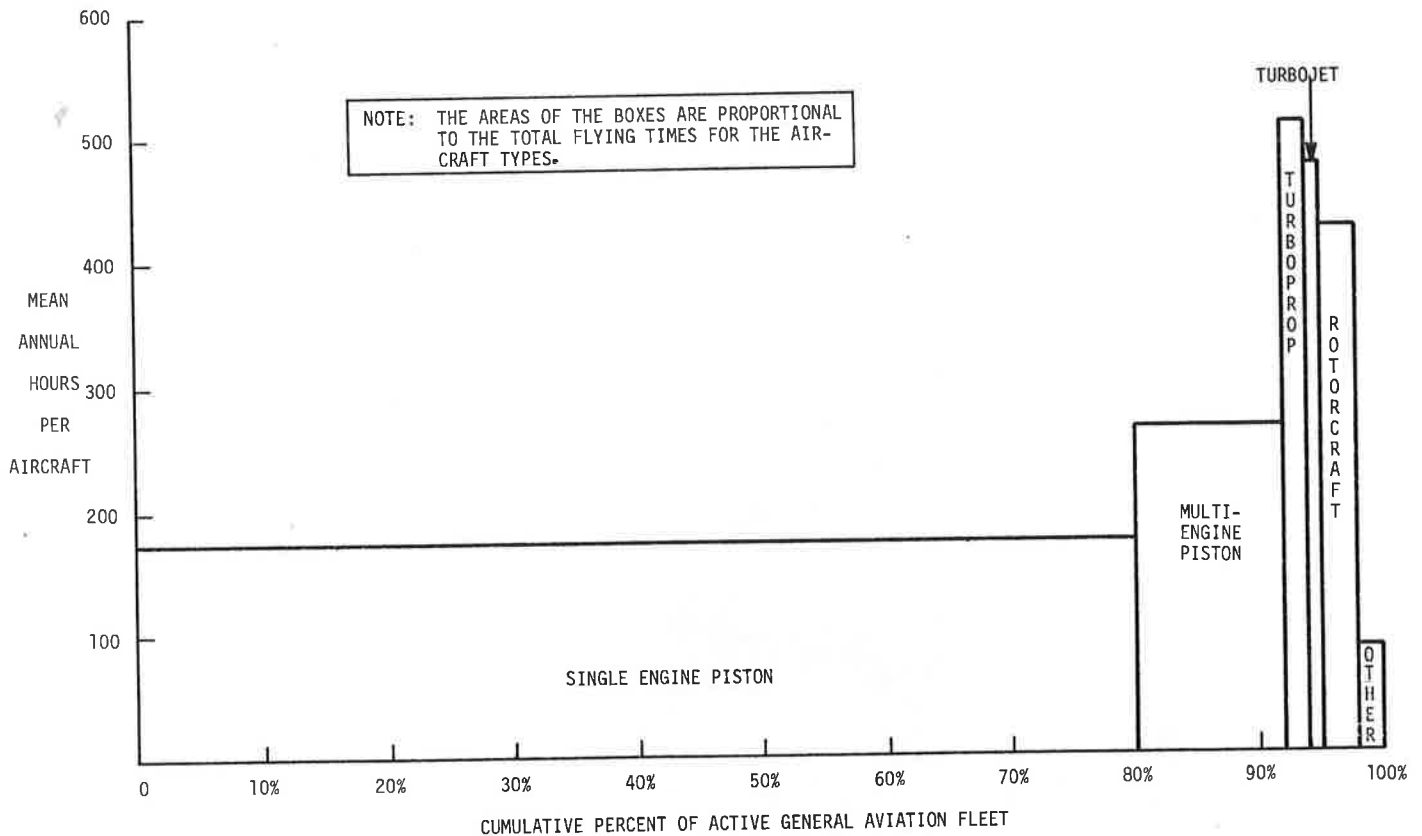
(NUMBER OF AIRCRAFT)							
AIRCRAFT TYPE	1973 ¹	1974 ¹	1975 ¹	1976 ¹	1977 (Standard Error)	1978 ² (Standard Error)	COMPOUND ANNUAL GROWTH RATE IN %
FIXED WING							
1-engine piston 1-3 seats	51,218	52,682	54,059	56,547	57,340 (851)	59,185 (860)	2.93
1-engine piston 4+ seats	74,856	78,830	82,580	88,205	91,960 (529)	101,466 (857)	6.27
2-engine piston 1-6 seats	13,454	14,182	14,663	14,617	15,074 (141)	15,621 (259)	3.03
2-engine piston 7+ seats	5,048	5,371	5,456	6,494	6,226 (86)	7,328 (202)	7.74
Other piston	190	190	178	196	182 (11)	221 (10)	3.07
2-engine turboprop 1-12 seats	1,268	1,465	1,928	1,889	2,276 (15)	2,507 (68)	14.61
2-engine turboprop 13+ seats	509	555	512	507	549 (13)	566 (10)	2.15
Other turboprop	72	75	64	57	64 (4)	56 (3)	-4.90
2-engine turbojet	1,196	1,385	1,547	1,692	1,959 (19)	2,115 (27)	12.08
Other turbojet	184	176	196	189	318 (10)	364 (34)	14.62
ROTORCRAFT							
Piston	2,122	2,315	2,498	2,701	2,658 (176)	2,822 (155)	5.87
Turbine	993	1,282	1,556	1,724	2,067 (27)	2,492 (30)	20.20
OTHER	2,201	2,525	2,812	3,146	3,616 (69)	4,028 (75)	12.85
TOTAL AIRCRAFT	153,311	161,033	168,049	177,964	184,294 (1,034)	198,778 (1,269)	5.33

¹FAA revised data as of December, 1978.

²See Section 1.3.1 for description of changes in sample frame between 1977 and 1978.

time for the aircraft type. Thus it is evident that in terms of sheer numbers, single engine piston aircraft dominated the active fleet and contributed the largest portion of total flying time, yet had one of the lowest mean flight times per aircraft. In contrast, the turboprops, turbojet aircraft, and rotorcraft had low representation in the active fleet but contributed a relatively high proportion of flight time resulting in the greatest mean flight hours of any of the major aircraft types.

The general aviation aircraft fleet consumed an estimated 1,281 million gallons of fuel during 1978, 518 million gallons of aviation gasoline and 763 million gallons of jet fuel. From Figure 1.8 it is evident that turbojet and turboprop engines consume fuel at much higher rates than piston engines. In fact, turbojets with more than 2 engines consume over 1200 gallons of jet fuel an hour on the average. The high rates account for turbojets' burning 41 percent of all fuel consumed in 1978, as shown in



Source: Table 2-1

FIGURE 1.7 1978 GENERAL AVIATION ACTIVITY MEASURES BY AIRCRAFT TYPE

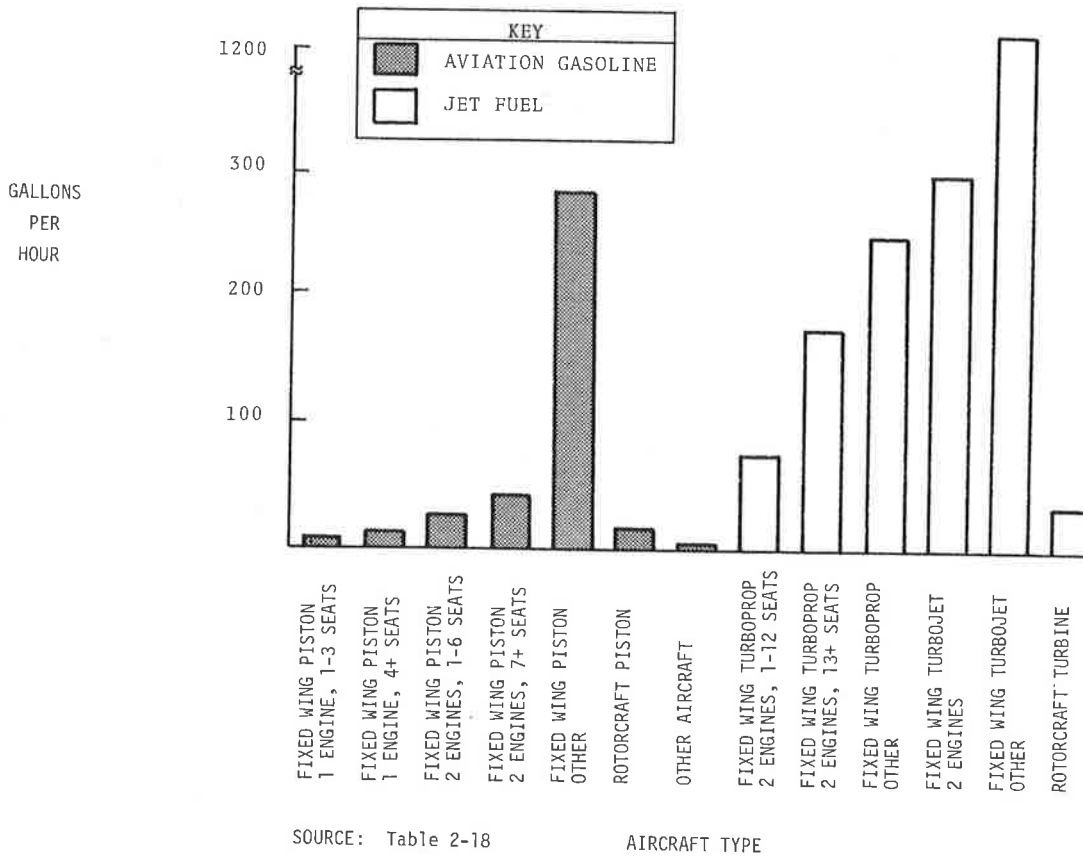


FIGURE 1.8 1978 MEAN FUEL CONSUMPTION RATES BY AIRCRAFT TYPE

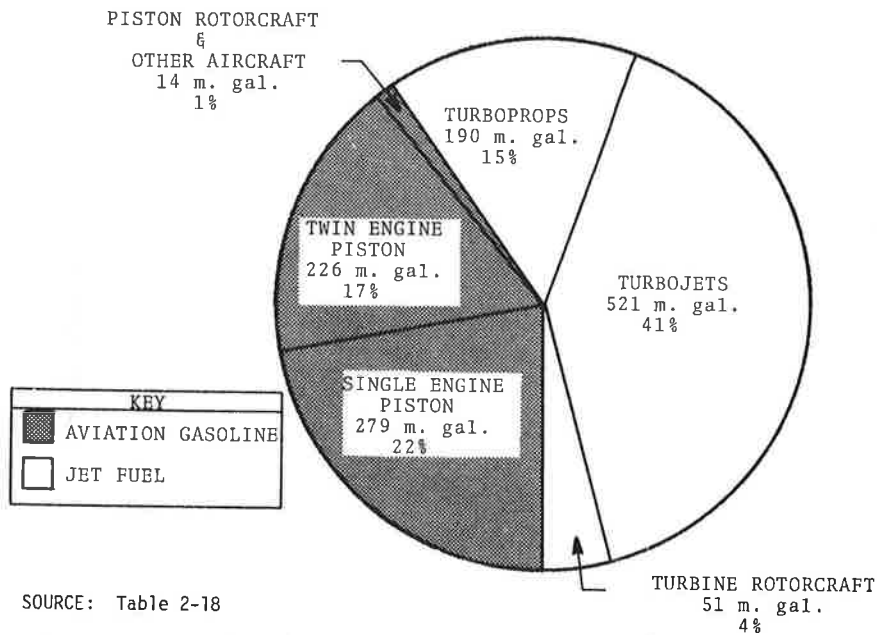


FIGURE 1.9 1978 ESTIMATED FUEL CONSUMPTION BY AIRCRAFT TYPE

Figure 1.9. Single and twin engine piston aircraft together account for 39 percent of the fuel consumed in 1978 due to their high representation in the general aviation fleet. Table 2-18 shows more detailed fuel consumption estimates and their standard errors.

1.5.3. Results by Primary Use

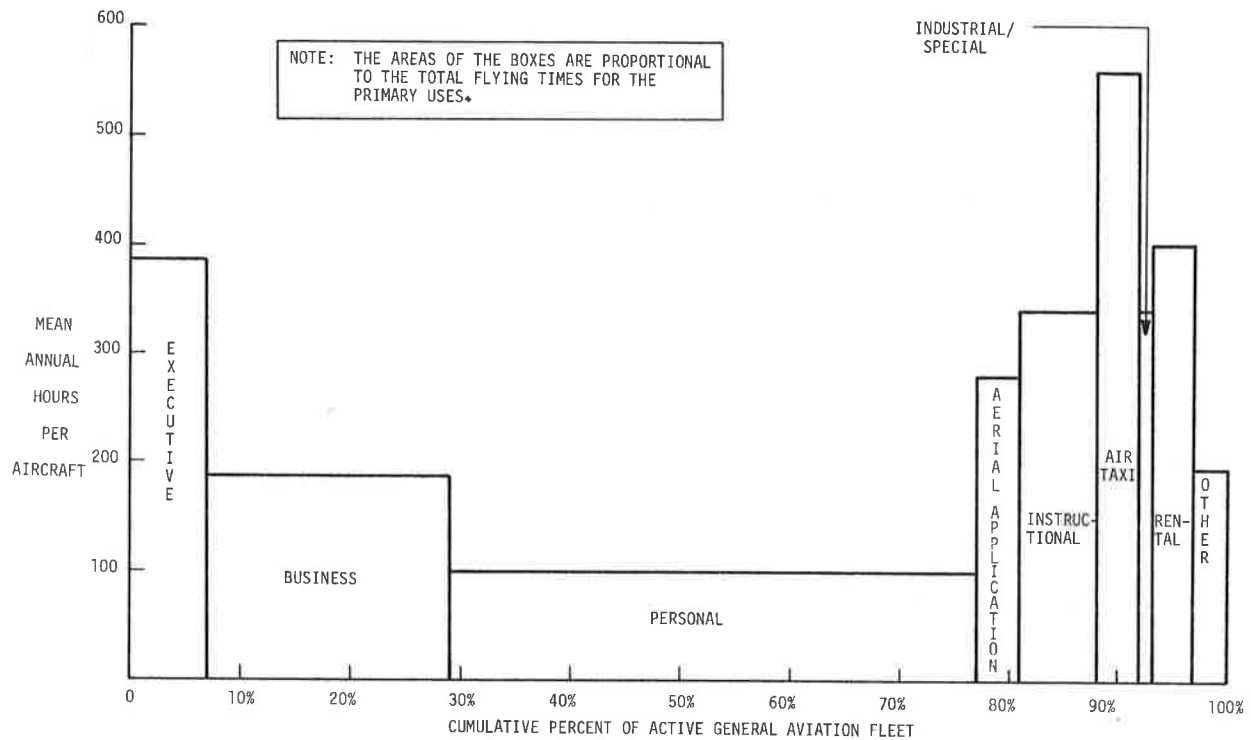
Like aircraft types, primary uses were differentiated by their activity characteristics, as shown in Figure 1.10. Distance along the vertical axis indicates mean hours per aircraft, distance along the horizontal axis indicates the relative portion of the active fleet engaged in each primary use, and the area within each box is proportional to the total flying time for each primary use. Aircraft used as air taxis and for rental and executive purposes showed high individual usage with mean hours per aircraft of 557.4, 401.0, and 385.4, respectively. General aviation aircraft were used most commonly for personal and business purposes, representing 48 and 22 percent of the active fleet. Due either to their high representation in the fleet or to their high individual usage, personal, business, executive, and instructional use aircraft together accounted for 70 percent of the total hours flown by the general aviation fleet.

1.5.4 Results by FAA Region

Mean aircraft usage did not differ significantly from region to region with the exception of the Pacific and European (Foreign) Regions, according to Figure 1.11. In the figure, distance along the vertical axis indicates mean annual hours per aircraft, distance along the horizontal axis indicates the relative portion of the active fleet based in each region, and the area within each box is proportional to the total flying time occurring in each region. It can be seen that the Great Lakes Region accounted for more active aircraft and more total flight time than any of the other regions, although the Southern, Southwestern, and Western Regions are close behind. The smallest region in continental United States was New England, with only four percent of the active aircraft and about four percent of the fleet's total flight time. Tables 2-3 and 2-8 contain more estimates by region; Tables 2-2 and 2-7 show similar estimates by state of aircraft base.

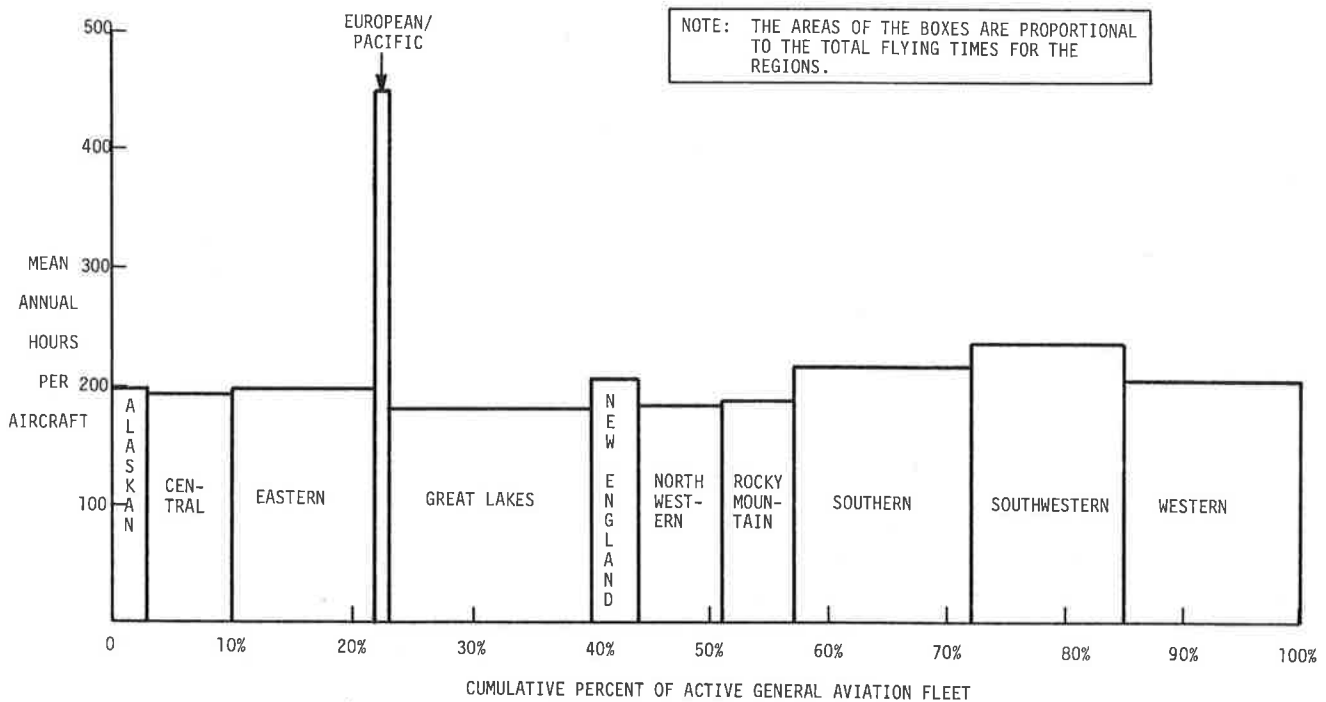
1.5.5 Other Results

The extent to which general aviation aircraft are furnished with on-board avionics equipment was a principal finding of the survey. A summary appears in Figure 1.12. Over 80 percent of the aircraft have two-way VHF communications, over 50 percent are equipped with 4096-code transponders, over 50 percent have at least one component of an instrument landing system, and over 75 percent have some form of navigation equipment. It is evident from comparing the 1978 and 1977 avionics estimates that the general aviation fleet is becoming more sophisticated in terms of its



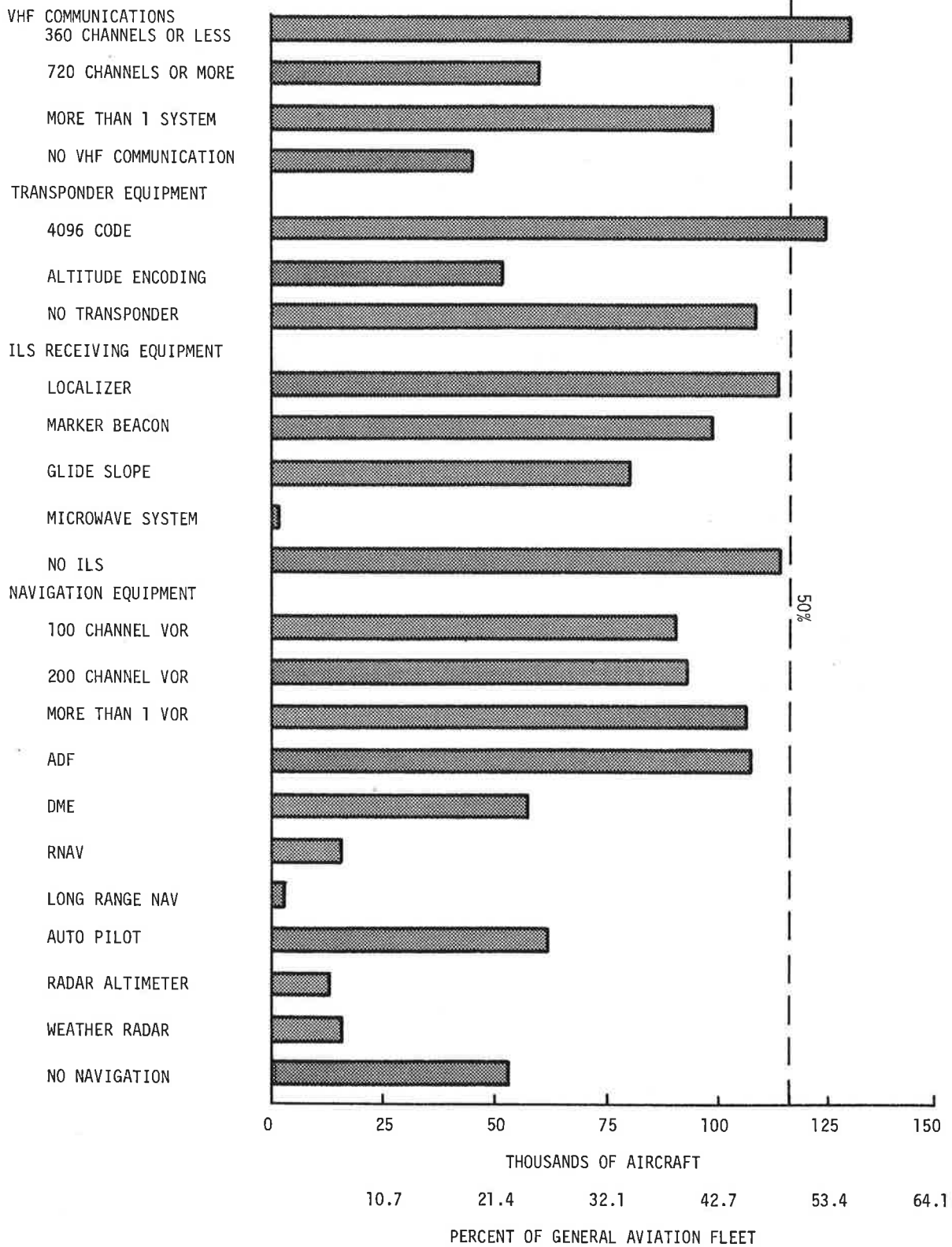
Source: Tables 2-4 and 2-9

FIGURE 1.10 1978 GENERAL AVIATION ACTIVITY MEASURES BY PRIMARY USE



Source: Table 2-3

FIGURE 1.11 1978 GENERAL AVIATION ACTIVITY MEASURES BY FAA REGION



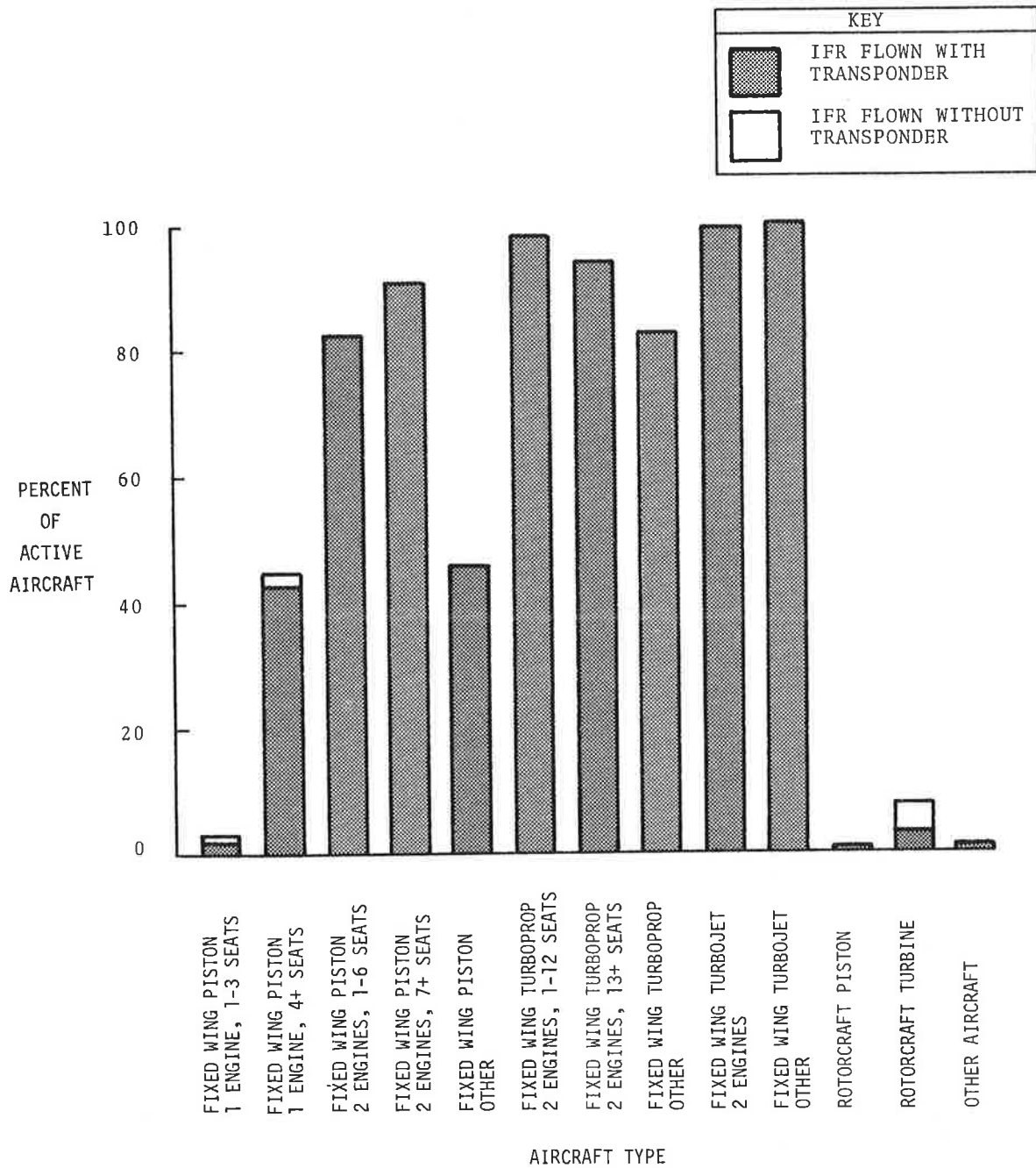
SOURCE: Table 2-13

FIGURE 1.12 AVIONICS EQUIPMENT IN THE 1978 GENERAL AVIATION AIR-CRAFT FLEET

avionics equipment. Within two-way communications, for example, there was a significant shift from 360 channel to 720 channel equipment. Likewise within VOR receivers there was a shift from 100 channel to 200 channel equipment. The proportion of the general aviation fleet with transponders increased from 50.9 percent to 53.3 percent, and the proportion with at least one part of an ILS increased from 49.2 percent to 51.0 percent. More detailed breakdowns of avionics by aircraft type, state, region, and primary use are provided in Tables 2-12 through 2-15.

Figure 1.13 shows the portion of active aircraft of each type which engaged in IFR (Instrument Flight Rules) flight during 1977 and further, the portions that flew IFR with and without transponder equipment. It can be seen that almost all active twin engine piston aircraft, turboprops, and turbojets flew IFR at some time during 1978 and were equipped with transponders. A much lower proportion of the active single engine piston aircraft and rotorcraft in the fleet flew IFR during the year, and not all were equipped with transponders.

Additional results to those discussed above are found in the tables in Section 2. Estimates of total hours, mean hours, lifetime airframe hours, and number of active aircraft for over 300 SDR manufacturer/model groups of general aviation aircraft are found in Tables 2-5, 2-11, and 2-16. Appendix C contains definitions of these groups. The report also includes a table on mean hours and number of active engines for almost 90 different manufacturer/model groups of engines.



