



U.S. Department
of Transportation
Federal Aviation
Administration

FAA Statistical Handbook of Aviation

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Calendar Year 1991

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FAA Statistical Handbook of Aviation

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16 Abstract This report presents statistical information pertaining to the Federal Aviation Administration, the National Airspace System, Airports, Airport Activity, U.S. Civil Air Carrier Fleet, U.S. Civil Air Carrier Operating Data, Airmen, General Aviation Aircraft, Aircraft Accidents, Aeronautical Production and Imports/Exports, and a Glossary of the terms used in this publication. (THIS PUBLICATION IS NOT FOR SALE BY THE FAA)			
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Airport Activity Statistics of Certificated Route Air Carrier is a joint publication of the Federal Aviation Administration (FAA) and the Research & Special Programs Administration (RSPA). RSPA furnishes airport activity data on certificated route air carriers; FAA organizes/publishes it. Included in the data are passenger enplanements, tons of enplaned freight and mail. Scheduled/nonscheduled service shown by airport and carrier are also included. Breakdown of data includes departures/enplanements/cargo/mail by airport, carrier & type of operation, and type of aircraft.

Reporting period:.....	Calendar Year
Latest edition:	1991 data
Order from:.....	U.S. Government Printing Office or National Technical Information Service
Date 1992 information will be available:.....	June 1993
Date next publication is scheduled:	September 1993 (1992 data)
Person to contact:.....	Patricia Beardsley

Census of U.S. Civil Aircraft is an annual publication that includes statistical data on the registered civil fleet, air carrier aircraft, and general aviation aircraft—both registered and active, detailed reports for general aviation aircraft by owner's state and county, and registered aircraft by make and model.

Reporting period:.....	Calendar Year
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Person to contact:.....	Patricia Beardsley

FAA Air Traffic Activity furnishes terminal and en route air traffic activity information (e.g., takeoffs & landings, flight plans filed) of the National Airspace System. The data is collected/compiled from the FAA—operated Airport Traffic Control Towers, Air Route Traffic Control Centers, Flight Service Stations, Approach Control Facilities, and FAA Contract—towered airports.

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Person to contact:.....	Nancy Trembley

FAA Statistical Handbook of Aviation is a convenient source for historical data. It presents statistical information pertaining to the Federal Aviation Administration, the National Airspace System, Airports, Airport Activity, U.S. Civil Air Carrier Fleet, U.S. Civil Air Carrier Operating Data, Airmen, General Aviation Aircraft, Aircraft Accidents, Aeronautical Production & Import/Export.

Reporting period:.....	Calendar Year
Latest edition:	1991 data
Order from:.....	U.S. Government Printing Office or National Technical Information Service
Date 1992 information will be available:.....	Various
Date next publication is scheduled:	December 1993 (1992 data)
Person to contact:.....	Patricia Beardsley

General Aviation Activity and Avionics Survey publication presents the results of the general aviation activity and avionics survey conducted to obtain information on the activity and avionics of the U.S. registered general aviation aircraft fleet. The survey reveals estimated flying time of the active general aviation aircraft, and other statistics by manufacturer/model group, aircraft type, state and region of based aircraft, and primary use. Estimates are included on fuel consumption, lifetime airframe hours, avionics, and engine hours.

Reporting period:.....	Calendar Year
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Order from:.....	U.S. Government Printing Office or National Technical Information Service
Date 1992 information will be available:.....	August 1993
Date next publication is scheduled:	November 1993 (1992 data)
Person to contact:.....	Shung-Chai Huang

General Aviation Pilot and Aircraft Activity Survey includes data on the type and source of aircraft flight plan and weather information services, trip length in time and distance, pilots age and certification, estimates of total 1990 general aviation operations, fuel consumption and aircraft miles flown. The survey was conducted from June through September 1990 by the Federal Aviation Administration with the assistance of the Civil Air Patrol.

Reporting period:.....	Calendar Year
Latest edition:	1990 data
Order from:.....	Statistics & Forecast Branch or National Technical Information Service
Date 1993 information will be available:.....	March 1994
Date next publication is scheduled:	May 1994 (1993 data)
Person to contact:.....	Shung-Chai Huang

Rotorcraft Activity Survey presents the results of a special one-time survey. The report contains breakdowns of active rotorcraft, annual flight hours, average flight hours, and other statistics by rotorcraft type, manufacture/model group, region and state of based aircraft, and primary use. Also included are law enforcement and public use rotorcraft, lifetime airframe hours, engine hours, estimated miles flown, and estimated number of landings.

Edition:.....	Calendar Year 1989
Order from:.....	Statistics & Forecast Branch or National Technical Information Service
Person to contact:.....	Patricia Beardsley

U.S. Civil Airmen Statistics is an annual study of detailed airmen statistics. It contains calendar year statistics on pilot and nonpilots and the number of certificates issued.

Latest edition:	Calendar Year 1991
Order from:.....	Statistics & Forecast Branch or National Technical Information Service
Date 1992 information will be available:.....	February 1993
Date next publication is scheduled:	April 1993 (1992 data)
Person to contact:.....	Patricia Beardsley

PREFACE

The FAA Statistical Handbook of Aviation is published annually by the Federal Aviation Administration (FAA). Its prime purpose is to serve as a convenient source for historical data and to assist in evaluating progress.

The Handbook should provide a valuable source of information for the Department of Transportation (DOT), operating offices of the FAA, the Research and Special Programs Administration (RSPA), and other government agencies, as well as nongovernment organizations interested in aviation.

Chapter I deals with the FAA and its functions. This section also includes a comparison of the agency's appropriations and the agency's personnel complement.

National Airspace System data reflecting the fiscal and calendar year workload of the FAA air traffic facilities—terminal and en route are contained in Chapter II. This chapter contains air traffic activity reported by FAA-operated airport traffic control towers, air route traffic control centers, and domestic and international flight service stations.

Selected statistics concerning the nation's airport facilities by state within FAA regions are presented in Chapter III. In addition to the total count of these facilities, this chapter includes statistics pertaining to the physical characteristics (paved vs. unpaved runways, lighted vs. unlighted runways, length of runways, etc.), and funds allocated for airport development.

Airline passenger, cargo, and freight statistics shown in Chapter IV were prepared from data published in *Airport Activity Statistics of Certificated Route Air Carriers*, which is issued jointly by the RSPA and the FAA. This chapter covers the activity of the large scheduled certificated U.S. air carriers only.

The U.S. civil air carrier fleet is described in detail in Chapter V. These statistics were developed from monthly Aircraft/Engine Utilization Reports submitted by the air carrier operators. The aircraft population discussed here is not an inventory of the aircraft owned by the air carriers, but represents the aircraft reported in air carrier use during the last quarter of the year.

U.S. civil air carrier operating data—revenue passenger miles flown, available seat-miles, enplanements, revenue ton-miles flown, revenue aircraft miles flown, and operating revenues and expenses of the large certificated air carriers—are presented in Chapter VI. These statistics were obtained from forms submitted by the large certificated U.S. air carriers to the RSPA. Also included in Chapter VI are traffic statistics for the small certificated and commuter air carriers.

The airmen data shown in Chapter VII were obtained from official airmen certification records maintained by the FAA's *Mike Monroney Aeronautical Center* in Oklahoma City, Oklahoma. These data included the number of airmen as of the end of each year and the number of certificates issued during the year.

The general aviation aircraft data presented in Chapter VIII were collected from the General Aviation Activity and Avionics Survey. Numbers of active aircraft and hours flown are shown for each aircraft type, use category and state.

Aircraft accident information for air carriers, commuters, air taxis, and general aviation, appear in Chapter IX. These data were furnished by the National Transportation Safety Board (NTSB).

Aeronautical production and imports/exports are summarized in Chapter X. The production information was obtained from reports submitted to the U.S. Bureau of the Census by all known producers of complete aircraft and aircraft engines. Import/export data were obtained through Aerospace Industries Association, Inc. based on Bureau of the Census data from special monthly compilation of annual reports FT-446 and FT-410, respectively.

The FAA Statistical Handbook of Aviation is prepared by the Statistics and Forecast Branch, Planning Analysis Division, Office of Aviation Policy, Plans, and Management Analysis, with the cooperation of other FAA offices. Special appreciation is expressed to the Research and Special Programs Administration, U.S. Bureau of the Census, the National Transportation Safety Board, and many municipalities and private organizations for their assistance.

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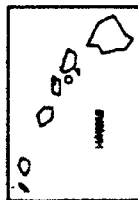
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FAA REGIONAL BOUNDARIES

INCLUDING LOCATIONS OF REGIONAL HEADQUARTERS AND CENTERS



I. THE FEDERAL AVIATION ADMINISTRATION

The Department of Transportation Act of 1966 established a new executive department known as the Department of Transportation. The general welfare, economic growth, stability, and security of the nation pointed to the need for the development of national transportation policies and programs effectively using the nation's transportation resources. The Act provided for inclusion of the Federal Aviation Agency in the Department as the Federal Aviation Administration.

Directed by an Administrator, who is appointed by the President, by and with the advice and consent of the Senate, the FAA has as its primary function the fostering of the development and safety of American aviation. More specifically, the FAA is responsible for developing the major policies necessary to guide the long-range growth of civil aviation; modernizing the air traffic control system; establishing in a single authority the essential management functions necessary to support the common needs of civil and military operations; providing for the most effective and efficient use of the airspace over the United States; and for the rule making responsibilities relative to these functions.

The FAA constructs, operates, and maintains the National Airspace System and the facilities which are a part of the system; it allocates and regulates the use of the airspace; it ensures adequate separation between aircraft operating in controlled airspace; and, through research and development programs, it provides new systems and equipment for improving utilization of the nation's airspace.

The Federal Aid to Airports Program (FAAP) authorized the FAA to make grants of federal funds to sponsors for airport development and for advanced planning and engineering. Under FAAP, approximately \$1.2 billion were granted by FAA to airport sponsors for airport development purposes from 1947 through 1970. FAAP was superseded by the Airport Development Act of 1970, the Airport and Airway Improvement Act of 1982, and the Airport and Airway Safety and Capacity Expansion Act of 1987 which amended the Airport and Airway Improvement Act of 1982.

The FAA prescribes and administers rules and regulations concerning airmen competency, aircraft airworthiness, and air traffic control. It promotes safety through certification of airmen, aircraft, and flight and aircraft maintenance schools. It reviews the design, structure, and performance of new aircraft to insure the safety of the flying public.

Services provided by FAA toward the development of aviation and air commerce include:

- Dissemination of news and information on civil aviation generally.

- Publication of flight information data for pilots.

- Technical aviation assistance to other governments, operation of overseas civil aviation missions, and the aviation training of foreign nationals.

- Development of medical standards for airmen through aviation medical research.

- Research and development in the field of aeronautics and electronics.

- Other activities required to encourage and foster the worldwide development of civil aviation and air commerce.

Policies governing these programs are developed in the Washington headquarters of FAA, and are executed by field employees.

The FAA has nine regional offices strategically located throughout the United States as well as the FAA Technical Center at Atlantic City, New Jersey, and the Mike Monroney Aeronautical Center at Oklahoma City, Oklahoma.

TABLE 1.1
FAA BUDGET AUTHORITY
FISCAL YEARS 1988-1992
(\$ IN MILLIONS)

Appropriation	1988	1989	1990	1991	1992
Total	\$6,169.0	\$6,589.5	\$7,366.6	\$7,937.7	\$8,872.1
Operations (General Fund).....	\$2,353.8	\$2,974.0	\$3,015.4	\$2,034.3	\$2,250.4
Operations (Airport and Airway Trust Fund).....	\$830.2	\$471.3	\$808.6	\$2,003.0	\$2,109.6
Headquarters Administration.....	\$35.5	\$0.0 ¹	\$0.0 ¹	\$0.0 ¹	\$0.0 ¹
Facilities and Equipment (Airport and Airway Trust Fund).....	\$1,108.1	\$1,384.2	\$1,721.2	\$2,095.4	\$1,994.0
Grants-in-Aid for Airports (Airport and Airway Trust Fund) Contract Authority	\$1,688.0	\$1,600.0	\$1,651.2	\$1,600.0	\$1,600.0
(Obligation Limitation).....	(\$1,267.0)	(\$1,399.0)	(\$1,422.0)	(\$1,834.5)	(\$1,900.0)
Research, Engineering and Development (Airport and Airway Trust Fund).....	\$153.4	\$160.0	\$170.2	\$205.0	\$218.1

¹ Headquarters Administration included in the Operations appropriation in fiscal years 1989 - 1992

TABLE 1.2
FAA CIVILIAN EMPLOYEES AT END OF FISCAL AND
CALENDAR YEARS 1982 - 1991
(SEE NOTE BELOW)

Date	FAA Total Paid	Full Time Permanent			Total
		Washington Office	Washington Field	Other Field	
Sep-82	46,511	1,868	173	42,929	44,970
Dec-82	46,897	1,866	168	43,415	45,449
Sep-83	46,922	1,906	155	45,317	45,317
Dec-83	46,993	1,911	144	43,266	45,321
Sep-84	47,216	1,943	116	43,733	45,792
Dec-84	47,178	1,959	130	43,810	45,899
Sep-85	47,138	2,012	132	43,651	45,795
Dec-85	47,245	2,033	136	43,660	45,829
Sep-86	46,682	2,022	140	43,477	45,639
Dec-86	46,809	2,050	144	43,438	45,632
Sep-87	47,897	2,142	152	44,204	46,498
Dec-87	47,907	2,156	157	44,148	46,461
Sep-88	49,002	2,267	159	45,119	47,545
Dec-88	49,210	2,315	158	45,237	47,710
Sep-89	50,875	2,474	159	46,753	49,386
Dec-89	50,977	2,630	172	46,716	49,518
Sep-90	52,010	2,809	197	47,635	50,641
Dec-90	51,269	2,849	213	46,916	49,978
Sep-91	53,959	3,072	274	48,971	52,317
Dec-91	54,119	3,153	301	48,949	52,403

NOTE: FAA Total Paid includes full-time, part-time, and intermittent. Full-time includes permanent paid full-time employees who occupy permanent positions.

Washington Office includes all paid Washington headquarters employees whose duty station is Washington, D.C.

Washington Field includes all paid Washington, D.C. employees in other states, or foreign countries.

Other Field includes all paid employees whose duty stations are in the regions or centers.

TABLE 1.3
NUMBER OF TOTAL PAID FAA EMPLOYEES AS OF DECEMBER 31, 1982-1991

Occupation	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total	46,897	46,993	47,178	47,245	46,809	47,907	49,210	50,977	51,269	54,119
Air Traffic Control Specialists	20,906	21,271	21,759	22,114	22,036	22,651	23,520	24,368	24,339	25,293
Electronics Technicians	8,031	7,633	7,229	6,856	6,600	6,788	6,627	6,508	6,458	6,641
Aviation Safety Inspectors	1,835	1,805	1,945	1,897	2,204	2,350	2,499	2,766	2,984	3,101
Engineers	2,238	2,313	2,419	2,450	2,417	2,579	2,640	2,657	2,736	3,073
All Others	13,887	13,971	13,826	13,928	13,552	13,539	13,924	14,678	14,752	16,011

II. THE NATIONAL AIRSPACE SYSTEM

This chapter furnishes terminal and en route air traffic activity information for the National Airspace System for fiscal and calendar years. The data have been reported by the FAA-operated Airport Traffic Control Towers, Air Route Traffic Control Centers, and flight service facilities (Flight Service Stations, Automated Flight Service Stations and International Flight Service Stations). These reports are used as a guide in determining the need for larger or additional facilities, and possible changes in the number of personnel at existing facilities.

Terminal information includes airport operations, instrument operations, and instrument approaches. Airport operations are landings and takeoffs. They are reported by towers by aviation categories--air carrier, air taxi, general aviation, and military. Instrument operations are takeoffs, landings, and overflights of aircraft operating in accordance with an IFR flight plan. Instrument approaches are approaches made to an airport by an aircraft on an IFR flight plan under IFR weather conditions.

Data for Air Route Traffic Control Centers (ARTCCs) include departures, overflights, and aircraft handled.

Activities for Flight Service Stations, Automated Flight Service Stations and International Flight Service Stations include flight plans originated, airport advisories, pilot briefs, and aircraft contacted.

More detailed data pertaining to activity of these facilities may be found in *FAA Air Traffic Activity*.

TABLE 2.1 ¹
U.S. AIR ROUTE AIRWAY MILEAGE:
1982-1991
(Contiguous 48 States)

December 31	Very High Frequency VOR/VORTAC		
	Low Altitude		Jet Routes
	Direct	Alternate	
1982.....	167,637	20,067	138,438
1983.....	169,471	15,359	139,477
1984.....	171,873	12,188	141,199
1985.....	182,182	3,306	142,658
1986.....	184,229	905	146,869
1987.....	184,644	543	147,678
1988.....	185,166	543	149,057
1989.....	185,637	470	150,496
1990.....	No	longer	available
1991.....	No	longer	available

¹ Mileage shown in nautical miles based on National Ocean Survey figures.

TABLE 2.2
FAA AIR ROUTE FACILITIES AND SERVICES:
1982-1991

December 31	VOR/ VORTAC	Nondirec- tional Radio Beacons	Air Route Traffic Control Centers	Airport Traffic Control Towers	Flight Service Stations	International Flight Service Stations	Instrument Landing Systems	Radar Equipment
1982.....	1,029	1,143	25	492	316	6	884	197
1983.....	1,032	1,183	25	494	316	5	934	197
1984.....	1,035	1,211	25	497	310	5	955	197
1985.....	1,039	1,222	25	500	302	4	968	198
1986.....	1,043	1,239	25	686	293	3	977	312
1987.....	1,045	1,262	25	686	253	3	1,111	312
1988.....	1,043	1,287	24	692	220	3	1,130	311
1989.....	1,044	1,263	24	693	199	3	1,147	312
1990.....	1,044	1,309	24	691	180	3	1,114	317
1991.....	1,044 ¹	1,323 ²	24 ³	692 ⁴	175	3	1,186 ⁵	318 ⁶

¹ Includes 73 nonfederal and 38 military.

² Includes 951 nonfederal and 69 military.

³ Includes 3 combined center/radar approach control facilities (CERAP).

⁴ Includes 66 nonfederal and 207 military.

⁵ Includes 21 Landing Directional Aids (LDA), 163 nonfederal, 23 military, 204 partial, 5 Interim Microwave Landing Systems (ISMLS), and 30 Simplified Direction Finders (SDF).

⁶ Includes FAA, military and nonfederal

FISCAL YEARS
(TABLES 2.3-2.10)

TABLE 2.3
AIR TRAFFIC ACTIVITY AT AIR ROUTE TRAFFIC CONTROL CENTERS,
BY AVIATION CATEGORY
FISCAL YEARS 1987-1991

	Year	Aircraft Handled									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
IFR Aircraft Handled ¹	1991	36,379,492	-3%	18,276,830	-1%	5,563,610	-1%	7,389,654	-7%	5,149,398	-5%
	1990	37,557,043	3%	18,545,718	6%	5,633,464	9%	7,931,305	-3%	5,446,556	-5%
	1989	36,617,064	1%	17,524,155	-2%	5,187,998	-11%	8,197,964	2%	5,706,947	25%
	1988	36,350,374	2%	17,885,859	5%	5,834,717	10%	8,053,133	-1%	4,576,665	-14%
	1987	35,794,403	5%	17,115,080	7%	5,283,267	5%	8,102,631	1%	5,293,425	4%
IFR Departures	1991	13,632,611	-3%	6,207,359	-2%	2,610,464	-1%	3,074,125	-7%	1,740,663	-5%
	1990	14,123,535	2%	6,348,263	5%	2,649,292	7%	3,299,757	-3%	1,826,223	-5%
	1989	13,856,587	+ ³	6,045,411	-2%	2,467,571	-10%	3,418,090	2%	1,925,515	24%
	1988	13,803,103	+ ³	6,146,443	2%	2,741,782	12%	3,355,842	-1%	1,559,036	-17%
	1987	13,768,267	4%	6,043,020	6%	2,458,714	5%	3,392,926	- ³	1,873,607	5%
IFR Overs ²	1991	9,114,270	-2%	5,862,112	+ ³	342,682	2%	1,241,404	-7%	1,668,072	-7%
	1990	9,309,973	5%	5,849,192	8%	334,880	32%	1,331,791	-2%	1,794,110	-3%
	1989	8,903,890	2%	5,433,333	-3%	252,856	-28%	1,361,784	2%	1,855,917	27%
	1988	8,744,168	6%	5,592,973	11%	351,153	-4%	1,341,449	2%	1,458,593	-6%
	1987	8,257,869	7%	5,029,040	10%	365,839	5%	1,316,779	5%	1,546,211	2%

¹ The number of IFR Departures multiplied by two, plus the number of IFR Overs.

² Domestic plus oceanic overs.

³ Less than 0.5 percent.

TABLE 2.4
AIR TRAFFIC ACTIVITY AT AIRPORT TRAFFIC CONTROL TOWERS,
BY AVIATION CATEGORY
FISCAL YEARS 1987-1991

	Year	Airport Operations									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
Total Airport Operations	1991	61,485,577	-3%	12,504,124	-3%	8,899,633	1%	37,578,303	-4%	2,503,517	-11%
	1990	63,668,880	4%	12,858,718	3%	8,837,671	7%	39,169,795	4%	2,802,696	1%
	1989	61,345,173	+ ¹	12,519,891	-2%	8,296,725	1%	37,753,005	1%	2,775,552	- ¹
	1988	61,299,017	1%	12,752,997	-2%	8,255,279	12%	37,503,249	-1%	2,787,492	2%
	1987	60,976,559	3%	13,062,061	6%	7,347,057	6%	37,830,524	2%	2,736,917	4%
Itinerant Operations	1991	44,247,205	-3%	12,504,124	-3%	8,899,633	1%	21,538,486	-4%	1,304,962	-9%
	1990	45,609,732	3%	12,858,718	3%	8,837,671	7%	22,479,781	2%	1,433,562	1%
	1989	44,307,914	- ¹	12,519,891	-2%	8,296,725	1%	22,078,592	- ¹	1,412,706	- ¹
	1988	44,521,425	1%	12,752,997	-2%	8,255,279	12%	22,096,026	+ ¹	1,417,123	3%
	1987	43,869,898	3%	13,062,061	6%	7,347,057	6%	22,078,782	1%	1,381,998	2%
Local Operations	1991	17,238,372	-5%	—	—	—	—	16,039,817	-4%	1,198,555	-12%
	1990	18,059,148	6%	—	—	—	—	16,690,014	6%	1,369,134	- ¹
	1989	17,037,259	2%	—	—	—	—	15,674,413	2%	1,362,846	-1%
	1988	16,777,592	-2%	—	—	—	—	15,407,223	-2%	1,370,369	1%
	1987	17,106,661	4%	—	—	—	—	15,751,742	4%	1,354,919	6%

¹ Less than 0.5 percent.