SOURCE: Table 2-10

FIGURE 1.13 GENERAL AVIATION ACTIVE AIRCRAFT IFR FLOWN AND TRANSPONDER EQUIPPED IN 1978

2. TABLES OF RESULTS

TABLE 2-1 GENERAL AVIATION TOTAL HOURS FLOWN BY TYPE OF AIRCRAFT - CY 1978 (1 of 2)

AIRCRAFT TYPE	POPULATION SIZE	ESTIMATE OF NUMBER ACTIVE	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
FIXED WING									
PISTON									
1 ENG 1-3 SEATS	80293	59185	860	10111025	570151	5.6	171.1	9.3	5.4
1 ENG 4+ SEATS	108648	101466	857	17746283	992056	5.6	173.1	8.9	5.1
TOTAL 1 ENG	188941	160651	1214	27857308	1144223	4.1	172.4	6.6	3.8
2 ENG 1-6 SEATS	17089	15621	259	3643775	240784	6.6	232.9	14.3	6.1
2 ENG 7+ SEATS	8571	7328	202	2438603	189486	7.8	331.4	23.5	7.1
TOTAL 2 ENG	25660	22950	329	6082379	306402	5.0	263.7	12.3	4.7
OTHER PISTON	379	221	10	103511	6965	6.7	477.4	22.0	4.6
TOTAL PISTON	214960	183823	1258	34043199	1184558	3.5	184.3	5.9	3.2
TURBOPROP									
2 ENG 1-12 SEATS	2597	2507	68	959782	49230	5.1	381.8	17.8	4.7
2 ENG 13+ SEATS	597	566	10	622121	63493	10.2	1097.0	104.2	9.5
TOTAL 2 ENG	3194	3073	68	1581903	80343	5.1	510.7	23.8	4.7
OTHER TURBOPROP	107	56	3	24379	3116	12.8	424.8	6.6	1.6
TOTAL TURBOPROP	3301	3130	69	1606283	80404	5.0	509.2	23.4	4.6
TURBOJET									
2 ENG	2180	2115	27	1018717	44099	4.3	481.1	19.1	4.0
OTHER	633	364	34	175528	30051	17.1	432.1	51.5	11.9
TOTAL TURBOJET	2813	2480	44	1194246	53365	4.5	475.2	17.9	3.8
TOTAL FIXED WING	221094	189433	1261	36843728	1188482	3.2	193.7	5.8	3.0
ROTORCRAFT									
PISTON	5027	2822	115	806410	79378	9.8	285.6	23.6	8.3

TABLE 2-1 GENERAL AVIATION TOTAL HOURS FLOWN BY TYPE OF AIRCRAFT - CY 1978 (2 of 2)

AIRCRAFT TYPE	POPULATION SIZE	ESTIMATE OF NUMBER ACTIVE	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
TURBINE	2654	2492	30	1421241	135346	9.5	571.0	53.8	9.4
TOTAL ROTORCRAFT	7681	5315	119	2227651	156906	7.0	422.1	28.5	6.8
OTHER	5177	4028	75	337887	19506	5.8	83.7	4.2	5.1
TOTAL AIRCRAFT	233952	198778	1269	39409269	1198954	3.0	197.7	5.6	2.8

TABLE 2-2 GENERAL AVIATION TOTAL HOURS FLOWN BY STATE OF BASED AIRCRAFT - CY 1978 (1 of 3)

STATE	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR
ALABAMA	2631	572	657867	235763
ALASKA	5799	675	1136864	144980
ARIZONA	4626	868	1032899	315606
ARKANSAS	2503	630	661725	230775
CALIFORNIA	24371	1617	4818147	748661
COLORADO	4445	873	966782	257465
CONNECTICUT	1439	396	329290	139412
DELAWARE	633	322	111278	85632
DC	44	35	19986	18947
FLORIDA	9815	907	1963000	252854
GEORGIA	3540	797	773116	348766
HAWAII	475	262	202416	128223
IDAHO	2123	520	372290	148494
ILLINOIS	7269	1096	1605917	199819
INDIANA	4198	826	629140	151957
IOWA	3198	709	701723	217577
KANSAS	3973	714	753646	194329
KENTUCKY	1812	568	279381	110165
LOUISIANA	3744	768	1179435	301846
MAINE	1200	445	214176	95404
MARYLAND	2556	637	452993	155061

TABLE 2-2 GENERAL AVIATION TOTAL HOURS FLOWN BY STATE OF BASED AIRCRAFT - CY 1978 (2 of 3)

STATE	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR
MASSACHUSETTS	2854	691	584630	219395
MICHIGAN	7192	1311	1421858	229857
MINNESOTA	4694	862	730350	192300
MISSISSIPPI	2503	639	529054	149980
MISSOURI	3949	808	623894	155956
MONTANA	2214	571	313609	90432
NEBRASKA	2661	643	543980	163647
NEVADA	1882	445	440954	152883
NEW HAMPSHIRE	1173	425	212934	101680
NEW JERSEY	4167	864	821571	218699
NEW MEXICO	1925	506	505277	223120
NEW YORK	6272	970	1169163	235244
NORTH CAROLINA	4193	834	967904	307765
NORTH DAKOTA	1645	493	313863	135566
OHIO	7143	1074	1228517	296032
OKLAHOMA	3359	588	538571	125203
OREGON	5435	944	925434	219010
PENNSYLVANIA	5667	963	1104421	280517
RHODE ISLAND	330	225	77170	54343
SOUTH CAROLINA	1611	509	338745	120021
SOUTH DAKOTA	1372	410	236277	81050
TENNESSEE	3113	660	583377	117336
TEXAS	15231	1360	3396513	508244
UTAH	1544	451	333680	140176
VERMONT	519	255	107352	70087
VIRGINIA	3239	777	786817	254569

TABLE 2-2 GENERAL AVIATION TOTAL HOURS FLOWN BY STATE OF BASED AIRCRAFT - CY 1978 (3 of 3)

STATE	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR
WASHINGTON	6296	1114	1226995	276401
WEST VIRGINIA	1006	408	179016	75251
WISCONSIN	4226	801	792511	184713
WYOMING	1026	294	180151	59920
PUERTO RICO	308	216	128810	62292
OTHER U.S. TERRITORIES	110	116	45464	37567
FOREIGN	103	84	29606	25541
TOTAL	198778	1269	39409269	1198954

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2-3 GENERAL AVIATION TOTAL HOURS FLOWN BY REGION OF BASED AIRCRAFT - CY 1978

REGION	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR
ALASKAN	5799	675	1136864	144980
CENTRAL	13782	1398	2629287	345596
EASTERN	23786	1854	4640757	490519
EUROPEAN	51	48	20712	18344
GREAT LAKES	34724	2229	6419895	644241
NEW ENGLAND	7518	1048	1560737	282995
NORTHWESTERN	13858	1502	2518353	391103
PACIFIC	498	265	212330	128519
ROCKY MOUNTAIN	12248	1304	2318707	311961
SOUTHERN	29668	1888	6396278	557694
SOUTHWESTERN	26763	1780	6257544	638332
WESTERN	30880	1830	6316657	813004
TOTAL	198778	1269	39409269	1198954

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES

TABLE 2-4 GENERAL AVIATION TOTAL HOURS FLOWN BY AIRCRAFT TYPE AND PRIMARY USE - CY 1978
(1 of 3)

AIRCRAFT TYPE	TOTAL	EXECUTIVE	BUSINESS	PERSONAL	AERIAL APPL	INSTRUC-TIONAL	AIR TAXI	INDUS-TRIAL	RENTAL	OTHER
FIXED WING										
PISTON										
1 ENG 1-3 SEATS										
EST. TOT. HOURS	10111025	356607	825010	2899525	1788422	3006382	34424	155134	784210	261588
% STD. ERROR	5.6	40.7	22.7	6.6	9.0	14.8	76.0	53.5	33.6	25.0
1 ENG 4+ SEATS										
EST. TOT. HOURS	17746283	895955	4781819	6173535	11239	1645243	1176111	256311	2246527	464545
% STD. ERROR	5.6	28.5	8.6	8.1	98.4	35.7	24.5	41.3	23.5	45.2
TOTAL 1 ENG										
EST. TOT. HOURS	27857308	1253115	5613529	9039967	1799792	4693160	1210388	411465	3024167	717393
% STD. ERROR	4.1	23.5	8.1	5.8	9.0	15.9	23.8	32.7	19.4	27.4
2 ENG 1-6 SEATS										
EST. TOT. HOURS	3643775	810888	1508476	300541	4819	115459	748827	37007	56047	53502
% STD. ERROR	6.6	14.6	8.7	16.5	19.0	39.4	22.1	66.4	56.6	33.2
2 ENG 7+ SEATS										
EST. TOT. HOURS	2438603	763495	579541	51575	34215	7286	876888	37375	40913	43077
% STD. ERROR	7.8	15.0	15.6	36.5	70.7	120.9	17.2	35.9	62.7	33.2
TOTAL 2 ENG										
EST. TOT. HOURS	6082379	1574862	2081376	352195	39005	122779	1620292	74194	95899	96498
% STD. ERROR	5.0	10.3	7.6	15.0	54.1	37.7	14.0	40.2	44.9	23.7
OTHER PISTON										
EST. TOT. HOURS	103511	243	7495	17	6868	90	63570	43	24302	1101
% STD. ERROR	6.7	41.5	35.2	63.7	10.0	40.3	5.2	87.7	19.3	49.6
TOTAL PISTON										
EST. TOT. HOURS	34043199	2826413	7705837	9392684	1846024	4815000	2896785	485586	3143738	814852
% STD. ERROR	3.5	11.4	6.4	5.6	8.9	15.4	13.2	28.5	18.6	24.2
TURBOPROP										
2 ENG 1-12 SEATS										
EST. TOT. HOURS	959782	760494	81914	8546	0	0	89001	2417	0	15509
% STD. ERROR	5.1	7.2	30.8	63.3	0.0	0.0	31.4	158.9	0.0	63.0

TABLE 2-4 GENERAL AVIATION TOTAL HOURS FLOWN BY AIRCRAFT TYPE AND PRIMARY USE - CY 1978
(2 of 3)

AIRCRAFT TYPE	TOTAL	EXECUTIVE	BUSINESS	PERSONAL	AERIAL APPL	INSTRUC-TIONAL	AIR TAXI	INDUS-TRIAL	KENTAL	OTHER
2 ENG 13+ SEATS EST. TOT. HOURS & STD. ERROR	622121 10.2	123628 9.9	26729 40.7	0 0.0	0 0.0	0 0.0	457128 13.4	1548 86.4	0 0.0	12558 41.6
TOTAL 2 ENG EST. TOT. HOURS & STD. ERROR	1581903 5.1	883559 6.4	107386 28.0	8546 63.3	0 0.0	0 0.0	546036 15.3	3957 104.2	0 0.0	27675 49.2
OTHER TURBOPROP EST. TOT. HOURS & STD. ERROR	24379 12.8	1283 28.0	3939 33.3	15 56.0	400 0.0	0 0.0	3883 19.3	51 56.0	8847 13.9	5874 25.8
TOTAL TURBOPROP EST. TOT. HOURS & STD. ERROR	1606283 5.0	884846 6.4	111301 27.1	8566 60.8	400 0.0	0 0.0	550288 15.2	3971 87.4	8847 13.9	33508 42.8
TURBOJET 2 ENG EST. TOT. HOURS & STD. ERROR	1018717 4.3	806050 4.8	29519 57.8	4677 55.3	432 123.5	9306 64.9	115379 30.5	1038 112.1	904 59.8	49866 29.4
OTHER EST. TOT. HOURS & STD. ERROR	175528 17.1	92082 13.8	14015 30.2	157 24.1	0 0.0	1218 46.9	17473 33.0	144 33.4	13500 25.9	17306 35.0
TOTAL TURBOJET EST. TOT. HOURS & STD. ERROR	1194246 4.5	899290 4.5	43230 42.7	5355 35.7	432 123.5	10691 54.4	132449 27.6	1187 76.8	14377 24.2	68938 20.9
TOTAL FIXED WING EST. TOT. HOURS & STD. ERROR	36843728 3.2	4610341 7.5	7862290 6.3	9406561 5.6	1846756 8.9	4825738 15.4	3586995 11.9	490684 28.2	3167153 18.5	916873 22.2
NOTORCRAFT PISTON EST. TOT. HOURS & STD. ERROR	806410 9.8	16562 52.6	95163 29.9	20256 13.7	207184 18.9	99539 26.5	37971 35.6	151706 28.7	5535 58.8	170960 27.8
TURBINE EST. TOT. HOURS & STD. ERROR	1421241 9.5	249952 35.0	43120 29.8	6526 59.6	11889 39.2	801 75.4	787900 21.2	59191 43.4	67920 45.1	155050 39.5

TABLE 2-4 GENERAL AVIATION TOTAL HOURS FLOWN BY AIRCRAFT TYPE AND PRIMARY USE - CY 1978
(3 of 3)

AIRCRAFT TYPE	TOTAL	EXECUTIVE	BUSINESS	PERSONAL	AERIAL APPL	INSTRUC-TIONAL	AIR TAXI	INDUS-TRIAL	RENTAL	OTHER
TOTAL ROTORCRAFT	2227651	267242	138284	27012	219056	100262	828107	211062	73595	365431
EST-TOT-HOURS	7.0	31.3	22.5	13.0	18.0	26.0	19.7	23.8	38.3	25.4
% STD. ERROR										
OTHER	337887	1725	13560	170656	113	85757	1789	927	45272	17798
EST-TOT-HOURS	5.8	62.9	26.4	5.6	76.1	19.4	81.9	76.1	22.6	25.2
% STD. ERROR										
TOTAL AIRCRAFT	39409269	4881684	8014097	9600700	2065959	5009052	4423601	702403	3283903	1308357
EST-TOT-HOURS	3.0	4.7	3.9	4.8	7.7	10.5	5.0	9.6	7.5	14.5
% STD. ERROR										

NOTE : ROW AND COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (1 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
OTHER 01	9023	189706	50697	26.7	45.6	11.4	25.0
OTHER 02	1042	97715	18818	19.3	139.2	19.7	14.2
OTHER 03	372	23782	2989	12.6	105.9	10.9	10.3
OTHER 04	172	26976	5162	19.1	266.2	45.1	16.9
OTHER 05	68	6606	3798	57.5	176.7	96.8	54.8
OTHER 06	434	105206	31803	30.2	267.8	68.1	25.4
OTHER 07	55	46060	7355	16.0	967.5	131.3	13.6
OTHER 08	51	14394	2983	20.7	547.9	100.2	18.3
OTHER 09	242	92420	10141	11.0	409.1	40.7	9.9
OTHER 10	144	5073	814	16.1	91.4	13.7	14.9
OTHER 11	1484	57327	11166	19.5	122.8	21.6	17.6
OTHER 12	219	69154	11420	16.5	379.9	59.5	15.7
OTHER 13	1586	54546	7170	13.1	55.6	6.9	12.4
AEROSPSA316	83	37740	5140	13.6	454.7	61.9	13.6
AEROSPSA341	66	16242	8143	50.1	427.4	55.4	13.0
AGUSTA205	62	36924	3137	8.5	595.5	50.6	8.5
AIRPTSA	291	33777	6529	19.3	173.7	25.8	14.8
AIRSPC18	22	26	10	37.4	9.0	0.4	4.4
AIRTRCAT300	148	44773	6902	15.4	314.9	45.8	14.5
AMD FALC10	86	50240	5053	10.1	584.2	58.8	10.1
AMD FALC20	181	87161	7266	8.3	496.3	39.0	7.9

Note: See following page for coding.

NOTE: Other XX refers to all general aviation aircraft belonging to manufacturer/model groups of fewer than 20 aircraft in size for aircraft XX where XX stands for

- 01 Fixed wing piston, 1 engine, 1-3 seats.
- 02 Fixed wing piston, 1 engine, 4+ seats.
- 03 Fixed wing piston, 2 engines, 1-6 seats.
- 04 Fixed wing piston, 2 engines, 7+ seats.
- 05 Fixed wing piston, other.
- 06 Fixed wing turboprop, 2 engines, 1-12 seats.
- 07 Fixed wing turboprop, 2 engines, 13+ seats.
- 08 Fixed wing turboprop, other.
- 09 Fixed wing turbojet, 2 engines.
- 10 Fixed wing turbojet, other.
- 11 Rotorcraft, piston.
- 12 Rotorcraft, turbine.
- 13 Other aircraft.

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (2 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
ARCRNEH37	46	50	0	0.0	50.0	0.0	0.0
ARCTICS1A	94	1304	134	10.3	40.6	3.3	8.1
ARCTICS1B1	25	345	72	21.0	34.5	5.9	17.1
ARONCA15	209	7112	1923	27.0	65.0	15.9	24.5
ARONCA58	165	4387	485	11.0	52.3	4.5	8.5
ARONCA65	152	5268	1047	19.9	61.6	10.5	17.3
ARONCAC3	50	146	94	64.2	15.0	0.0	0.0
AYRES S2	811	299443	112941	37.7	369.1	139.2	37.7
BAC 111	26	13750	1738	12.6	528.9	66.8	12.6
BAG DH125	27	9033	671	7.4	363.6	25.0	6.9
BALWKSPIREPY	349	18433	2800	15.2	55.9	8.1	14.4
BECH 100	197	80954	12502	15.4	422.3	59.2	14.0
BECH 17	197	6871	1122	16.3	59.8	8.1	13.6
BECH 18	1162	310965	129118	41.5	392.4	146.7	37.4
BECH 200	294	127018	12187	9.6	432.0	41.5	9.6
BECH 23	2691	338626	81170	24.0	128.4	30.6	23.8
BECH 33	1557	308918	49800	16.1	198.4	32.0	16.1
BECH 35	7076	943865	132235	14.0	138.9	18.8	13.6
BECH 36	1090	320856	36520	11.4	298.2	33.2	11.1
BECH 45	325	32766	6852	20.9	148.9	27.7	18.6
BECH 50	376	61754	12838	20.8	179.5	36.4	20.3

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (3 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
BEECH 55	2117	376336	45574	13.2	187.6	23.4	12.5
BEECH 56	66	14860	1947	13.1	245.3	29.8	12.1
BEECH 58	874	270495	36356	13.4	305.5	41.6	13.4
BEECH 60	340	78896	6265	7.9	233.7	18.3	7.8
BEECH 65	183	31986	8042	25.1	192.2	46.3	24.1
BEECH 76	88	8090	1050	13.0	97.8	12.3	12.6
BEECH 80	249	60711	13416	22.1	249.1	54.3	21.8
BEECH 90	523	224349	23217	10.3	431.2	44.2	10.2
BEECH 95	505	94978	16102	17.0	185.9	32.1	16.9
BEECH 99	111	180101	30731	17.1	1708.6	255.0	14.9
BELL 204	143	13229	1042	7.9	150.1	9.7	6.5
BELL 206	1262	855692	125376	14.7	679.1	99.2	14.6
BELL 212	95	84516	10575	12.5	889.6	111.3	12.5
BELL 47	1578	400999	65578	16.4	383.0	54.4	14.2
BLANCA 11	977	44117	5770	13.1	72.3	7.8	10.8
BLANCA 1413	307	7702	844	11.0	63.7	5.5	8.6
BLANCA 1419	308	26183	5739	21.9	115.7	20.6	17.2
BLANCA 17	1009	153567	23840	15.5	158.1	23.7	15.0
BLANCA 7	6004	508858	173473	34.1	115.4	38.7	33.5
BLANCA 8	544	52164	7068	13.5	96.2	13.0	13.5
BNORM BN2	91	49584	10857	21.9	726.5	72.5	10.0

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (4 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
BOEING707	67	49635	13329	26.9	884.0	220.7	25.0
BOEING720	20	5128	1290	25.2	370.3	83.9	22.6
BOEING727	125	47223	25013	53.0	789.0	0.0	0.0
BOEING737	10	2970	0	0.0	297.0	0.0	0.0
BOEING75	2059	86078	17042	19.8	109.2	11.4	10.5
BOEINGB17	22	1211	127	10.5	72.0	6.0	8.3
BOLKMS105	61	31053	3664	11.6	583.6	51.5	8.8
BRA SOVIS28	46	3569	435	12.2	103.5	11.2	10.8
BRWSTRELET2	31	311	66	21.2	27.6	4.1	14.8
BRWSTRELET7	22	625	100	16.0	60.0	8.0	13.3
CANCONODELO	57	2094	276	13.2	41.5	4.5	10.9
CESSNA120	936	33298	5801	17.4	52.7	6.7	12.7
CESSNA140	2549	152179	23240	15.3	75.4	10.0	13.2
CESSNA150	18535	4329740	456889	10.6	250.2	25.4	10.2
CESSNA170	2631	220277	56126	25.5	89.4	22.4	25.0
CESSNA172	21757	3975185	620493	15.6	186.4	28.9	15.5
CESSNA175	1450	201333	50035	24.9	147.6	36.3	24.6
CESSNA177	3081	621973	86240	13.9	204.2	28.1	13.8
CESSNA180	2725	474195	84821	17.9	193.8	33.4	17.2
CESSNA182	12205	1938885	231608	11.9	162.6	19.1	11.7
CESSNA185	1309	275719	40287	14.6	219.9	31.1	14.2

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (5 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
CESSNA188	1809	368720	66390	18.0	232.6	36.9	15.9
CESSNA190	88	3707	666	18.0	56.7	9.4	16.5
CESSNA195	528	27114	6166	22.7	92.7	16.9	18.2
CESSNA206	2501	567460	97751	17.2	229.3	39.3	17.1
CESSNA207	250	107614	17575	16.3	464.7	69.6	15.0
CESSNA210	5052	1101728	215125	19.5	232.4	44.3	19.1
CESSNA305	240	31984	5831	18.2	155.1	26.2	16.9
CESSNA310	3213	649611	82927	12.8	237.0	26.0	11.0
CESSNA320	375	49818	12155	24.4	136.1	32.5	23.9
CESSNA336	101	11017	1836	16.7	138.0	21.7	15.8
CESSNA337	1302	219395	37442	17.1	181.5	30.1	16.6
CESSNA340	619	174184	22843	13.1	281.4	36.9	13.1
CESSNA401	265	78141	9121	11.7	308.8	32.6	10.6
CESSNA402	522	249098	44416	17.8	604.1	91.4	15.1
CESSNA404	86	51268	6133	12.0	614.9	72.6	11.8
CESSNA411	205	32954	11346	34.4	170.2	56.0	32.9
CESSNA414	490	156714	22066	14.1	323.1	44.9	13.9
CESSNA421	1057	264070	82434	31.2	255.9	78.6	30.7
CESSNA500	262	138449	19039	13.8	528.4	72.7	13.8
CESSNA750	84	1474	297	20.2	58.2	10.5	18.0
CESSNAUC77	21	309	45	14.5	56.0	4.7	8.4

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (6 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
CESSNAUC94	36	1363	261	19.2	96.4	15.1	15.7
COMWTH185	24	655	130	19.8	77.3	6.8	8.9
CONARLAN	233	21592	3263	15.1	101.7	14.6	14.4
CURTISC46	51	8711	1733	19.9	327.4	43.6	13.3
CURTISJR	21	109	35	31.8	26.0	4.1	15.9
CURTISROBIN	34	174	42	24.3	29.6	5.5	18.7
CURTISRWAIR	181	3628	559	15.4	70.0	9.3	13.3
CVAC 22	38	5944	1039	17.5	189.0	32.1	17.0
CVAC 240	64	2786	591	21.2	84.9	16.1	18.9
CVAC 340	23	5800	979	16.9	308.2	41.3	13.4
CVAC 440	21	1688	425	25.2	209.0	26.9	12.9
CVAC BT13	100	733	156	21.3	28.3	3.7	13.1
CVAC L13	22	179	76	42.5	65.0	18.5	28.5
CVAC STC580	45	23902	2345	9.8	531.1	52.1	9.8
DART G	26	519	124	24.0	69.8	13.0	18.6
DHAV DHC2	349	46814	6513	13.9	230.9	29.1	12.6
DHAV DHC3	23	5918	1612	27.2	353.4	84.0	23.8
DHAV DHC5	120	203798	49937	24.5	1698.3	416.1	24.5
DHAVYDHS2	100	1657	276	16.7	38.1	4.2	11.0
DOUG A26	68	4293	767	17.9	106.4	14.6	13.7
DOUG DC3	494	71010	23534	33.1	275.4	52.9	19.2

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (7 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
DOUG DC4	83	6137	1703	27.7	157.6	40.6	25.8
DOUG DC6	107	26430	4921	18.6	403.3	66.2	16.4
DOUG DC7	52	951	223	23.5	47.4	8.4	17.8
DOUG DC8	42	10189	2655	26.1	485.2	104.4	21.5
DOUG DC9	37	29341	6163	21.0	793.0	166.6	21.0
IRVON20	52	3944	256	6.5	81.7	5.1	6.2
EMAIR MA1	27	16648	1906	11.4	689.1	73.2	10.6
ENSTRMP28	367	67035	10938	16.3	206.1	32.3	15.7
FLEET 16B	27	565	171	30.2	44.5	11.5	25.8
FRCHLD24	320	4350	743	17.1	39.8	5.2	13.0
FRCHLDC119	27	757	123	16.2	73.0	5.3	7.3
FRCHLDF27	42	14209	1410	9.9	400.5	30.4	7.6
FRCHLDFHT100	86	16786	4010	23.9	231.0	51.9	22.5
FRCHLDM62	243	7939	1277	16.1	72.4	9.0	12.4
GLASFLL201	36	2382	349	14.6	73.4	9.0	12.2
GLASFLLH301	125	8981	1739	19.4	79.6	13.6	17.1
GROB ASTIR	46	3032	213	7.0	72.1	4.7	6.5
GRTLKST1	165	11793	2643	22.4	102.5	21.1	20.5
GRUMANTB	36	685	109	15.9	47.6	4.0	8.3
GRUMAVAA1	633	167571	23248	13.9	308.4	38.7	12.5
GRUMAVAA5	1057	239892	34258	14.3	228.2	32.4	14.2

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (8 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
GRONAVG164	623	393920	69734	17.7	632.3	111.9	17.7
GULSTHAA1	667	68651	6226	9.1	116.2	9.9	8.5
GULSTHAA5	697	159691	21751	13.6	231.0	31.3	13.6
GULSTHG159	132	64065	3811	5.9	485.3	28.9	5.9
GULSTHG159	150	92782	7794	8.4	618.5	52.0	8.4
GULSTHG164	894	267174	45813	17.1	336.1	54.8	16.3
GULSTHG21	68	18315	2494	13.6	410.0	44.6	10.9
GULSTHG44	89	9132	1344	14.7	156.0	16.7	10.7
GULSTHG73	26	12998	1154	8.9	558.8	44.0	7.9
GULSTHG7	40	6060	518	8.5	151.5	13.0	8.5
HELIO H250	22	3982	390	9.8	191.6	18.2	5.5
HELIO H295	90	12692	2009	15.8	199.8	29.2	14.6
HELIO H391	27	1670	377	22.6	131.4	21.4	16.3
HELIO H395	22	2821	423	15.0	166.7	19.8	11.9
HILLERUH12	642	147023	28582	19.4	346.0	57.7	16.7
HUGHES269	627	122188	30675	25.1	249.0	56.9	22.9
HUGHES369	410	228313	47076	20.6	567.1	115.1	20.3
HWKSLYDH104	43	9090	2182	24.0	477.2	53.0	19.5
HWKSLYDH114	47	62177	2629	4.2	1459.8	40.1	2.7
HWKSLYDH125	154	60227	5845	9.7	404.2	36.6	9.0
HYNES B2	137	11945	1740	14.6	131.3	17.9	13.6

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (9 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
INTRCP200	68	6868	1415	20.6	116.6	22.2	19.1
ISRAEL1121	116	3482	3972	11.5	317.5	30.0	9.4
ISRAEL1123	22	7677	1063	13.8	412.4	41.8	10.1
ISRAEL1124	47	21980	1618	7.4	467.7	34.4	7.4
JBMSTRDGA15	81	834	121	14.6	35.4	3.1	8.7
LAIKFN10	46	213	73	34.2	30.6	8.0	26.3
LEAR 23	67	26323	1357	5.2	392.9	20.3	5.2
LEAR 24	196	92343	19087	20.7	471.1	97.4	20.7
LEAR 25	174	93699	26373	28.1	627.6	146.2	23.3
LEAR 35	157	81443	9623	11.8	518.7	61.3	11.8
LET L13	182	20936	4045	19.3	130.6	23.7	18.1
LKHEED12A	24	1628	295	18.1	101.8	14.5	14.3
LKHEED1329	140	52134	9451	18.1	420.8	64.9	15.4
LKHEED18	87	3586	1339	37.3	73.2	25.2	34.4
LKHEED188	10	1872	661	35.3	352.7	40.0	11.3
LKHEEDPV1	63	4804	1691	35.2	117.5	31.8	27.1
LKHEEDT33	57	203	63	31.0	80.0	8.9	11.1
LUSCOM8	2341	90318	29120	32.2	54.4	16.0	29.5
MARTIN404	29	2710	521	19.2	149.5	21.2	14.2
MAULE M4	284	18441	3363	18.2	69.6	12.3	17.7
MAULE M5	344	57868	12784	22.1	172.8	37.8	21.9

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (10 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE CF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
MCCULLRJ2	38	310	104	33.7	23.3	6.1	26.4
MCLISHFUNKB	136	3414	471	13.8	44.4	4.8	10.8
MEYERSOTW	49	1137	118	10.4	41.1	3.4	8.2
MCOUP90	73	1121	138	12.3	50.3	4.6	9.1
MWHITER18	155	3435	479	13.9	44.2	4.7	10.6
MODHEYN20	5024	723170	94467	13.1	149.6	19.1	12.8
MORISY2150	35	1741	300	17.2	53.1	8.6	16.2
MRCHTIS205	50	3398	681	20.0	88.8	15.1	17.0
MTRBSIMU2	397	147548	16895	11.5	371.7	42.6	11.5
MULTECD16	52	2764	253	9.2	71.5	5.6	7.5
MAHER B25	50	1232	193	15.7	49.3	6.2	12.6
MAHER F51	144	3890	567	14.6	55.3	5.8	10.6
MAHER MA260	64	4292	988	23.0	97.2	19.0	19.6
MAHER T6	449	24221	1926	8.0	81.8	5.7	7.0
NAVAL N3W	161	12926	2593	20.1	242.4	43.8	18.1
NAVIONNAVION	1309	117007	28895	24.7	102.4	23.6	23.0
ORLHELH19	40	3140	272	8.6	256.9	8.8	3.4
PICARDAX6	171	11187	2697	24.1	71.6	16.3	22.7
PILATSB4	27	2410	276	11.5	112.2	11.1	9.9
PIPER 600	189	47594	4285	9.0	251.8	22.7	9.0
PIPER J2	66	625	102	16.4	30.5	3.4	11.1

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (11 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
PIPER J3	4343	154755	16890	10.9	71.1	6.4	8.9
PIPER J4	251	4577	610	13.3	41.7	4.2	10.0
PIPER J5	365	21143	4276	20.2	103.4	20.0	19.3
PIPER PA12	1401	73460	16007	21.8	92.6	16.6	18.0
PIPER PA14	110	8785	1614	18.4	52.0	15.5	16.5
PIPER PA15	206	7020	916	13.1	66.2	6.4	9.7
PIPER PA16	403	13532	1514	11.2	51.5	4.4	8.5
PIPER PA17	121	3058	278	9.1	41.8	3.2	7.7
PIPER PA18	3371	389420	49695	12.8	136.1	16.5	12.1
PIPER PA20	500	25689	4844	18.9	76.2	12.0	15.7
PIPER PA22	5347	258129	31640	12.3	67.3	7.0	10.4
PIPER PA23	3756	898878	200611	22.3	259.8	56.8	21.9
PIPER PA24	3394	434534	72583	16.7	133.2	21.9	16.4
PIPER PA25	1764	454739	81571	17.9	294.5	50.4	17.1
PIPER PA28	20255	4081412	672824	16.5	206.4	32.5	15.8
PIPER PA30	1320	264632	38203	14.4	204.4	29.2	14.3
PIPER PA31	1496	500832	64668	11.1	388.3	43.2	11.1
PIPER PA31T	183	67840	8533	12.6	370.7	46.6	12.6
PIPER PA32	3526	627498	85032	13.6	184.0	24.5	13.3
PIPER PA34	1468	440519	75610	18.1	320.3	54.4	17.0
PIPER PA36	351	68758	13674	19.9	215.1	40.9	19.0

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (12 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
PIPER PA38	636	111160	10918	9.8	214.5	16.1	7.5
PRATT PRG1	22	72	17	23.3	19.7	1.2	6.2
PROPT200	35	3802	313	8.2	120.1	8.3	6.9
RANKING5	56	1224	123	10.0	58.3	4.1	7.1
RAVEN RX6	183	4303	1108	25.8	26.0	6.2	24.0
RAVEN S50	116	3870	398	10.3	47.1	3.9	8.3
RAVEN S55	274	12153	1558	12.8	55.5	5.8	10.4
RKWELL112	729	92141	19098	20.7	132.6	26.8	20.2
RKWELL500	354	141088	19943	14.1	424.0	57.2	13.5
RKWELL520	70	3205	1029	32.1	76.7	20.3	26.5
RKWELL560	147	27605	7677	27.8	275.9	56.3	20.4
RKWELL680	413	109119	26697	24.5	265.3	64.7	24.4
RKWELL680TP	132	37700	9040	24.0	317.1	73.3	23.1
RKWELL690TP	209	79578	10187	12.8	425.5	41.0	9.6
RKWELLMA265	244	113114	11712	10.4	463.6	48.0	10.4
ROLSCHLS	30	2079	327	15.7	79.7	12.1	15.2
RYAN ST3	171	3786	562	14.8	42.9	5.4	12.7
RYAN STA	33	330	91	27.5	28.6	5.7	19.8
SCHLERASW15	39	3114	270	8.7	85.0	7.2	8.5
SCHLERASW19	38	2552	191	7.5	69.7	5.0	7.2
SCHLERASW20	25	1589	189	11.9	67.8	7.7	11.3

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY
1978 (13 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
SCHLERK8	22	1280	91	7.1	61.6	4.0	6.6
SCHLERKA6	78	4125	528	12.8	58.4	7.4	12.7
SCTAIWB206	30	7144	1574	22.0	254.0	54.8	21.6
SCTAIVR137	23	13773	3577	26.0	916.6	197.0	21.5
SCHZERSG1	758	53057	8146	15.4	86.3	11.6	13.5
SCHZERSG2	611	104365	14861	14.2	192.2	25.7	13.4
SCHZERTG3A	23	1129	239	21.2	133.3	22.8	17.1
SEMCO CLMGR	32	637	106	16.6	29.8	4.2	14.0
SEMCO HODEL1	38	622	194	31.2	24.6	7.2	29.5
SKRSKYS55	92	4171	370	8.9	149.3	9.2	6.1
SKRSKYS58	61	4150	449	10.8	152.8	14.7	7.6
SKRSKYS58T	23	8768	929	10.6	443.5	41.2	9.3
SLINDS100	370	24137	2259	9.4	72.4	6.3	8.8
SHIP 600	221	64495	10519	16.9	345.6	53.9	15.6
SWIAS SA318	37	10871	1442	13.3	309.6	23.5	7.6
SOCATAHS894	42	3372	426	12.6	88.5	9.0	10.2
SPRTHCIRRU8	111	6555	1261	19.2	61.3	11.6	19.0
SPRTHIMBUS	28	3815	845	22.1	158.9	34.5	21.7
STNSON10	180	1156	368	31.9	30.8	5.1	16.7
STNSONL5	137	3929	782	19.9	59.8	10.7	17.9
STNSONSR9	28	214	73	34.3	17.4	5.0	26.9

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (14 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
STOLANBC3	253	3382	656	19.4	32.0	5.1	15.8
SUPAC LA	108	1568	177	11.3	54.4	4.9	8.9
SUPAC V	27	409	90	22.1	50.4	6.8	13.6
SWRGNSA226	134	78635	21639	27.5	566.5	161.3	27.5
SWRGNSA26	108	41196	3190	7.7	381.4	29.5	7.7
TCRAPKD	286	8223	892	10.8	75.1	6.7	9.0
TCRAPT19	119	11129	1642	14.8	101.6	14.1	13.8
TCRAFTA	33	211	42	19.8	26.7	2.4	9.1
TCRAFTBC	1915	168681	50004	29.6	166.6	44.2	26.5
TCRAFTBF	44	1827	345	18.9	77.9	12.6	16.2
TCRAFTBL	234	5040	659	13.1	55.8	5.3	9.5
TEMCO 11A	34	1414	248	17.5	59.2	8.9	15.0
THUNDERAX7	26	841	131	15.5	36.4	5.3	14.7
TRYTEKK	32	196	39	20.0	24.5	2.7	11.2
UNIVACGC1	706	38552	5518	14.3	82.9	11.2	13.5
UNIVAR108	2254	171183	67193	39.3	117.8	44.7	37.9
UNIVAR415	2595	81396	15853	19.5	44.7	7.4	16.5
VICKER745	26	2683	312	11.6	296.6	19.1	6.4
WACO ASD	29	316	96	30.2	60.0	12.3	20.5
WACO GXE	34	440	154	34.9	43.7	14.1	32.2
WACO R	34	244	39	16.2	19.1	1.7	8.8