² Less than 0.5 percent.

TABLE 2.5
AIR TRAFFIC ACTIVITY AT FAA FACILITIES,
BY AVIATION CATEGORY
FISCAL YEARS 1987-1991

	Year	Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
Total Instrument Operations	1991	45,056,976	-4%	13,533,872	-3%	9,452,089	1%	18,101,326	-5%	3,969,689	-10%
	1990	46,866,201	4%	13,999,470	3%	9,382,285	9%	19,084,764	2%	4,399,682	4%
	1989	45,225,344	2%	13,567,597	1%	8,625,280	2%	18,794,460	3%	4,238,007	-4%
	1988	44,544,281	3%	13,422,772	-2%	8,449,004	15%	18,269,083	2%	4,403,422	-1%
	1987	43,407,628	7%	13,730,330	8%	7,320,676	10%	17,914,358	7%	4,442,264	3%
Total Instrument Approaches	1991	2,068,390	-3%	729,217	4%	524,734	-2	723,747	-11%	90,692	-2
	1990	2,130,532	-8%	703,116	-19%	525,242	3%	811,899	2%	90,275	-35%
	1989	2,308,880	21%	865,456	25%	509,982	14%	793,572	20%	139,870	25%
	1988	1,914,612	-17%	692,218	-20%	447,950	-7%	662,965	-19%	111,479	-17%
	1987	2,306,401	-10%	870,189	-14%	483,441	-4%	818,163	-12%	134,608	-3%
Total Instrument Approaches at Control Facilities ¹	1991	1,888,680	-1%	716,160	4%	471,321	3%	623,178	-9%	78,021	5%
	1990	1,904,416	-10%	687,871	-19%	457,859	1%	684,641	-2%	74,045	-40%
	1989	2,126,745	23%	853,328	26%	452,821	20%	697,751	23%	122,845	24%
	1988	1,723,434	-19%	678,902	-20%	378,679	-11%	567,154	-22%	98,699	-20%
	1987	2,123,347	-11%	853,670	-14%	423,214	-4%	723,447	-13%	123,016	-3%

¹ Excludes instrument approaches provided by Air Route Traffic Control Centers.

² Less than 0.5 percent

TABLE 2.6
AIR TRAFFIC ACTIVITY AT FLIGHT SERVICE FACILITIES
FISCAL YEARS 1987-1991

	Year	Flight Services ¹		Flight Plans Originated						Airport Advisories		Pilot Briefs	
		Total	Annual Change	Total	Annual Change	IFR-DVFR	Annual Change	VFR	Annual Change	Total	Annual Change	Total	Annual Change
Flight Service Stations & Automated	1991	41,056,343	-8%	6,607,763	-10%	4,921,277	-11%	1,686,486	-6%	1,317,795	-18%	11,031,195	-7%
	1990	44,583,131	-4%	7,317,145	-5%	5,531,253	-6%	1,785,892	-3%	1,603,503	-5%	11,807,920	-4%
	1989	46,591,219	1%	7,740,378	-2%	5,906,715	-2%	1,833,663	-2%	1,685,876	-14%	12,312,729	3%
	1988	46,317,697	-6%	7,870,389	-1%	5,999,828	-2%	1,870,561	+2	1,959,030	-19%	11,927,540	-8%
	1987	49,185,847	-3%	7,958,873	2%	6,094,856	1%	1,864,017	4%	2,422,328	-7%	12,991,895	-5%
Flight Service Stations	1991	8,501,245	-38%	1,195,529	-41%	773,212	-43%	422,317	-38%	1,172,012	-18%	1,899,323	-41%
	1990	13,755,655	-26%	2,042,210	-28%	1,364,436	-33%	677,774	-16%	1,429,085	-9%	3,245,861	-29%
	1989	18,543,627	-19%	2,841,857	-21%	2,030,422	-23%	811,435	-17%	1,573,261	-15%	4,588,693	-19%
	1988	22,813,145	-28%	3,596,391	-26%	2,623,227	-28%	973,164	-17%	1,856,160	-19%	5,665,213	-31%
	1987	31,508,497	-24%	4,827,734	-24%	3,653,023	-24%	1,174,711	-22%	2,305,127	-10%	8,221,717	-26%
Automated Flight Service Stations	1991	32,555,098	6%	5,412,234	3%	4,148,065	-2	1,264,169	14%	145,783	-16%	9,131,872	7%
	1990	30,827,476	10%	5,274,935	8%	4,166,817	7%	1,108,118	8%	174,418	55%	8,562,059	11%
	1989	28,047,592	19%	4,898,521	15%	3,876,293	15%	1,022,228	14%	112,615	9%	7,724,036	23%
	1988	23,504,552	33%	4,273,998	36%	3,376,601	38%	897,397	30%	102,870	12%	6,262,327	31%
	1987	17,677,350	93%	3,131,139	106%	2,441,833	100%	689,306	132%	117,201	169%	4,770,178	84%

¹ The sum of flight plans originated and pilot briefs, multiplied by two, plus the number of aircraft contacted (see Table 2.7). No credit is allowed for airport advisories.

² Less than 0.5 percent.

TABLE 2.7
AIRCRAFT CONTACTED AT FLIGHT SERVICE FACILITIES,
BY AVIATION CATEGORY
FISCAL YEARS 1987-1991

	Year	Aircraft Contacted									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
Flight Service Stations & Automated Flight Service Stations	1991	5,778,427	-9%	220,075	-13%	820,886	-3%	4,376,481	-9%	360,985	-17%
	1990	6,333,001	-2%	252,571	-4%	849,578	-7%	4,795,332	-2%	435,520	-1
	1989	6,485,005	-4%	263,352	-11%	911,322	-8%	4,873,102	-3%	437,229	2%
	1988	6,721,839	-8%	297,071	-19%	988,294	-6%	5,008,210	-8%	428,264	-6%
	1987	7,284,311	-4%	365,639	-5%	1,047,938	-9%	5,416,326	-3%	454,408	-4%
IFR-DVFR	1991	1,710,367	-8%	211,858	-13%	396,702	-4%	950,630	-7%	151,177	-10%
	1990	1,851,559	-5%	243,883	-2%	414,334	-2%	1,024,750	-8%	168,592	-1%
	1989	1,949,051	2%	249,501	-13%	421,103	-2%	1,108,541	7%	169,906	9%
	1988	1,912,292	-8%	288,158	-16%	428,192	+ 1	1,039,447	-10%	156,495	-3%
	1987	2,079,265	-2%	342,080	-4%	427,814	-2%	1,148,700	-3%	160,671	9%
VFR	1991	4,068,060	-9%	8,217	-5%	424,184	-3%	3,425,851	-9%	209,808	-21%
	1990	4,481,442	-1%	8,668	-37%	435,244	-11%	3,770,582	+ 1	266,928	-1
	1989	4,535,954	-6%	13,851	55%	490,219	-12%	3,764,561	-5%	267,323	-2%
	1988	4,809,547	-8%	8,913	-61%	560,102	-10%	3,968,763	-7%	271,769	-7%
	1987	5,205,046	-4%	23,559	-12%	620,124	-13%	4,267,626	-3%	293,737	1%
Flight Service Stations	1991	2,311,541	-27%	95,143	-20%	503,579	-21%	1,576,115	-29%	136,704	-34%
	1990	3,179,513	-14%	118,593	-8%	635,276	-9%	2,217,319	-15%	208,325	-10%
	1989	3,682,527	-14%	129,560	-14%	701,557	-12%	2,618,735	-15%	232,675	-10%
	1988	4,289,937	-21%	150,807	-38%	795,897	-12%	3,085,556	-21%	257,677	-24%
	1987	5,409,595	-18%	243,987	-22%	901,262	-16%	3,926,047	-19%	338,299	-10%
IFR-DVFR	1991	605,313	-25%	87,536	-21%	215,408	-21%	252,998	-28%	49,371	-34%
	1990	810,335	-18%	110,378	-8%	272,156	-7%	352,616	-27%	75,185	-15%
	1989	983,475	-11%	120,569	-15%	293,704	-11%	481,049	-13%	88,153	-1
	1988	1,109,597	-25%	142,661	-36%	328,401	-8%	550,254	-31%	88,281	-22%
	1987	1,482,573	-18%	221,664	-23%	356,007	-10%	791,744	-22%	113,158	-9%
VFR	1991	1,706,228	-28%	7,607	-7%	288,171	-21%	1,323,117	-29%	87,333	-34%
	1990	2,369,178	-12%	8,215	-9%	363,120	-11%	1,864,703	-13%	133,140	-8%
	1989	2,699,052	-15%	8,991	10%	407,853	-13%	2,137,686	-16%	144,522	-15%
	1988	3,180,340	-19%	8,146	-64%	467,496	-14%	2,535,302	-19%	169,396	-25%
	1987	3,927,022	-18%	22,323	-12%	545,255	-19%	3,134,303	-18%	225,141	-11%
Automated Flight Service Stations	1991	3,466,886	10%	124,932	-7%	317,307	48%	2,800,366	9%	224,281	-1%
	1990	3,153,488	13%	133,978	+ 1	214,302	2%	2,578,013	14%	227,195	11%
	1989	2,802,478	15%	133,792	-9%	209,765	9%	2,254,367	17%	204,554	20%
	1988	2,431,902	30%	146,264	20%	192,397	31%	1,922,654	29%	170,587	47%
	1987	1,874,716	97%	121,652	73%	146,676	101%	1,490,279	100%	116,109	89%
IFR-DVFR	1991	1,105,054	6%	124,322	-7%	181,294	28%	697,632	4%	101,806	9%
	1990	1,041,224	8%	133,505	4%	142,178	12%	672,134	7%	93,407	14%
	1989	965,576	20%	128,932	-11%	127,399	28%	627,492	28%	81,753	20%
	1988	802,695	35%	145,497	21%	99,791	39%	489,193	37%	68,214	44%
	1987	596,692	94%	120,416	74%	71,807	89%	356,956	102%	47,513	103%
VFR	1991	2,361,832	12%	610	29%	136,013	89%	2,102,734	10%	122,475	-8%
	1990	2,112,264	15%	473	-90%	72,124	-12%	1,905,879	17%	133,788	9%
	1989	1,836,902	13%	4,860	534%	82,366	-11%	1,626,875	13%	122,801	20%
	1988	1,629,207	27%	767	-38%	92,606	24%	1,433,461	26%	102,373	49%
	1987	1,278,024	99%	1,236	-13%	74,869	114%	1,133,323	99%	68,596	81%

¹ Less than 0.5

TABLE 2.8
TOP 50 FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS,
BY RANK ORDER OF TOTAL OPERATIONS
AND BY AVIATION CATEGORY INCLUDING AIR CARRIER RANK
FISCAL YEAR 1991

Tower	Total		Air Carrier		Air Taxi	General Aviation	Military
	Rank	Operations	Rank	Operations			
Chicago O'Hare Int'l, IL.....	1	808,759	1	612,890	162,635	30,577	2,657
Dallas Ft. Worth Reg'l, TX.....	2	731,070	2	547,144	167,296	15,860	770
Los Angeles Int'l, CA.....	3	660,680	4	417,086	178,450	53,371	11,773
Atlanta Int'l, GA.....	4	639,698	3	462,813	154,956	19,160	2,769
Santa Ana/Orange County, CA.....	5	550,602	53	65,388	30,886	453,762	566
Van Nuys, CA.....	6	511,281	N/A	3	555	510,281	442
Phoenix Sky Harbo, Int'l, AZ.....	7	499,157	7	301,957	72,352	117,857	6,991
Denver Stapleton Int'l, CO.....	8	491,275	6	304,134	151,029	34,058	2,054
Miami Int'l, FL.....	9	481,709	8	281,295	121,433	73,200	5,781
Long Beach, CA.....	10	461,244	85	26,222	5,540	427,214	2,268
Charlotte Douglas, NC.....	11	440,956	14	252,239	117,401	66,122	5,194
Boston Logan, MA.....	12	440,715	15	233,947	175,199	30,924	645
San Francisco, CA.....	13	435,309	5	310,013	85,969	36,966	2,361
Oakland Int'l, CA.....	14	413,916	39	108,401	50,772	254,074	669
St. Louis Int'l, MO.....	15	412,539	11	261,528	105,836	35,947	9,228
Fort Worth Meacham, TX.....	16	400,873	229	194	1,243	398,942	494
Las Vegas McCarran, NV.....	17	398,637	17	211,973	78,413	103,271	4,980
Honolulu, HI.....	18	393,709	21	194,293	63,608	111,955	23,853
Detroit Metro Wayne, MI.....	19	390,863	10	271,720	68,429	50,147	567
Pittsburgh Greater Int'l, PA.....	20	386,260	13	253,676	106,377	20,526	5,681
Minneapolis/St. Paul Int'l, MN.....	21	382,856	16	229,251	79,683	71,516	2,406
Philadelphia Int'l, PA.....	22	382,646	19	206,173	121,481	51,914	3,078
Newark, NJ.....	23	381,850	9	275,009	85,651	20,648	542
Pontiac, MI.....	24	380,339	231	172	8,116	371,109	942
Seattle Boeing, WA.....	25	369,282	151	6,176	21,373	338,047	3,686
Denver Centennial, CO.....	26	366,731	N/A	0	3,422	357,689	5,620
Daytona Beach, FL.....	27	345,856	118	13,040	8,419	323,536	861
Seattle-Tacoma, WA.....	28	340,411	22	187,270	144,209	8,633	299
Tamiami, FL.....	29	340,284	N/A	0	0	340,058	226
San Jose Int'l, CA.....	30	336,928	40	101,040	54,868	180,390	630
La Guardia, NY.....	31	332,930	12	255,163	58,798	18,542	427
Memphis Int'l, TN.....	32	321,814	25	171,613	81,892	61,661	6,648
Houston Intercontinental, TX.....	33	310,404	18	208,315	59,415	41,235	1,439
John F Kennedy, NY.....	34	304,315	20	202,294	83,508	16,470	2,043
Salt Lake City Int'l, UT.....	35	301,755	26	154,545	60,787	81,855	4,568
Chicago Midway, IL.....	36	301,690	36	119,931	102,154	77,245	2,360
Cincinnati Greater, KY.....	37	297,963	28	142,438	135,106	18,766	1,653
Washington National, DC.....	38	297,559	24	184,008	56,560	56,464	527
La Verne Brackett, CA.....	39	286,490	N/A	0	1,461	284,875	154
Tulsa Riverside, OK.....	40	285,799	N/A	0	17	285,768	14
Concord, CA.....	41	285,207	210	1,043	5,098	278,318	748
Baltimore Washington Int'l, MD.....	42	282,320	27	148,637	84,003	47,839	1,841
Grand Forks Int'l, ND.....	43	276,989	174	3,780	4,595	267,979	635
Orlando Int'l, FL.....	44	275,157	23	185,857	62,914	23,712	2,674
Nashville Metropolitan, TN.....	45	274,139	31	125,335	81,407	61,359	6,038
Prescott, AZ.....	46	273,179	N/A	0	5,969	266,919	295
Raleigh Durham, NC.....	47	270,534	37	118,339	70,212	74,932	7,051
Deer Valley, AZ.....	48	269,757	281	6	1,130	267,787	834
Houston Hobby, TX.....	49	267,199	34	120,671	13,774	130,634	2,120
Washington Dulles Int'l, VA.....	50	267,007	33	124,469	85,446	53,244	3,848

N/A Not applicable.

NOTE: Total Operations rank was based on total air traffic activity at 400 FAA-Operated Towers. Air Carrier operations rank was based on air carrier activity at 305 FAA-Operated Towers. Not all FAA-Operated Towers handle air carrier operations.

TABLE 2.9
TOP 50 FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS,
BY RANK ORDER OF AIR CARRIER OPERATIONS
AND BY AVIATION CATEGORY INCLUDING TOTAL OPERATIONS RANK
FISCAL YEAR 1991

Tower	Air Carrier		Air Taxi	General Aviation	Military	Total	
	Rank	Operations				Rank	Operations
Chicago O'Hare Int'l, IL.....	1	612,890	162,635	30,577	2,657	1	808,759
Dallas Ft. Worth Reg'l, TX.....	2	547,144	167,296	15,860	770	2	731,070
Atlanta Int'l, GA.....	3	462,813	154,956	19,160	2,769	4	639,698
Los Angeles Int'l, CA.....	4	417,086	178,450	53,371	11,773	3	660,680
San Francisco, CA.....	5	310,013	85,969	36,966	2,361	13	435,309
Denver Stapleton Int'l, CO.....	6	304,134	151,029	34,058	2,054	8	491,275
Phoenix Sky Harbor Int'l, AZ.....	7	301,957	72,352	117,857	6,991	7	499,157
Miami Int'l, FL.....	8	281,295	121,433	73,200	5,781	9	481,709
Newark, NJ.....	9	275,009	85,651	20,648	542	23	381,850
Detroit Metro Wayne, MI.....	10	271,720	68,429	50,147	567	19	390,863
St. Louis Int'l, MO.....	11	261,528	105,836	35,947	9,228	15	412,539
La Guardia, NY.....	12	255,163	58,798	18,542	427	31	332,930
Pittsburgh Greater Int'l, PA.....	13	253,676	106,377	20,526	5,681	20	386,260
Charlotte Douglas, NC.....	14	252,239	117,401	66,122	5,194	11	440,956
Boston Logan, MA.....	15	233,947	175,199	30,924	645	12	440,715
Minneapolis/St. Paul Int'l, MN.....	16	229,251	79,683	71,516	2,406	21	382,856
Las Vegas McCarran, NV.....	17	211,973	78,413	103,271	4,980	17	398,637
Houston Intercontinental, TX.....	18	208,315	59,415	41,235	1,439	33	310,404
Philadelphia Int'l, PA.....	19	206,173	121,481	51,914	3,078	22	382,646
John F. Kennedy, NY.....	20	202,294	82,508	16,470	2,043	34	304,315
Honolulu, HI.....	21	194,293	63,608	111,955	23,853	18	393,709
Seattle-Tacoma, WA.....	22	187,270	144,209	8,633	299	28	340,411
Orlando Int'l, FL.....	23	185,857	62,914	23,712	2,674	44	275,157
Washington National, DC.....	24	184,008	56,560	56,464	527	38	297,559
Memphis Int'l, TN.....	25	171,613	81,892	61,661	6,648	32	321,814
Salt Lake City Int'l, UT.....	26	154,545	60,787	81,855	4,568	35	301,755
Baltimore Washington Int'l, MD.....	27	148,637	84,003	47,839	1,841	42	282,320
Cincinnati Greater, KY.....	28	142,438	135,106	18,766	1,653	37	297,963
Cleveland Hopkins, OH.....	29	135,405	71,946	34,513	2,762	55	244,626
San Diego Lindbergh, CA.....	30	131,630	49,051	21,472	4,271	88	206,424
Nashville Metropolitan, TN.....	31	125,335	81,407	1,359	6,038	45	271,139
Tampa Int'l, FL.....	32	124,832	56,309	50,154	2,355	62	233,650
Washington Dulles Int'l, VA.....	33	124,469	85,446	53,244	3,848	50	267,007
Houston Hobby, TX.....	34	120,671	13,774	130,634	2,120	49	267,199
Indianapolis Int'l, IN.....	35	120,451	58,691	53,123	1,780	61	234,045
Chicago Midway, IL.....	36	119,931	102,154	77,245	2,360	36	301,690
Raleigh Durham, NC.....	37	118,339	70,212	74,932	7,051	47	270,534
Kansas City Int'l, MO.....	38	111,569	36,641	17,969	2,014	129	168,193
Oakland Int'l, CA.....	39	108,401	50,772	254,074	669	14	413,916
San Jose Int'l, CA.....	40	101,040	54,868	180,390	630	30	336,928
New Orleans Moisant, LA.....	41	94,727	25,507	28,462	3,430	154	152,126
Ontario, CA.....	42	93,716	27,261	35,029	300	146	156,306
Portland Int'l, OR.....	43	93,479	98,790	58,773	13,812	51	264,854
Anchorage Int'l, AK.....	44	92,840	77,339	54,602	3,651	68	228,432
Dayton, OH.....	45	90,381	58,854	41,254	2,223	101	192,712
Fort Lauderdale, FL.....	46	87,666	51,434	67,459	1,193	86	209,752
Dallas Love Field, TX.....	47	85,145	19,602	101,963	1,305	87	208,015
Louisville Standiford, KY.....	48	84,350	28,059	40,788	4,853	141	158,050
San Antonio Int'l, TX.....	49	81,693	17,482	108,878	5,857	78	213,910
Milwaukee Mitchell, WI.....	50	76,429	54,680	68,699	5,779	89	205,587

NOTE: Total Operations rank was based on total air traffic activity at 400 FAA-Operated Towers. Air Carrier operations rank was based on air carrier activity at 305 FAA-Operated Towers. Not all FAA-Operated Towers handle air carrier operations.