TABLE 2-5 GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP - CY 1978 (15 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
WACO U	31	368	61	15.6	52.8	5.6	11.0
WACO DPF7	160	6249	946	15.1	62.0	11.9	14.5
WACO YK	56	2313	464	20.1	129.4	23.8	18.4
WOODHM65	363	7802	3025	38.8	57.0	20.4	35.7
WTHRLY201	73	15040	2662	17.7	212.1	35.7	16.8
TOTAL	233952	39409269	1198954	3.0	197.7	5.6	2.82

TABLE 2-6 GENERAL AVIATION ACTIVE AIRCRAFT BY TYPE OF AIRCRAFT - CY 1978 (1 of 2)

AIRCRAFT TYPE	POPULATION SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
FIXED WING						
PISTON						
1 ENG 1-3 SEATS	80293	59195	860	1.5	73.7	1.1
1 ENG 4+ SEATS	108648	101466	857	0.8	93.4	0.8
TOTAL 1 ENG	188941	160651	1214	0.8	85.0	0.6
2 ENG 1-6 SEATS	17089	15621	259	1.7	91.4	1.5
2 ENG 7+ SEATS	8571	7328	202	2.8	85.5	2.4
TOTAL 2 ENG	25660	22950	329	1.4	89.4	1.3
OTHER PISTON	379	221	10	4.6	58.4	2.7
TOTAL PISTON	214960	183823	1258	0.7	85.5	0.6
TURBOPROP						
2 ENG 1-12 SEATS	2597	2507	68	2.7	96.5	2.6
2 ENG 13+ SEATS	597	566	10	1.6	94.9	1.7
TOTAL 2 ENG	3194	3073	68	2.2	96.2	2.2
OTHER TURBOPROP	107	56	3	5.8	52.8	3.0
TOTAL TURBOPROP	3301	3130	69	2.2	94.8	2.1
TURBOJET						
2 ENG	2180	2115	27	1.3	97.1	1.3
OTHER	633	364	34	9.5	57.5	5.5
TOTAL TURBOJET	2813	2480	44	1.8	88.2	1.6
TOTAL FIXED WING	221094	189433	1261	0.7	85.7	0.6
ROTORCRAFT						
PISTON	5027	2822	115	4.1	56.1	2.3

TABLE 2-6 GENERAL AVIATION ACTIVE AIRCRAFT BY TYPE OF AIRCRAFT - CY 1978 (2 of 2)

AIRCRAFT TYPE	POPULATION SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
TURBINE	2654	2492	30	1.2	93.9	1.1
TOTAL ROTORCRAFT	7681	5315	119	2.2	69.2	1.6
OTHER	5177	4028	75	1.9	77.8	1.5
TOTAL AIRCRAFT	233952	198778	1269	0.6	85.0	0.5

TABLE 2-7 GENERAL AVIATION ACTIVE AIRCRAFT BY STATE OF BASED AIRCRAFT - CY 1978 (1 of 3)

STATE	ESTIMATE OF POPULATION	STANDARD ERROR	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
ALABAMA	3088	595	2631	572	85.2	24.8
ALASKA	6607	702	5799	675	87.8	13.8
ARIZONA	5707	910	4626	868	81.1	20.0
ARKANSAS	2682	643	2503	630	93.3	32.5
CALIFORNIA	30487	1695	24371	1617	79.9	6.8
COLORADO	4865	895	4445	873	91.4	24.6
CONNECTICUT	1645	422	1439	396	87.5	32.9
DELAWARE	766	336	633	322	82.7	55.6
DC	55	91	44	35	80.4	146.1
FLORIDA	11559	967	9815	907	84.9	10.2
GEORGIA	4290	827	3540	797	82.5	24.5
HAWAII	576	277	475	262	82.5	60.3
IDAHO	2467	568	2123	520	86.1	29.0
ILLINOIS	7446	1158	7269	1906	97.6	18.8
INDIANA	4787	852	4198	826	87.7	23.3
IOWA	3702	732	3198	709	86.4	25.7
KANSAS	4598	754	3973	714	86.4	21.0
KENTUCKY	1933	573	1812	568	93.8	40.5
LOUISIANA	4220	806	3744	768	88.7	24.9
MAINE	1482	483	1200	445	81.0	40.0
MARYLAND	2927	681	2556	637	87.3	29.8

TABLE 2-7 GENERAL AVIATION ACTIVE AIRCRAFT BY STATE OF BASED AIRCRAFT - CY 1978 (2 of 3)

STATE	ESTIMATE OF POPULATION	STANDARD ERROR	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
MASSACHUSETTS	3240	734	2854	691	88.1	29.2
MICHIGAN	8804	1366	7192	1311	81.7	19.6
MINNESOTA	5642	893	4694	862	83.2	20.2
MISSISSIPPI	2850	661	2503	639	87.8	30.3
MISSOURI	4488	835	3949	808	88.0	24.3
MONTANA	2480	589	2214	571	89.3	31.3
NEBRASKA	2941	662	2661	643	90.5	29.9
NEVADA	2245	479	1882	445	83.8	26.7
NEW HAMPSHIRE	1397	443	1173	425	84.0	40.4
NEW JERSEY	4694	891	4167	864	88.8	25.0
NEW MEXICO	2288	542	1925	506	84.1	29.8
NEW YORK	7633	1020	6272	970	82.2	16.8
NORTH CAROLINA	4753	863	4193	834	88.2	23.8
NORTH DAKOTA	1880	510	1645	493	87.5	35.4
OHIO	8284	1106	7143	1074	86.2	17.3
OKLAHOMA	3927	621	3359	588	85.5	20.2
OREGON	6213	959	5435	944	87.5	20.3
PENNSYLVANIA	6539	978	5867	963	89.7	19.9
RHODE ISLAND	376	233	330	225	87.6	80.7
SOUTH CAROLINA	1925	539	1611	509	83.7	35.3
SOUTH DAKOTA	1551	435	1372	410	88.4	36.2
TENNESSEE	3453	675	3113	660	90.2	26.0
TEXAS	18904	1399	15231	1360	80.6	9.5
UTAH	1713	481	1544	451	90.1	36.6
VERMONT	566	263	519	255	91.7	62.1
VIRGINIA	3655	796	3239	777	88.6	28.7

TABLE 2-7 GENERAL AVIATION ACTIVE AIRCRAFT BY STATE OF BASED AIRCRAFT - CY 1978 (3 of 3)

STATE	ESTIMATE OF POPULATION	STANDARD ERROR	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
WASHINGTON	7630	1154	6296	1114	82.5	19.2
WEST VIRGINIA	1133	423	1006	408	88.8	49.0
WISCONSIN	4966	833	4226	801	85.1	21.6
WYOMING	1104	297	1026	294	92.9	36.6
PUERTO RICO	362	227	308	216	85.0	80.1
OTHER U.S. TERRITORIES	142	128	110	116	77.7	107.7
FOREIGN	168	98	103	84	61.7	61.7
TOTAL	233952		198778	1269	85.0	0.5

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2-8 GENERAL AVIATION ACTIVE AIRCRAFT BY REGION OF BASED AIRCRAFT - CY 1978

REGION	ESTIMATE OF POPULATION	STANDARD ERROR	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
ALASKAN	6607	702	5799	675	87.8	13.8
CENTRAL	15730	1449	13782	1398	87.6	12.0
EASTERN	27405	1918	23786	1854	86.8	9.1
EUROPEAN	53	49	51	48	95.7	127.4
GREAT LAKES	39932	2307	34724	2229	85.3	7.4
NEW ENGLAND	8709	1110	7518	1048	86.3	16.3
NORTHWESTERN	16313	1551	13858	1502	84.9	12.2
PACIFIC	606	282	498	265	82.2	58.1
ROCKY MOUNTAIN	13596	1348	12248	1304	90.1	13.1
SOUTHERN	34442	1959	29668	1888	84.0	7.3
SOUTHWESTERN	32023	1835	26763	1780	82.6	7.4
WESTERN	38440	1912	30880	1830	79.5	6.1
TOTAL	233952		198778	1269	85.0	0.5

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES

TABLE 2-9 GENERAL AVIATION AIRCRAFT BY TYPE OF AIRCRAFT AND PRIMARY USE - CY 1978
(1 of 4)

	TOTAL ACTIVE		ACTIVE USES						INACTIVE			
	EST. NO. ACT.	% STD. ERROR	EXECUTIVE	BUSINESS	PERSONL	AERIAL APPL	INSTR	AIR TAXI		INDUS-TRIAL	REN-TAL	OTHER
FIXED WING												
PISTON												
1 ENG 1-3 SEATS	59185		843	3543	35653	6287	7746	99	538	2064	2408	21107
EST. NO. ACT.	860		D	B	A	A	B	D	D	C	B	A
STD. ERROR	73.7											
EST % ACT.												
1 ENG 4+ SEATS	101466		2371	28004	54194	48	5692	2670	850	5355	2278	7181
EST. NO. ACT.	857		C	A	A	D	C	C	D	C	D	B
STD. ERROR	93.4											
EST % ACT.												
TOTAL 1 ENG	160651		3214	31548	89847	6335	13438	2770	1388	7419	4687	28289
EST. NO. ACT.	1214		C	A	A	A	B	C	D	B	B	A
STD. ERROR	85.0											
EST % ACT.												
2 ENG 1-6 SEATS	15621		2270	7865	2429	54	495	1747	133	240	384	1467
EST. NO. ACT.	259		B	A	B	B	D	B	D	D	D	B
STD. ERROR	91.4											
EST % ACT.												

```

*****
*   STANDARD ERROR   *   CODE   *
*   -----         *   ----- *
*   GREATER          *   LESS THAN *
*   THAN             *   OR          *
*   -----         *   EQUAL TO  *
*   0 %              *   10 %      *
*   10 %             *   20 %      *
*   20 %             *   30 %      *
*   30 %             *   D          *
*****

```

TABLE 2-9 GENERAL AVIATION AIRCRAFT BY TYPE OF AIRCRAFT AND PRIMARY USE - CY 1978
(2 of 4)

TOTAL ACTIVE			ACTIVE USES						INACTIVE	
	EXEC- UTIVE	BUSI- NESS	PERSNL	AERIAL APPL	INSTR	AIR TAXI	INDUS- TRIAL	REN- TAL	OTHER	
2 ENG 7+ SEATS										
EST.NO.ACT.	2490	2191	478	143	33	1522	108	78	281	1242
STD.ERROR	A	B	D	D	D	B	C	D	D	B
EST % ACT.	85.5									
TOTAL 2 ENG										
EST.NO.ACT.	4761	10056	2907	158	529	3269	241	319	666	2709
STD.ERROR	A	A	B	D	D	B	D	D	C	B
EST % ACT.	89.4									
OTHER PISTON										
EST.NO.ACT.	3	18	1	83	4	45	1	29	34	157
STD.ERROR	D	D	D	A	D	A	D	B	C	A
EST % ACT.	58.4									
TOTAL PISTON										
EST.NO.ACT.	7979	41623	92756	6617	13972	6086	1631	7768	5387	31156
STD.ERROR	A	A	A	A	B	B	C	B	B	A
EST % ACT.	85.5									
TURBOPROP										
2 ENG 1-12 SEATS										
EST.NO.ACT.	1958	269	36	0	0	158	4	0	78	88
STD.ERROR	A	C	D	A	A	D	D	A	D	D
EST % ACT.	96.5									
2 ENG 13+ SEATS										
EST.NO.ACT.	233	25	0	0	0	280	2	0	24	27
STD.ERROR	A	D	A	A	A	A	D	A	D	D
EST % ACT.	94.9									

```

*****
* STANDARD ERROR *****
* CODE *****
* GREATER LESS THAN
* THAN UK
* EQUAL TO
* 0 $ 10 $ A
* 10 $ 20 $ B
* 20 $ 30 $ C
* 30 $ D
*****

```


TABLE 2-9 GENERAL AVIATION AIRCRAFT BY TYPE OF AIRCRAFT AND PRIMARY USE - CY 1978
(3 of 4)

	TOTAL ACTIVE			ACTIVE USES							INACTIVE		
	EST. NO. ACT.	STD. ERROR	EST % ACT.	EXEL-UTIVE	BUSI-NESS	PERSNL	AERIAL APPL	INSTR	AIR TAXI	INDUS-TRIAL		REIN-TAL	OTHER
TOTAL 2 ENG	3073	68	96.2	2191	295	36	0	0	438	7	0	103	116
EST. NO. ACT.				A	C	D	A	A	B	D	A	D	D
STD. ERROR													
EST % ACT.													
OTHER TURBOPROP	56	3	52.8	3	9	1	8	0	5	1	10	15	50
EST. NO. ACT.				C	C	D	A	A	D	D	B	B	A
STD. ERROR													
EST % ACT.													
TOTAL TURBOPROP	3130	69	94.8	2195	305	37	8	0	444	9	10	119	166
EST. NO. ACT.				A	C	D	A	A	B	D	B	D	D
STD. ERROR													
EST % ACT.													
TURBOJET													
2 ENG	2115	27	97.1	1760	41	12	4	18	153	5	2	116	64
EST. NO. ACT.				A	D	D	D	D	C	D	D	C	D
STD. ERROR													
EST % ACT.													
OTHER	364	34	57.5	211	15	7	0	3	17	2	23	82	268
EST. NO. ACT.				A	D	C	A	D	D	D	C	B	B
STD. ERROR													
EST % ACT.													
TOTAL TURBOJET	2480	44	88.2	1971	57	19	4	22	170	8	25	199	332
EST. NO. ACT.				A	D	D	D	D	C	D	C	B	B
STD. ERROR													
EST % ACT.													

```

*****
* STANDARD ERROR *****
* CODE
*
* GREATER LESS THAN
* THAN OR
* EQUAL TO
*
* 0% 10% 20% 30%
*
*
*
*
*****

```

TABLE 2-9 GENERAL AVIATION AIRCRAFT BY TYPE OF AIRCRAFT AND PRIMARY USE - CY 1978
(4 of 4)

	TOTAL ACTIVE		ACTIVE USES							INACTIVE		
	EST. NO. % STD. ERROR EST % ACT.	ACT.	EXEC- UTIVE	BUSI- NESS	PERSONL APPL	AERIAL APPL	INSTR	AIR TAXI	INDUS- TRIAL		REN- TAL	OTHER
TOTAL FIXED WING	EST. NO. 189433		12146	41986	92814	6630	13995	6701	1649	7803	5706	31656
STD. ERROR	1261		A	A	A	A	B	B	C	B	B	A
EST % ACT.	85.7											
ROTORCRAFT												
PISTON	EST. NO. 2822		66	441	478	739	262	139	299	23	370	2204
STD. ERROR	115		D	D	D	D	C	D	C	D	C	A
EST % ACT.	56.1											
TURBINE	EST. NO. 2492		421	199	34	45	7	1075	103	106	499	161
STD. ERROR	30		D	C	D	D	D	B	D	D	D	B
EST % ACT.	93.9											
TOTAL ROTORCRAFT	EST. NO. 5315		487	641	512	785	269	1215	402	130	869	2365
STD. ERROR	119		C	B	B	B	C	B	B	D	C	A
EST % ACT.	69.2											
OTHER	EST. NO. 4028		32	181	2881	1	476	19	7	255	173	1148
STD. ERROR	75		D	C	A	D	B	D	D	C	B	A
EST % ACT.	77.8											
TOTAL AIRCRAFT	EST. NO. 198778		12666	42809	96209	7418	14742	7936	2059	8189	6749	35169
STD. ERROR	1269		780	2193	2634	237	1595	776	445	1335	919	1269
EST % ACT.	85.0											

```

*****
* STANDARD ERROR *****
* CODE -----
* GREATER LESS THAN
* THAN OR
* EQUAL TO
* 0 % 10 %
* 10 % 20 %
* 20 % 30 %
* 30 %
*****

```

NOTE: ROW AND COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2-10 GENERAL AVIATION ACTIVE AIRCRAFT IFR FLOWN AND TRANSPONDER EQUIPPED - CY 1978 (1 of 2)

AIRCRAFT TYPE	ESTIMATED NUMBER OF A/C FLOWN IFR	PERCENT STANDARD ERROR	ESTIMATED PERCENT OF ACTIVE A/C FLOWN IFR	ESTIMATED NUMBER OF A/C FLOWN IFR WITH TRANSPONDER	PERCENT STANDARD ERROR	ESTIMATED PERCENT OF IFR WITH TRANSPONDER
FIXED WING PISTON	1920	C	3.2	1242	D	64.7
1 ENG 1-3 SEATS	45341	A	44.7	43984	A	97.0
TOTAL 1 ENG	47261	A	29.4	45226	A	95.7
2 ENG 1-6 SEATS	12957	A	82.9	12957	A	100.0
2 ENG 7+ SEATS	6636	A	90.6	6636	A	100.0
TOTAL 2 ENG	19594	A	85.4	19594	A	100.0
OTHER PISTON	101	A	46.0	101	A	100.0
TOTAL PISTON	66957	A	36.4	65087	A	97.2
TURBOPROP	2470	A	98.5	2470	A	100.0
2 ENG 1-12 SEATS	533	A	94.2	533	A	100.0
TOTAL 2 ENG	3004	A	97.7	3004	A	100.0
OTHER TURBOPROP	46	A	83.1	46	A	100.0

```

*****
* STANDARD ERROR *****
* CODE -----
*
* GREATER LESS THAN
* THAN OR
* EQUAL TO
*
* 0 % 10 % A
* 10 % 20 % B
* 20 % 30 % C
* 30 % D
*
*****

```


TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (1 of 15)

MANUFACTURER/MODFL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
OTHER 01	9023	4163	395	9.5	46.1	4.4
OTHER 02	1042	702	92	13.1	67.4	8.8
OTHER 03	372	225	16	7.2	60.4	4.3
OTHER 04	172	101	9	8.9	58.9	5.2
OTHER 05	68	37	7	17.4	55.0	9.6
OTHER 06	434	393	64	16.4	90.5	14.8
OTHER 07	55	48	4	8.4	86.6	7.3
OTHER 08	51	26	3	9.8	51.5	5.0
OTHER 09	242	226	11	4.7	93.4	4.3
OTHER 10	144	55	3	5.9	38.5	2.3
OTHER 11	1484	467	39	8.4	31.5	2.6
OTHER 12	219	182	10	5.2	83.1	4.3
OTHER 13	1586	982	42	4.3	61.9	2.7
AEROSPSA316	83	83	0	0.0	100.0	0.0
AEROSPSA341	66	38	18	48.4	57.6	27.9
AGUSTA205	62	62	0	0.0	100.0	0.0
AIRPTSA	291	194	24	12.4	66.8	8.3
AIRSPC18	22	3	1	37.1	13.3	5.0
AIRTRCAT300	148	142	7	5.1	96.1	4.9
AMD FALC10	96	86	0	0.0	100.0	0.0
AMD FALC20	181	176	5	2.8	97.0	2.7

Note: See following page for coding.

NOTE: Other XX refers to all general aviation aircraft belonging to manufacturer/model groups of fewer than 20 aircraft in size for aircraft XX where XX stands for

- 01 Fixed wing piston, 1 engine, 1-3 seats.
- 02 Fixed wing piston, 1 engine, 4+ seats.
- 03 Fixed wing piston, 2 engines, 1-6 seats.
- 04 Fixed wing piston, 2 engines, 7+ seats.
- 05 Fixed wing piston, other.
- 06 Fixed wing turboprop, 2 engines, 1-12 seats.
- 07 Fixed wing turboprop, 2 engines, 13+ seats.
- 08 Fixed wing turboprop, other.
- 09 Fixed wing turbojet, 2 engines.
- 10 Fixed wing turbojet, other.
- 11 Rotorcraft, piston.
- 12 Rotorcraft, turbine.
- 13 Other aircraft.

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (2 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
ARCNEH37	46	1	0	0.0	2.2	0.0
ARCTCS1A	94	32	2	6.2	34.2	2.1
ARCTCS1B1	25	10	1	12.2	40.0	4.9
ARONCA15	209	109	12	11.4	52.4	6.0
ARONCA58	165	84	6	7.0	50.9	3.6
ARONCA65	152	86	8	9.8	56.3	5.5
ARONCAC3	50	10	6	64.2	19.4	12.5
AYRES S2	811	811	0	0.0	100.0	0.0
BAC 111	26	26	0	0.0	100.0	0.0
BAG DH125	27	25	1	2.8	92.0	2.6
BALWKSFFRFPY	349	330	16	4.7	94.5	4.4
BEECH 100	197	192	12	6.5	97.3	6.3
BEECH 17	197	115	10	9.1	58.3	5.3
BEECH 18	1162	789	150	19.0	67.9	12.9
BEECH 200	294	294	0	0.0	100.0	0.0
BEECH 23	2691	2638	73	2.8	98.0	2.7
BEECH 33	1557	1557	0	0.0	100.0	0.0
BEECH 35	7076	6797	239	3.5	96.1	3.4
BEECH 36	1090	1076	25	2.3	98.7	2.3
BEECH 45	325	220	21	9.5	67.7	6.4
BEECH 50	376	344	16	4.6	91.5	4.2

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (3 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE CF PERCENT ACTIVE	STANDARD ERROR
BEECH 55	2117	2006	95	4.2	94.7	4.0
BEECH 56	66	61	3	4.9	91.8	4.5
BEECH 58	874	874	0	0.0	100.0	0.0
BEECH 60	340	338	4	1.3	99.3	1.3
BEECH 65	183	166	12	7.2	90.9	6.6
BEECH 76	88	83	3	3.2	94.0	3.0
BEECH 80	249	244	9	3.6	97.9	3.5
BEECH 90	523	520	8	1.5	99.5	1.5
BEECH 95	505	500	8	1.6	99.0	1.6
BEECH 99	111	105	9	8.3	95.0	7.9
BELL 204	143	88	4	4.5	61.6	2.8
BELL 206	1262	1260	14	1.1	99.8	1.1
BELL 212	95	95	0	0.0	100.0	0.0
BELL 47	1578	1047	85	8.1	66.3	5.4
BLANCA11	977	610	45	7.3	62.4	4.6
BLANCA1413	307	121	8	6.8	39.4	2.7
BLANCA1419	308	219	30	13.6	71.0	9.6
BLANCA17	1009	971	40	4.1	96.3	4.0
BLANCA7	6004	4409	276	6.3	73.4	4.6
BLANCA8	544	542	6	1.2	99.7	1.2
BWORM BN2	91	68	13	19.5	75.0	14.6

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (4 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
BOEING707	67	56	6	9.9	83.8	8.3
BOEING720	20	14	2	10.9	69.2	7.6
BOEING727	125	60	32	53.0	47.9	25.4
BOEING737	10	10	0	0.0	100.0	0.0
BOEING75	2059	788	132	16.8	38.3	6.4
BOEINGB17	22	17	1	6.4	76.5	4.9
BOLKMS105	61	53	4	7.8	87.2	6.8
BRASOVIS28	46	35	2	5.6	75.0	4.2
BWSTRFLEET2	31	11	2	15.2	36.4	5.5
BWSTRFLEET7	22	10	1	8.9	47.4	4.2
CANRONHODELO	57	50	4	7.4	88.5	6.5
CESSNA120	936	632	76	12.0	67.5	8.1
CESSNA140	2549	2018	154	7.6	79.2	6.0
CESSNA150	18535	17303	487	2.8	93.4	2.6
CESSNA170	2631	2463	117	4.7	93.6	4.4
CESSNA172	21757	21321	421	2.0	98.0	1.9
CESSNA175	1450	1364	51	3.8	94.1	3.5
CESSNA177	3081	3046	53	1.7	98.9	1.7
CESSNA180	2725	2446	118	4.8	89.8	4.3
CESSNA182	12205	11924	274	2.3	97.7	2.2
CESSNA185	1309	1254	46	3.6	95.8	3.5

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (5 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
CESSNA188	1809	1585	135	8.5	87.6	7.4
CESSNA190	88	65	5	7.1	74.3	5.3
CESSNA195	528	293	40	13.6	55.4	7.5
CESSNA206	2501	2474	48	1.9	98.9	1.9
CESSNA207	260	232	15	6.5	89.1	5.8
CESSNA210	5052	4741	197	4.2	93.8	3.9
CESSNA305	240	206	14	6.9	85.9	5.9
CESSNA310	3213	2740	179	6.5	85.3	5.6
CESSNA320	375	366	19	5.2	97.6	5.1
CESSNA336	101	80	4	5.4	79.1	4.3
CESSNA337	1302	1208	48	4.0	92.8	3.7
CESSNA340	619	619	0	0.0	100.0	0.0
CESSNA401	265	253	13	4.9	95.5	4.7
CESSNA402	522	412	39	9.4	79.0	7.4
CESSNA404	86	83	2	2.2	96.9	2.1
CESSNA411	205	194	20	10.2	94.4	9.6
CESSNA414	490	485	11	2.3	99.0	2.3
CESSNA421	1057	1032	57	5.5	97.6	5.4
CESSNA500	262	262	0	0.0	100.0	0.0
CESSNA750	84	25	2	9.1	30.2	2.7
CESSNAUC77	21	6	1	11.9	26.3	3.1

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (6 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE CF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE CF PERCENT ACTIVE	STANDARD ERROR
CESSNAUC94	36	14	2	11.1	39.3	4.4
CONWTH185	24	8	2	17.7	35.3	6.3
CONAERLA4	233	212	10	4.6	91.1	4.2
CURTISCH6	51	27	4	14.8	52.2	7.7
CURTISJR	21	4	1	27.6	20.0	5.5
CURTISROBIN	34	6	1	15.6	17.2	2.7
CURTISTRVAIR	181	52	4	7.7	28.6	2.2
CVAC 22	38	31	1	4.1	82.8	3.4
CVAC 240	64	33	3	9.6	51.3	4.9
CVAC 340	23	19	2	10.3	81.8	8.4
CVAC 440	21	8	2	21.7	38.5	8.3
CVAC BT13	100	26	4	16.8	25.9	4.4
CVAC L13	22	3	1	31.5	12.5	3.9
CVAC STC580	45	45	0	0.0	100.0	0.0
DART G	26	7	1	15.1	28.6	4.3
DHAV DHC2	349	203	13	6.2	58.3	3.6
DHAV DHC3	23	17	2	13.3	72.8	9.7
DHAV DHC6	120	120	0	0.0	100.0	0.0
DHAVXDH82	100	43	5	12.5	43.5	5.4
DOUG A26	68	40	5	11.5	59.3	6.8
DOUG DC3	494	258	70	27.0	52.2	14.1

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (7 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
DORG DC4	83	39	4	10.2	46.9	4.8
DORG DC6	107	66	6	8.8	61.2	5.4
DORG DC7	52	20	3	15.3	38.6	5.9
DORG DC8	42	21	3	14.7	50.0	7.4
DORG DC9	37	37	0	0.0	100.0	0.0
EIRVON20	52	48	1	1.9	92.9	1.7
EMAIR MA1	27	24	1	4.3	89.5	3.8
EMSTRMF28	367	324	12	3.6	88.3	3.2
FLEET 16B	27	13	2	15.7	47.1	7.4
FRCHLD24	320	109	13	11.7	34.2	4.0
FRCHLDC119	27	10	2	14.5	38.4	5.6
FRCHLDF27	42	35	2	6.4	84.5	5.4
FRCHLDEH1100	86	73	6	8.1	84.5	6.9
FRCHLDN62	243	110	11	10.2	45.1	4.6
GLASFLL201	36	32	3	8.1	90.1	7.3
GLASFLLH301	125	113	10	9.0	90.2	8.2
GROB ASTIR	46	42	1	2.5	91.4	2.3
GRTLKSZT1	165	115	10	9.1	69.4	6.3
GRUMANTB	36	14	2	13.5	40.0	5.4
GRUNAVAA1	633	543	32	5.9	85.8	5.1
GRUMAVAA5	1057	1051	16	1.5	99.4	1.5

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (8 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
BOEING B164	623	623	0	0.0	100.0	0.0
GULSTMAA1	667	591	19	3.2	88.6	2.9
GULSTMAA5	697	691	9	1.3	99.2	1.3
GULSTMG1159	132	132	0	0.0	100.0	0.0
GULSTMG159	150	150	0	0.0	100.0	0.0
GULSTMG164	894	795	42	5.3	88.9	4.7
GULSTMG21	68	45	4	8.2	65.7	5.4
GULSTMG44	89	59	6	10.1	65.8	6.6
GULSTMG73	26	23	1	4.1	89.5	3.7
GULSTMG7	40	40	0	0.0	100.0	0.0
HELIO B250	22	21	1	2.4	94.4	2.3
HELIO B295	90	64	4	6.0	70.6	4.2
HELIO B391	27	13	2	15.7	47.1	7.4
HELIO B395	22	17	2	9.2	76.9	7.0
HILLERUH12	642	425	43	10.0	66.2	6.6
HUGHES269	627	491	51	10.4	78.3	8.1
HUGHES369	410	403	15	3.6	98.2	3.5
HWKSLYDH104	43	19	3	14.0	44.3	6.2
HWKSLYDH114	47	43	1	3.2	90.6	2.9
HWKSLYDH125	154	149	5	3.5	96.8	3.4
RYNES B2	137	91	5	5.1	66.4	3.4

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (9 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
INTPC200	68	59	5	7.8	86.6	6.8
ISRAEL1121	116	109	7	6.6	93.6	6.2
ISRAEL1123	22	19	2	9.4	84.6	8.0
ISRAEL1124	47	47	0	0.0	100.0	0.0
JBMSTRDGA15	81	24	3	11.7	29.1	3.4
LAIKFN10	46	7	2	21.9	15.2	3.3
LEAR 23	67	67	0	0.0	100.0	0.0
LEAR 24	196	196	0	0.0	100.0	0.0
LEAR 25	174	149	24	15.8	85.8	13.5
LEAR 35	157	157	0	0.0	100.0	0.0
LET L13	182	160	11	6.6	88.1	5.9
LKHEED12A	24	16	2	11.2	66.7	7.5
LKHEED1329	140	124	12	9.5	88.5	8.4
LKHEED18	87	49	7	14.5	56.3	8.2
LKHEED188	10	5	2	33.4	53.1	17.7
LKHEEDPV1	63	41	9	22.5	64.9	14.6
LKHEEDT33	57	3	1	29.0	4.4	1.3
LUSCOM8	2341	1661	217	13.1	71.0	9.3
MARTIN404	29	18	2	13.0	62.5	8.1
MAULE M4	284	265	12	4.6	93.2	4.2
MAULE M5	344	335	10	2.9	97.4	2.8

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (10 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE CP PERCENT ACTIVE	STANDARD ERROR
MCCULHJ2	38	13	3	21.1	34.9	7.4
MCLISHFUNKB	136	77	7	8.6	56.5	4.9
MEYERSOTW	49	28	2	6.3	56.5	3.6
MNCOU90	73	22	2	8.3	30.5	2.5
MNNITER18	155	78	7	9.1	50.1	4.5
MOONEYE20	5024	4834	126	2.6	96.2	2.5
MORISY2150	35	33	2	5.9	93.8	5.5
MRCHTIS205	50	38	4	10.6	76.5	8.1
MTSBSIMU2	397	397	0	0.0	100.0	0.0
MULTECD16	52	39	2	4.7	74.4	3.5
NAHER B25	50	25	2	9.4	50.0	4.7
NAHER F51	144	70	7	10.0	48.9	4.9
NAHER NA260	64	44	5	12.1	69.0	8.4
NAHER T6	449	296	11	3.9	65.9	2.5
NAVAL N3N	161	53	5	8.7	33.1	2.9
NAVIONNAVION	1309	1143	103	9.0	87.3	7.8
ORLHELH19	40	12	1	7.9	30.6	2.4
PICARDAX6	171	156	12	8.0	91.4	7.3
PILATSB4	27	21	1	5.8	79.6	4.6
PIPER 600	189	189	0	0.0	100.0	0.0
PIPER J2	66	20	2	12.0	31.0	3.7

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (11 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE CF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE CF PERCENT ACTIVE	STANDARD ERROR
PIPER J3	4343	2177	136	6.3	50.1	3.1
PIPER J4	251	110	10	8.8	43.7	3.8
PIPER J5	365	204	12	6.0	56.0	3.4
PIPER PA12	1401	793	98	12.3	56.6	7.0
PIPER PA14	110	96	7	7.3	86.8	6.3
PIPER PA15	206	106	9	8.8	51.4	4.5
PIPER PA16	403	263	19	7.2	65.2	4.7
PIPER PA17	121	73	3	4.8	60.5	2.9
PIPER PA18	3371	2861	117	4.1	84.9	3.5
PIPER PA20	500	337	35	10.4	67.4	7.0
PIPER PA22	5347	3838	236	6.2	71.8	4.4
PIPER PA23	3756	3459	154	4.4	92.1	4.1
PIPER PA24	3394	3261	96	2.9	96.1	2.8
PIPER PA25	1764	1544	83	5.4	87.5	4.7
PIPER PA28	20255	19548	502	2.6	56.5	2.5
PIPER PA30	1320	1295	29	2.2	98.1	2.2
PIPER PA31	1496	1496	0	0.0	100.0	0.0
PIPER PA31T	183	183	0	0.0	100.0	0.0
PIPER PA32	3526	3410	86	2.5	96.7	2.4
PIPER PA34	1468	1376	85	6.2	93.7	5.8
PIPER PA36	351	320	19	5.9	91.1	5.3