TABLE 2.10
TOTAL FAA AIR TRAFFIC ACTIVITY BY REGION AND STATE,
AND BY FAA-OPERATED TOWERS, AIR ROUTE TRAFFIC CONTROL CENTERS,
FLIGHT SERVICE STATIONS, AND INTERNATIONAL FLIGHT SERVICE STATIONS
FISCAL YEAR 1991

FAA Region and State	Airport Operations (Towers)	Aircraft Handled (Centers)	Aircraft Contacted Flight Service (Stations) *	Total Flight Services (Flight Service Station) *
TOTAL	61,485,577	36,379,492	5,778,427	41,056,343
Alaskan—Total	1,079,036	490,222	918,291	2,110,875
Central—Total	2,304,547	1,679,011	237,120	2,781,148
Iowa	418,547	—	47,190	517,290
Kansas	484,052	—	59,063	544,789
Missouri	1,106,909	1,679,011	140,608	1,355,658
Nebraska	295,039	—	50,259	363,411
Eastern—Total	7,890,303	4,118,670	447,208	4,909,874
Delaware	183,032	—	—	—
District of Columbia	297,559	2,183,271	82,559	896,451
Maryland	488,239	—	45,832	98,784
New Jersey	1,254,106	—	59,318	780,378
New York	2,448,107	1,935,399	63,703	1,093,313
Pennsylvania	1,906,657	—	109,462	1,429,856
Virginia	939,705	—	12,342	184,712
West Virginia	372,898	—	67,392	426,380
Great Lakes—Total	9,653,981	8,518,365	664,024	6,322,808
Illinois	2,770,315	2,609,819	75,995	956,905
Indiana	822,014	1,870,360	67,277	791,053
Michigan	2,083,660	—	73,714	1,020,798
Minnesota	1,065,982	1,724,865	124,183	783,689
North Dakota	481,715	—	43,882	430,750
Ohio	1,403,615	2,313,321	80,292	1,246,472
South Dakota	154,278	—	98,418	371,252
Wisconsin	872,382	—	100,363	721,889
New England—Total	3,074,849	1,537,318	143,220	1,715,198
Connecticut	780,969	—	69,442	889,018
Maine	236,704	—	33,367	394,319
Massachusetts	1,588,146	1,537,318	—	—
New Hampshire	192,207	—	—	—
Rhode Island	151,994	—	—	—
Vermont	124,829	—	40,411	431,861
Northwest Mountain—Total	5,223,218	3,970,906	758,923	3,660,739
Colorado	1,390,478	1,441,577	130,599	795,321
Idaho	359,865	—	44,912	240,874
Montana	285,675	—	136,898	402,686
Oregon	965,399	—	106,683	552,299
Utah	388,248	1,250,430	64,444	318,338
Washington	1,718,689	1,276,899	181,458	1,062,908
Wyoming	114,864	—	93,929	288,313
Southern—Total	11,328,876	7,444,656	1,164,907	9,781,829
Alabama	636,527	—	100,667	795,705
Florida	5,346,598	3,411,195	450,224	3,719,294
Georgia	1,339,950	2,225,493	104,399	1,235,301
Kentucky	713,279	—	68,595	513,691
Mississippi	262,021	—	38,147	374,749
North Carolina	1,186,508	—	144,731	1,172,829
Puerto Rico	294,085	—	64,926	223,688
South Carolina	427,082	—	49,951	657,183
Tennessee	945,428	1,807,968	143,267	1,089,389
Virgin Islands	177,398	—	—	—
Southwest—Total	6,784,841	5,042,388	616,340	5,007,988
Arkansas	304,052	—	55,830	474,756
Louisiana	1,006,031	—	29,774	577,660
New Mexico	385,023	1,441,936	130,330	541,204
Oklahoma	785,912	—	96,450	655,516
Texas	4,303,823	3,600,452	303,956	2,778,852
Western-Pacific—Total	14,145,926	3,577,956	768,394	4,765,884
American Samoa	10,414	—	—	—
Arizona	2,090,517	—	130,287	671,299
California	10,449,097	3,516,583	529,926	3,463,556
Guam	—	61,373	—	—
Hawaii	879,582	—	57,630	268,776
Nevada	685,988	—	50,551	362,253
Wake Island	22,328	—	—	—

* Includes domestic and international Flight Service Stations

CALENDAR YEARS
(TABLES 2.11-2.18)

TABLE 2.11
AIR TRAFFIC ACTIVITY AT AIR ROUTE TRAFFIC CONTROL CENTERS,
BY AVIATION CATEGORY
CALENDAR YEARS 1987-1991

	Year	Aircraft Handled									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
IFR Aircraft Handled ¹	1991	36,210,791	-4%	18,091,513	-3%	5,604,346	-1%	7,414,483	-5%	5,100,449	-5%
	1990	37,541,831	2%	18,739,431	6%	5,647,553	7%	7,766,547	-4%	5,388,300	-5%
	1989	36,704,773	1%	17,600,768	-2%	5,284,042	-7%	8,126,818	1%	5,693,145	19%
	1988	36,383,294	1%	17,869,355	2%	5,662,629	5%	8,066,715	- *	4,784,595	-8%
	1987	36,112,129	5%	17,452,192	8%	5,380,048	5%	8,096,582	1%	5,183,307	1%
IIFR Departures	1991	13,559,081	-4%	6,133,980	-4%	2,621,486	-1%	3,085,376	-5%	1,718,239	-6%
	1990	14,108,481	2%	6,396,281	5%	2,658,659	6%	3,232,788	-5%	1,820,753	-4%
	1989	13,854,290	+ *	6,065,044	-1%	2,499,739	-6%	3,386,246	1%	1,903,261	17%
	1988	13,788,054	-1%	6,126,722	- *	2,671,994	6%	3,358,945	-1%	1,630,393	-11%
	1987	13,866,150	4%	6,139,083	6%	2,516,471	6%	3,384,539	+ *	1,826,057	1%
IFR Overs ²	1991	9,092,629	-3%	5,823,553	-2%	361,374	9%	1,243,731	-4%	1,663,971	-5%
	1990	9,324,869	4%	5,946,869	9%	330,235	16%	1,300,971	-4%	1,746,794	-7%
	1989	8,996,193	2%	5,470,680	-3%	284,564	-11%	1,354,326	+ *	1,886,623	24%
	1988	8,807,186	5%	5,615,911	9%	318,641	-8%	1,348,825	2%	1,523,809	- *
	1987	8,379,829	7%	5,174,026	11%	347,106	-6%	1,327,504	5%	1,531,193	1%

* Less than 0.5 percent.

¹ The number of IFR Departures multiplied by two, plus the number of IFR Overs.

² Domestic plus oceanic overs

TABLE 2.12
AIR TRAFFIC ACTIVITY AT AIRPORT TRAFFIC CONTROL TOWERS,
BY AVIATION CATEGORY
CALENDAR YEARS 1987-1991

	Year	Airport Operations									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
Total Airport Operations	1991	60,844,288	-5%	12,336,595	-5%	8,911,100	-1%	37,084,478	-6%	2,512,115	-9%
	1990	63,962,781	4%	12,948,295	4%	8,968,697	7%	39,297,710	4%	2,748,079	-1%
	1989	61,321,964	- *	12,484,530	-2%	8,356,587	+ *	37,713,390	+ *	2,767,457	-2%
	1988	61,537,927	1%	12,741,239	-3%	8,315,411	10%	37,669,713	+ *	2,811,564	1%
	1987	61,004,284	2%	13,092,751	5%	7,553,620	9%	37,575,141	- *	2,782,772	5%
Itinerant Operations	1991	43,833,165	-4%	12,336,595	-5%	8,911,100	-1%	21,267,456	-6%	1,318,014	-7%
	1990	45,842,637	4%	12,948,295	4%	8,968,697	7%	22,508,515	2%	1,417,130	+ *
	1989	44,261,015	-1%	12,484,530	-2%	8,356,587	+ *	22,006,509	-1%	1,413,389	- *
	1988	44,659,108	1%	12,741,239	-3%	8,315,411	10%	22,188,943	1%	1,413,515	1%
	1987	44,039,814	3%	13,092,751	5%	7,553,620	9%	21,993,252	- *	1,400,191	4%
Local Operations	1991	17,011,123	-6%	—	—	—	—	15,817,022	-6%	1,194,101	-10%
	1990	18,120,144	6%	—	—	—	—	16,789,195	7%	1,330,949	-2%
	1989	17,060,949	1%	—	—	—	—	15,706,881	1%	1,354,068	-3%
	1988	16,878,819	-1%	—	—	—	—	15,480,770	-1%	1,398,049	1%
	1987	16,964,470	1%	—	—	—	—	15,581,889	+ *	1,382,581	7%

* Less than 0.5 percent.

TABLE 2.13
AIR TRAFFIC ACTIVITY AT FAA FACILITIES,
BY AVIATION CATEGORY
CALENDAR YEARS 1987-1991

	Year	Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
Total Instrument Operations	1991	44,822,166	-4%	13,332,196	-5%	9,484,368	+ *	18,025,688	-5%	3,979,914	-7%
	1990	46,935,150	4%	14,103,619	4%	9,538,773	11%	18,995,944	2%	4,296,814	-1%
	1989	45,055,648	+ *	13,501,139	+ *	8,598,447	1%	18,631,727	1%	4,324,335	-3%
	1988	44,858,714	2%	13,477,165	-2%	8,540,039	13%	18,402,606	2%	4,438,904	+ *
	1987	43,813,578	6%	13,791,619	6%	7,582,028	12%	17,998,854	5%	4,441,077	2%
Total Instrument Approaches	1991	2,216,704	7%	753,124	7%	558,540	8%	807,926	6%	97,114	11%
	1990	2,074,931	-12%	703,607	-19%	520,655	-2%	762,782	-7%	87,887	-34%
	1989	2,354,303	29%	871,457	36%	530,050	25%	819,829	26%	132,967	18%
	1988	1,830,121	-12%	641,592	-20%	424,490	-8%	651,689	-8%	112,350	-3%
	1987	2,087,672	-17%	803,771	-17%	459,405	-7%	708,701	-22%	115,795	-21%
Total Instrument Approaches at Control Facilities ¹	1991	2,021,138	9%	740,355	8%	499,869	9%	696,581	8%	84,333	16%
	1990	1,863,106	-14%	688,772	-20%	458,004	-3%	643,345	-11%	72,985	-37%
	1989	2,171,464	32%	858,637	36%	474,600	32%	722,910	30%	115,317	17%
	1988	1,644,854	-14%	629,719	-20%	358,630	-9%	557,759	-9%	98,746	-6%
	1987	1,904,605	-18%	788,015	-17%	395,786	-9%	616,231	-25%	104,573	-22%

* Less than 0.5 percent.

¹ Excludes instrument approaches provided by Air Route Traffic Control Centers.