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (12 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
PIPER PA38	636	518	33	6.3	81.5	5.1
PRATT PEG1	22	4	1	22.5	16.7	3.7
PROFJT200	35	32	1	4.5	90.5	4.1
RANKING5	56	21	1	7.0	37.5	2.6
RAVEN BX6	183	166	15	9.2	90.5	8.4
RAVEN S50	116	82	5	6.0	70.8	4.3
RAVEN S55	274	219	16	7.4	79.9	5.9
RKWE1112	729	695	32	4.7	95.3	4.4
RKWE11500	354	333	14	4.2	94.0	4.0
RKWE11520	70	42	8	18.2	59.7	10.9
RKWE11560	147	100	19	18.9	68.1	12.9
RKWE11680	413	411	8	1.8	99.6	1.8
RKWE11680TP	132	119	8	6.4	90.1	5.7
RKWE11690TP	209	187	16	8.4	89.5	7.5
RKWE11NA265	244	244	0	0.0	100.0	0.0
ROESCHIS	30	26	1	3.9	87.0	3.4
RYAN ST3	171	88	7	7.7	51.6	4.0
RYAN STA	33	12	2	19.1	35.0	6.7
SCHLERASH15	39	37	1	1.7	93.9	1.6
SCHLERASH19	38	37	1	1.5	96.4	1.8
SCHLERASH20	25	23	1	3.7	93.8	3.4

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (13 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
SCHLERK8	22	21	1	2.8	94.4	2.7
SCHLERK6	78	71	1	1.7	90.6	1.5
SCTAIVB206	30	28	1	4.4	93.8	4.1
SCTAIVHP137	23	15	2	14.6	65.3	9.5
SCHZERSG1	758	615	45	7.3	81.1	5.8
SCHZERSG2	611	543	27	4.9	88.9	4.4
SCHZERTG3A	23	8	1	12.5	36.8	4.6
SEMCO CLNGER	32	21	2	9.0	66.7	6.0
SEMCO MODELT	38	25	3	10.3	66.7	6.9
SKRSKYS55	92	28	2	6.4	30.4	1.9
SKRSKYS58	61	22	2	7.7	35.3	2.7
SKRSKYS58T	23	20	1	5.1	86.0	4.4
SLINDS100	370	333	11	3.3	90.1	3.0
SMITH 600	221	187	12	6.6	84.4	5.5
SNIAS SA318	37	35	4	10.9	94.9	10.3
SOCATANS894	42	38	3	7.5	90.7	6.8
SPRTHCIRRUS	111	107	3	3.3	96.3	3.1
SPRTHMIMBUS	28	24	1	4.5	85.7	3.8
STYSON10	180	37	10	27.1	20.8	5.7
STYSONL5	137	66	6	8.6	46.0	4.1
STYSONSE9	28	12	2	18.6	43.8	8.1

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (14 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
STOLAHRC3	253	106	12	11.2	41.8	4.7
SUPAC LA	108	29	2	6.9	26.7	1.8
SUPAC V	27	8	1	17.4	30.1	5.2
SWRNGNSA226	134	134	0	0.0	100.0	0.0
SWRNGNSA26	108	108	0	0.0	100.0	0.0
TCRAFKD	286	109	7	6.1	38.3	2.3
TCRAFT19	119	110	6	5.1	92.1	4.7
TCRAFTA	33	8	1	17.5	24.0	4.2
TCRAFTBC	1915	1013	134	13.3	52.9	7.0
TCRAFTBF	44	23	2	9.6	53.3	5.1
TCRAFTBL	234	90	8	9.0	38.6	3.5
TEMCO 11A	34	24	2	9.0	70.3	6.3
THORBRAX7	26	23	1	5.1	88.8	4.5
TRYTEKK	32	8	1	16.5	25.0	4.1
UNIVACGC1	706	465	22	4.8	65.9	3.2
UNIVAR108	2254	1454	147	10.1	64.5	6.5
UNIVAR415	2595	1820	189	10.4	70.1	7.3
VICKER745	26	9	1	9.7	34.8	3.4
WACO ASO	29	5	1	22.2	18.2	4.0
WACO GXE	34	10	1	13.5	29.6	4.0
WACO R	34	13	2	13.6	37.5	5.1

TABLE 2-11 GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT MANUFACTURER/MODEL GROUP
CY 1978 (15 of 15)

MANUFACTURER/MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE CF PERCENT ACTIVE	STANDARD ERROR
WACO U	31	7	1	11.2	22.2	2.5
WACO UPF7	160	76	3	4.2	47.6	2.0
WACO YK	56	18	1	8.1	31.9	2.6
WOODRUM65	363	137	21	15.0	37.7	5.7
WTHRLY201	73	71	4	5.5	97.1	5.4
TOTAL	233952	198778	1269	0.6	85.0	0.5

TABLE 2-12 GENERAL AVIATION AVIONICS EQUIPMENT BY AIRCRAFT TYPE - CY 1978 (2 of 8)

TYPE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO CUMM	4096 LODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
2 ENG 7+ SEATS												
ESTIMATED POPULATION	3550	5026	7164	321	8023	6762	547	8007	7863	7708	78	499
% STANDARD ERROR	A	A	A	D	A	A	C	A	A	A	D	C
ESTIMATED % OF TYPE	41.4	58.6	83.6	3.8	93.6	78.9	6.4	93.4	91.7	89.9	0.9	5.8
TOTAL 2 ENG												
ESTIMATED POPULATION	11634	14567	20928	737	24446	19375	1213	24297	23788	23291	161	1081
% STANDARD ERROR	A	A	A	C	A	A	B	A	A	A	D	B
ESTIMATED % OF TYPE	45.3	56.8	81.6	2.9	95.3	75.5	4.7	94.7	92.7	90.8	0.6	4.2
OTHER PISTON												
ESTIMATED POPULATION	207	164	207	59	263	97	115	250	242	238	0	128
% STANDARD ERROR	A	A	A	B	A	A	A	A	A	A	A	A
ESTIMATED % OF TYPE	54.6	43.4	54.5	15.7	69.5	25.8	30.5	66.1	64.0	62.8	0.0	33.5
TOTAL PISTON												
ESTIMATED POPULATION	124828	59389	92633	39618	116765	46286	98214	106531	93304	74987	358	102555
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	D	D
ESTIMATED % OF TYPE	58.1	27.6	43.1	18.4	54.3	21.5	45.7	49.6	43.4	34.9	0.2	47.7
TURBOPROP												
2 ENG 1-12 SEATS												
ESTIMATED POPULATION	533	2065	2331	53	2524	2474	71	2533	2533	2507	9	62
% STANDARD ERROR	C	A	A	D	A	A	D	A	A	A	D	C
ESTIMATED % OF TYPE	20.5	79.5	89.8	2.1	97.2	95.3	2.8	97.6	97.6	96.6	0.4	2.4
2 ENG 13+ SEATS												
ESTIMATED POPULATION	126	488	547	7	576	518	17	506	584	584	19	7
% STANDARD ERROR	B	A	A	D	A	A	D	A	A	A	D	D
ESTIMATED % OF TYPE	21.2	81.8	91.8	1.2	56.6	86.8	2.9	98.3	97.9	97.9	3.3	1.2

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TABLE 2-12 GENERAL AVIATION AVIONICS EQUIPMENT BY AIRCRAFT TYPE - CY 1978 (4 of 8)

TYPE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NU CUMM	4096 CODE	ALT ENC	RD TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	ND ILS
TOTAL FIXED WING												
ESTIMATED POPULATION	125839	64500	98063	39794	122648	51933	98441	112403	99156	80798	450	102788
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF TYPE	56.9	29.2	44.4	18.0	55.5	23.5	44.5	50.8	44.8	36.5	0.2	46.5
ROTORCRAFT												
PISTON												
ESTIMATED POPULATION	1954	413	101	2670	572	105	4454	63	22	32	13	4942
% STANDARD ERROR	A	B	D	A	B	D	A	D	D	D	D	A
ESTIMATED % OF TYPE	38.9	8.2	2.0	53.1	11.4	2.1	88.6	1.3	0.4	0.6	0.3	98.3
TURBINE												
ESTIMATED POPULATION	722	1849	468	91	1307	160	1346	876	295	274	0	1771
% STANDARD ERROR	C	A	C	B	B	D	B	C	D	D	A	B
ESTIMATED % OF TYPE	27.2	69.7	17.7	3.5	49.3	6.0	50.7	33.0	11.1	10.4	0.0	66.7
TOTAL ROTORCRAFT												
ESTIMATED POPULATION	2676	2262	565	2762	1879	266	5801	939	317	307	13	6713
% STANDARD ERROR	A	A	C	A	B	D	A	B	D	D	D	A
ESTIMATED % OF TYPE	34.9	29.5	7.4	36.0	24.5	3.5	75.5	12.2	4.1	4.0	0.2	87.4
OTHER												
ESTIMATED POPULATION	1851	95	54	3230	74	26	5102	52	10	8	0	5120
% STANDARD ERROR	A	C	D	A	D	D	A	D	D	D	A	A
ESTIMATED % OF TYPE	35.8	1.8	1.1	62.4	1.4	0.5	58.6	1.0	0.2	0.2	0.0	98.9
TOTAL AIRCRAFT												
ESTIMATED POPULATION	130367	66858	98688	45787	124603	52225	109344	113395	95484	81113	464	114623
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF POP	55.7	28.6	42.2	19.6	53.3	22.3	46.7	48.5	42.5	34.7	0.2	49.0

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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TABLE 2-12 GENERAL AVIATION AVIONICS EQUIPMENT BY AIRCRAFT TYPE - CY 1978 (5 of 8)

TYPE	NAVIGATION EQUIPMENT											NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	L RNAV	AUTOPLT	K ADAR ALT	HTHR RADAR		
FIXED WING PISTON												
1 ENG 1-3 SEATS												
ESTIMATED POPULATION	33591	9228	5725	5313	712	493	81	365	66	53	37850	
% STANDARD ERROR	A	B	B	B	D	D	D	D	D	D	A	A
ESTIMATED % OF TYPE	41.8	11.5	7.1	6.6	0.9	0.6	0.1	0.5	0.1	0.1	47.1	
1 ENG 4+ SEATS												
ESTIMATED POPULATION	47907	59329	71674	70494	30075	6317	448	35735	2655	1726	4679	
% STANDARD ERROR	A	A	A	A	A	B	D	A	D	D	B	
ESTIMATED % OF TYPE	44.1	54.6	66.0	64.9	27.7	5.8	0.4	32.9	2.4	1.6	4.3	
TOTAL 1 ENG												
ESTIMATED POPULATION	81499	68557	77400	75807	30787	6810	530	36121	2722	1779	42530	
% STANDARD ERROR	A	A	A	A	A	B	D	A	D	D	A	
ESTIMATED % OF TYPE	43.1	36.3	41.0	40.1	16.3	3.6	0.3	19.1	1.4	0.9	22.5	
2 ENG 1-6 SEATS												
ESTIMATED POPULATION	5058	12201	15382	16305	13999	4052	186	14048	2723	4062	380	
% STANDARD ERROR	A	A	A	A	A	A	D	A	B	A	D	
ESTIMATED % OF TYPE	29.6	71.4	90.0	95.4	81.9	23.7	1.1	82.2	15.9	23.8	2.2	
2 ENG 7+ SEATS												
ESTIMATED POPULATION	2151	6332	7557	7752	6812	2746	223	6321	2217	3885	337	
% STANDARD ERROR	B	A	A	A	A	B	D	A	B	A	D	
ESTIMATED % OF TYPE	25.1	73.9	88.2	90.4	79.5	32.0	2.6	73.8	25.9	45.3	3.9	
TOTAL 2 ENG												
ESTIMATED POPULATION	7210	18534	22939	24057	20812	6798	409	20369	4941	7948	718	
% STANDARD ERROR	A	A	A	A	A	A	D	A	A	A	C	
ESTIMATED % OF TYPE	28.1	72.2	89.4	93.8	81.1	26.5	1.6	79.4	19.3	31.0	2.8	

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TABLE 2-12 GENERAL AVIATION AVIONICS EQUIPMENT BY AIRCRAFT TYPE - CY 1978 (6 of 8)

TYPE	NAVIGATION EQUIPMENT																																																																																																																																																																																																																																																																																																																																																																																																																																		
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTOPLT	RADAR ALT	WTHR RADAR	NO NAVEQ																																																																																																																																																																																																																																																																																																																																																																																																																								
OTHER PISTON												ESTIMATED POPULATION	88	224	255	238	148	7	12	89	30	95	63	% STANDARD ERROR	B	A	A	A	A	D	D	A	C	A	B	ESTIMATED % OF TYPE	23.5	59.1	67.4	63.1	39.1	2.0	3.3	23.5	8.1	25.2	16.7	TOTAL PISTON												ESTIMATED POPULATION	88798	87316	100595	100104	51748	13617	952	56580	7694	9823	43312	% STANDARD ERROR	A	A	A	A	A	A	C	A	B	A	A	ESTIMATED % OF TYPE	41.3	40.6	46.8	46.6	24.1	6.3	0.4	26.3	3.6	4.6	20.1	TURBOPROP												2 ENG 1-12 SEATS												ESTIMATED POPULATION	315	2248	2499	2539	2506	1388	142	2462	2264	2252	53	% STANDARD ERROR	D	A	A	A	A	A	C	A	A	A	D	ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****											
ESTIMATED POPULATION	88	224	255	238	148	7	12	89	30	95	63	% STANDARD ERROR	B	A	A	A	A	D	D	A	C	A	B	ESTIMATED % OF TYPE	23.5	59.1	67.4	63.1	39.1	2.0	3.3	23.5	8.1	25.2	16.7	TOTAL PISTON												ESTIMATED POPULATION	88798	87316	100595	100104	51748	13617	952	56580	7694	9823	43312	% STANDARD ERROR	A	A	A	A	A	A	C	A	B	A	A	ESTIMATED % OF TYPE	41.3	40.6	46.8	46.6	24.1	6.3	0.4	26.3	3.6	4.6	20.1	TURBOPROP												2 ENG 1-12 SEATS												ESTIMATED POPULATION	315	2248	2499	2539	2506	1388	142	2462	2264	2252	53	% STANDARD ERROR	D	A	A	A	A	A	C	A	A	A	D	ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																							
% STANDARD ERROR	B	A	A	A	A	D	D	A	C	A	B	ESTIMATED % OF TYPE	23.5	59.1	67.4	63.1	39.1	2.0	3.3	23.5	8.1	25.2	16.7	TOTAL PISTON												ESTIMATED POPULATION	88798	87316	100595	100104	51748	13617	952	56580	7694	9823	43312	% STANDARD ERROR	A	A	A	A	A	A	C	A	B	A	A	ESTIMATED % OF TYPE	41.3	40.6	46.8	46.6	24.1	6.3	0.4	26.3	3.6	4.6	20.1	TURBOPROP												2 ENG 1-12 SEATS												ESTIMATED POPULATION	315	2248	2499	2539	2506	1388	142	2462	2264	2252	53	% STANDARD ERROR	D	A	A	A	A	A	C	A	A	A	D	ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																			
ESTIMATED % OF TYPE	23.5	59.1	67.4	63.1	39.1	2.0	3.3	23.5	8.1	25.2	16.7	TOTAL PISTON												ESTIMATED POPULATION	88798	87316	100595	100104	51748	13617	952	56580	7694	9823	43312	% STANDARD ERROR	A	A	A	A	A	A	C	A	B	A	A	ESTIMATED % OF TYPE	41.3	40.6	46.8	46.6	24.1	6.3	0.4	26.3	3.6	4.6	20.1	TURBOPROP												2 ENG 1-12 SEATS												ESTIMATED POPULATION	315	2248	2499	2539	2506	1388	142	2462	2264	2252	53	% STANDARD ERROR	D	A	A	A	A	A	C	A	A	A	D	ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																															
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ESTIMATED POPULATION	88798	87316	100595	100104	51748	13617	952	56580	7694	9823	43312	% STANDARD ERROR	A	A	A	A	A	A	C	A	B	A	A	ESTIMATED % OF TYPE	41.3	40.6	46.8	46.6	24.1	6.3	0.4	26.3	3.6	4.6	20.1	TURBOPROP												2 ENG 1-12 SEATS												ESTIMATED POPULATION	315	2248	2499	2539	2506	1388	142	2462	2264	2252	53	% STANDARD ERROR	D	A	A	A	A	A	C	A	A	A	D	ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																							
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2 ENG 1-12 SEATS												ESTIMATED POPULATION	315	2248	2499	2539	2506	1388	142	2462	2264	2252	53	% STANDARD ERROR	D	A	A	A	A	A	C	A	A	A	D	ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																							
ESTIMATED POPULATION	315	2248	2499	2539	2506	1388	142	2462	2264	2252	53	% STANDARD ERROR	D	A	A	A	A	A	C	A	A	A	D	ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																			
% STANDARD ERROR	D	A	A	A	A	A	C	A	A	A	D	ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																															
ESTIMATED % OF TYPE	12.2	86.6	96.2	97.8	96.5	53.5	5.5	94.8	87.2	86.8	2.1	2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																											
2 ENG 13+ SEATS												ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																							
ESTIMATED POPULATION	164	449	567	578	550	56	69	266	244	458	7	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																			
% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	D	ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																															
ESTIMATED % OF TYPE	27.5	75.2	95.0	96.9	92.3	9.5	11.6	44.7	40.9	76.8	1.2	TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																											
TOTAL 2 ENG												ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																																							
ESTIMATED POPULATION	480	2697	3066	3117	3057	1445	211	2729	2508	2711	61	% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																																																			
% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																																																															
ESTIMATED % OF TYPE	15.0	84.5	96.0	97.6	95.7	45.2	6.6	85.5	78.6	84.9	1.9	OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																																																																											
OTHER TURBOPROP												ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																																																																																							
ESTIMATED POPULATION	19	70	76	85	77	7	21	54	51	51	16	% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																																																																																																			
% STANDARD ERROR	B	A	A	A	A	B	B	A	A	A	B	ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																																																																																																															
ESTIMATED % OF TYPE	18.2	65.9	71.3	80.3	72.0	6.9	20.5	51.4	48.6	48.6	15.8	*****												* STANDARD ERROR * CODE * *												* GREATER * LESS THAN * *												* THAN * OR * *												* EQUAL TO * *												* 0 % 10 % * *												* 10 % 20 % * *												* 20 % 30 % * *												* 30 % * *												*****																																																																																																																																																																																																																																																																																																											

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TABLE 2-12 GENERAL AVIATION AVIONICS EQUIPMENT BY AIRCRAFT TYPE - CY 1978 (7 of 8)

TYPE	NAVIGATION EQUIPMENT											NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTOPLT	RADAR ALT	WTHk RADAR		
TOTAL TURBOPROP												
ESTIMATED POPULATION	499	2768	3143	3203	3134	1452	233	2784	2560	2763	77	
% STANDARD ERROR	C	A	A	A	A	A	B	A	A	A	D	
ESTIMATED % OF TYPE	15.1	83.9	95.2	97.1	95.0	44.0	7.1	84.4	77.6	83.7	2.4	
TURBOJET												
2 ENG												
ESTIMATED POPULATION	171	2011	2104	2106	2126	729	706	2106	1944	2096	10	
% STANDARD ERROR	C	A	A	A	A	B	A	A	A	A	D	
ESTIMATED % OF TYPE	7.9	92.3	96.5	96.6	97.6	33.4	32.4	96.6	89.2	96.2	0.5	
OTHER												
ESTIMATED POPULATION	94	465	472	486	499	137	261	453	427	428	83	
% STANDARD ERROR	A	A	A	A	A	C	B	A	A	A	A	
ESTIMATED % OF TYPE	15.0	73.6	74.6	76.8	78.9	21.7	41.4	71.7	67.6	67.7	13.2	
TOTAL TURBOJET												
ESTIMATED POPULATION	266	2477	2576	2592	2626	866	968	2559	2372	2525	94	
% STANDARD ERROR	B	A	A	A	A	B	A	A	A	A	B	
ESTIMATED % OF TYPE	9.5	88.1	91.6	92.2	93.4	30.8	34.4	91.0	84.4	85.8	3.3	
TOTAL FIXED WING												
ESTIMATED POPULATION	89565	92561	106314	105900	57509	15936	2154	61924	12627	15112	43484	
% STANDARD ERROR	A	A	A	A	A	A	B	A	A	A	A	
ESTIMATED % OF TYPE	40.5	41.9	48.1	47.9	26.0	7.2	1.0	28.0	5.7	6.8	19.7	
ROTORCRAFT												
PISTON												
ESTIMATED POPULATION	448	162	19	179	36	32	9	14	25	12	4291	
% STANDARD ERROR	B	C	D	C	D	D	D	D	D	D	A	
ESTIMATED % OF TYPE	8.9	3.2	0.4	3.6	0.7	0.6	0.2	0.3	0.5	0.2	85.4	

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*****
* STANDARD ERROR *****
* CODE
* -----
* GREATER LESS THAN
* THAN OR
* EQUAL TO
* -----
* 0 % 10 % A
* 10 % 20 % B
* 20 % 30 % C
* 30 % D
*****

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TABLE 2-12 GENERAL AVIATION AVIONICS EQUIPMENT BY AIRCRAFT TYPE - CY 1978 (8 of 8)

TYPE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOK 200CH	2+ RCVR	ADF	DME	KNAV	LRNAV	AUTOPLT	RADAR ALT	WTHR RADAR	NO NAVEQ
TURBINE											
ESTIMATED POPULATION	341	1143	349	1886	359	165	126	43	124	73	302
% STANDARD ERROR	D	B	D	A	D	D	B	D	C	C	B
ESTIMATED % OF TYPE	12.9	43.1	13.2	71.1	13.6	6.2	4.8	1.6	4.7	2.8	11.4
TOTAL ROTORCRAFT											
ESTIMATED POPULATION	789	1306	368	2065	395	197	136	58	149	85	4594
% STANDARD ERROR	B	B	D	A	D	D	B	D	C	C	A
ESTIMATED % OF TYPE	10.3	17.0	4.8	26.9	5.2	2.6	1.8	0.8	1.9	1.1	59.8
OTHER											
ESTIMATED POPULATION	53	18	22	6	1	0	1	17	13	4	5078
% STANDARD ERROR	D	D	D	D	D	A	D	D	D	D	A
ESTIMATED % OF TYPE	1.0	0.3	0.4	0.1	0.0	0.0	0.0	0.3	0.3	0.1	98.1
TOTAL AIRCRAFT											
ESTIMATED POPULATION	90408	93886	106705	107973	57906	16133	2292	62000	12790	15202	53157
% STANDARD ERROR	A	A	A	A	A	A	B	A	A	A	A
ESTIMATED % OF POP	38.6	40.1	45.6	46.2	24.8	6.9	1.0	26.5	5.5	6.5	22.7

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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TABLE 2-13 GENERAL AVIATION AVIONICS EQUIPMENT BY STATE OF BASED AIRCRAFT - CY 1978
(1 of 17)

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
ALABAMA												
ESTIMATED POPULATION	1613 D	676 D	1150 D	815 D	1290 C	484 D	1785 C	1109 C	874 C	915 D	0 A	1964 C
% STANDARD ERROR	52.2	21.9	37.3	26.4	41.8	15.7	57.8	35.9	26.3	29.6	0.0	63.6
ESTIMATED % OF STATE												
ALASKA												
ESTIMATED POPULATION	4707 B	1406 D	1358 D	917 C	1483 D	180 D	5228 B	2128 C	1154 B	1044 B	0 A	4492 B
% STANDARD ERROR	71.2	21.3	20.6	13.9	22.4	2.7	79.1	32.2	17.5	15.8	0.0	68.0
ESTIMATED % OF STATE												
ARIZONA												
ESTIMATED POPULATION	2985 C	1719 D	2304 C	1089 D	2992 C	1165 C	2569 C	2452 C	2317 C	2062 C	17 D	3018 C
% STANDARD ERROR	52.3	30.1	40.4	19.1	52.4	20.4	45.0	43.0	40.6	36.1	0.3	52.5
ESTIMATED % OF STATE												
ARKANSAS												
ESTIMATED POPULATION	1301 D	521 D	898 D	831 D	951 D	398 D	1649 D	874 D	819 D	708 D	0 A	1722 D
% STANDARD ERROR	48.5	19.5	33.5	31.0	35.5	14.9	61.5	32.6	30.5	26.4	0.0	64.2
ESTIMATED % OF STATE												
CALIFORNIA												
ESTIMATED POPULATION	16981 A	8719 B	12866 B	5975 A	16250 A	6799 B	14237 A	14786 A	12957 A	10579 B	61 C	14939 A
% STANDARD ERROR	55.7	28.6	42.2	19.6	53.3	22.3	46.7	48.5	42.5	34.7	0.2	49.0
ESTIMATED % OF STATE												

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TABLE 2-13 GENERAL AVIATION AVIONICS EQUIPMENT BY STATE OF BASED AIRCRAFT - CY 1978
(6 of 17)

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
NORTH CAROLINA												
ESTIMATED POPULATION	2829	1523	2020	788	2690	1068	2050	2719	2495	2085	0	1835
% STANDARD ERROR	C	D	C	D	C	C	C	C	C	D	A	C
ESTIMATED % OF STATE	59.5	32.0	42.5	16.6	56.6	22.5	43.1	57.2	52.5	43.9	0.0	38.6
NORTH DAKOTA												
ESTIMATED POPULATION	983	289	494	633	603	189	1269	594	520	431	0	1232
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	A	C
ESTIMATED % OF STATE	52.3	15.4	26.3	33.7	32.1	10.1	67.5	31.6	27.7	23.0	0.0	65.5
OHIO												
ESTIMATED POPULATION	4847	2051	3713	1597	4351	1415	4025	4271	3511	2363	0	3985
% STANDARD ERROR	B	C	C	C	C	C	B	C	C	C	A	B
ESTIMATED % OF STATE	58.5	24.8	44.8	19.3	52.5	17.1	48.6	51.6	42.4	28.5	0.0	48.2
OKLAHOMA												
ESTIMATED POPULATION	2309	1297	2240	589	2584	831	1329	1756	1955	1188	14	1526
% STANDARD ERROR	C	C	C	D	B	C	C	C	C	C	D	C
ESTIMATED % OF STATE	58.8	33.0	57.1	15.0	65.8	21.2	33.8	44.7	49.8	30.3	0.4	38.5
OREGON												
ESTIMATED POPULATION	2821	1758	1525	1789	2702	1277	3612	2686	2572	1884	0	3319
% STANDARD ERROR	B	C	C	D	B	C	C	B	B	C	A	C
ESTIMATED % OF STATE	45.4	28.3	24.6	28.8	43.5	20.6	58.1	43.2	41.4	30.3	0.0	53.4
PENNSYLVANIA												
ESTIMATED POPULATION	3751	1691	3108	1267	3623	1304	2934	3663	3409	2602	3	2754
% STANDARD ERROR	C	C	C	C	C	D	B	C	C	C	D	B
ESTIMATED % OF STATE	57.4	25.9	47.5	19.4	55.4	19.9	44.9	56.0	52.1	39.8	0.0	42.1
RHODE ISLAND												
ESTIMATED POPULATION	198	120	164	69	224	104	146	191	153	129	2	170
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	D
ESTIMATED % OF STATE	52.6	31.9	43.7	18.5	59.5	27.6	38.8	50.8	40.6	34.4	0.8	45.2

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TABLE 2-13 GENERAL AVIATION AVIONICS EQUIPMENT BY STATE OF BASED AIRCRAFT - CY 1978
(7 of 17)

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
SOUTH CAROLINA	ESTIMATED POPULATION	890	655	911	422	377	878	931	837	693	14	942
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	C
	ESTIMATED % OF STATE	46.2	34.1	47.3	21.9	53.2	19.6	45.6	48.4	43.5	36.0	0.7
SOUTH DAKOTA	ESTIMATED POPULATION	784	270	399	540	186	976	481	417	370	0	1026
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	A	C
	ESTIMATED % OF STATE	50.5	17.4	25.7	34.8	36.4	12.0	62.9	31.0	26.9	23.9	0.0
TENNESSEE	ESTIMATED POPULATION	1748	1374	1884	462	1065	1220	2109	1937	1711	11	1198
	% STANDARD ERROR	C	D	C	D	C	D	C	C	C	D	D
	ESTIMATED % OF STATE	50.6	39.8	54.6	13.4	63.0	30.8	35.3	61.1	56.1	49.6	0.3
TEXAS	ESTIMATED POPULATION	10530	5407	7977	3705	4216	8828	9168	8034	6560	38	9263
	% STANDARD ERROR	B	B	B	B	B	B	B	B	B	D	B
	ESTIMATED % OF STATE	55.7	28.6	42.2	19.6	53.3	22.3	46.7	48.5	42.5	34.7	0.2
UTAH	ESTIMATED POPULATION	933	728	841	121	439	525	818	792	587	0	792
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	A	D
	ESTIMATED % OF STATE	54.5	42.5	49.1	7.1	68.8	25.7	30.7	47.8	46.3	34.3	0.0
VERMONT	ESTIMATED POPULATION	350	164	217	78	122	318	346	222	199	0	218
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	A	D
	ESTIMATED % OF STATE	61.8	29.0	38.4	13.8	45.1	21.6	56.1	61.2	39.2	35.2	0.0
VIRGINIA	ESTIMATED POPULATION	1950	1350	1389	589	655	1737	2315	1511	1208	0	1385
	% STANDARD ERROR	D	D	D	D	D	C	D	D	D	A	C
	ESTIMATED % OF STATE	53.3	36.9	38.0	16.1	53.8	17.9	47.5	63.3	41.4	33.0	0.0

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TABLE 2-13 GENERAL AVIATION AVIONICS EQUIPMENT BY STATE OF BASED AIRCRAFT - CY 1978
(8 of 17)

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	ND COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLDPE	MLS	NO ILS
WASHINGTON	456.4	1766	317.4	1537	3952	992	3598	343.4	243.6	1973	0	4025
% STANDARD ERROR	C	C	C	C	C	D	C	C	C	C	A	C
ESTIMATED % OF STATE	59.8	23.2	41.6	20.1	51.8	13.0	47.2	45.0	31.9	25.9	0.0	52.8
WEST VIRGINIA	51.8	482	587	144	732	325	392	65.8	597	475	1	430
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	D
ESTIMATED % OF STATE	45.7	42.5	51.8	12.7	64.6	28.7	34.6	58.1	52.7	42.0	0.1	38.0
WISCONSIN	248.2	1492	204.2	1190	2752	538	2253	2037	194.1	1520	0	2788
% STANDARD ERROR	C	D	C	D	C	D	C	C	C	D	A	C
ESTIMATED % OF STATE	50.0	30.1	41.1	24.0	55.4	18.9	45.4	41.0	39.1	30.6	0.0	56.2
WYOMING	685	337	472	74	688	216	398	459	486	351	0	563
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	A	D
ESTIMATED % OF STATE	62.0	30.6	42.8	6.8	62.3	19.6	36.1	41.6	44.1	31.8	0.0	51.0
PUERTO RICO	221	137	164	13	202	34	159	193	162	150	9	166
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	C
ESTIMATED % OF STATE	61.1	38.1	45.3	3.7	55.9	9.5	44.0	53.4	45.0	41.5	2.5	46.0
OTHER U.S. TERRITORIES	107	31	63	12	62	15	83	61	44	36	0	82
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	A	D
ESTIMATED % OF STATE	75.7	21.8	44.7	8.7	43.7	10.6	58.5	43.3	31.3	25.6	0.0	57.7
FOREIGN	61	72	95	2	83	55	48	84	83	80	5	40
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	D
ESTIMATED % OF STATE	36.6	42.9	56.7	1.4	49.7	33.1	28.6	49.9	49.9	47.9	3.3	23.9

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TABLE 2-13 GENERAL AVIATION AVIONICS EQUIPMENT BY STATE OF BASED AIRCRAFT - CY 1978
(9 of 17)

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2* SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
TOTAL	130367	66858	98688	45787	124603	52225	109344	113395	99684	81113	464	114623
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF POP	55.7	28.6	42.2	19.6	53.3	22.3	46.7	48.5	42.5	34.7	0.2	49.0

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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TABLE 2-13 GENERAL AVIATION AVIONICS EQUIPMENT BY STATE OF BASED AIRCRAFT - CY 1978
(10 of 17)

STATE	NAVIGATION EQUIPMENT											NO NAVEQ	
	VDR 100CH	VDR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTOPLT	RADAR ALT	WTHR RADAR			
ALABAMA													
ESTIMATED POPULATION	997	1128	1250	1226	597	142	3	760	253	316	951		
% STANDARD ERROR	D	C	D	C	D	D	D	D	D	D	D		
ESTIMATED % OF STATE	32.3	36.5	40.5	39.7	19.3	4.6	0.1	24.6	8.2	10.3	30.8		
ALASKA													
ESTIMATED POPULATION	3026	2003	1477	3095	587	9	35	457	210	17	1343		
% STANDARD ERROR	B	C	D	B	C	D	D	D	D	D	B		
ESTIMATED % OF STATE	45.8	30.3	22.4	46.9	8.9	0.1	0.5	6.9	3.2	0.3	20.3		
ARIZONA													
ESTIMATED POPULATION	2472	1940	2349	2342	1163	548	16	1215	164	209	1355		
% STANDARD ERROR	C	D	C	C	D	D	D	D	D	D	C		
ESTIMATED % OF STATE	43.3	34.0	41.2	41.0	20.4	9.6	0.3	21.3	2.9	3.7	23.7		
ARKANSAS													
ESTIMATED POPULATION	828	983	1102	1001	592	135	2	717	124	144	889		
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D		
ESTIMATED % OF STATE	30.9	36.7	41.1	37.4	22.1	5.0	0.1	26.7	4.7	5.4	33.2		
CALIFORNIA													
ESTIMATED POPULATION	11768	12225	13902	14085	7561	2104	305	8079	1677	1982	6921		
% STANDARD ERROR	B	B	A	A	B	D	D	B	B	B	A		
ESTIMATED % OF STATE	38.6	40.1	45.6	46.2	24.8	6.9	1.0	26.5	5.5	6.5	22.7		
COLORADO													
ESTIMATED POPULATION	1530	2029	1757	1796	1004	255	45	1223	244	264	1069		
% STANDARD ERROR	D	C	C	C	C	D	D	C	D	D	D		
ESTIMATED % OF STATE	31.4	41.7	36.1	36.9	20.6	5.3	0.9	25.2	5.0	5.4	22.0		

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TABLE 2-13 GENERAL AVIATION AVIONICS EQUIPMENT BY STATE OF BASED AIRCRAFT - CY 1978
(15 of 17)

STATE	NAVIGATION EQUIPMENT																																																																																																																																																																																																																																																																																																																																															
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTPLT	RADAR ALT	WTHR KADAR	NO NAVEQ																																																																																																																																																																																																																																																																																																																																					
NORTH DAKOTA													ESTIMATED POPULATION	746	484	559	621	266	50	0	282	27	29	680	% STANDARD ERROR	D	D	D	D	D	D	A	D	D	D	D	ESTIMATED % OF STATE	39.7	25.7	29.7	33.1	14.2	2.7	0.0	15.0	1.5	1.6	36.2	OHIO												ESTIMATED POPULATION	3090	3385	4371	3997	1728	334	99	2004	449	516	1979	% STANDARD ERROR	C	C	C	C	C	D	D	C	C	C	C	ESTIMATED % OF STATE	37.3	40.9	52.8	48.3	20.9	4.0	1.2	24.2	5.4	6.2	23.9	OKLAHOMA												ESTIMATED POPULATION	1315	1869	2397	2231	1048	168	31	1316	316	343	774	% STANDARD ERROR	D	C	C	C	C	D	D	C	D	D	C	ESTIMATED % OF STATE	33.5	47.6	61.0	56.8	26.7	4.3	0.8	33.5	8.1	8.8	19.7	OREGON												ESTIMATED POPULATION	3124	1997	3458	2231	1842	471	20	1745	79	95	1179	% STANDARD ERROR	C	C	C	B	C	C	D	C	D	D	B	ESTIMATED % OF STATE	50.3	32.1	55.7	35.9	29.7	7.6	0.3	28.1	1.3	1.5	19.0	PENNSYLVANIA												ESTIMATED POPULATION	2867	2412	3711	3419	1830	303	86	1757	249	420	1466	% STANDARD ERROR	C	C	C	C	D	D	D	C	D	D	C	ESTIMATED % OF STATE	43.9	36.9	56.8	52.3	28.0	4.6	1.3	23.9	3.8	6.4	22.4	RHODE ISLAND												ESTIMATED POPULATION	169	140	178	144	66	16	4	78	9	11	70	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	ESTIMATED % OF STATE	45.0	37.2	47.5	38.4	17.5	4.4	1.2	20.8	2.6	3.1	18.8	SOUTH CAROLINA												ESTIMATED POPULATION	585	765	905	828	450	198	3	399	116	144	549	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	ESTIMATED % OF STATE	30.4	39.7	47.0	43.0	23.4	10.3	0.2	20.8	6.0	7.5	28.6
ESTIMATED POPULATION	746	484	559	621	266	50	0	282	27	29	680																																																																																																																																																																																																																																																																																																																																					
% STANDARD ERROR	D	D	D	D	D	D	A	D	D	D	D																																																																																																																																																																																																																																																																																																																																					
ESTIMATED % OF STATE	39.7	25.7	29.7	33.1	14.2	2.7	0.0	15.0	1.5	1.6	36.2																																																																																																																																																																																																																																																																																																																																					
OHIO																																																																																																																																																																																																																																																																																																																																																
ESTIMATED POPULATION	3090	3385	4371	3997	1728	334	99	2004	449	516	1979																																																																																																																																																																																																																																																																																																																																					
% STANDARD ERROR	C	C	C	C	C	D	D	C	C	C	C																																																																																																																																																																																																																																																																																																																																					
ESTIMATED % OF STATE	37.3	40.9	52.8	48.3	20.9	4.0	1.2	24.2	5.4	6.2	23.9																																																																																																																																																																																																																																																																																																																																					
OKLAHOMA																																																																																																																																																																																																																																																																																																																																																
ESTIMATED POPULATION	1315	1869	2397	2231	1048	168	31	1316	316	343	774																																																																																																																																																																																																																																																																																																																																					
% STANDARD ERROR	D	C	C	C	C	D	D	C	D	D	C																																																																																																																																																																																																																																																																																																																																					
ESTIMATED % OF STATE	33.5	47.6	61.0	56.8	26.7	4.3	0.8	33.5	8.1	8.8	19.7																																																																																																																																																																																																																																																																																																																																					
OREGON																																																																																																																																																																																																																																																																																																																																																
ESTIMATED POPULATION	3124	1997	3458	2231	1842	471	20	1745	79	95	1179																																																																																																																																																																																																																																																																																																																																					
% STANDARD ERROR	C	C	C	B	C	C	D	C	D	D	B																																																																																																																																																																																																																																																																																																																																					
ESTIMATED % OF STATE	50.3	32.1	55.7	35.9	29.7	7.6	0.3	28.1	1.3	1.5	19.0																																																																																																																																																																																																																																																																																																																																					
PENNSYLVANIA																																																																																																																																																																																																																																																																																																																																																
ESTIMATED POPULATION	2867	2412	3711	3419	1830	303	86	1757	249	420	1466																																																																																																																																																																																																																																																																																																																																					
% STANDARD ERROR	C	C	C	C	D	D	D	C	D	D	C																																																																																																																																																																																																																																																																																																																																					
ESTIMATED % OF STATE	43.9	36.9	56.8	52.3	28.0	4.6	1.3	23.9	3.8	6.4	22.4																																																																																																																																																																																																																																																																																																																																					
RHODE ISLAND																																																																																																																																																																																																																																																																																																																																																
ESTIMATED POPULATION	169	140	178	144	66	16	4	78	9	11	70																																																																																																																																																																																																																																																																																																																																					
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ESTIMATED % OF STATE	45.0	37.2	47.5	38.4	17.5	4.4	1.2	20.8	2.6	3.1	18.8																																																																																																																																																																																																																																																																																																																																					
SOUTH CAROLINA																																																																																																																																																																																																																																																																																																																																																
ESTIMATED POPULATION	585	765	905	828	450	198	3	399	116	144	549																																																																																																																																																																																																																																																																																																																																					
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ESTIMATED % OF STATE	30.4	39.7	47.0	43.0	23.4	10.3	0.2	20.8	6.0	7.5	28.6																																																																																																																																																																																																																																																																																																																																					

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TABLE 2-13 GENERAL AVIATION AVIONICS EQUIPMENT BY STATE OF BASED AIRCRAFT - CY 1978
(17 of 17)

STATE	NAVIGATION EQUIPMENT											NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTOPLT	RADAR ALT	WTHR RADAR		
WEST VIRGINIA	351	617	649	594	404	137	3	347	63	117	171	
ESTIMATED POPULATION	D	D	D	D	D	D	D	D	D	D	D	
% STANDARD ERROR	31.0	54.5	57.3	52.5	35.7	12.2	0.3	30.6	5.6	10.3	15.1	
ESTIMATED % OF STATE												
WISCONSIN	1983	1866	2175	2108	944	357	13	1206	195	258	1326	
ESTIMATED POPULATION	C	D	C	C	C	D	D	C	D	D	C	
% STANDARD ERROR	39.9	37.6	43.8	42.5	19.0	7.2	0.3	24.3	3.9	5.2	26.7	
ESTIMATED % OF STATE												
WYOMING	432	510	673	699	225	47	0	353	16	23	136	
ESTIMATED POPULATION	D	D	D	D	D	D	A	D	D	D	D	
% STANDARD ERROR	39.2	46.2	60.9	63.3	20.4	4.3	0.0	32.0	1.5	2.1	12.3	
ESTIMATED % OF STATE												
PUERTO RICO	171	157	174	228	43	7	0	53	0	8	27	
ESTIMATED POPULATION	D	D	U	D	D	D	A	D	A	D	D	
% STANDARD ERROR	47.2	43.6	48.2	63.2	12.0	2.2	0.0	14.8	0.0	2.2	7.5	
ESTIMATED % OF STATE												
OTHER U.S. TERRITORIES	68	59	55	80	16	0	1	34	1	1	16	
ESTIMATED POPULATION	D	D	D	D	D	A	D	D	D	D	D	
% STANDARD ERROR	48.3	41.9	39.2	56.4	11.6	0.0	1.2	24.1	1.2	1.2	11.5	
ESTIMATED % OF STATE												
FOREIGN	37	72	81	108	60	28	27	43	33	34	17	
ESTIMATED POPULATION	D	U	D	D	D	D	D	D	D	D	D	
% STANDARD ERROR	22.4	42.9	48.3	64.6	36.1	16.9	16.1	25.7	19.8	20.7	10.6	
ESTIMATED % OF STATE												
TOTAL	90408	93686	106705	107973	57906	16133	2292	62000	12790	15202	53157	
ESTIMATED POPULATION	A	A	A	A	A	A	B	A	A	A	A	
% STANDARD ERROR	38.6	40.1	45.6	46.2	24.8	6.9	1.0	26.5	5.5	6.5	22.7	
ESTIMATED % OF POP												

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
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0 %	A
10 %	B
20 %	C
30 %	D

TABLE 2-14 GENERAL AVIATION AVIONICS EQUIPMENT BY REGION OF BASED AIRCRAFT - CY 1978
(1 of 6)

REGION	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
ALASKAN												
ESTIMATED POPULATION	4707	1406	1358	917	1483	180	5228	2128	1154	1044	0	4492
% STANDARD ERROR	B	D	D	C	D	D	B	C	B	B	A	B
ESTIMATED % OF REGION	71.2	21.3	20.6	13.9	22.4	2.7	79.1	32.2	17.5	15.8	0.0	68.0
CENTRAL												
ESTIMATED POPULATION	8773	4597	6458	3164	8976	2588	6750	7789	6595	5462	24	7626
% STANDARD ERROR	B	B	B	B	B	B	B	B	B	B	D	B
ESTIMATED % OF REGION	55.8	29.2	41.1	20.1	57.1	16.5	42.9	49.5	41.9	34.7	0.2	48.5
EASTERN												
ESTIMATED POPULATION	15808	7995	12865	4501	15015	6335	12465	15521	13168	10085	24	11635
% STANDARD ERROR	B	D	B	B	B	B	A	B	B	B	D	B
ESTIMATED % OF REGION	57.7	29.2	46.9	16.4	54.8	23.1	45.5	56.6	48.1	36.8	0.1	42.5
EUROPEAN												
ESTIMATED POPULATION	19	56	58	2	36	32	37	43	51	51	2	22
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	L
ESTIMATED % OF REGION	37.3	104.9	108.8	4.5	68.4	60.7	69.9	82.3	96.1	96.1	5.3	42.2
GREAT LAKES												
ESTIMATED POPULATION	22058	10215	16392	8908	21343	7681	18788	18269	16164	12176	85	20838
% STANDARD ERROR	A	B	B	A	A	B	A	A	B	B	D	A
ESTIMATED % OF REGION	55.2	25.6	41.0	22.3	53.4	19.2	47.0	45.8	40.5	30.5	0.2	52.2

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TABLE 2-14 GENERAL AVIATION AVIONICS EQUIPMENT BY REGION OF BASED AIRCRAFT - CY 1978
(2 of 6)

REGION	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT			ILS RECEIVING EQUIPMENT				
	360 CH	720 CH	Z+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER B/C	GLIDE SLOPE	MLS	NO ILS
NEW ENGLAND												
ESTIMATED POPULATION	4337	2989	3497	1657	4464	2156	4202	4434	3827	3239	14	4092
% STANDARD ERROR	B	C	C	C	B	C	B	B	C	C	D	B
ESTIMATED % OF REGION	49.8	34.3	40.2	19.0	51.3	24.8	48.2	50.9	43.9	37.2	0.2	47.0
NORTHWESTERN												
ESTIMATED POPULATION	8753	4201	5413	3808	7761	2572	8554	7098	5786	4403	2	8741
% STANDARD ERROR	B	B	B	C	B	B	B	B	B	B	D	B
ESTIMATED % OF REGION	53.7	25.8	33.2	23.3	47.6	15.8	52.4	43.5	35.5	27.0	0.0	53.6
PACIFIC												
ESTIMATED POPULATION	369	152	170	81	268	62	325	210	165	162	2	379
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	D
ESTIMATED % OF REGION	60.9	25.2	28.2	13.5	44.3	10.3	53.7	34.8	27.4	26.7	0.4	62.6
ROCKY MOUNTAIN												
ESTIMATED POPULATION	7275	3580	4719	2687	6980	2611	6198	5403	4734	3014	32	7393
% STANDARD ERROR	B	B	B	B	B	B	B	B	B	B	D	B
ESTIMATED % OF REGION	53.5	26.3	34.7	19.8	51.3	19.2	45.6	39.7	34.8	28.1	0.2	54.4
SOUTHERN												
ESTIMATED POPULATION	18176	10963	15016	6727	18394	7717	15834	17054	15233	12816	72	16462
% STANDARD ERROR	A	B	A	B	A	A	A	A	A	A	D	A
ESTIMATED % OF REGION	52.8	31.8	43.6	19.5	53.4	22.4	46.0	49.5	44.2	37.2	0.2	47.8
SOUTHWESTERN												
ESTIMATED POPULATION	17374	9781	13657	6195	16610	6586	15237	14534	12675	10151	81	16064
% STANDARD ERROR	B	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF REGION	54.3	30.5	42.6	19.3	51.9	20.6	47.6	45.4	39.6	31.7	0.3	50.2

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TABLE 2-14 GENERAL AVIATION AVIONICS EQUIPMENT BY REGION OF BASED AIRCRAFT - CY 1978
(3 of 6)

REGION	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NU COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER REC	GLIDE SLOPE	MLS	NO ILS
WESTERN												
ESTIMATED POPULATION	21423	11202	16344	7316	20926	8732	17357	18310	16617	13496	79	18686
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF POP	55.7	29.1	42.5	19.0	54.4	22.7	45.2	47.6	43.2	35.1	0.2	48.6
TOTAL												
ESTIMATED POPULATION	130367	66858	98688	45787	124603	52225	109344	113395	99484	81113	464	114623
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF POP	55.7	28.6	42.2	19.6	53.3	22.3	46.7	48.5	42.5	34.7	0.2	49.0

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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TABLE 2-14 GENERAL AVIATION AVIONICS EQUIPMENT BY REGION OF BASED AIRCRAFT - CY 1978
(5 of 6)

REGION	NAVIGATION EQUIPMENT										
	VDR 100CH	VDR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTOPLT	RADAR ALT	WTRF RADAR	NO NAVEQ
NORTHWESTERN ESTIMATED POPULATION & STANDARD ERROR ESTIMATED % OF REGION	6274 B	5884 B	7653 B	6131 B	3275 B	814 D	41 D	3320 B	224 D	242 D	3690 B
	38.5	36.1	46.9	37.6	20.1	5.0	0.3	20.4	1.4	1.5	22.6
PACIFIC ESTIMATED POPULATION & STANDARD ERROR ESTIMATED % OF REGION	256 D	169 D	167 D	180 D	106 D	15 D	8 D	60 D	18 D	12 D	166 D
	42.3	27.9	27.7	29.8	17.6	2.6	1.4	9.9	3.1	2.0	27.4
ROCKY MOUNTAIN ESTIMATED POPULATION & STANDARD ERROR ESTIMATED % OF REGION	4941 B	5225 B	5332 B	5615 B	2678 B	609 D	77 D	3286 B	459 C	462 C	3337 B
	36.3	38.4	39.2	41.3	19.7	4.5	0.6	24.2	3.4	3.4	24.5
SOUTHERN ESTIMATED POPULATION & STANDARD ERROR ESTIMATED % OF REGION	13386 B	13839 A	15928 A	16060 A	8696 A	2630 B	315 D	9697 A	2121 B	2784 B	7777 B
	38.9	40.2	46.2	46.6	25.2	76.4	0.9	28.2	6.2	8.1	22.6
SOUTHWESTERN ESTIMATED POPULATION & STANDARD ERROR ESTIMATED % OF REGION	12023 B	13191 A	14848 A	15329 A	7566 A	1749 B	367 B	8691 A	1782 B	2105 B	7127 A
	37.5	41.2	46.4	47.9	23.6	5.5	1.2	27.1	5.6	6.6	22.3
WESTERN ESTIMATED POPULATION & STANDARD ERROR ESTIMATED % OF REGION	15073 B	15388 A	17423 A	17475 A	9409 A	2924 C	344 D	10006 B	1980 C	2334 B	8630 A
	39.2	40.0	45.3	45.5	24.5	7.6	0.9	26.0	5.2	6.1	22.5

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TABLE 2-14 GENERAL AVIATION AVIONICS EQUIPMENT BY REGION OF BASED AIRCRAFT - CY 1978
(6 of 6)

REGION	NAVIGATION EQUIPMENT											NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTOPLT	RADAR ALT	WTHR RADAR		
TOTAL	90408	93886	106705	107973	57906	16133	2292	62000	12790	15202	53157	
% STANDARD ERROR ESTIMATED % OF POP	A 38.6	A 40.1	A 45.6	A 46.2	A 24.8	A 6.9	B 1.0	A 26.5	A 5.5	A 6.5	A 22.7	

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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TABLE 2-15 GENERAL AVIATION AVIONICS EQUIPMENT BY PRIMARY USE - CY 1978 (2 of 4)

PRIMARY USE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NU CUMM	4096 CODE	ALT ENC	NU TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
AIR TAXI												
ESTIMATED POPULATION	3279	5048	5463	68	6523	3909	1575	6759	6107	5875	81	1335
% STANDARD ERROR	B	B	B	D	A	B	B	B	B	B	D	B
ESTIMATED % OF USE	41.3	63.6	68.8	0.9	82.2	49.3	19.9	85.2	77.0	74.0	1.0	16.8
INDUSTRIAL/SPECIAL												
ESTIMATED POPULATION	1143	893	552	104	1486	584	636	1281	1090	455	0	837
% STANDARD ERROR	C	D	C	D	C	D	C	D	D	D	A	C
ESTIMATED % OF USE	55.5	43.4	26.8	5.1	72.2	28.4	30.9	62.2	53.0	22.1	0.0	40.7
RENTAL												
ESTIMATED POPULATION	4625	3673	3874	226	6537	1816	1793	5347	4855	3906	0	2389
% STANDARD ERROR	C	C	C	C	B	D	C	C	C	C	A	C
ESTIMATED % OF USE	56.5	44.9	47.3	2.8	79.8	22.2	21.9	65.3	59.3	47.7	0.0	29.2
OTHER												
ESTIMATED POPULATION	2748	2614	1693	873	3538	1813	2613	2855	2565	2219	9	3282
% STANDARD ERROR	B	C	C	C	B	C	B	B	C	C	D	B
ESTIMATED % OF USE	40.7	38.7	25.1	12.9	52.4	26.9	38.7	42.3	38.0	32.9	0.1	48.6
INACTIVE												
ESTIMATED POPULATION	9264	2233	3453	19345	3966	1239	26544	4098	3006	2233	66	26154
% STANDARD ERROR	A	B	A	A	A	B	A	A	A	A	D	A
ESTIMATED % OF USE	26.3	6.4	9.8	55.0	11.3	3.5	75.5	11.7	8.5	6.4	0.2	74.4
TOTAL												
ESTIMATED POPULATION	130367	66858	98688	45787	124603	52225	109344	113395	99484	81113	464	114623
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF POP	55.7	28.6	42.2	19.6	53.3	22.3	46.7	48.5	42.5	34.7	0.2	49.0

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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* STANDARD ERROR *****
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TABLE 2-15 GENERAL AVIATION AVIONICS EQUIPMENT BY PRIMARY USE - CY 1978 (3 of 4)

PRIMARY USE	NAVIGATION EQUIPMENT										WTHR RADAR	NO NAVEQ	
	VDR 100CH	VDR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTOPLT	RADAR ALT	RNAV			
EXECUTIVE													
ESTIMATED POPULATION	2402	10691	11229	11228	10088	4444	1191	10284	5771	7052	296		
% STANDARD ERROR	B	A	A	A	A	A	A	A	A	A	D		
ESTIMATED % OF USE	19.0	84.4	88.7	88.7	79.7	35.1	9.4	81.2	45.6	55.7	2.3		
BUSINESS													
ESTIMATED POPULATION	17115	25377	32906	33111	21579	5802	480	22549	2728	3871	1940		
% STANDARD ERROR	A	A	A	A	A	B	D	A	B	B	B		
ESTIMATED % OF USE	40.0	59.3	76.9	77.3	50.4	13.6	1.1	52.7	6.4	9.0	4.5		
PERSONAL													
ESTIMATED POPULATION	50895	32584	41733	40605	16561	4131	234	17582	1258	553	16931		
% STANDARD ERROR	A	A	A	A	B	C	D	A	D	D	A		
ESTIMATED % OF USE	52.9	33.9	43.4	42.2	17.2	4.3	0.2	18.3	1.3	0.6	17.6		
AERIAL APPLICATION													
ESTIMATED POPULATION	406	273	284	411	133	38	2	64	0	57	6915		
% STANDARD ERROR	C	D	D	C	C	D	D	D	A	D	A		
ESTIMATED % OF USE	5.5	3.7	3.8	5.5	1.8	0.5	0.0	0.9	0.0	0.8	93.2		
INSTRUCTIONAL													
ESTIMATED POPULATION	7714	6261	3385	5513	1299	199	28	1316	1510	1489	1270		
% STANDARD ERROR	B	B	C	C	D	D	D	D	D	D	C		
ESTIMATED % OF USE	52.3	42.5	23.0	37.4	8.8	1.4	0.2	8.9	10.2	10.1	8.6		
AIR TAXI													
ESTIMATED POPULATION	2367	5328	5967	7113	4485	674	174	3844	551	1212	393		
% STANDARD ERROR	C	B	B	B	B	C	D	B	C	B	C		
ESTIMATED % OF USE	29.8	67.1	75.2	89.6	56.5	8.5	2.2	48.4	6.9	15.3	5.0		

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TABLE 2-15 GENERAL AVIATION AVIONICS EQUIPMENT BY PRIMARY USE - CY 1978 (4 of 4)

PRIMARY USE	NAVIGATION EQUIPMENT											NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	AUTUPLT	RADAR ALT	WTHK RADAR		
INDUSTRIAL/SPECIAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	799 D 38.8	859 D 41.8	1141 D 55.4	983 D 47.8	578 D 28.1	44 D 2.2	29 D 1.4	604 D 29.4	120 D 5.9	20 D 1.0	443 C 21.5	
RENTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	3194 C 39.0	4687 C 57.2	4606 C 56.3	4242 C 51.8	1566 C 19.1	305 D 3.7	37 D 0.5	2292 C 28.0	96 D 1.2	135 D 1.7	507 C 6.2	
OTHER ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	1359 D 20.1	2843 B 42.1	2020 C 29.9	2248 B 33.3	1420 C 21.1	354 D 5.3	142 C 2.1	1236 C 18.3	412 C 6.1	462 C 6.9	2008 B 29.8	
INACTIVE ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	6045 A 17.2	3680 A 10.5	3429 A 9.8	2906 A 8.3	1411 B 4.0	395 C 1.1	67 D 0.2	1457 B 4.1	485 C 1.4	382 B 1.1	20966 A 59.6	
TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF POP	90408 A 38.6	93886 A 40.1	106705 A 45.6	107973 A 46.2	57906 A 24.8	16133 A 6.9	2292 B 1.0	62000 A 26.5	12790 A 5.5	15202 A 6.5	53157 A 22.7	

NOTE : COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (1 of 12)

MANUFACTURER / MODEL	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)	PERCENT STANDARD ERROR
OTHER 01	6432.8	1563.0	24.3
OTHER 02	1467.3	192.7	13.1
OTHER 03	521.0	73.0	14.0
OTHER 04	804.1	197.6	24.6
OTHER 05	1134.1	137.3	12.1
OTHER 06	1554.6	751.3	48.3
OTHER 07	455.4	68.1	15.0
OTHER 08	416.5	76.0	18.3
OTHER 09	440.7	74.0	16.8
OTHER 10	523.3	44.0	8.4
OTHER 11	912.4	172.0	18.9
OTHER 12	666.2	125.7	18.9
OTHER 13	687.1	194.7	28.3
AEROSPA316	122.7	18.5	15.1
AEROSPA341	51.5	18.5	35.8
AGUSTA205	209.8	24.5	11.7
AIRPTSA	626.8	58.0	9.3
AIRSPC18	4.3	0.5	11.8
AIRTRCAT300	94.4	16.0	17.0
AND FALC10	140.0	20.2	14.4
AND FALC20	692.8	56.9	8.2
ARCRNEH37	127.5	0.0	0.0
ARCIICS1A	289.6	8.2	2.8
ARCTICS1B1	16.7	2.0	11.9
ARONCAL5	376.8	24.1	6.4
ARONCA58	347.4	16.7	4.8

Note: See following page for coding.

NOTE: Other XX refers to all general aviation aircraft belonging to manufacturer/model groups of fewer than 20 aircraft in size for aircraft XX where XX stands for

- 01 Fixed wing piston, 1 engine, 1-3 seats.
- 02 Fixed wing piston, 1 engine, 4+ seats.
- 03 Fixed wing piston, 2 engines, 1-6 seats.
- 04 Fixed wing piston, 2 engines, 7+ seats.
- 05 Fixed wing piston, other.
- 06 Fixed wing turboprop, 2 engines, 1-12 seats.
- 07 Fixed wing turboprop, 2 engines, 13+ seats.
- 08 Fixed wing turboprop, other.
- 09 Fixed wing turbojet, 2 engines.
- 10 Fixed wing turbojet, other.
- 11 Rotorcraft, piston.
- 12 Rotorcraft, turbine.
- 13 Other aircraft.

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (2 of 12)

MANUFACTURER / MODEL	CONTINUED			PERCENT STANDARD ERROR
	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)		
ARONCA65	356.5	22.6		6.3
ARDNCAC3	69.6	20.4		29.4
AYRES S2	2456.3	533.8		21.7
BAC 111	249.9	26.2		10.9
BAG DH125	9.9	0.8		7.6
BALNKSIFREFY	34.0	5.2		15.3
BEECH 100	583.2	90.5		15.5
BEECH 17	392.5	20.5		5.2
BEECH 18	7660.4	1309.9		17.1
BEECH 200	263.1	43.4		16.5
BEECH 23	4326.7	571.5		13.2
BEECH 33	3794.3	950.6		25.1
BEECH 35	49040.3	15735.4		32.1
BEECH 36	1117.1	140.6		12.6
BEECH 45	1586.3	111.6		7.0
BEECH 50	1918.3	139.6		7.3
BEECH 55	4574.3	458.1		10.0
BEECH 56	127.3	7.5		5.9
BEECH 58	933.8	135.9		14.6
BEECH 60	345.1	33.4		9.7
BEECH 65	763.9	86.2		11.3
BEECH 76	7.4	0.9		12.6
BEECH 80	1082.6	102.6		9.5
BEECH 90	2094.3	260.4		12.4
BEECH 95	1691.2	342.8		20.3
BEECH 99	1486.1	142.2		9.6
BELL 204	720.0	22.5		3.1

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (3 of 12)

CONTINUED

MANUFACTURER / MODEL	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)	PERCENT STANDARD ERROR
BELL 206	3841.9	818.2	21.3
BELL 212	315.7	61.5	19.5
BELL 47	6901.7	466.1	6.8
BLANCA11	1503.7	147.6	9.8
BLANCA113	476.0	10.5	2.2
BLANCA1419	498.8	40.0	8.0
BLANCA17	1056.9	82.1	7.8
BLANCA7	12348.3	1067.7	8.6
BLANCA8	207.7	34.6	16.7
BNORM BN2	542.8	86.3	15.9
BOEING707	3149.0	105.6	3.4
BOEING720	620.6	25.5	4.1
BOEING727	2957.5	0.0	0.0
BOEING737	36.1	0.0	0.0
BOEING75	7954.1	993.7	12.5
BOEINGB17	132.0	8.3	6.3
BOLKMS105	136.7	15.7	11.5
BRA SOVI S28	6.0	0.7	11.7
BRWSTRFLEET2	75.0	5.1	6.8
BRWSTRFLEET7	74.2	3.4	4.6
CAMRONMODELO	3.5	0.5	12.8
CESSNA120	2744.5	232.4	8.5
CESSNA140	6010.3	483.9	8.1
CESSNA150	55428.7	7570.6	13.7
CESSNA170	6494.7	442.2	6.8
CESSNA172	33798.3	3981.3	11.8
CESSNA175	2596.8	147.3	5.7

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (4 of 12)

CONTINUED

MANUFACTURER / MODEL	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)	PERCENT STANDARD ERROR
CESSNA177	2983.7	297.6	10.0
CESSNA180	7532.8	1303.9	17.3
CESSNA182	22582.4	2212.1	9.8
CESSNA185	1809.4	290.0	16.0
CESSNA188	2484.8	322.4	13.0
CESSNA190	203.3	8.4	4.1
CESSNA195	1455.6	153.5	10.5
CESSNA206	3759.2	576.0	15.3
CESSNA207	347.7	63.9	18.4
CESSNA210	6923.2	722.7	10.4
CESSNA305	1473.3	133.2	9.0
CESSNA310	8081.9	1063.0	13.2
CESSNA320	996.7	153.7	15.4
CESSNA336	185.1	8.2	4.4
CESSNA337	1836.7	170.9	9.3
CESSNA340	500.2	95.0	19.0
CESSNA401	751.8	45.5	6.0
CESSNA402	1151.8	303.4	26.3
CESSNA404	59.6	8.5	14.2
CESSNA411	662.1	87.5	13.2
CESSNA414	524.2	77.3	14.7
CESSNA421	1742.7	617.9	35.5
CESSNA500	634.5	112.4	17.7
CESSNA150	185.7	8.1	4.4
CESSNAUC77	40.6	1.5	3.7
CESSNAUC94	88.5	4.4	5.0
COMWTH185	32.3	2.1	6.5

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (5 of 12)

CONTINUED

MANUFACTURER / MODEL	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)	PERCENT STANDARD ERROR
CONAERLA4	192.5	16.4	8.5
CURTISC46	908.1	95.3	10.5
CURTISJR	21.7	3.5	15.5
CURTISROBIN	37.8	1.7	4.5
CURTISRVAIR	543.4	28.0	5.2
CVAC 22	1244.9	27.6	2.2
CVAC 240	1177.9	70.4	6.0
CVAC 340	541.7	73.3	13.5
CVAC 440	435.3	48.6	11.2
CVAC BT13	303.3	25.0	8.2
CVAC L13	14.7	2.2	14.7
CVAC STC580	592.5	70.0	11.8
DART G	24.9	1.1	4.3
DHAV DHC2	2411.5	70.4	2.9
DHAV DHC3	115.5	7.1	6.1
DHAV DHC6	1535.7	364.4	23.7
DHAVXXDH82	333.6	24.8	7.4
DOUG A26	170.3	23.9	14.0
DOUG DC3	11789.2	1667.6	14.1
DOUG DC4	1997.4	75.5	3.8
DOUG DC6	3498.6	153.7	4.4
DOUG DC7	1199.9	46.8	3.9
DOUG DC8	1804.4	112.1	6.2
DOUG DC9	403.0	54.7	13.6
EIRVONZ0	8.3	0.5	5.7
EMAIR MA1	27.4	2.8	10.3
ENSTRMF28	273.3	22.5	8.2

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (6 of 12)