TABLE 2.14
AIR TRAFFIC ACTIVITY AT FLIGHT SERVICE FACILITIES
CALENDAR YEARS 1987-1991

	Year	Flight Services ²		Flight Plans Originated						Airport Advisories		Pilot Briefs	
		Total	Annual Change	Total	Annual Change	IFR-DVFR	Annual Change	VFR	Annual Change	Total	Annual Change	Total	Annual Change
Flight Service Stations & Automated	1991	40,691,408	-7%	6,542,483	-8%	4,901,883	-8%	1,640,600	-8%	1,293,076	-16%	10,965,209	-5%
	1990	43,696,478	-5%	7,125,915	-7%	5,341,443	-9%	1,784,472	-1%	1,546,810	-7%	11,602,109	-5%
	1989	46,211,404	(+ *)	7,660,484	-2%	5,861,441	-2%	1,799,043	-4%	1,666,269	-11%	12,227,038	3%
Flight Service Stations	1988	46,019,119	-4%	7,851,587	-1%	5,984,825	-1%	1,866,762	-1%	1,870,995	-19%	11,844,172	-6%
	1987	48,096,507	—	7,915,814	—	6,030,902	—	1,884,912	—	2,312,345	—	12,567,384	—
Flight Service Stations	1991	8,076,751	-38%	1,128,013	-41%	729,313	-41%	398,700	-40%	1,148,921	-18%	1,787,447	-41%
	1990	12,974,279	-26%	1,902,848	-29%	1,241,564	-35%	661,284	-15%	1,396,230	-10%	3,051,713	-30%
	1989	17,612,149	-18%	2,681,048	-21%	1,899,287	-23%	781,761	-16%	1,544,788	-13%	4,337,302	-19%
	1988	21,550,269	-28%	3,391,173	-27%	2,461,373	-28%	929,800	-21%	1,772,066	-22%	5,327,630	-31%
	1987	29,975,584	—	4,620,173	—	3,437,717	—	1,182,456	—	2,260,580	—	7,722,344	—
Automated Flight Service Stations	1991	32,614,657	6%	5,414,470	4%	4,172,570	2%	1,241,900	11%	144,155	-4%	9,177,762	7%
	1990	30,722,199	7%	5,223,067	5%	4,099,879	3%	1,123,188	10%	150,580	24%	8,550,396	8%
	1989	28,599,255	17%	4,979,436	12%	3,962,154	12%	1,017,282	9%	121,481	23%	7,889,736	21%
	1988	24,468,850	35%	4,460,414	35%	3,523,452	36%	936,962	33%	98,929	91%	6,516,542	34%
	1987	18,120,923	—	3,295,641	—	2,593,185	—	702,456	—	51,765	—	4,845,040	—

¹ The sum of flight plans originated and pilot briefs, multiplied by two, plus the number of aircraft contacted (see Table 2.15). No credit is allowed for airport advisories.

² Less than 0.5 percent.

TABLE 2.15
AIRCRAFT CONTACTED AT FLIGHT SERVICE FACILITIES,
BY AVIATION CATEGORY
CALENDAR YEARS 1987-1991

	Year	Aircraft Contacted									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
Flight Service Stations & Automated Flight Service Stations	1991	5,676,024	-9%	212,396	-15%	809,282	-4%	4,297,100	-9%	357,246	-16%
	1990	6,240,430	-3%	249,076	-4%	845,738	-6%	4,718,219	-3%	427,397	-2%
	1989	6,436,360	-3%	260,602	-6%	899,292	-7%	4,840,370	-2%	436,096	4%
	1988	6,627,601	-7%	278,690	-21%	965,234	-6%	4,963,352	-6%	420,325	-9%
	1987	7,130,111	-5%	353,532	-5%	1,022,635	-8%	5,291,637	-5%	462,307	7%
IFR-DVFR	1991	1,699,378	-7%	204,464	-15%	391,268	-6%	953,058	-5%	150,588	-9%
	1990	1,821,572	-6%	240,495	-3%	415,896	-1%	1,000,296	-9%	164,885	-3%
	1989	1,937,844	3%	247,045	-9%	419,796	-*	1,100,250	7%	170,753	9%
	1988	1,879,163	-6%	270,894	-18%	421,332	-*	1,030,019	-5%	156,918	-3%
	1987	2,001,652	-5%	322,133	-5%	422,293	-2%	1,086,079	-8%	161,147	8%
VFR	1991	3,976,646	-10%	7,932	-8%	418,014	-3%	3,344,042	-10%	206,658	-21%
	1990	4,418,859	-2%	8,581	-37%	429,842	-10%	3,717,923	-1%	262,512	-1%
	1989	4,498,516	-5%	13,557	74%	479,496	-12%	3,740,120	-5%	265,343	1%
	1988	4,748,438	-7%	7,796	-64%	543,902	-9%	3,933,333	-6%	263,407	-13%
	1987	5,128,459	-5%	21,399	-15%	600,342	-12%	4,205,558	-5%	301,160	6%
Flight Service Stations	1991	2,245,831	-27%	92,562	-21%	493,152	-20%	1,527,487	-28%	132,630	-33%
	1990	3,065,157	-14%	117,062	-8%	619,263	-10%	2,132,187	-16%	196,645	-14%
	1989	3,575,449	-13%	127,538	-8%	691,285	-11%	2,528,557	-14%	228,069	-7%
	1988	4,112,663	-22%	138,912	-40%	773,241	-12%	2,954,140	-23%	246,370	-28%
	1987	5,290,550	-19%	230,192	-22%	879,652	-16%	3,839,304	-21%	341,402	-9%
IFR-DVFR	1991	588,243	-24%	85,199	-22%	210,071	-20%	244,546	-26%	48,427	-31%
	1990	773,288	-19%	108,924	8%	263,335	-9%	331,305	-28%	69,724	-19%
	1989	953,344	-10%	118,859	-10%	288,589	-10	459,502	-12%	86,394	-*
	1988	1,061,062	-24%	131,579	-37%	320,304	-9%	522,493	-28%	86,686	-22%
	1987	1,402,072	-22%	209,807	-23%	350,977	-12%	729,875	-27%	111,413	-11%
VFR	1991	1,657,588	-28%	7,363	-10%	283,081	-20%	1,282,941	-29%	84,203	-34%
	1990	2,291,869	-13%	8,138	-6%	355,928	-12%	1,800,882	-13%	126,921	-10%
	1989	2,622,105	-14%	8,679	18%	402,696	-11%	2,069,055	-15%	141,675	-11%
	1988	3,051,601	-22%	7,333	-64%	452,937	-14%	2,431,647	-22%	159,684	-31%
	1987	3,888,478	-18%	20,385	-16%	528,675	-19%	3,109,429	-19%	229,989	-8%
Automated Flight Service Stations	1991	3,430,193	8%	119,834	-9%	316,130	40%	2,769,613	7%	224,616	-3%
	1990	3,175,273	11%	132,014	-1%	226,475	9%	2,586,032	12%	230,752	11%
	1989	2,860,911	14%	133,064	-5%	208,007	8%	2,311,813	15%	208,027	20%
	1988	2,514,938	37%	139,778	13%	191,993	34%	2,009,212	38%	173,955	44%
	1987	1,839,561	92%	123,340	60%	142,983	112%	1,452,333	91%	120,905	119%
IFR-DVFR	1991	1,111,135	6%	119,265	-9%	181,197	19%	708,512	6%	102,161	7%
	1990	1,048,284	6%	131,571	3%	152,561	16%	668,991	4%	95,161	13%
	1989	984,500	20%	128,186	-8%	131,207	30%	640,748	26%	84,359	20%
	1988	818,101	36%	139,315	14%	101,028	42%	507,526	42%	70,232	41%
	1987	599,580	91%	122,326	61%	71,316	114%	356,204	96%	49,734	116%
VFR	1991	2,319,058	9%	569	28%	134,933	83%	2,061,101	8%	122,455	-10%
	1990	2,126,989	13%	443	-91%	73,914	-4%	1,917,041	15%	135,591	10%
	1989	1,876,411	11%	4,878	954%	76,800	-16%	1,671,065	11%	123,668	19%
	1988	1,696,837	37%	463	-54%	90,965	27%	1,501,686	37%	103,723	46%
	1987	1,239,981	92%	1,014	22%	71,667	111%	1,096,129	90%	71,171	121%

* Less than 0.5

TABLE 2.16
TOP 50 FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS,
BY RANK ORDER OF TOTAL OPERATIONS
AND BY AVIATION CATEGORY INCLUDING AIR CARRIER RANK
CALENDAR YEAR 1991

Tower	Rank	Total Operations	Rank	Air Carrier	Air Taxi	General Aviation	Military
Chicago O'Hare Int'l, IL.....	1	813,473	1	610,148	166,135	34,426	2,764
Dallas Ft. Worth Regional, TX.....	2	736,156	2	550,315	169,412	15,662	707
Los Angeles Int'l, CA.....	3	657,348	4	403,002	187,372	53,735	13,239
Atlanta Int'l, GA.....	4	589,470	3	420,596	146,088	19,181	3,605
Santa Ana/Orange Co., CA.....	5	569,241	53	64,891	29,254	474,575	521
Van Nuys, CA.....	6	509,620	295	3	592	508,585	440
Phoenix Sky Harbor Int'l, AZ.....	7	496,243	7	302,254	71,200	115,522	7,267
Denver Stapleton Int'l, CO.....	8	488,162	5	304,338	148,727	33,182	1,915
Miami Int'l, FL.....	9	475,285	8	277,977	120,915	70,868	5,525
Charlotte Douglas, NC.....	10	446,415	12	256,877	117,855	66,433	5,250
Boston Logan, MA.....	11	441,756	15	230,985	179,553	30,608	610
Long Beach, CA.....	12	439,498	88	24,679	6,126	406,412	2,281
San Francisco, CA.....	13	429,213	6	302,381	88,682	35,770	2,380
St. Louis Int'l, MO.....	14	413,223	11	262,377	105,594	35,985	9,267
Oakland Int'l, CA.....	15	412,836	38	109,494	49,510	253,018	814
Honolulu, HI.....	16	403,570	21	196,047	65,390	113,793	28,340
Las Vegas McCarran Int'l, NV.....	17	398,246	17	210,127	81,904	100,704	5,511
Detroit Metro Wayne, MI.....	18	396,278	10	270,784	74,023	50,491	980
Fort Worth Meacham, TX.....	19	387,599	221	258	1,122	385,802	417
Pittsburgh Greater Int'l, PA.....	20	387,092	13	252,969	108,259	20,543	5,321
Minneapolis St Paul Int'l, MN.....	21	385,476	16	230,898	78,387	73,621	2,570
Seattle Boeing, WA.....	22	382,863	151	6,187	23,389	349,510	3,777
Newark, NJ.....	23	380,119	9	273,542	85,657	20,383	537
Philadelphia Int'l, PA.....	24	371,506	20	198,313	119,435	49,464	4,294
Pontiac, MI.....	25	361,412	227	198	9,828	350,392	994
Denver Centennial, CO.....	26	361,050	N/A	0	3,292	351,893	5,865
Daytona Beach, FL.....	27	341,868	122	12,118	8,335	320,485	930
San Jose Int'l, CA.....	28	340,875	40	101,435	55,180	183,556	704
Seattle-Tacoma, WA.....	29	338,607	23	186,717	142,828	8,767	295
La Guardia, NY.....	30	329,571	14	252,019	59,194	17,951	407
Tamiami, FL.....	31	328,702	N/A	0	5	328,474	223
Memphis Int'l, TN.....	32	325,872	25	168,040	90,466	60,976	6,390
Houston Intercontinental, TX.....	33	310,597	18	207,980	57,919	42,872	1,826
Salt Lake City Int'l, UT.....	34	301,664	26	155,485	62,167	79,363	4,649
Washington National, DC.....	35	299,823	24	181,818	59,925	57,610	470
John F. Kennedy Int'l, NY.....	36	298,161	19	198,923	81,182	16,178	1,878
Cincinnati Greater, KY.....	37	297,980	27	144,970	135,955	15,552	1,503
Tulsa Riverside, OK.....	38	286,328	N/A	0	13	286,304	11
Nashville Metropolitan, TN.....	39	280,777	30	128,295	86,812	59,462	6,208
Concord, CA.....	40	280,520	218	415	5,367	273,871	867
La Verne Brackett, CA.....	41	276,189	N/A	0	1,465	274,591	133
Chicago Midway, IL.....	42	276,147	39	109,252	90,626	74,112	2,157
Baltimore Washinton Int'l, MD.....	43	275,903	28	144,815	81,392	47,505	2,191
Washington Dulles Int'l, VA.....	44	274,277	33	120,888	93,397	55,035	4,957
Orlando Int'l, FL.....	45	272,755	22	186,737	59,394	23,596	3,028
Raleigh Durham, NC.....	46	272,281	36	118,095	72,567	73,939	7,680
Portland Int'l, OR.....	47	264,300	44	91,521	100,419	58,596	13,764
Prescott, AZ.....	48	264,237	N/A	0	5,728	258,213	296
Grand Forks Int'l, ND.....	49	261,673	171	3,767	5,190	251,775	941
Deer Valley, AZ.....	50	261,069	297	2	993	259,129	945