CONTINUED

MANUFACTURER / MODEL	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)	PERCENT STANDARD ERROR
FLEET 168	41.0	4.3	10.6
FRCHLD24	530.4	23.0	4.3
FRCHLDC119	192.6	3.9	2.0
FRCHLDF27	470.3	38.2	8.1
FRCHLDFH1100	187.8	22.7	12.1
FRCHLDM62	386.3	25.4	6.6
GLASF201	12.2	2.4	20.0
GLASF1H301	161.1	50.4	31.3
GR0B ASTIR	5.5	0.4	6.8
GRTLKS2T1	76.0	17.1	22.5
GRUMANT8M	66.7	3.8	5.7
GRUMAVAA1	666.1	71.2	10.7
GRUMAVAA5	806.4	189.9	23.5
GRUMAVG164	1259.4	142.2	11.3
GULSTMAA1	825.0	36.0	4.4
GULSTMAA5	589.8	63.1	10.7
GULSTMG1159	502.8	30.3	6.0
GULSTMG159	1337.4	40.8	3.1
GULSTMG164	2287.3	269.2	11.8
GULSTMG21	830.7	64.6	7.8
GULSTMG44	413.7	36.9	8.9
GULSTMG73	277.6	10.7	3.9
GULSTMGA7	5.6	0.5	8.0
HELIO H250	50.4	2.4	4.8
HELIO H295	163.9	9.6	5.8
HELIO H391	61.3	6.4	10.5
HELIO H395	52.5	4.9	9.4

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (7 of 12)

CONTINUED

MANUFACTURER / MODEL	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)	PERCENT STANDARD ERROR
HILLERUH12	3444.9	321.3	9.3
HUGHES269	1370.3	281.7	20.6
HUGHES369	549.5	93.8	17.1
HWKSLYDH104	296.6	30.5	10.3
HWKSLYDH114	1008.1	34.7	3.4
HWKSLYDH125	580.4	57.1	9.8
HYNES B2	136.3	5.6	4.1
INTRCP200	160.3	45.2	28.2
ISRAEL1121	426.7	44.4	10.4
ISRAEL1123	35.0	2.9	8.2
ISRAEL1124	32.0	4.2	13.0
JBMSTRDGA15	128.7	5.3	4.1
LAIKFN10	26.4	2.0	7.6
LEAR 23	367.5	15.0	4.1
LEAR 24	722.2	128.6	17.8
LEAR 25	568.0	160.3	28.2
LEAR 35	185.1	39.5	21.4
LET L13	92.2	16.2	17.5
LKHEED12A	217.3	15.0	6.9
LKHEED1329	593.9	116.7	19.6
LKHEED18	494.4	73.1	14.8
LKHEED188	284.2	23.5	8.3
LKHEEDPV1	143.4	21.5	15.0
LKHEEDT33	324.7	17.8	5.5
LUSCOM8	5622.5	897.1	16.0
MARTIN404	925.3	49.4	5.3
MAULE M4	283.7	51.2	18.0

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (8 of 12)

CONTINUED

MANUFACTURER / MODEL	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)	PERCENT STANDARD ERROR
MAULE M5	118.5	20.0	16.9
MCCULLHJ2	8.6	1.3	15.0
MCLISHFUNKB	209.4	10.2	4.9
MEYERSOTW	93.8	4.2	4.5
MNCOPP90	116.9	5.1	4.4
MNMITEM1B	146.0	6.8	4.6
MOONEYM20	9812.7	694.2	7.1
MORISY2150	65.4	4.5	6.9
MRCHTIS205	30.9	2.4	7.8
MTSBSIMU2	854.3	123.7	14.5
MULTICOD16	136.0	4.7	3.5
NAHER B25	282.5	20.3	7.2
NAMER F51	187.2	12.6	6.7
NAMER NA260	158.7	15.1	9.5
NAMER T6	1974.7	56.9	2.9
NAVAL N3N	808.6	42.2	5.2
NAVIONNAVION	3050.0	322.6	10.6
ORLHELH19	160.0	4.6	2.9
PICARDAX6	26.3	5.5	20.8
PILATSB4	8.5	1.0	12.1
PIPER 600	98.6	9.5	9.6
PIPER J2	126.2	20.5	16.2
PIPER J3	11730.4	561.4	4.8
PIPER J4	521.2	30.4	5.8
PIPER J5	1019.5	47.1	4.6
PIPER PA12	2956.6	352.9	11.9
PIPER PA14	336.2	35.2	10.5

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (9 of 12)

MANUFACTURER / MODEL	CONTINUED			PERCENT STANDARD ERROR
	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)		
PIPER PA15	287.5	13.4		4.7
PIPER PA16	754.3	30.1		4.0
PIPER PA17	217.6	7.5		3.5
PIPER PA18	6855.5	516.4		7.5
PIPER PA20	1109.7	138.0		12.4
PIPER PA22	12345.4	486.6		3.5
PIPER PA23	9805.1	882.0		9.0
PIPER PA24	7954.7	513.1		6.5
PIPER PA25	4082.9	265.2		6.5
PIPER PA28	34170.8	3093.0		9.1
PIPER PA30	3291.6	296.7		9.0
PIPER PA31	3327.3	415.7		12.5
PIPER PA31T	152.7	18.5		12.1
PIPER PA32	4222.9	520.7		12.3
PIPER PA34	1409.9	235.5		16.7
PIPER PA36	166.7	39.7		23.8
PIPER PA38	110.7	22.8		20.6
PRATT PRG1	15.1	1.3		8.7
PROPT200	63.4	4.1		6.5
RANKING5	184.8	15.1		8.2
RAVEN RX6	12.7	4.4		34.4
RAVEN S50	21.7	1.3		5.8
RAVEN S55	38.5	4.0		10.3
RKWE1112	413.5	101.5		24.5
RKWE1500	1337.6	139.3		10.4
RKWE1520	225.0	14.1		6.3
RKWE1560	679.8	75.2		11.1

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (10 of 12)

MANUFACTURER / MODEL	CONTINUED			PERCENT STANDARD ERROR
	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)		
RKWELL680	2229.1	248.1		11.1
RKWELL680TP	382.8	35.9		9.4
RKWELL690TP	355.1	161.0		45.3
RKWELLNA265	868.7	159.5		18.4
ROLSCHLS	8.8	0.9		10.8
RYAN ST3	399.9	12.9		3.2
RYAN STA	54.3	6.6		12.1
SCHLERASW15	22.2	0.7		3.2
SCHLERASW19	4.7	0.3		7.4
SCHLERASW20	2.0	0.2		10.8
SCHLERK8	20.1	1.4		6.8
SCHLERKA6	63.1	2.2		3.4
SCTAIVB206	63.6	4.8		7.6
SCTAIVHP137	94.7	34.3		36.3
SCWZERSG1	470.8	66.2		14.1
SCWZERSG2	725.4	96.2		13.3
SCWZERT63A	22.3	1.7		7.7
SEMCO CLNGER	3.5	0.3		8.5
SEMCO MODEL T	6.1	0.7		11.3
SKR SKYS55	453.3	21.4		4.7
SKR SKYS58	295.5	11.0		3.7
SKR SKYS58T	90.0	6.5		7.2
SLINDS100	422.0	22.0		5.2
SMITH 600	355.2	51.8		14.6
SNIAS SA318	166.0	24.7		14.9
SOCATAMS894	23.7	2.3		9.7
SPRTHCIRRU5	63.0	8.0		12.6

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (11 of 12)

MANUFACTURER / MODEL	CUNTINUED			PERCENT STANDARD ERFLR
	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)		
SPHRTHNIMBUS	11.9	1.1		9.2
STNSONL0	447.5	245.8		54.9
STNSONL5	297.9	27.8		9.3
STNSONSR9	82.9	6.8		8.2
STOLAMRC3	253.8	18.8		7.4
SUPAC LA	150.3	5.2		3.5
SUPAC V	21.6	1.2		5.4
SMRNGNSA22b	176.8	29.3		16.5
SMRNGNSA26	446.0	78.1		17.5
ICRAFKD	846.9	58.4		6.9
ICRAFTL9	46.3	11.5		24.8
ICRAFTA	46.0	3.8		8.3
ICRAFTBC	4116.5	525.0		12.8
ICRAFTBF	83.2	5.1		6.2
ICRAFTBL	583.2	22.7		3.9
TEMCD 11A	47.3	3.5		7.4
THUNDRAX7	3.0	0.4		13.2
TRYTEKK	35.2	2.2		6.3
UNIVACGCL	1167.8	37.3		3.2
UNIVAR108	4494.9	382.9		8.5
UNIVAR415	4190.3	340.1		8.1
VICKER745	390.0	23.4		6.0
WACO ASD	114.0	14.4		12.7
WACO GXE	31.9	2.1		6.6
WACO R	57.0	2.9		5.1
WACO U	56.7	1.6		2.8
WACO UPF7	518.7	10.4		2.0

TABLE 2-16 GENERAL AVIATION LIFETIME AIRFRAME HOURS BY AIRCRAFT MANUFACTURER AND MODEL - CY 1978 (12 of 12)

MANUFACTURER / MODEL	CONTINUED			PERCENT STANDARD ERROR
	HOURS ESTIMATE (IN THOUSANDS)	STANDARD ERROR (IN THOUSANDS)		
WACO YK	123.6	6.7		5.4
WOODHM65	774.1	76.8		9.5
WTHRLY201	86.9	20.3		23.3
TOTAL AIRCRAFT	544281.	18937.6		3.5

TABLE 2-17 GENERAL AVIATION MEAN HOURS AND ACTIVE ENGINES BY ENGINE MANUFACTURER/
MODEL GROUP - CY 1978 (1 of 3)

ENGINE MANUF/ MODEL GROUP	ESTIMATE OF ACTIVE POPULATION	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	ESTIMATE OF MEAN HOURS	PERCENT STANDARD ERROR
ALLSN 250C	1521	2.9	98.1	638	12.1
ALLSN 501D	173	4.5	93.1	584	6.2
ARSRCHTE731	34	0.0	100.0	723	19.4
ARSRCHTE331	771	2.7	95.1	394	6.5
CONT 6285	196	6.7	94.6	203	27.1
CONT A40	52	35.8	39.5	16	23.7
CONT A50	21	21.2	67.4	74	20.3
CONT A65	5912	5.7	57.5	100	28.9
CONT A75	1417	10.1	63.1	67	25.4
CONT A80	5	122.0	6.7	42	29.9
CONT C125	284	6.5	64.6	85	21.0
CONT C145	2158	6.7	88.2	85	28.9
CONT C85	4041	6.5	61.5	63	9.1
CONT C90	1780	8.7	64.8	80	11.5
CONT E185	2083	8.1	92.5	147	12.8
CONT E225	1393	13.5	85.1	94	14.9
CONT E200	14949	3.4	91.8	232	11.6
CONT O300	10418	3.5	95.8	103	10.8
CONT O346	353	0.0	100.0	66	40.4
CONT O360	3605	4.1	97.6	159	8.7
CONT O470	25403	2.0	94.1	164	6.6
CONT O520	21820	1.2	95.9	270	4.7
CONT R670	584	6.1	54.9	146	26.9
DHAVXGIPSY	37	41.2	29.0	38	11.0
PCD 6440	1777	8.3	46.2	76	9.8
FRNKLNAC150	4	113.0	15.7	69	20.7
FRNKLNAC176	49	52.3	23.3	62	13.9
FRNKLNAC199	42	19.8	23.9	26	17.3
FRNKNGA4150	546	17.3	47.2	59	10.2
FRNKNGA4165	949	10.4	72.8	150	50.7
FRNKNGV4	99	31.0	47.9	223	25.0
FRNKNGV6245	3	89.7	14.0	25	34.8
GE CF700	365	2.0	97.5	507	6.1
GE CJ610	922	3.3	93.5	484	8.3
GE CJ805	54	5.8	64.3	500	5.7
GE CJ805F	12	0.0	60.0	157	16.9
GE CT58	31	7.3	92.8	1187	13.2
GLADENK5	24	33.4	55.6	19	19.7
GLADENK5	90	9.2	45.1	46	10.7
JACOBPR755	284	12.6	61.6	176	21.0

TABLE 2-17 GENERAL AVIATION MEAN HOURS AND ACTIVE ENGINES BY ENGINE MANUFACTURER/
MODEL GROUP - CY 1978 (2 of 3)

ENGINE MANUF/ MODEL GROUP	ESTIMATE OF ACTIVE POPULATION	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	ESTIMATE OF MEAN HOURS	PERCENT STANDARD ERROR
JACOBSR755	262	20.0	61.0	101	13.1
JACOBSR915	8	139.0	9.7	25	41.8
LYC 0145	342	8.7	38.8	55	10.0
LYC 0235	6396	4.7	80.4	200	15.4
LYC 0290	2455	7.5	71.8	69	13.0
LYC 0320	34445	1.9	94.5	182	10.4
LYC 0340	108	5.6	79.4	84	11.2
LYC 0360	21797	2.2	95.3	188	11.1
LYC 0435	1238	5.4	74.5	261	16.2
LYC 0480	1613	3.0	91.1	232	10.8
LYC 0540	17732	1.4	93.1	274	5.6
LYC 0541	1030	1.4	98.4	222	6.8
LYC 0720	174	9.2	91.9	439	32.5
LYC R680	245	12.4	35.0	72	23.7
LYC T53	66	0.0	100.0	544	8.8
MCCULHO100	177	14.5	36.0	27	13.5
MNASCOCH	4	91.5	17.3	38	31.2
PCKARDY1650	54	12.3	46.1	60	11.6
PWA JT12	531	2.8	95.9	495	4.6
PWA JT15	357	0.0	100.0	518	12.0
PWA JT3C	60	8.6	75.2	320	6.8
PWA JT3D	351	8.1	74.3	1519	8.2
PWA JT4	83	15.4	44.3	983	6.9
PWA JT8	267	23.9	58.2	653	15.3
PWA JT9	48	0.0	100.0	361	13.6
PWA PT6	2414	1.3	98.8	580	5.8
PWA PT6T	135	2.7	98.0	870	9.2
PWA R1340	1700	4.0	83.4	456	14.3
PWA R1830	354	23.8	53.5	290	15.8
PWA R2000	96	4.5	61.3	247	12.6
PWA R2800	541	4.2	57.3	267	16.0
PWA R985	2927	8.5	63.2	305	19.4
ROYCEDART	468	2.3	85.1	566	4.9
ROYCEGIPSY	49	7.0	57.7	1069	4.4
ROYCESPEY	341	0.0	100.0	490	3.7
ROYCEVIPER	221	3.0	96.1	398	7.4
TMECA ARTST3	72	0.0	100.0	489	13.8
TMECA AST14T	24	7.6	86.0	904	20.0
TMECA AST2T	19	46.8	52.2	349	9.3
TMECA AST3T	34	0.0	100.0	430	9.8
WARNER165	69	13.7	48.9	46	16.9

TABLE 2-17 GENERAL AVIATION MEAN HOURS AND ACTIVE ENGINES BY ENGINE MANUFACTURER/
MODEL GROUP - CY 1978 (3 of 3)

ENGINE MANUF/ MODEL GROUP	ESTIMATE OF ACTIVE POPULATION	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	ESTIMATE OF MEAN HOURS	PERCENT STANDARD ERROR
WARNER185	2	128.1	7.8	10	0.0
WARNER50	51	14.6	27.1	37	7.0
WRIGHTJ5	12	27.2	39.9	30	22.2
WRIGHTR1820	277	6.3	64.1	85	11.1
WRIGHTR2600	94	5.7	52.8	95	10.0
WRIGHTR3350	15850	10.6	52.3	137	36.4
WRIGHTR760	34	21.8	32.8	71	22.7
WRIGHTR975	3	232.6	4.0	63	23.1
ALL ENGINES	225503	0.0	85.5	216	2.4

NOTE: ENGINE MANUFACTURER/MODEL GROUPS FOR WHICH
SEPARATE ESTIMATES ARE NOT AVAILABLE ARE NOT
LISTED IN THE TABLE, BUT ARE INCLUDED IN THE
"ALL ENGINES" ESTIMATES.

TABLE 2-18 GENERAL AVIATION FUEL CONSUMED BY TYPE OF AIRCRAFT - CY 1978

AIRCRAFT TYPE	MEAN RATE GPH	ESTIMATED FUEL USE(MIL GAL)	STANDARD ERROR(MIL GAL)
FIXED WING			
PISTON			
1 ENG 1-3 SEATS	8.18	82.74	4.7
1 ENG 4+ SEATS	11.03	195.81	11.0
TOTAL 1 ENG	10.00	278.55	12.0
2 ENG 1-6 SEATS	26.54	96.69	6.5
2 ENG 7+ SEATS	40.78	99.45	7.9
TOTAL 2 ENG	32.25	196.14	10.2
OTHER PISTON	287.61	29.77	2.3
TOTAL PISTON	14.82	504.46	15.9
TURBOPROP			
2 ENG 1-12 SEATS	75.84	72.79	3.8
2 ENG 13+ SEATS	178.77	111.22	11.5
TOTAL 2 ENG	116.32	184.01	12.1
OTHER TURBOPROP	252.13	6.15	1.0
TOTAL TURBOPROP	118.38	190.15	12.1
TURBOJET			
2 ENG	302.32	307.97	14.7
OTHER	1216.19	213.47	36.9
TOTAL TURBOJET	436.63	521.45	39.7
TOTAL FIXED WING	33.01	1216.07	44.5
ROTORCRAFT			
PISTON			
TURBINE	15.40	12.42	1.2
TOTAL ROTORCRAFT	36.12	51.34	5.1
OTHER	28.62	63.76	5.3
TOTAL AIRCRAFT	3.21	1.08	0.2
	32.50	1280.91	44.8
TOTAL JET FUEL	180.72	762.94	41.9
TOTAL AVIATION GASOLINE	14.72	517.97	15.9

APPENDIX A1. FIRST MAILING COVER LETTER

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

WASHINGTON, D.C. 20591



March 8, 1979

Dear Aircraft Owner:

The Federal Aviation Administration is conducting its second annual General Aviation Activity and Avionics Survey. The first survey which was conducted in 1978 provided much valuable information for use by the FAA and the public.

This survey is being mailed to owners of a random sample of about 15 percent of all general aviation aircraft. Because the sample is random, it is possible that more than one of your aircraft may be selected or that your aircraft may be selected in two successive sample cycles. This may happen in particular when there are a small number of aircraft in a sampling cell; but, in general, it is unlikely that your aircraft would be selected for the survey every year. When more than one of your aircraft are selected, you will find a separate questionnaire provided for each aircraft. Please answer all questions for the aircraft identified. If you cannot determine precisely an answer to a question, please make your best estimate. If the aircraft was not in use during the year (e.g., in storage, dismantled, etc.), complete the questionnaire indicating it was inactive and provide other information requested. If your aircraft is operated principally by another (leased, etc.), please obtain the necessary information from the operator or forward these materials to that person or firm for completion.

Because this survey is based on a sample of GA aircraft, your response is especially important to the accuracy of the results. The data gathered from this survey will be used only to produce summary statistics and not to disclose individual operations nor to make changes to your aircraft records.

Please return this questionnaire in the enclosed self-addressed, postpaid envelope within 10 days. A prompt response will eliminate the need for additional follow-up contacts and thus enhance the savings associated with the survey. A continued high response rate, as we received in last year's survey, will ensure the use of statistical sampling methods in lieu of a mandatory reporting system. We appreciate your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "F. C. Osgood".

F. C. OSGOOD
Chief, Information and Statistics Division, AMS-200

Enclosure

APPENDIX A2. SECOND MAILING COVER LETTER

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

WASHINGTON, D.C. 20591



April 9, 1979

Dear Aircraft Owner:

In March, the Federal Aviation Administration sent aircraft owners a questionnaire as part of its program to gather statistical information on the use and characteristics of the general aviation fleet.

You were one of the aircraft owners selected at random to receive a questionnaire. As of this date, we have not received a response from you. In the event the survey questionnaire has been lost or misplaced, another copy is enclosed for your convenience in responding. A prompt response will eliminate the need for additional follow-up contacts. If you have already responded, please disregard this notice. We appreciate your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "F. C. Osgood".

F. C. OSGOOD
Chief, Information and Statistics Division, AMS-200

Enclosure

APPENDIX A3. SURVEY QUESTIONNAIRE

1. CONTROL NUMBER	DEPARTMENT OF TRANSPORTATION — FEDERAL AVIATION ADMINISTRATION GENERAL AVIATION ACTIVITY and AVIONICS SURVEY (As of December 31, 1978)	<i>Form Approved</i> OMB No. 04-R0185
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This report is authorized by Section 311 of the Federal Aviation Act of 1958, as amended. While you are not required to respond, your cooperation is needed to make the results of this survey comprehensive, accurate and timely. Information collected in this survey will be used for statistical purposes only and not to disclose individual aircraft activity.

2 "X" here if you operate your aircraft principally as an air carrier (under FAR 121 or 127). If so, DO NOT complete remainder of form. However please return to address shown below.

3. AIRCRAFT CHARACTERISTICS

N-

INSTRUCTIONS: Please answer questions for the aircraft identified at right.
Mail the completed questionnaire in the enclosed postage paid envelope to

Federal Aviation Administration
P.O. Box 26045
Oklahoma City, Oklahoma 73126

4. What were the total lifetime airframe hours as of December 31, 1978?	HOURS
5. Was aircraft flown in Calendar Year 1978? (Check one) 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (Skip to question 10)	
6. Did you own this aircraft for the entire year of 1978? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	
If "No," include previous owner's hours for 1978 in your estimates below.	
7. HOURS FLOWN DURING CALENDAR YEAR 1978	HOURS
EXECUTIVE—Corporate flying with professional crew a.	
BUSINESS—All non-executive flying for business reasons b.	
PERSONAL—Individual flying for personal reasons c.	
AERIAL APPLICATION—Agriculture, health, forestry d.	
INSTRUCTIONAL—Flying with or under supervision of a flight instructor e.	
AIR TAXI—All Part 135 passenger, cargo, and mail operations, including charter f.	
INDUSTRIAL/SPECIAL—Patrol, survey, photo, hoist, etc.—Other than Part 135 g.	
AIRCRAFT RENTAL BUSINESS—Commercial flying club, leased and rental aircraft activity h.	
OTHER—R&D, government, air show, sales, parachuting, etc i.	
8. Was this aircraft flown on an Instrument Flight Plan in 1978? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	IFR HOURS
If "Yes," how many hours were flown on an Instrument Flight Plan?	
9. Estimate of this aircraft's average rate of fuel consumption (gal./hr.) during 1978 (Report whole gals. only)	GAL./HR.
10. State (Abbreviation) or foreign country in which aircraft was based as of December 31, 1978	STATE

11. AVIONICS EQUIPMENT CAPABILITY ("X" ALL boxes that reflect this aircraft's current capability. If none, check the last box in each group.)

VHF COMMUNICATIONS EQUIPMENT "X"
VHF Communications System:

360 Channels or less a.

720 Channels or more b.

More than one comm. system c.

No VHF Communications Equipment d.

TRANSPONDER EQUIPMENT

4096 Code e.

Altitude Encoding Equipment f.

No Transponder Equipment g.

NAVIGATION EQUIPMENT

VOR Receiver:

100 Channels h.

200 Channels i.

More than one VOR Receiver j.

Automatic Direction Finder (ADF) k.

Distance Measuring Equipment (DME) l.

Area Navigation Equipment (RNAV) m.

Long Range Nav. (Doppler, INS, Other) n.

Automatic Pilot o.

Radar Altimeter p.

Weather Radar q.

No Navigation Equipment r.

ILS RECEIVING EQUIPMENT

Localizer s.

Marker Beacon t.

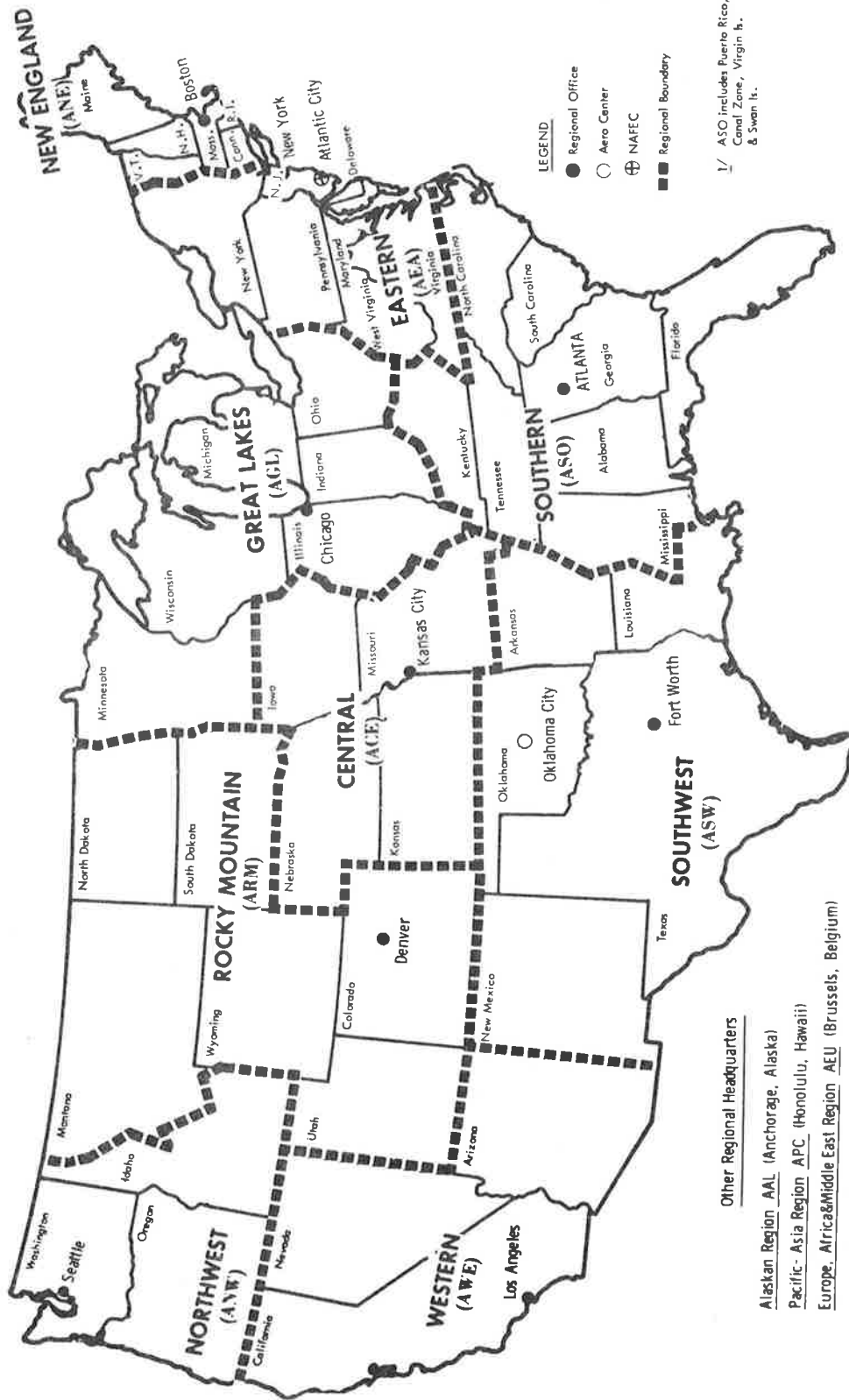
Glide Slope u.

Microwave Landing System v.

No ILS Receiving Equipment w.

THANK YOU
FOR YOUR COOPERATION

APPENDIX B. FAA REGIONAL BOUNDARIES



Census of U.S. Civil Aircraft Calendar Year 1978, (1979), p. vii.

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE

FAA	SDR	FAA	SDR	FAA	SDR
8680207	AEROSPSA316	1850306	ARCTICS1B1	1152916	BEECH 100
8680209	AEROSPSA316	1850308	ARCTICS1B1	1152917	BEECH 100
8680513	AEROSPSA316	1850310	ARCTICS1B1	1152919	BEECH 100
8680605	AEROSPSA316	1850312	ARCTICS1B1	1150502	BEECH 17
8680615	AEROSPSA316	0191202	ARONCA15	1150504	BEECH 17
8680610	AEROSPSA341	0191204	ARONCA15	1150506	BEECH 17
1181414	AGUSTA205	0191002	ARONCA58	1150508	BEECH 17
0144202	AIRPTSA	0191004	ARONCA58	1150510	BEECH 17
0144204	AIRPTSA	0191006	ARONCA58	1150512	BEECH 17
0144206	AIRPTSA	0191008	ARONCA58	1150514	BEECH 17
1850102	AIRPTSA	0191010	ARONCA58	1150516	BEECH 17
1850104	AIRPTSA	0191012	ARONCA58	1150518	BEECH 17
1850106	AIRPTSA	0190708	ARONCA65	1150520	BEECH 17
1850108	AIRPTSA	0190710	ARONCA65	1150522	BEECH 17
1850110	AIRPTSA	0190802	ARONCA65	1150524	BEECH 17
1850112	AIRPTSA	0190802	ARONCA65	1150526	BEECH 17
1850114	AIRPTSA	0190902	ARONCA65	1150528	BEECH 17
1850116	AIRPTSA	0190904	ARONCA65	1150530	BEECH 17
1850118	AIRPTSA	0190906	ARONCA65	1150532	BEECH 17
1850120	AIRPTSA	0190908	ARONCA65	1150534	BEECH 17
1850122	AIRPTSA	0190910	ARONCA65	1150536	BEECH 17
4570424	AIRPTSA	0190912	ARONCA65	1150538	BEECH 17
4570602	AIRPTSA	0190914	ARONCA65	1150540	BEECH 17
4570604	AIRPTSA	0190916	ARONCA65	1150542	BEECH 17
4570606	AIRPTSA	0190918	ARONCA65	1150544	BEECH 17
4570608	AIRPTSA	0191014	ARONCA65	1150546	BEECH 17
4570610	AIRPTSA	0191016	ARONCA65	1150548	BEECH 17
4570612	AIRPTSA	0190302	ARONCAC3	1150550	BEECH 17
4570614	AIRPTSA	0190304	ARONCAC3	1150552	BEECH 17
4570616	AIRPTSA	0143010	AYRES S2	1150554	BEECH 17
4570618	AIRPTSA	0143012	AYRES S2	1150556	BEECH 17
4570620	AIRPTSA	0143022	AYRES S2	1150558	BEECH 17
4570622	AIRPTSA	0970101	AYRES S2	1150560	BEECH 17
4570624	AIRPTSA	0970106	AYRES S2	1150562	BEECH 17
0440102	AIRSPC18	7630202	AYRES S2	1150564	BEECH 17
0440104	AIRSPC18	7630203	AYRES S2	1150202	BEECH 18
9200202	AIRSPC18	8380202	AYRES S2	1150204	BEECH 18
0390101	AIRTRCAT300	8380204	AYRES S2	1150602	BEECH 18
0390103	AIRTRCAT300	8380206	AYRES S2	1150604	BEECH 18
0390104	AIRTRCAT300	8380302	AYRES S2	1150702	BEECH 18
*FALC10	AMD FALC10	8380306	AYRES S2	1150704	BEECH 18
2730101	AMD FALC10	1480202	BAC 111	1150706	BEECH 18
*FALC20	AMD FALC20	1480204	BAC 111	1150708	BEECH 18
2720302	AMD FALC20	1480208	BAC 111	1150710	BEECH 18
2720303	AMD FALC20	1480210	BAC 111	1150712	BEECH 18
2720304	AMD FALC20	1480218	BAC 111	1150802	BEECH 18
2720305	AMD FALC20	1480221	BAC 111	1150804	BEECH 18
2720306	AMD FALC20	1480264	BAC 111	1150806	BEECH 18
2730103	AMD FALC20	1480268	BAC 111	1150808	BEECH 18
8141617	ARCRNEH37	1480270	BAC 111	1150902	BEECH 18
8142801	ARCRNEH37	1480273	BAC 111	1150904	BEECH 18
1850202	ARCTICS1A	1480277	BAC 111	1150906	BEECH 18
1850204	ARCTICS1A	1480283	BAC 111	1150907	BEECH 18
1850206	ARCTICS1A	4230170	BAG DH125	1150908	BEECH 18
1850208	ARCTICS1A	1050100	BALWKSFIREFY	1150909	BEECH 18
1850210	ARCTICS1A	1050101	BALWKSFIREFY	1150910	BEECH 18
1850212	ARCTICS1A	1050103	BALWKSFIREFY	1150911	BEECH 18
1850214	ARCTICS1A	1050104	BALWKSFIREFY	1150911	BEECH 18
1850216	ARCTICS1A	1050104	BALWKSFIREFY	1150912	BEECH 18
1850302	ARCTICS1B1	1050107	BALWKSFIREFY	1150913	BEECH 18
1850304	ARCTICS1B1	1152915	BEECH 100	1150914	BEECH 18

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
1150916	BEECH 18	1151423	BEECH 33	1152702	BEECH 55
1150918	BEECH 18	1151424	BEECH 33	1152704	BEECH 55
1150920	BEECH 18	1151425	BEECH 33	1152706	BEECH 55
1150922	BEECH 18	1151432	BEECH 33	1152708	BEECH 55
1150924	BEECH 18	1151434	BEECH 33	1152728	BEECH 55
1150926	BEECH 18	1151435	BEECH 33	1152729	BEECH 55
1150928	BEECH 18	1151502	BEECH 35	1152730	BEECH 55
1150930	BEECH 18	1151504	BEECH 35	1152732	BEECH 55
1150932	BEECH 18	1151506	BEECH 35	1152736	BEECH 56
1151002	BEECH 18	1151508	BEECH 35	1152738	BEECH 56
1151004	BEECH 18	1151510	BEECH 35	1152740	BEECH 58
1151006	BEECH 18	1151512	BEECH 35	1152744	BEECH 58
1151007	BEECH 18	1151514	BEECH 35	1152746	BEECH 58
1151008	BEECH 18	1151516	BEECH 35	1153602	BEECH 60
1151009	BEECH 18	1151518	BEECH 35	1153604	BEECH 60
1151010	BEECH 18	1151520	BEECH 35	1153605	BEECH 60
1151011	BEECH 18	1151522	BEECH 35	1152802	BEECH 65
1151012	BEECH 18	1151524	BEECH 35	1152803	BEECH 65
1151013	BEECH 18	1151526	BEECH 35	1152804	BEECH 65
1151014	BEECH 18	1151528	BEECH 35	1152805	BEECH 65
1151015	BEECH 18	1151530	BEECH 35	1153005	BEECH 76
1151016	BEECH 18	1151532	BEECH 35	1152806	BEECH 80
1151018	BEECH 18	1151538	BEECH 35	1152807	BEECH 80
1151019	BEECH 18	1151540	BEECH 35	1152808	BEECH 80
1151020	BEECH 18	1151544	BEECH 35	1152809	BEECH 80
1151021	BEECH 18	1151546	BEECH 35	1152812	BEECH 80
1151022	BEECH 18	1151548	BEECH 35	1152814	BEECH 80
1151023	BEECH 18	1151550	BEECH 35	1153010	BEECH 80
1151024	BEECH 18	1151602	BEECH 36	1152902	BEECH 90
1151026	BEECH 18	1151604	BEECH 36	1152908	BEECH 90
1151040	BEECH 18	1151605	BEECH 36	1152912	BEECH 90
1151042	BEECH 18	1151606	BEECH 36	1152914	BEECH 90
1151044	BEECH 18	1151607	BEECH 36	1153409	BEECH 90
1151046	BEECH 18	1152002	BEECH 45	1153402	BEECH 95
1151048	BEECH 18	1152004	BEECH 45	1153404	BEECH 95
1151050	BEECH 18	1152006	BEECH 45	1153406	BEECH 95
1151102	BEECH 18	1152008	BEECH 45	1153408	BEECH 95
1152920	BEECH 200	1152010	BEECH 45	1153410	BEECH 95
1151202	BEECH 23	1152012	BEECH 45	1153802	BEECH 99
1151204	BEECH 23	1152013	BEECH 45	1154002	BEECH 99
1151208	BEECH 23	1152014	BEECH 45	1154004	BEECH 99
1151212	BEECH 23	1152015	BEECH 45	1181402	BELL 204
1151214	BEECH 23	1152016	BEECH 45	1181404	BELL 204
1151215	BEECH 23	1152502	BEECH 50	1181405	BELL 204
1151216	BEECH 23	1152504	BEECH 50	1181406	BELL 204
1151226	BEECH 23	1152506	BEECH 50	1181408	BELL 204
1151230	BEECH 23	1152508	BEECH 50	1181408	BELL 204
1151240	BEECH 23	1152510	BEECH 50	1181409	BELL 204
1151242	BEECH 23	1152512	BEECH 50	1181410	BELL 204
1151250	BEECH 23	1152514	BEECH 50	1181411	BELL 204
1151252	BEECH 23	1152516	BEECH 50	1181502	BELL 206
1151253	BEECH 23	1152518	BEECH 50	1181503	BELL 206
1151254	BEECH 23	1152520	BEECH 50	1181504	BELL 206
1151402	BEECH 33	1152522	BEECH 50	1181508	BELL 206
1151404	BEECH 33	1152524	BEECH 50	1181510	BELL 206
1151406	BEECH 33	1152526	BEECH 50	1181511	BELL 206
1151408	BEECH 33	1152528	BEECH 50	1181512	BELL 206
1151410	BEECH 33	1152530	BEECH 50	1181522	BELL 206
1151414	BEECH 33	1152532	BEECH 50	1181579	BELL 206
1151418	BEECH 33	1152534	BEECH 50	1181670	BELL 212
1151422	BEECH 33	1152536	BEECH 50	1180602	BELL 47

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
1180603	BELL 47	1181065	BELL 47	1220701	BLANCA7
1180604	BELL 47	1181066	BELL 47	2110102	BLANCA7
1180606	BELL 47	1181067	BELL 47	2110104	BLANCA7
1180702	BELL 47	1181068	BELL 47	2110106	BLANCA7
1180704	BELL 47	1181070	BELL 47	2110108	BLANCA7
1180802	BELL 47	1181071	BELL 47	2110110	BLANCA7
1180804	BELL 47	1181073	BELL 47	2110112	BLANCA7
1180806	BELL 47	1181102	BELL 47	2110114	BLANCA7
1180808	BELL 47	1181103	BELL 47	2110116	BLANCA7
1180810	BELL 47	1181104	BELL 47	2110118	BLANCA7
1180811	BELL 47	1181106	BELL 47	2110120	BLANCA7
1180812	BELL 47	1181202	BELL 47	2110122	BLANCA7
1180813	BELL 47	1181310	BELL 47	2110124	BLANCA7
1180814	BELL 47	1181585	BELL 47	2110126	BLANCA7
1180820	BELL 47	2390101	BELL 47	2110128	BLANCA7
1180822	BELL 47	2390202	BELL 47	2110130	BLANCA7
1180843	BELL 47	8930103	BELL 47	2110132	BLANCA7
1180844	BELL 47	0191102	BLANCA11	2110134	BLANCA7
1180845	BELL 47	0191104	BLANCA11	2110136	BLANCA7
1180846	BELL 47	0191106	BLANCA11	2110138	BLANCA7
118084D	BELL 47	0191108	BLANCA11	2110140	BLANCA7
118084E	BELL 47	0191110	BLANCA11	2110142	BLANCA7
118084F	BELL 47	0191112	BLANCA11	2110144	BLANCA7
118084H	BELL 47	9140404	BLANCA11	2110146	BLANCA7
118084M	BELL 47	9140408	BLANCA11	2110148	BLANCA7
118084P	BELL 47	1201002	BLANCA1413	2110150	BLANCA7
118084R	BELL 47	1201004	BLANCA1413	2110152	BLANCA7
118084V	BELL 47	1201006	BLANCA1413	2110154	BLANCA7
1180902	BELL 47	1201008	BLANCA1413	2110156	BLANCA7
1180904	BELL 47	1220402	BLANCA1419	2110158	BLANCA7
1181001	BELL 47	1220404	BLANCA1419	2110160	BLANCA7
1181002	BELL 47	1220406	BLANCA1419	2110162	BLANCA7
1181003	BELL 47	1220408	BLANCA1419	2110164	BLANCA7
1181004	BELL 47	3080102	BLANCA1419	2110166	BLANCA7
1181005	BELL 47	3080104	BLANCA1419	2110168	BLANCA7
1181006	BELL 47	3080106	BLANCA1419	2110170	BLANCA7
1181007	BELL 47	3080108	BLANCA1419	2110172	BLANCA7
1181008	BELL 47	3080112	BLANCA1419	2110174	BLANCA7
118100V	BELL 47	3080114	BLANCA1419	2110176	BLANCA7
1181010	BELL 47	3080116	BLANCA1419	21101M2	BLANCA7
1181011	BELL 47	3080118	BLANCA1419	21101M6	BLANCA7
1181012	BELL 47	3080122	BLANCA1419	21101MA	BLANCA7
1181014	BELL 47	3080124	BLANCA1419	21101MF	BLANCA7
1181018	BELL 47	3080126	BLANCA1419	21101ML	BLANCA7
1181020	BELL 47	3080128	BLANCA1419	21101MR	BLANCA7
1181022	BELL 47	4580802	BLANCA1419	21101MW	BLANCA7
1181024	BELL 47	4580804	BLANCA1419	21101N2	BLANCA7
1181025	BELL 47	4580806	BLANCA1419	21101N7	BLANCA7
1181026	BELL 47	4580808	BLANCA1419	21101N8	BLANCA7
1181028	BELL 47	1220432	BLANCA17	21101NB	BLANCA7
1181029	BELL 47	1220433	BLANCA17	21101NG	BLANCA7
1181030	BELL 47	1220434	BLANCA17	21101NM	BLANCA7
1181031	BELL 47	1220435	BLANCA17	21101NN	BLANCA7
1181032	BELL 47	1220436	BLANCA17	21101NS	BLANCA7
1181033	BELL 47	1220437	BLANCA17	21101NX	BLANCA7
1181034	BELL 47	1220940	BLANCA17	21101P3	BLANCA7
118103M	BELL 47	0190107	BLANCA7	21101PC	BLANCA7
1181060	BELL 47	1220438	BLANCA7	21101PH	BLANCA7
1181063	BELL 47	1220460	BLANCA7	21101PK	BLANCA7
1181064	BELL 47	1220501	BLANCA7	21101PN	BLANCA7
		1220601	BLANCA7	21101PT	BLANCA7

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
21101PY	BLANCA7	138367G	BOEING707	1384011	BOEING727
1220801	BLANCA8	138367H	BOEING707	1384012	BOEING727
1220803	BLANCA8	138367J	BOEING707	1384013	BOEING727
2110612	BLANCA8	138367K	BOEING707	1384014	BOEING727
1520202	BNORM BN2	138367L	BOEING707	1384015	BOEING727
1520204	BNORM BN2	138367M	BOEING707	1384016	BOEING727
1520206	BNORM BN2	138367N	BOEING707	1384017	BOEING727
1520207	BNORM BN2	138367P	BOEING707	1384018	BOEING727
1520209	BNORM BN2	138367Q	BOEING707	1384019	BOEING727
1520210	BNORM BN2	138367R	BOEING707	1384025	BOEING727
1520215	BNORM BN2	138367S	BOEING707	1384027	BOEING727
1520220	BNORM BN2	138367T	BOEING707	1384028	BOEING727
1520221	BNORM BN2	138367U	BOEING707	138402C	BOEING727
1520226	BNORM BN2	138367V	BOEING707	1384030	BOEING727
1520227	BNORM BN2	138367W	BOEING707	1384032	BOEING727
1383601	BOEING707	138367X	BOEING707	1384035	BOEING727
1383602	BOEING707	138367Y	BOEING707	1384037	BOEING727
1383604	BOEING707	138368B	BOEING707	1384041	BOEING727
1383605	BOEING707	138368D	BOEING707	1384043	BOEING727
1383606	BOEING707	138368F	BOEING707	1384044	BOEING727
1383608	BOEING707	138368H	BOEING707	138404G	BOEING727
1383609	BOEING707	138368K	BOEING707	138404V	BOEING727
138360C	BOEING707	138368M	BOEING707	138404Z	BOEING727
138360F	BOEING707	138369P	BOEING707	1384056	BOEING727
138360H	BOEING707	1383701	BOEING707	1384057	BOEING727
138360K	BOEING707	1383706	BOEING707	138405R	BOEING727
138360N	BOEING707	1383802	BOEING720	1384059	BOEING727
138360P	BOEING707	1383804	BOEING720	1384063	BOEING727
138360R	BOEING707	1383810	BOEING720	1384067	BOEING727
138360T	BOEING707	1383814	BOEING720	138406G	BOEING727
138360V	BOEING707	1383818	BOEING720	138406N	BOEING727
138360X	BOEING707	1383822	BOEING720	1384073	BOEING727
1383610	BOEING707	1383826	BOEING720	1384074	BOEING727
1383612	BOEING707	1383830	BOEING720	1384075	BOEING727
1383614	BOEING707	1383841	BOEING720	1384076	BOEING727
1383616	BOEING707	1383845	BOEING720	1384077	BOEING727
1383618	BOEING707	1383849	BOEING720	1384078	BOEING727
138361C	BOEING707	1383853	BOEING720	1384079	BOEING727
138365B	BOEING707	1383857	BOEING720	138407E	BOEING727
138365U	BOEING707	1383861	BOEING720	138407K	BOEING727
138365F	BOEING707	1383865	BOEING720	138407L	BOEING727
138365H	BOEING707	1383869	BOEING720	138407M	BOEING727
138365K	BOEING707	1383873	BOEING720	138407N	BOEING727
1383660	BOEING707	1383877	BOEING720	138407P	BOEING727
1383663	BOEING707	1384001	BOEING727	138407Q	BOEING727
1383668	BOEING707	1384002	BOEING727	138407R	BOEING727
138366B	BOEING707	1384003	BOEING727	138407S	BOEING727
138366C	BOEING707	1384004	BOEING727	138407S	BOEING727
138366D	BOEING707	1384005	BOEING727	138407T	BOEING727
138366F	BOEING707	1384006	BOEING727	1384080	BOEING727
138366H	BOEING707	1384008	BOEING727	1384082	BOEING727
138366K	BOEING707	138400B	BOEING727	138408E	BOEING727
138366M	BOEING707	138400C	BOEING727	138408D	BOEING727
138366P	BOEING707	138400E	BOEING727	138408F	BOEING727
1383677	BOEING707	138400F	BOEING727	138408H	BOEING727
138367A	BOEING707	138400G	BOEING727	138408L	BOEING727
138367B	BOEING707	138400H	BOEING727	138408M	BOEING727
138367C	BOEING707	138400J	BOEING727	138408N	BOEING727
138367D	BOEING707	138400K	BOEING727	138408N	BOEING727
138367E	BOEING707	138400M	BOEING727	138408W	BOEING727
138367F	BOEING707	1384010	BOEING727	138408X	BOEING727

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
13840X2	BOEING727	1380152	BOEING75	2072420	CESSNA172
13840XY	BOEING727	1380154	BOEING75	2072421	CESSNA172
1384402	BOEING737	1380202	BOEINGB17	2072424	CESSNA172
1384404	BOEING737	1380204	BOEINGB17	2072425	CESSNA172
1384404	BOEING737	1380208	BOEINGB17	2072426	CESSNA172
1384435	BOEING737	1406006	BOLKMS105	2072428	CESSNA172
1384438	BOEING737	5626005	BOLKMS105	2072430	CESSNA172
1384454	BOEING737	5626006	BOLKMS105	2072431	CESSNA172
1384457	BOEING737	4490102	BRASOVIS28	2072432	CESSNA172
1384458	BOEING737	1461202	BRWSTRFLEET2	2072434	CESSNA172
1384459	BOEING737	1461204	BRWSTRFLEET2	2072438	CESSNA172
1384461	BOEING737	1461502	BRWSTRFLEET7	2072502	CESSNA175
1384466	BOEING737	1461504	BRWSTRFLEET7	2072504	CESSNA175
1384469	BOEING737	1461506	BRWSTRFLEET7	2072506	CESSNA175
138446R	BOEING737	1461512	BRWSTRFLEET7	2072508	CESSNA175
1384473	BOEING737	1461514	BRWSTRFLEET7	2073704	CESSNA177
1384476	BOEING737	1461516	BRWSTRFLEET7	2073706	CESSNA177
1384477	BOEING737	1880104	CAMRONMODELO	2073708	CESSNA177
1384478	BOEING737	1880106	CAMRONMODELO	2073709	CESSNA177
1384479	BOEING737	1880108	CAMRONMODELO	2072602	CESSNA180
1384480	BOEING737	1880110	CAMRONMODELO	2072604	CESSNA180
1384488	BOEING737	1880112	CAMRONMODELO	2072606	CESSNA180
138448A	BOEING737	1880120	CAMRONMODELO	2072608	CESSNA180
138448B	BOEING737	1880201	CAMRONMODELO	2072610	CESSNA180
138448C	BOEING737	1880202	CAMRONMODELO	2072612	CESSNA180
138448D	BOEING737	1880204	CAMRONMODELO	2072614	CESSNA180
138448E	BOEING737	2071402	CESSNA120	2072616	CESSNA180
138448F	BOEING737	2071602	CESSNA140	2072618	CESSNA180
138448J	BOEING737	2071604	CESSNA140	2072622	CESSNA180
138448J	BOEING737	2071802	CESSNA150	2072624	CESSNA180
138448N	BOEING737	2071804	CESSNA150	2072702	CESSNA182
138448P	BOEING737	2071806	CESSNA150	2072704	CESSNA182
138448R	BOEING737	2071808	CESSNA150	2072706	CESSNA182
138448T	BOEING737	2071810	CESSNA150	2072708	CESSNA182
138448W	BOEING737	2071812	CESSNA150	2072710	CESSNA182
138448Y	BOEING737	2071814	CESSNA150	2072712	CESSNA182
1380102	BOEING75	2071816	CESSNA150	2072714	CESSNA182
1380104	BOEING75	2071818	CESSNA150	2072716	CESSNA182
1380106	BOEING75	2071820	CESSNA150	2072718	CESSNA182
1380108	BOEING75	2071822	CESSNA150	2072722	CESSNA182
1380110	BOEING75	2071824	CESSNA150	2072724	CESSNA182
1380112	BOEING75	2071826	CESSNA150	2072726	CESSNA182
1380114	BOEING75	2071828	CESSNA150	2072728	CESSNA182
1380116	BOEING75	2071830	CESSNA150	2072730	CESSNA182
1380118	BOEING75	2071831	CESSNA150	2072732	CESSNA182
1380120	BOEING75	2071835	CESSNA150	2072734	CESSNA182
1380122	BOEING75	2071836	CESSNA150	2072735	CESSNA182
1380124	BOEING75	2072302	CESSNA170	2075802	CESSNA182
1380128	BOEING75	2072304	CESSNA170	2075806	CESSNA182
1380130	BOEING75	2072306	CESSNA170	2075814	CESSNA182
1380131	BOEING75	2072202	CESSNA172	2075816	CESSNA182
1380132	BOEING75	2072402	CESSNA172	2072802	CESSNA185
1380134	BOEING75	2072404	CESSNA172	2072804	CESSNA185
1380136	BOEING75	2072406	CESSNA172	2072806	CESSNA185
1380138	BOEING75	2072408	CESSNA172	2072808	CESSNA185
1380140	BOEING75	2072410	CESSNA172	2072812	CESSNA185
1380142	BOEING75	2072412	CESSNA172	2072816	CESSNA185
1380144	BOEING75	2072413	CESSNA172	2072818	CESSNA185
1380146	BOEING75	2072414	CESSNA172	2072820	CESSNA185
1380148	BOEING75	2072416	CESSNA172	2072821	CESSNA185
1380150	BOEING75	2072418	CESSNA172	2073002	CESSNA188

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
2073004	CESSNA188	2073436	CESSNA210	2075702	CESSNA337
2073005	CESSNA188	2073438	CESSNA210	2075703	CESSNA337
2073006	CESSNA188	2073439	CESSNA210	2075704	CESSNA337
2073007	CESSNA188	2073440	CESSNA210	2075706	CESSNA337
2073008	CESSNA188	2073446	CESSNA210	2075707	CESSNA337
2073012	CESSNA188	2073447	CESSNA210	2075712	CESSNA337
2072902	CESSNA190	2073448	CESSNA210	2075714	CESSNA337
2073102	CESSNA195	2073449	CESSNA210	2075717	CESSNA337
2073104	CESSNA195	2073450	CESSNA210	2075719	CESSNA337
2073106	CESSNA195	2073451	CESSNA210	2075721	CESSNA337
2073108	CESSNA195	2073453	CESSNA210	2075723	CESSNA337
2073110	CESSNA195	2073454	CESSNA210	2075724	CESSNA337
2073112	CESSNA195	2073456	CESSNA210	2075725	CESSNA337
2073302	CESSNA206	2073902	CESSNA305	2075726	CESSNA337
2073304	CESSNA206	2074002	CESSNA305	2075730	CESSNA337
2073306	CESSNA206	2074003	CESSNA305	2075731	CESSNA337
2073308	CESSNA206	2074004	CESSNA305	2075732	CESSNA337
2073309	CESSNA206	2074005	CESSNA305	2075733	CESSNA337
2073310	CESSNA206	2074006	CESSNA305	2076404	CESSNA340
2073311	CESSNA206	2074008	CESSNA305	2076405	CESSNA340
2073312	CESSNA206	2074010	CESSNA305	207590C	CESSNA401
2073313	CESSNA206	2074012	CESSNA305	207590D	CESSNA401
2073316	CESSNA206	2074014	CESSNA305	207590E	CESSNA401
2073317	CESSNA206	2074016	CESSNA305	207590K	CESSNA402
2073318	CESSNA206	2074018	CESSNA305	207590L	CESSNA402
2073319	CESSNA206	2074028	CESSNA305	207590M	CESSNA402
2073322	CESSNA206	2074030	CESSNA305	207590P	CESSNA402
2073324	CESSNA206	2074031	CESSNA305	207590R	CESSNA402
2073332	CESSNA206	207408D	CESSNA305	2075901	CESSNA404
2073333	CESSNA206	207408K	CESSNA305	2075902	CESSNA411
2073334	CESSNA206	2074202	CESSNA310	2075904	CESSNA411
2073338	CESSNA206	2074204	CESSNA310	2075907	CESSNA414
2073340	CESSNA206	2074206	CESSNA310	2075908	CESSNA414
2073342	CESSNA206	2074208	CESSNA310	2076010	CESSNA421
2073344	CESSNA206	2074210	CESSNA310	2076012	CESSNA421
2073346	CESSNA206	2074212	CESSNA310	2076014	CESSNA421
2073348	CESSNA206	2074214	CESSNA310	2076016	CESSNA421
2073350	CESSNA206	2074216	CESSNA310	2076602	CESSNA500
2073352	CESSNA206	2074218	CESSNA310	2076604	CESSNA500
2073353	CESSNA206	2074220	CESSNA310	2071302	CESSNAT50
2073356	CESSNA206	2074222	CESSNA310	2071304	CESSNAT50
2073357	CESSNA206	2074224	CESSNA310	2071305	CESSNAT50
2073602	CESSNA207	2074226	CESSNA310	2071306	CESSNAT50
2073604	CESSNA207	2074228	CESSNA310	2071307	CESSNAT50
2073612	CESSNA207	2074230	CESSNA310	2071308	CESSNAT50
2073614	CESSNA207	2074234	CESSNA310	2070702	CESSNAUC77
2073202	CESSNA210	2074238	CESSNA310	2070704	CESSNAUC77
2073204	CESSNA210	2074240	CESSNA310	2070802	CESSNAUC77
2073402	CESSNA210	2074242	CESSNA310	2070804	CESSNAUC77
2073403	CESSNA210	2074244	CESSNA310	2070806	CESSNAUC77
2073404	CESSNA210	2074245	CESSNA310	2070902	CESSNAUC94
2073406	CESSNA210	2074246	CESSNA310	2071002	CESSNAUC94
2073408	CESSNA210	2074502	CESSNA320	2071102	CESSNAUC94
2073410	CESSNA210	2074504	CESSNA320	2071104	CESSNAUC94
2073412	CESSNA210	2074506	CESSNA320	2370604	COMWTH185
2073414	CESSNA210	2074508	CESSNA320	5110102	CONAERLA4
2073416	CESSNA210	2074510	CESSNA320	5110104	CONAERLA4
2073418	CESSNA210	2074512	CESSNA320	5110202	CONAERLA4
2073422	CESSNA210	2074514	CESSNA320	5110204	CONAERLA4
2073430	CESSNA210	2074516	CESSNA320	5110302	CONAERLA4
2073432	CESSNA210	2075602	CESSNA336	5110304	CONAERLA4

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
5110306	CONAERLA4	2621808	CURTISTRVAIR	2420208	CVAC BT13
5110308	CONAERLA4	2621810	CURTISTRVAIR	2420210	CVAC BT13
5110310	CONAERLA4	2621812	CURTISTRVAIR	2420222	CVAC BT13
5110312	CONAERLA4	2621814	CURTISTRVAIR	2420224	CVAC BT13
5110314	CONAERLA4	2621816	CURTISTRVAIR	2420226	CVAC BT13
5110316	CONAERLA4	2621818	CURTISTRVAIR	2420228	CVAC BT13
2622601	CURTISC46	2621820	CURTISTRVAIR	2420230	CVAC BT13
2622602	CURTISC46	2621822	CURTISTRVAIR	2420702	CVAC L13
2622604	CURTISC46	2621824	CURTISTRVAIR	2420704	CVAC L13
2622606	CURTISC46	2621826	CURTISTRVAIR	2420706	CVAC L13
2622608	CURTISC46	2621828	CURTISTRVAIR	*STC580	CVAC STC580
2622610	CURTISC46	2621830	CURTISTRVAIR	2422801	CVAC STC580
2622624	CURTISC46	2621832	CURTISTRVAIR	2422802	CVAC STC580
2622701	CURTISC46	2621834	CURTISTRVAIR	2422804	CVAC STC580
2622702	CURTISC46	2621902	CURTISTRVAIR	2422806	CVAC STC580
2622704	CURTISC46	2621904	CURTISTRVAIR	2423001	CVAC STC580
2622706	CURTISC46	2621906	CURTISTRVAIR	2423002	CVAC STC580
2622708	CURTISC46	2621908	CURTISTRVAIR	2700102	DART G
2622710	CURTISC46	2423302	CVAC 22	2700104	DART G
2622750	CURTISC46	2423304	CVAC 22	2700106	DART G
2620502	CURTISJR	2422601	CVAC 240	2700108	DART G
2620802	CURTISROBIN	2422602	CVAC 240	*DHC2	DHAV DHC2
2620804	CURTISROBIN	2422604	CVAC 240	2800102	DHAV DHC2
2620806	CURTISROBIN	2422606	CVAC 240	2800103	DHAV DHC2
2620808	CURTISROBIN	2422608	CVAC 240	2800104	DHAV DHC2
2620810	CURTISROBIN	2422610	CVAC 240	2800105	DHAV DHC2
2620812	CURTISROBIN	2422612	CVAC 240	2800106	DHAV DHC2
2620814	CURTISROBIN	2422614	CVAC 240	2800107	DHAV DHC2
2621002	CURTISTRVAIR	2422616	CVAC 240	2800108	DHAV DHC2
2621004	CURTISTRVAIR	2422618	CVAC 240	2800115	DHAV DHC2
2621006	CURTISTRVAIR	2422620	CVAC 240	2801832	DHAV DHC2
2621008	CURTISTRVAIR	2422622	CVAC 240	*DHC3	DHAV DHC3
2621010	CURTISTRVAIR	2422624	CVAC 240	2800202	DHAV DHC3
2621012	CURTISTRVAIR	2422626	CVAC 240	*DHC6	DHAV DHC6
2621102	CURTISTRVAIR	2422628	CVAC 240	2802606	DHAV DHC6
2621104	CURTISTRVAIR	2422630	CVAC 240	2801002	DHAVXXDH82
2621106	CURTISTRVAIR	2422632	CVAC 240	2801006	DHAVXXDH82
2621108	CURTISTRVAIR	2422634	CVAC 240	2801020	DHAVXXDH82
2621202	CURTISTRVAIR	2422636	CVAC 240	3020502	DOUG A26
2621204	CURTISTRVAIR	2422638	CVAC 240	3020504	DOUG A26
2621302	CURTISTRVAIR	2422640	CVAC 240	3020506	DOUG A26
2621304	CURTISTRVAIR	2422642	CVAC 240	3020510	DOUG A26
2621306	CURTISTRVAIR	2422644	CVAC 240	3020512	DOUG A26
2621308	CURTISTRVAIR	2422645	CVAC 240	3020514	DOUG A26
2621402	CURTISTRVAIR	2422646	CVAC 240	3020516	DOUG A26
2621404	CURTISTRVAIR	2422648	CVAC 240	3020518	DOUG A26
2621406	CURTISTRVAIR	2422702	CVAC 340	3020524	DOUG A26
2621408	CURTISTRVAIR	2422704	CVAC 340	3020525	DOUG A26
2621502	CURTISTRVAIR	2422706	CVAC 340	3020526	DOUG A26
2621504	CURTISTRVAIR	2422708	CVAC 340	3020527	DOUG A26
2621506	CURTISTRVAIR	242270A	CVAC 340	3021401	DOUG DC3
2621508	CURTISTRVAIR	242270H	CVAC 340	3021402	DOUG DC3
2621602	CURTISTRVAIR	2422712	CVAC 340	3021404	DOUG DC3
2621604	CURTISTRVAIR	2422714	CVAC 340	3021406	DOUG DC3
2621606	CURTISTRVAIR	2422716	CVAC 340	3021410	DOUG DC3
2621608	CURTISTRVAIR	2422718	CVAC 340	3021412	DOUG DC3
2621702	CURTISTRVAIR	2422742	CVAC 340	3021414	DOUG DC3
2621704	CURTISTRVAIR	2422902	CVAC 440	3021414	DOUG DC3
2621802	CURTISTRVAIR	2422904	CVAC 440	3021416	DOUG DC3
2621804	CURTISTRVAIR	2420202	CVAC BT13	3021418	DOUG DC3
2621806	CURTISTRVAIR	2420204	CVAC BT13	3021420	DOUG DC3
		2420206	CVAC BT13		

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
3021422	DOUG DC3	3021510	DOUG DC4	3021953	DOUG DC8
3021424	DOUG DC3	3021512	DOUG DC4	3021954	DOUG DC8
3021425	DOUG DC3	3021514	DOUG DC4	3021958	DOUG DC8
3021426	DOUG DC3	3021516	DOUG DC4	302195D	DOUG DC8
3021427	DOUG DC3	3021518	DOUG DC4	3021965	DOUG DC8
3021428	DOUG DC3	3021520	DOUG DC4	3021970	DOUG DC8
3021429	DOUG DC3	3021522	DOUG DC4	3021972	DOUG DC8
3021430	DOUG DC3	3021524	DOUG DC4	302197B	DOUG DC8
3021431	DOUG DC3	3021526	DOUG DC4	302197D	DOUG DC8
3021432	DOUG DC3	3021528	DOUG DC4	302198A	DOUG DC8
3021433	DOUG DC3	3021530	DOUG DC4	302198B	DOUG DC8
3021434	DOUG DC3	3021532	DOUG DC4	302198F	DOUG DC8
3021436	DOUG DC3	3021534	DOUG DC4	302198H	DOUG DC8
3021438	DOUG DC3	3021536	DOUG DC4	3022002	DOUG DC9
3021439	DOUG DC3	3021537	DOUG DC4	3022026	DOUG DC9
3021440	DOUG DC3	3021538	DOUG DC4	3022028	DOUG DC9
3021441	DOUG DC3	3021702	DOUG DC6	3022028	DOUG DC9
3021442	DOUG DC3	3021706	DOUG DC6	3022030	DOUG DC9
3021443	DOUG DC3	3021708	DOUG DC6	3022034	DOUG DC9
3021444	DOUG DC3	3021710	DOUG DC6	3022036	DOUG DC9
3021445	DOUG DC3	3021712	DOUG DC6	3022037	DOUG DC9
3021446	DOUG DC3	3021714	DOUG DC6	302203B	DOUG DC9
3021447	DOUG DC3	3021802	DOUG DC7	302203D	DOUG DC9
3021448	DOUG DC3	3021804	DOUG DC7	302203F	DOUG DC9
3021449	DOUG DC3	3021805	DOUG DC7	302203H	DOUG DC9
3021450	DOUG DC3	3021806	DOUG DC7	302203K	DOUG DC9
3021451	DOUG DC3	3021807	DOUG DC7	3022051	DOUG DC9
3021452	DOUG DC3	3021808	DOUG DC7	302205A	DOUG DC9
3021453	DOUG DC3	3021901	DOUG DC8	302205C	DOUG DC9
3021454	DOUG DC3	3021902	DOUG DC8	3022065	DOUG DC9
3021455	DOUG DC3	3021904	DOUG DC8	3022066	DOUG DC9
3021456	DOUG DC3	3021906	DOUG DC8	3022067	DOUG DC9
3021457	DOUG DC3	3021908	DOUG DC8	302206A	DOUG DC9
3021458	DOUG DC3	302190B	DOUG DC8	302206C	DOUG DC9
3021459	DOUG DC3	302190D	DOUG DC8	302206E	DOUG DC9
3021460	DOUG DC3	302190F	DOUG DC8	302207A	DOUG DC9
3021461	DOUG DC3	302190H	DOUG DC8	302207C	DOUG DC9
3021462	DOUG DC3	3021910	DOUG DC8	302207D	DOUG DC9
3021463	DOUG DC3	3021912	DOUG DC8	302207N	DOUG DC9
3021464	DOUG DC3	3021914	DOUG DC8	302207P	DOUG DC9
3021466	DOUG DC3	3021916	DOUG DC8	3022080	DOUG DC9
3021467	DOUG DC3	3021918	DOUG DC8	5760202	EIRVON20
3021468	DOUG DC3	302191B	DOUG DC8	5760202	EIRVON20
3021469	DOUG DC3	302191D	DOUG DC8	5760204	EIRVON20
302146I	DOUG DC3	302191F	DOUG DC8	5760204	EIRVON20
302146X	DOUG DC3	302191H	DOUG DC8	5760206	EIRVON20
302146Y	DOUG DC3	302191K	DOUG DC8	3280103	EMAIR MA1
302146Z	DOUG DC3	3021920	DOUG DC8	6070102	EMAIR MA1
3021470	DOUG DC3	3021922	DOUG DC8	3300404	ENSTRMF28
3021471	DOUG DC3	3021924	DOUG DC8	3300406	ENSTRMF28
3021472	DOUG DC3	3021925	DOUG DC8	3300407	ENSTRMF28
3021473	DOUG DC3	3021926	DOUG DC8	3300424	ENSTRMF28
3021474	DOUG DC3	3021927	DOUG DC8	3300502	ENSTRMF28
3021476	DOUG DC3	3021928	DOUG DC8	3300505	ENSTRMF28
3021478	DOUG DC3	302192B	DOUG DC8	3480502	FLEET 16B
302147M	DOUG DC3	302192L	DOUG DC8	3480504	FLEET 16B
3021480	DOUG DC3	302192F	DOUG DC8	3370202	FRCHLD24
3021502	DOUG DC4	302192H	DOUG DC8	3370204	FRCHLD24
3021504	DOUG DC4	302192K	DOUG DC8	3370206	FRCHLD24
3021506	DOUG DC4	302192M	DOUG DC8	3370208	FRCHLD24
3021508	DOUG DC4	3021952	DOUG DC8	3370210	FRCHLD24