NOTE: Total Operations rank was based on total air traffic activity at 400 FAA-Operated Towers. Air Carrier operations rank was based on air carrier activity at 309 FAA-Operated Towers. Not all FAA-Operated Towers handle air carrier operations.

TABLE 2.17
TOP 50 FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS,
BY RANK ORDER OF AIR CARRIER OPERATIONS
AND BY AVIATION CATEGORY INCLUDING TOTAL OPERATIONS RANK
CALENDAR YEAR 1991

Tower	Rank	Air Carrier	Air Taxi	General Aviation	Military	Rank	Total Operations
Chicago O'Hare Int'l, IL.....	1	610,148	166,135	34,426	2,764	1	813,473
Dallas Ft. Worth Regional, TX.....	2	550,315	169,412	15,662	767	2	736,156
Atlanta Int'l, GA.....	3	420,596	146,088	19,181	3,605	4	589,470
Los Angeles Int'l, CA.....	4	403,002	187,372	53,735	13,239	3	657,348
Denver Stapleton Int'l, CO.....	5	304,338	148,727	33,182	1,915	8	488,162
San Francisco, CA.....	6	302,381	88,682	35,770	2,380	13	429,213
Phoenix Sky Harbor Int'l, AZ.....	7	302,254	71,200	115,522	7,267	7	496,243
Miami Int'l, FL.....	8	277,977	120,915	70,868	5,525	9	475,285
Newark, NJ.....	9	273,542	85,657	20,383	537	23	380,119
Detroit Metro Wayne, MI.....	10	270,784	74,023	50,491	980	18	396,278
St. Louis Int'l, MO.....	11	262,377	105,594	35,985	9,267	14	413,223
Charlotte Douglas, NC.....	12	256,877	117,855	66,433	5,250	10	446,415
Pittsburgh Greater Int'l, PA.....	13	252,969	108,259	20,543	5,321	20	387,092
La Guardia, NY.....	14	252,019	59,194	17,951	407	30	329,571
Boston Logan, MA.....	15	230,985	179,553	30,608	610	11	441,756
Minneapolis St Paul Int'l, MN.....	16	230,898	78,387	73,621	2,570	21	385,476
Las Vegas McCarran Int'l, NV.....	17	210,127	81,904	100,704	5,511	17	398,246
Houston Intercontinental, TX.....	18	207,980	57,919	42,872	1,826	33	310,597
John F. Kennedy Int'l, NY.....	19	198,923	81,182	16,178	1,878	36	298,161
Philadelphia Int'l, PA.....	20	198,313	119,435	49,464	4,294	24	371,506
Honolulu, HI.....	21	196,047	65,390	113,793	28,340	16	403,570
Orlando Int'l, FL.....	22	186,737	59,394	23,596	3028	45	272,755
Seattle Tacoma, WA.....	23	186,717	142,828	8,767	295	29	338,607
Washington National, DC.....	24	181,818	59,925	57,610	470	35	299,823
Memphis Int'l, TN.....	25	168,040	90,466	60,976	6,390	32	325,872
Salt Lake City Int'l, UT.....	26	155,485	62,167	79,363	4,649	34	301,664
Cincinnati Greater, KY.....	27	144,970	135,955	15,552	1,503	37	297,980
Baltimore Washinton Int'l, MD.....	28	144,815	81,392	47,505	2,191	43	275,903
San Diego Lindberg, CA.....	29	131,661	49,616	20,934	4,276	85	206,487
Nashville Metropolitan, TN.....	30	128,295	86,812	59,462	6,208	39	280,777
Cleveland Hopkins, OH.....	31	127,324	71,186	33,043	2,803	58	234,356
Indianapolis Int'l, IN.....	32	121,025	59,067	52,316	1,723	59	234,131
Washington Dulles Int'l, VA.....	33	120,888	93,397	55,035	4,957	44	274,277
Tampa Int'l, FL.....	34	120,159	52,092	49,397	2,437	68	224,085
Houston Hobby, TX.....	35	119,104	13,573	125,306	1,896	51	259,879
Raleigh Durham, NC.....	36	118,095	72,567	73,939	7,680	46	272,281
Kansas City Int'l, MO.....	37	111,022	39,965	17,060	1,645	124	169,692
Oakland International, CA.....	38	109,494	49,510	253,018	814	15	412,836
Chicago Midway, IL.....	39	109,252	90,626	74,112	2,157	42	276,147
San Jose Int'l, CA.....	40	101,435	55,180	183,556	704	28	340,875
Ontario, CA.....	41	94,053	27,517	34,154	279	145	156,003
Anchorage, AK.....	42	92,807	80,246	55,609	3,751	62	232,413
New Orleans Moisant, LA.....	43	92,082	24,127	27,932	3,649	157	147,790
Portland Int'l, OR.....	44	91,521	100,419	58,596	13,764	47	264,300
Dayton, OH.....	45	86,595	61,062	40,064	2,175	99	189,896
Dallas Love Field, TX.....	46	86,437	19,146	100,498	1,321	84	207,402
Fort Lauderdale, FL.....	47	85,980	49,228	66,871	1,239	89	203,318
Louisville Standiford, KY.....	48	84,442	29,376	39,917	5,123	142	158,858
San Antonio Int'l, TX.....	49	79,964	17,365	106,235	5,488	82	209,052
Milwaukee Mitchell, WI.....	50	75,030	55,462	67,624	5,949	88	204,065

NOTE: Total Operations rank was based on total air traffic activity at 400 FAA-Operated Towers. Air Carrier operations rank was based on air carrier activity at 309 FAA-Operated Towers. Not all FAA-Operated Towers handle air carrier operations.

TABLE 2.18
TOTAL FAA AIR TRAFFIC ACTIVITY BY REGION AND STATE,
AND BY FAA-OPERATED TOWERS, AIR ROUTE TRAFFIC CONTROL CENTERS,
FLIGHT SERVICE STATIONS AND INTERNATIONAL FLIGHT SERVICE STATIONS
CALENDAR YEAR 1991

FAA Region and State	Airport Operations (Towers)	Aircraft Handled (Centers)	Aircraft Contacted Flight Service (Stations) *	Total Flight Services (Flight Service Station) *
TOTAL	60,845,402	36,210,791	5,676,024	40,691,408
Alaskan—Total	1,088,441	498,419	925,754	2,110,230
Central—Total	2,267,927	1,688,653	285,381	2,758,459
Iowa	408,228	—	45,842	515,088
Kansas	464,981	—	56,398	536,916
Missouri	1,104,359	1,688,653	134,000	1,345,760
Nebraska	290,359	—	49,141	360,695
Eastern—Total	7,826,043	4,065,855	438,980	4,825,928
Delaware	176,225	—	—	—
District of Columbia	299,823	2,166,453	82,666	842,240
Maryland	483,778	—	47,188	99,226
New Jersey	1,247,579	—	58,934	753,508
New York	2,429,565	1,899,402	68,550	1,082,958
Pennsylvania	1,892,957	—	101,448	1,449,682
Virginia	929,940	—	13,564	189,590
West Virginia	366,176	—	66,630	408,724
Great Lakes—Total	9,381,398	8,505,585	639,313	6,292,619
Illinois	2,674,246	2,581,097	71,791	945,743
Indiana	809,887	1,882,503	66,528	793,766
Michigan	2,023,914	—	65,516	1,002,164
Minnesota	1,035,542	1,730,374	118,157	783,667
North Dakota	453,412	—	42,673	437,481
Ohio	1,375,373	2,311,611	79,799	1,234,825
South Dakota	155,038	—	95,604	366,816
Wisconsin	853,986	—	99,245	728,157
New England—Total	3,024,593	1,533,008	140,608	1,704,554
Connecticut	759,890	—	67,431	902,485
Maine	233,025	32,428	383,680	—
Massachusetts	1,570,186	1,533,008	—	—
New Hampshire	186,162	—	—	—
Rhode Island	152,184	—	—	—
Vermont	123,146	—	40,749	418,389
Northwest Mountain—Total	5,264,743	3,993,304	755,899	3,632,611
Colorado	1,391,443	1,424,759	130,157	788,471
Idaho	370,911	—	43,894	227,340
Montana	289,507	—	137,668	401,090
Oregon	960,136	—	106,904	544,572
Utah	388,314	1,285,873	64,861	319,711
Washington	1,750,407	1,282,672	182,926	1,070,258
Wyoming	114,025	—	89,489	281,169
Southern—Total	11,241,143	7,365,522	1,133,590	9,639,886
Alabama	628,330	783,577	—	—
Florida	5,285,709	3,376,695	438,061	3,668,317
Georgia	1,296,435	2,173,771	100,066	1,207,438
Kentucky	715,672	—	69,305	515,389
Mississippi	261,456	—	37,136	385,034
North Carolina	1,190,392	—	140,202	1,150,830
Puerto Rico	308,734	—	63,086	221,772
South Carolina	426,101	—	50,537	647,517
Tennessee	949,010	1,815,056	137,022	1,060,012
Virgin Islands	179,304	—	—	—
Southwest—Total	6,748,052	5,005,572	601,242	4,968,312
Arkansas	308,053	—	53,574	467,198
Louisiana	997,969	—	30,357	553,517
New Mexico	378,528	1,411,061	131,133	541,065
Oklahoma	779,109	—	94,445	658,243
Texas	4,284,393	3,594,511	291,733	2,748,289
Western-Pacific—Total	14,003,062	3,554,873	755,257	4,758,809
American Samoa	9,802	—	—	—
Arizona	2,074,871	—	130,695	675,451
California	10,322,315	3,492,177	518,528	3,466,696
Guam	—	62,686	—	—
Hawaii	889,597	—	55,578	252,928
Nevada	685,056	—	50,456	363,734
Wake Island	21,421	—	—	—

*Includes domestic and international Flight Service Stations

III. AIRPORTS

Information about U.S. civil and joint-use landing facilities (including airports, heliports, stolports, and seaplane bases) was furnished by the FAA Office of Airport Safety and Standards. This information was obtained through physical inspection and mail solicitations, and was reported on the Airport Master Record (Form FAA 5010-1) and FAA Landing Facilities Information Request on Airports, Heliports, Stolports, and Seaplane Bases (Forms 5010-2 and 5010-5).