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
3370212	FRCHLD24	3371614	FRCHLDM62	3952802	GULSTMG164
3370214	FRCHLD24	3371616	FRCHLDM62	3952803	GULSTMG164
3370216	FRCHLD24	3371618	FRCHLDM62	3952804	GULSTMG164
3370218	FRCHLD24	3371620	FRCHLDM62	3979908	GULSTMG164
3370220	FRCHLD24	3371622	FRCHLDM62	3951202	GULSTMG21
3370222	FRCHLD24	3371624	FRCHLDM62	3951204	GULSTMG21
3370224	FRCHLD24	3371626	FRCHLDM62	3951206	GULSTMG21
3370302	FRCHLD24	3371628	FRCHLDM62	3951208	GULSTMG21
3370304	FRCHLD24	3371630	FRCHLDM62	3951210	GULSTMG21
3370402	FRCHLD24	3371632	FRCHLDM62	3951212	GULSTMG21
3370404	FRCHLD24	3371634	FRCHLDM62	3951214	GULSTMG21
3370406	FRCHLD24	3371636	FRCHLDM62	3951216	GULSTMG21
3370408	FRCHLD24	3371638	FRCHLDM62	3951218	GULSTMG21
3370410	FRCHLD24	3371640	FRCHLDM62	3951502	GULSTMG44
3370412	FRCHLD24	3371642	FRCHLDM62	3951504	GULSTMG44
3370414	FRCHLD24	3374004	FRCHLDM62	3951506	GULSTMG44
3370416	FRCHLD24	3374006	FRCHLDM62	3951508	GULSTMG44
3370418	FRCHLD24	3800344	GLASFL201	3951802	GULSTMG73
3370502	FRCHLD24	3800335	GLASFLH301	3960401	GULSTMGA7
3370504	FRCHLD24	3800337	GLASFLH301	4300302	HELIO H250
3370506	FRCHLD24	3800339	GLASFLH301	4300802	HELIO H295
3370508	FRCHLD24	3800341	GLASFLH301	4301101	HELIO H295
3370510	FRCHLD24	1660104	GROB ASTIR	4301102	HELIO H295
3370512	FRCHLD24	3910101	GRTLKS2T1	4301104	HELIO H295
3370514	FRCHLD24	3910102	GRTLKS2T1	4300102	HELIO H391
3370516	FRCHLD24	3910104	GRTLKS2T1	4300104	HELIO H391
3370518	FRCHLD24	3910106	GRTLKS2T1	4300106	HELIO H391
3370520	FRCHLD24	3910107	GRTLKS2T1	4300202	HELIO H395
3370602	FRCHLD24	3910108	GRTLKS2T1	4300204	HELIO H395
3370604	FRCHLD24	3950306	GRUMANTBM	4300206	HELIO H395
3370606	FRCHLD24	3950308	GRUMANTBM	4360102	HILLERUH12
3370608	FRCHLD24	3950310	GRUMANTBM	4360103	HILLERUH12
3370610	FRCHLD24	0630820	GRUMAVAA1	4360104	HILLERUH12
3370612	FRCHLD24	0631202	GRUMAVAA1	4360106	HILLERUH12
3370614	FRCHLD24	0632001	GRUMAVAA1	4360108	HILLERUH12
3370616	FRCHLD24	3960100	GRUMAVAA1	4360109	HILLERUH12
3370618	FRCHLD24	3960102	GRUMAVAA1	4360110	HILLERUH12
3370620	FRCHLD24	3960103	GRUMAVAA1	4360111	HILLERUH12
3370622	FRCHLD24	3960502	GRUMAVAA1	4360112	HILLERUH12
3370624	FRCHLD24	0632005	GRUMAVAA5	4360114	HILLERUH12
3370626	FRCHLD24	3960104	GRUMAVAA5	4360116	HILLERUH12
3370628	FRCHLD24	3960105	GRUMAVAA5	4360117	HILLERUH12
3372102	FRCHLDC119	3952801	GRUMAVG164	4360118	HILLERUH12
3372106	FRCHLDC119	3960201	GRUMAVG164	4360119	HILLERUH12
3372108	FRCHLDC119	3960202	GRUMAVG164	4360120	HILLERUH12
3373002	FRCHLDF27	3960203	GRUMAVG164	4360121	HILLERUH12
3373004	FRCHLDF27	8052214	GRUMAVG164	4360122	HILLERUH12
3373006	FRCHLDF27	0630610	GULSTMAA1	4360126	HILLERUH12
3373008	FRCHLDF27	0630710	GULSTMAA1	4360127	HILLERUH12
3373010	FRCHLDF27	0631206	GULSTMAA1	4360128	HILLERUH12
3373016	FRCHLDF27	0631214	GULSTMAA1	4360129	HILLERUH12
3376502	FRCHLDFH1100	0631410	GULSTMAA5	4360130	HILLERUH12
3376504	FRCHLDFH1100	3960105	GULSTMAA5	4360135	HILLERUH12
4360302	FRCHLDFH1100	3960106	GULSTMAA5	4470402	HUGHES269
4361405	FRCHLDFH1100	3970104	GULSTMAA5	4470404	HUGHES269
3371602	FRCHLDM62	3970106	GULSTMAA5	4470406	HUGHES269
3371604	FRCHLDM62	3953505	GULSTMG1159	4470502	HUGHES269
3371606	FRCHLDM62	3970108	GULSTMG1159	4470504	HUGHES269
3371608	FRCHLDM62	3952202	GULSTMG159	4470702	HUGHES369
3371610	FRCHLDM62	3952702	GULSTMG164	4470706	HUGHES369
3371612	FRCHLDM62	3952704	GULSTMG164	4470718	HUGHES369

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
4470720	HUGHES369	4690518	JBMSTRDGA15	5261642	LKHEED1R
4470722	HUGHES369	5090204	LAIKFN10	5262602	LKHEED1R8
4470728	HUGHES369	5090206	LAIKFN10	5262604	LKHEED1R8
4470730	HUGHES369	5090208	LAIKFN10	5260102	LKHEEDPV1
4470802	HUGHES369	5170102	LEAR 23	5260104	LKHEEDPV1
2800402	HWKSLYDH104	5170302	LEAR 24	5260106	LKHEEDPV1
2800404	HWKSLYDH104	5170304	LEAR 24	5260401	LKHEEDT33
2800406	HWKSLYDH104	5170306	LEAR 24	5260402	LKHEEDT33
2800408	HWKSLYDH104	5170307	LEAR 24	5260404	LKHEEDT33
2800410	HWKSLYDH104	5170308	LEAR 24	5260406	LKHEEDT33
2800412	HWKSLYDH104	5170309	LEAR 24	8190102	LUSCOM8
2800414	HWKSLYDH104	5170310	LEAR 24	8190104	LUSCOM8
2800416	HWKSLYDH104	5170311	LEAR 24	8190106	LUSCOM8
2800417	HWKSLYDH104	5170316	LEAR 24	8190108	LUSCOM8
2800418	HWKSLYDH104	5170317	LEAR 24	8190110	LUSCOM8
2800420	HWKSLYDH104	5170506	LEAR 25	8190112	LUSCOM8
*DH114	HWKSLYDH114	5170509	LEAR 25	8190114	LUSCOM8
2800501	HWKSLYDH114	5170511	LEAR 25	8190116	LUSCOM8
2800502	HWKSLYDH114	5170513	LEAR 25	8190118	LUSCOM8
2800504	HWKSLYDH114	5170514	LEAR 25	8190120	LUSCOM8
2800506	HWKSLYDH114	5170516	LEAR 25	8190122	LUSCOM8
2800508	HWKSLYDH114	5170600	LEAR 35	8190124	LUSCOM8
2800510	HWKSLYDH114	5170601	LEAR 35	8190126	LUSCOM8
*DH125	HWKSLYDH125	5170602	LEAR 35	8190128	LUSCOM8
4210101	HWKSLYDH125	5170603	LEAR 35	8190130	LUSCOM8
4210112	HWKSLYDH125	1360306	LET L13	8190132	LUSCOM8
4230102	HWKSLYDH125	*1011	LKHEED1011	8190154	LUSCOM8
4230106	HWKSLYDH125	5265010	LKHEED1011	5450702	MARTIN404
4230110	HWKSLYDH125	5265015	LKHEED1011	5460102	MAULE M4
4230112	HWKSLYDH125	5261402	LKHEED12A	5460104	MAULE M4
4230126	HWKSLYDH125	5261404	LKHEED12A	5460105	MAULE M4
4230130	HWKSLYDH125	5261406	LKHEED12A	5460106	MAULE M4
4230134	HWKSLYDH125	5261408	LKHEED12A	5460108	MAULE M4
4230138	HWKSLYDH125	5261410	LKHEED12A	5460112	MAULE M4
423013M	HWKSLYDH125	*1329	LKHEED1329	5460114	MAULE M4
423013P	HWKSLYDH125	5263102	LKHEED1329	5460116	MAULE M4
4230140	HWKSLYDH125	5263104	LKHEED1329	5460128	MAULE M4
4230158	HWKSLYDH125	5263106	LKHEED1329	5460130	MAULE M4
4230170	HWKSLYDH125	5263108	LKHEED1329	5460132	MAULE M4
1440502	HYNES B2	5263110	LKHEED1329	5460133	MAULE M5
1440504	HYNES B2	5263116	LKHEED1329	5460134	MAULE M5
1440506	HYNES B2	5263119	LKHEED1329	5460135	MAULE M5
1440508	HYNES B2	5263125	LKHEED1329	5500604	MCCULLHJ2
0140302	INTRCP200	5261602	LKHEED18	5480102	MCLISHFUNKB
0140304	INTRCP200	5261603	LKHEED18	5480104	MCLISHFUNKB
0140306	INTRCP200	5261604	LKHEED18	5480106	MCLISHFUNKB
0140308	INTRCP200	5261606	LKHEED18	5480108	MCLISHFUNKB
0140312	INTRCP200	5261608	LKHEED18	5480202	MCLISHFUNKB
0142002	ISRAEL1121	5261610	LKHEED18	5480204	MCLISHFUNKB
0142006	ISRAEL1121	5261612	LKHEED18	5480206	MCLISHFUNKB
0142010	ISRAEL1121	5261614	LKHEED18	5480208	MCLISHFUNKB
4500101	ISRAEL1123	5261616	LKHEED18	5650202	MEYERSOTW
4500102	ISRAEL1124	5261618	LKHEED18	5650204	MEYERSOTW
4690502	JBMSTRDGA15	5261620	LKHEED18	5650206	MEYERSOTW
4690504	JBMSTRDGA15	5261622	LKHEED18	5650208	MEYERSOTW
4690506	JBMSTRDGA15	5261624	LKHEED18	5810102	MNCOUP90
4690508	JBMSTRDGA15	5261632	LKHEED18	5810104	MNCOUP90
4690510	JBMSTRDGA15	5261634	LKHEED18	5810107	MNCOUP90
4690512	JBMSTRDGA15	5261636	LKHEED18	5810108	MNCOUP90
4690514	JBMSTRDGA15	5261638	LKHEED18	5810110	MNCOUP90
4690516	JBMSTRDGA15	5261640	LKHEED18	5810130	MNCOUP90

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
5870101	MNMITEM18	6402310	NAMER F51	8141616	ORLHELH19
5870102	MNMITEM18	6402314	NAMER F51	8141618	ORLHELH19
5870104	MNMITEM18	6402502	NAMER NA260	056040H	PICARDAX6
5870106	MNMITEM18	6402504	NAMER NA260	700121R	PICARDAX6
5870108	MNMITEM18	6402506	NAMER NA260	700122A	PICARDAX6
5870202	MOONEYM20	6402512	NAMER NA260	7090103	PILATSB4
5870204	MOONEYM20	192282R	NAMER T6	7090104	PILATSB4
5870206	MOONEYM20	6400402	NAMER T6	7106001	PIPER 600
5870208	MOONEYM20	6400404	NAMER T6	7106002	PIPER 600
5870210	MOONEYM20	6400406	NAMER T6	7106010	PIPER 600
5870212	MOONEYM20	6400408	NAMER T6	836060R	PIPER 600
5870214	MOONEYM20	6400410	NAMER T6	7100402	PIPER J2
5870219	MOONEYM20	6400412	NAMER T6	7100412	PIPEK J2
5870220	MOONEYM20	6400414	NAMER T6	7100502	PIPEP J3
5870304	MOONEYM20	6400416	NAMER T6	7100503	PIPEP J3
5870306	MOONEYM20	6400417	NAMER T6	7100504	PIPER J3
5870308	MOONEYM20	6400418	NAMER T6	7100506	PIPER J3
5870310	MOONEYM20	6400419	NAMER T6	7100508	PIPEP J3
5870312	MOONEYM20	6400420	NAMER T6	7100510	PIPER J3
5870314	MOONEYM20	6400422	NAMER T6	7100511	PIPER J3
5870316	MOONEYM20	6400424	NAMER T6	7100512	PIPER J3
5870316	MOONEYM20	6400426	NAMER T6	7100514	PIPER J3
5940202	MORISY2150	6400432	NAMER T6	7100516	PIPER J3
5940204	MORISY2150	6400434	NAMER T6	7100518	PIPER J3
8120412	MPCHTIS205	6400441	NAMER T6	7100520	PIPER J3
5780404	MTSBSIMU2	6400442	NAMER T6	7100521	PIPER J3
5780405	MTSBSIMU2	6120202	NAVAL N3N	7100522	PIPER J3
5780406	MTSBSIMU2	6150104	NAVIONNAVION	7100524	PIPER J3
5780407	MTSBSIMU2	6150106	NAVIONNAVION	7100525	PIPER J3
5780408	MTSBSIMU2	6150108	NAVIONNAVION	7100526	PIPER J3
5780409	MTSBSIMU2	6150110	NAVIONNAVION	7100527	PIPER J3
5780410	MTSBSIMU2	6150112	NAVIONNAVION	7100528	PIPER J3
5780411	MTSBSIMU2	6150114	NAVIONNAVION	710052P	PIPER J3
5780412	MTSBSIMU2	6150116	NAVIONNAVION	710052Q	PIPER J3
5780413	MTSBSIMU2	6150120	NAVIONNAVION	710052S	PIPER J3
5780414	MTSBSIMU2	6150122	NAVIONNAVION	7100530	PIPER J3
5780440	MTSBSIMU2	6150130	NAVIONNAVION	7100532	PIPER J3
5780460	MTSBSIMU2	6150132	NAVIONNAVION	7100534	PIPER J3
9230602	MULTECD16	6150134	NAVIONNAVION	7100536	PIPER J3
9230604	MULTECD16	6150136	NAVIONNAVION	7100538	PIPEK J3
9230606	MULTECD16	6150138	NAVIONNAVION	7100540	PIPEK J3
9230608	MULTECD16	6150140	NAVIONNAVION	7100541	PIPER J3
9230610	MULTECD16	6150142	NAVIONNAVION	7100542	PIPER J3
9230612	MULTECD16	6150144	NAVIONNAVION	7100544	PIPER J3
6400702	NAMER B25	6150146	NAVIONNAVION	7100546	PIPER J3
6400704	NAMER B25	6150148	NAVIONNAVION	7100548	PIPER J3
6400705	NAMER B25	6150160	NAVIONNAVION	7100550	PIPER J3
6400706	NAMER B25	6150162	NAVIONNAVION	7100552	PIPER J3
6400708	NAMER B25	6150164	NAVIONNAVION	7101102	PIPER J3
6400710	NAMER B25	6150166	NAVIONNAVION	7101104	PIPER J3
6400712	NAMER B25	6150168	NAVIONNAVION	7100602	PIPER J4
6400713	NAMER B25	6150170	NAVIONNAVION	7100604	PIPER J4
6400714	NAMER B25	6150172	NAVIONNAVION	7100606	PIPER J4
6400718	NAMER B25	6150174	NAVIONNAVION	7100608	PIPER J4
6400719	NAMER B25	6150176	NAVIONNAVION	7100610	PIPER J4
6402302	NAMER F51	6150178	NAVIONNAVION	7100612	PIPER J4
6402304	NAMER F51	8141608	ORLHELH19	7100614	PIPER J4
6402305	NAMER F51	8141609	ORLHELH19	7100202	PIPER J5
6402306	NAMER F51	8141610	ORLHELH19	7100204	PIPER J5
6402308	NAMER F51	8141612	ORLHELH19	7100702	PIPER J5
6402309	NAMER F51	8141614	ORLHELH19	7100704	PIPER J5

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
7100706	PIPER J5	7102309	PIPER PA23	7103812	PIPER PA38
7100708	PIPER J5	7102310	PIPER PA23	7300102	PRATT PRG1
7100710	PIPER J5	7102402	PIPER PA24	7300104	PRATT PPG1
7100712	PIPER J5	7102403	PIPER PA24	7300106	PRATT PRG1
7101202	PIPER PA12	7102404	PIPER PA24	0140302	PROPJT200
7101204	PIPER PA12	7102406	PIPER PA24	0140304	PROPJT200
7101402	PIPER PA14	7102407	PIPER PA24	0140306	PROPJT200
7101502	PIPER PA15	7102408	PIPER PA24	0140308	PROPJT200
7101602	PIPER PA16	7102409	PIPER PA24	0140314	PROPJT200
7101604	PIPER PA16	7102502	PIPER PA25	0143012	PROPJT200
7101702	PIPER PA17	7102504	PIPER PA25	5650302	PROPJT200
7101802	PIPER PA18	7102508	PIPER PA25	5650304	PROPJT200
7101804	PIPER PA18	7102510	PIPER PA28	5650306	PROPJT200
7101806	PIPER PA18	7102801	PIPER PA28	5650308	PROPJT200
7101808	PIPER PA18	7102802	PIPER PA28	5650310	PROPJT200
7101809	PIPER PA18	7102803	PIPER PA28	6480116	RANKIN65
7101810	PIPER PA18	7102804	PIPER PA28	6480118	RANKIN65
7101811	PIPER PA18	7102805	PIPER PA28	6480120	RANKIN65
7101812	PIPER PA18	7102806	PIPER PA28	6480122	RANKIN65
7101813	PIPER PA18	7102807	PIPER PA28	6480124	RANKIN65
7101814	PIPER PA18	7102808	PIPER PA28	7480502	RAVEN RX6
7101815	PIPER PA18	7102809	PIPER PA28	05604XT	RAVEN S50
7101816	PIPER PA18	7102810	PIPER PA28	05604XW	RAVEN S50
7101818	PIPER PA18	7102811	PIPER PA28	7480202	RAVEN S50
7101820	PIPER PA18	7102812	PIPER PA28	7480204	RAVEN S50
7101822	PIPER PA18	7102813	PIPER PA28	7480402	RAVEN S55
7101824	PIPER PA18	7102814	PIPER PA28	0144701	RKWELL112
7101826	PIPER PA18	7102815	PIPER PA28	7630302	RKWELL112
7101828	PIPER PA18	7102816	PIPER PA28	7630303	RKWELL112
7101830	PIPER PA18	7102818	PIPER PA28	7630306	RKWELL112
7101832	PIPER PA18	7102819	PIPER PA28	7630307	RKWELL112
7101834	PIPER PA18	7102824	PIPER PA28	7630314	RKWELL112
7101836	PIPER PA18	7103002	PIPER PA30	0141102	RKWELL500
7101837	PIPER PA18	7103015	PIPER PA30	0141104	RKWELL500
7101838	PIPER PA18	7103902	PIPER PA30	0141106	RKWELL500
7101902	PIPER PA18	7104002	PIPER PA30	0141107	RKWELL500
7101903	PIPER PA18	7103102	PIPER PA31	0141108	RKWELL500
7101904	PIPER PA18	7103103	PIPER PA31	0141202	RKWELL520
7101906	PIPER PA18	7103104	PIPER PA31	0141402	RKWELL560
7102002	PIPER PA20	7103105	PIPER PA31	0141404	RKWELL560
7102004	PIPER PA20	7103110	PIPER PA31	0141406	RKWELL560
7102006	PIPER PA20	7103120	PIPER PA31	0141408	RKWELL680
7102008	PIPER PA20	7103126	PIPER PA31	0141602	RKWELL680
7102010	PIPER PA20	7103124	PIPER PA31T	0141604	RKWELL680
7102012	PIPER PA20	7103206	PIPER PA32	0141606	RKWELL680
7102016	PIPER PA20	7103208	PIPER PA32	0141608	RKWELL680
7102202	PIPER PA22	7103211	PIPER PA32	0141610	RKWELL680
7102203	PIPER PA22	7103212	PIPER PA32	0141611	RKWELL680
7102204	PIPER PA22	7103213	PIPER PA32	0141612	RKWELL680
7102206	PIPER PA22	7103214	PIPER PA32	0141802	RKWELL680
7102208	PIPER PA22	7103215	PIPER PA32	0141712	RKWELL680TP
7102210	PIPER PA22	7103216	PIPER PA32	0141714	RKWELL680TP
7102212	PIPER PA22	7103217	PIPER PA32	0141716	RKWELL680TP
7102214	PIPER PA22	7103222	PIPER PA32	0141718	RKWELL680TP
7102216	PIPER PA22	7103404	PIPER PA34	0141720	RKWELL690TP
*PA23	PIPER PA23	7103405	PIPER PA34	0141722	RKWELL690TP
7102302	PIPER PA23	7103406	PIPER PA34	7630516	RKWELL690TP
7102303	PIPER PA23	7103408	PIPER PA34	*NA265	RKWELLNA265
7102304	PIPER PA23	7103610	PIPER PA36	6402602	RKWELLNA265
7102306	PIPER PA23	7103612	PIPER PA36	6402604	RKWELLNA265
7102308	PIPER PA23	7103614	PIPER PA36	6402606	RKWELLNA265

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE
TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
6402608	RKWELLNA265	8050504	SCWZERSG1	8680506	SNIAS SA318
6402610	RKWELLNA265	8050515	SCWZERSG1	8680508	SNIAS SA318
6402612	RKWELLNA265	8053604	SCWZERSG1	8680511	SNIAS SA318
6402614	RKWELLNA265	8050202	SCWZERSG2	8680511	SNIAS SA318
6402618	RKWELLNA265	8050204	SCWZERSG2	8402842	SOCATAMS894
7630108	RKWELLNA265	8050206	SCWZERSG2	38019VC	SPHRTHCIRRUS
7630108	RKWELLNA265	8050210	SCWZERSG2	38019VE	SPHRTHCIRRUS
3801206	ROLSCHLS	8050602	SCWZERSG2	3801925	SPHRTHNIMBUS
3801208	ROLSCHLS	8050604	SCWZERSG2	38019VD	SPHRTHNIMBUS
3801211	ROLSCHLS	8050606	SCWZERSG2	38019VG	SPHRTHNIMBUS
3801214	ROLSCHLS	8050608	SCWZERSG2	38019VJ	SPHRTHNIMBUS
7830502	RYAN ST3	8050610	SCWZERSG2	8632002	STNNSON10
7830504	RYAN ST3	8050612	SCWZERSG2	8632004	STNNSON10
7830506	RYAN ST3	8050614	SCWZERSG2	8632102	STNNSON10
7830402	RYAN STA	8051404	SCWZERSG2	8632104	STNNSON10
7830404	RYAN STA	8051604	SCWZERSG2	8632106	STNNSON10
38015H2	SCHLERASW15	8051606	SCWZERSG2	8630202	STNNSONL5
38015HZ	SCHLERASW15	8050902	SCWZERTG3A	8630204	STNNSONL5
3801508	SCHLERASW19	8070802	SEMCO CLNGER	8630206	STNNSONL5
3801506	SCHLERASW20	8071701	SEMCO MODEL T	8630208	STNNSONL5
3801559	SCHLERKA	8141602	SKRSKYS55	8630210	STNNSONL5
3801563	SCHLERKA	8141604	SKRSKYS55	8630212	STNNSONL5
3801525	SCHLERKA6	8141606	SKRSKYS55	8630214	STNNSONL5
3801528	SCHLERKA6	8141615	SKRSKYS55	8631502	STNNSONSR9
3801530	SCHLERKA6	814161E	SKRSKYS55	8631504	STNNSONSR9
3801533	SCHLERKA6	814161G	SKRSKYS55	8631506	STNNSONSR9
3801535	SCHLERKA6	814161J	SKRSKYS55	8631508	STNNSONSR9
3801536	SCHLERKA6	8141622	SKRSKYS55	8631510	STNNSONSR9
3801537	SCHLERKA6	8141630	SKRSKYS55	8631512	STNNSONSR9
3801540	SCHLERKA6	8141632	SKRSKYS55	8631514	STNNSONSR9
3801542	SCHLERKA6	8141801	SKRSKYS58	8631516	STNNSONSR9
3801545	SCHLERKA6	8141802	SKRSKYS58	8631518	STNNSONSR9
1121223	SCTAIVB206	8141804	SKRSKYS58	8631520	STNNSONSR9
1121224	SCTAIVB206	8141806	SKRSKYS58	8631522	STNNSONSR9
4130402	SCTAIVHP137	8141808	SKRSKYS58	8631524	STNNSONSR9
8050101	SCWZERSG1	8141811	SKRSKYS58	8631526	STNNSONSR9
8050102	SCWZERSG1	8141814	SKRSKYS58	8631528	STNNSONSR9
8050103	SCWZERSG1	8141815	SKRSKYS58	3080202	STOLAMRC3
8050104	SCWZERSG1	8141816	SKRSKYS58	3080203	STOLAMRC3
8050105	SCWZERSG1	8141831	SKRSKYS58	3080204	STOLAMRC3
8050106	SCWZERSG1	8141836	SKRSKYS58	3080206	STOLAMRC3
8050107	SCWZERSG1	8141837	SKRSKYS58	8730202	SUPAC LA
8050108	SCWZERSG1	8141803	SKRSKYS58T	8730204	SUPAC LA
8050110	SCWZERSG1	8141805	SKRSKYS58T	8730206	SUPAC LA
8050111	SCWZERSG1	8141807	SKRSKYS58T	8730208	SUPAC LA
8050112	SCWZERSG1	8141840	SKRSKYS58T	8730302	SUPAC V
8050113	SCWZERSG1	8141842	SKRSKYS58T	8730304	SUPAC V
8050114	SCWZERSG1	0140202	SLINDS100	8730306	SUPAC V
8050116	SCWZERSG1	0140203	SLINDS100	8730308	SUPAC V
8050118	SCWZERSG1	0140204	SLINDS100	*SA226	SWRNGNSA226
8050120	SCWZERSG1	0140208	SLINDS100	8780122	SWRNGNSA226
8050122	SCWZERSG1	0140210	SLINDS100	8780404	SWRNGNSA226
8050124	SCWZERSG1	9550102	SLINDS100	8780405	SWRNGNSA226
8050124	SCWZERSG1	9550104	SLINDS100	8780102	SWRNGNSA26
8050146	SCWZERSG1	9550112	SLINDS100	8780112	SWRNGNSA26
8050147	SCWZERSG1	1710602	SMITH 600	8850402	TCFAFKD
8050148	SCWZERSG1	1710606	SMITH 600	8850404	TCFAFKD
8050149	SCWZERSG1	8360602	SMITH 600	8850406	TCFAFKD
8050151	SCWZERSG1	8360606	SMITH 600	8850408	TCFAFKD
8050501	SCWZERSG1	8360802	SMITH 600	8850410	TCFAFKD
8050502	SCWZERSG1	8360806	SMITH 600	8850412	TCFAFKD

APPENDIX C. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE TABLE (CONTINUED)

FAA	SDR	FAA	SDR	FAA	SDR
8850414	TCRAFKD	9230102	UNIVACGC1	9600405	WACO U
8850416	TCRAFKD	9230104	UNIVACGC1	9600508	WACO U
8850418	TCRAFKD	9230106	UNIVACGC1	9600510	WACO U
8850420	TCRAFKD	9230108	UNIVACGC1	9601302	WACO UPF7
8850422	TCRAFKD	9230110	UNIVACGC1	9601304	WACO UPF7
8850448	TCRAFKD	9230112	UNIVACGC1	9600816	WACO YK
9230702	TCRAFT19	9230402	UNIVAR108	9600818	WACO YK
9230703	TCRAFT19	9230404	UNIVAR108	9600832	WACO YK
8850202	TCRAFTA	9230406	UNIVAR108	9600834	WACO YK
8850302	TCRAFTBC	9230408	UNIVAR108	9600835	WACO YK
8850304	TCRAFTBC	9230412	UNIVAR108	9600836	WACO YK
8850306	TCRAFTBC	9230414	UNIVAR108	9600838	WACO YK
8850308	TCRAFTBC	9230416	UNIVAR108	9600840	WACO YK
8850310	TCRAFTBC	9230418	UNIVAR108	0190406	WOODHM65
8850312	TCRAFTBC	0420102	UNIVAR415	0190712	WOODHM65
8850314	TCRAFTBC	0420104	UNIVAR415	0190714	WOODHM65
8850316	TCRAFTBC	0420202	UNIVAR415	0190716	WOODHM65
8850318	TCRAFTBC	0420204	UNIVAR415	0190718	WOODHM65
8850320	TCRAFTBC	0420302	UNIVAR415	0190920	WOODHM65
8850321	TCRAFTBC	0420304	UNIVAR415	0190922	WOODHM65
8850322	TCRAFTBC	0420306	UNIVAR415	0190924	WOODHM65
8850323	TCRAFTBC	0420308	UNIVAR415	0190926	WOODHM65
8850324	TCRAFTBC	0420310	UNIVAR415	0190928	WOODHM65
9230902	TCRAFTBC	0420312	UNIVAR415	0190930	WOODHM65
9230904	TCRAFTBC	0420314	UNIVAR415	0190932	WOODHM65
9230906	TCRAFTBC	0420316	UNIVAR415	9630404	WTHRLY201
9230908	TCRAFTBC	0420318	UNIVAR415	9630406	WTHRLY201
9230912	TCRAFTBC	0420320	UNIVAR415	9630408	WTHRLY201
9230914	TCRAFTBC	0420322	UNIVAR415	9630410	WTHRLY201
9230916	TCRAFTBC	0420324	UNIVAR415		
9230918	TCRAFTBC	0420326	UNIVAR415		
9230920	TCRAFTBC	0420328	UNIVAR415		
9230922	TCRAFTBC	0420330	UNIVAR415		
9230924	TCRAFTBC	0420332	UNIVAR415		
9230926	TCRAFTBC	0420334	UNIVAR415		
9230928	TCRAFTBC	0420336	UNIVAR415		
8850326	TCRAFTBF	0420338	UNIVAR415		
8850328	TCRAFTBF	0420340	UNIVAR415		
8850330	TCRAFTBF	0420402	UNIVAR415		
8850332	TCRAFTBF	0420404	UNIVAR415		
8850334	TCRAFTBF	0420406	UNIVAR415		
8850336	TCRAFTBF	0420408	UNIVAR415		
8850338	TCRAFTBF	0420410	UNIVAR415		
8850340	TCRAFTBF	0420502	UNIVAR415		
8850342	TCRAFTBF	0420504	UNIVAR415		
8850344	TCRAFTBF	0420702	UNIVAR415		
8850346	TCRAFTBL	0420722	UNIVAR415		
8850348	TCRAFTBL	0540102	UNIVAR415		
8850350	TCRAFTBL	0540104	UNIVAR415		
8850352	TCRAFTBL	5872014	UNIVAR415		
8850354	TCRAFTBL	5872016	UNIVAR415		
8850356	TCRAFTBL	9470204	VICKER745		
8850358	TCRAFTBL	9470402	VICKER745		
8890402	TEMCO 11A	9470404	VICKER745		
8890404	TEMCO 11A	9470602	VICKER745		
8970105	THUNDRAX7	9601202	WACO ASU		
8970107	THUNDRAX7	9600702	WACO GXE		
8970108	THUNDRAX7	9600304	WACO P		
8970110	THUNDRAX7	9600422	WACO R		
0190407	TRYTEKK	9600306	WACO U		
0190404	TRYTEKK	9600404	WACO U		

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