TABLE 3.1
U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS,
AND SEAPLANE BASES, ON RECORD:
1982-1991

Year	All Facilities ¹			Airports Only			
	Total	With Runway Lights	With Paved Runways	Total	With Runway Lights	With Paved Runway	Airports of Entry ²
1982.....	15,831	4,842	6,224	12,596	4,494	4,391	63
1983.....	16,029	4,878	6,441	12,653	4,513	4,431	59
1984.....	16,079	4,889	6,531	12,643	4,536	4,450	59
1985.....	16,318	4,941	6,721	12,744	4,582	4,486	57
1986.....	16,582	4,954	6,948	12,785	4,601	4,498	76
1987.....	17,015	4,922	7,232	12,907	4,610	4,526	80
1988.....	17,327	4,890	7,429	12,950	4,630	4,554	80
1989.....	17,446	4,881	7,612	12,946	4,657	4,600	84
1990.....	17,490	4,822	7,694	12,920	4,652	4,611	81
1991.....	17,581	4,811	7,822	12,904	4,665	4,634	81

¹ All facilities include airports, heliports, stolports and seaplane bases.

² Excludes landing rights airports.

TABLE 3.2
U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES,
AND REPORTED ABANDONMENTS ON RECORD, BY FAA REGION AND STATE
DECEMBER 31, 1991

FAA Region and State	Total Aircraft Facilities	Airports	Heliports	Stolports	Seaplane Bases	Reported Abandon- ments During Year
Total.....	17,581	12,904	4,199	70	408	387
United States—Total ¹.....	17,509	12,855	4,180	70	404	387
Alaska.....	545	423	20	0	102	65
Central—Total.....	1,453	1,231	213	3	6	16
Iowa.....	290	225	64	1	0	1
Kansas.....	394	366	27	1	0	5
Missouri.....	462	355	101	1	5	8
Nebraska.....	307	285	21	0	1	2
Eastern—Total.....	2,246	1,388	791	7	60	14
Delaware.....	34	21	12	0	1	0
District.....	16	2	14	0	0	0
Maryland.....	168	119	46	1	2	1
New Jersey.....	329	110	209	0	10	4
New York.....	512	364	123	0	25	7
Pennsylvania.....	752	472	268	3	9	2
Virginia.....	341	239	96	3	3	0
West Virginia.....	94	61	23	0	10	0
Great Lakes—Total.....	4,219	3,424	694	9	92	80
Illinois.....	924	687	231	0	6	15
Indiana.....	576	469	100	2	5	10
Michigan.....	432	368	58	2	4	4
Minnesota.....	477	377	33	1	66	10
No. Dakota.....	464	456	7	0	1	15
Ohio.....	714	521	190	3	0	11
So. Dakota.....	160	150	9	1	0	0
Wisconsin.....	472	396	66	0	10	15
New England—Total.....	662	345	252	5	60	4
Connecticut.....	134	57	71	1	5	0
Maine.....	159	109	15	0	35	0
Massachusetts.....	197	77	106	1	13	3
New Hampshire.....	79	42	32	1	4	0
Rhode Island.....	23	11	11	0	1	1
Vermont.....	70	49	17	2	2	0
Northwest Mountain—Total.....	1,808	1,360	419	9	20	20
Colorado.....	373	209	160	4	0	11
Idaho.....	211	182	25	0	4	0
Montana.....	227	206	19	1	1	1
Oregon.....	378	292	82	2	2	4
Utah.....	112	84	28	0	0	0
Washington.....	411	303	93	2	13	1
Wyoming.....	96	84	12	0	0	3
Southern—Total.....	2,364	1,748	561	24	31	34
Alabama.....	203	159	42	0	2	4
Florida.....	698	450	219	7	22	12
Georgia.....	375	278	93	4	0	3
Kentucky.....	144	115	28	1	0	2
Mississippi.....	207	176	31	0	0	4
No. Carolina.....	336	280	53	3	0	5
Puerto Rico.....	29	17	11	0	1	0
So. Carolina.....	146	125	21	0	0	4
Tennessee.....	218	146	60	9	3	0
Virgin Islands.....	8	2	3	0	3	0
Southwest—Total.....	2,884	2,095	756	8	25	130
Arkansas.....	236	166	70	0	0	9
Louisiana.....	413	196	194	0	23	31
New Mexico.....	170	150	19	0	1	1
Oklahoma.....	403	315	87	0	1	16
Texas.....	1,662	1,268	386	8	0	73
Western-Pacific—Total.....	1,400	890	493	5	12	24
Arizona.....	273	183	89	1	0	4
California.....	922	547	360	3	12	10
Hawaii.....	48	33	15	0	0	3
Nevada.....	122	97	24	1	0	7
South Pacific ²	35	30	5	0	0	0

¹ Excludes Puerto, Virgin Islands, and South Pacific

² American Samoa, Guam, and Trust Territories.

TABLE 3.3
U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES,
ON RECORD, BY TYPE OF OWNERSHIP
DECEMBER 31, 1991

FAA Region and State	Total Facilities	By Ownership		Paved Facilities		Unpaved Facilities	
		Private	Public	Lighted	Not Lighted	Lighted	Not Lighted
Total	17,581	12,491	5,090	3,934	3,888	877	8,862
U.S. Total ¹	17,509	12,469	5,040	3,910	3,867	877	8,855
Alaska	545	156	389	46	15	99	385
Central—Total	1,453	969	484	399	220	107	727
Iowa.....	290	162	128	98	59	41	92
Kansas.....	394	263	131	104	31	29	230
Missouri.....	462	330	132	119	102	22	219
Nebraska.....	307	214	93	78	28	15	186
Eastern—Total	2,246	1,905	341	395	570	109	1,172
Delaware.....	34	30	4	7	7	5	15
District.....	16	9	7	4	10	0	2
Maryland.....	168	148	20	36	36	13	83
New Jersey.....	329	286	43	40	103	10	176
New York.....	512	426	86	94	110	38	270
Pennsylvania.....	752	676	76	109	200	32	411
Virginia.....	341	265	76	75	78	9	179
West. Virginia.....	94	65	29	30	26	2	36
Great Lakes—Total	4,219	3,309	910	804	552	299	2,564
Illinois.....	924	810	114	108	169	58	589
Indiana.....	576	487	89	88	75	32	381
Michigan.....	432	297	135	130	50	45	207
Minnesota.....	477	328	149	104	34	37	302
No. Dakota.....	464	366	98	68	10	29	357
Ohio.....	714	579	135	143	136	47	388
S. Dakota.....	160	82	78	53	10	21	76
Wisconsin.....	472	360	112	110	68	30	264
New England—Total	662	521	141	129	196	11	326
Connecticut.....	134	118	16	25	58	2	49
Maine.....	159	113	46	30	19	3	107
Massachusetts.....	197	163	34	40	74	3	80
New Hampshire.....	79	63	16	17	29	2	31
Rhode Island.....	23	14	9	7	9	0	7
Vermont.....	70	50	20	10	7	1	52
Northwest Mountain—Total	1,808	1,128	680	430	382	78	918
Colorado.....	373	283	90	69	91	15	198
Idaho.....	211	80	131	45	33	2	131
Montana.....	227	104	123	71	26	16	114
Oregon.....	378	276	102	62	92	14	210
Utah.....	112	52	60	43	33	1	35
Washington.....	411	285	126	106	93	27	185
Wyoming.....	96	48	48	34	14	3	45
Southern—Total	2,364	1,544	820	680	543	92	1,049
Alabama.....	203	106	97	90	45	8	60
Florida.....	698	538	160	119	188	26	365
Georgia.....	375	240	135	105	87	11	172
Kentucky.....	144	75	69	54	38	4	48
Mississippi.....	207	118	89	73	42	6	86
No. Carolina.....	336	243	93	91	55	21	169
Puerto Rico.....	29	12	17	11	13	0	5
S. Carolina.....	146	80	66	57	20	8	61
Tennessee.....	218	130	88	78	54	8	78
Virgin Islands.....	8	2	6	2	1	0	5
Southwest—Total	2,884	2,077	807	692	830	64	1,298
Arkansas.....	236	125	111	81	79	5	71
Louisiana.....	413	313	100	73	167	2	171
New Mexico.....	170	93	77	47	32	3	88
Oklahoma.....	403	242	161	117	96	14	176
Texas.....	1,662	1,304	358	374	456	40	792
Western-Pacific—Total	1,400	882	518	359	580	18	443
Arizona.....	273	181	92	68	86	3	116
California.....	922	605	317	237	430	11	244
Hawaii.....	48	31	17	12	29	1	6
Nevada.....	122	57	65	31	28	3	60
South Pacific ²	35	8	27	11	7	0	17

¹ Excludes Puerto, Virgin Islands, and South Pacific

² American Samoa, Guam, and Trust Territories.

TABLE 3.4
U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES
ON RECORD, BY LENGTH OF LONGEST RUNWAY ¹, BY FAA REGION AND STATE
DECEMBER 31, 1991

FAA State and Region	Total	Under 3000	3000- 3999	4000- 4999	5000- 5999	6000- 6999	7000- 7999	8000- 8999	9000- 9999	10,000- Over
Total	17,581	11,823	2,641	1,275	891	347	180	120	68	236
U.S. Total ²	17,509	11,786	2,634	1,271	886	339	175	119	66	233
Alaska	545	287	72	52	45	20	10	6	6	47
Central—Total	1,453	1,020	240	100	42	18	11	7	3	12
Iowa	290	200	38	35	8	5	0	3	1	0
Kansas	394	277	66	23	16	3	6	0	0	3
Missouri	462	339	76	18	11	6	3	1	1	7
Nebraska	307	204	60	24	7	4	2	3	1	2
Eastern—Total	2,246	1,816	184	82	79	28	15	8	10	24
Delaware	34	24	5	2	2	0	1	0	0	0
District	16	14	0	0	0	1	0	0	0	1
Maryland	168	136	18	5	6	1	0	1	1	0
New Jersey	329	286	21	5	10	2	1	1	1	2
New York	512	386	48	20	19	9	5	2	4	19
Pennsylvania	752	654	44	21	15	6	6	1	3	2
Virginia	341	261	35	22	14	5	0	3	1	0
West Virginia	94	55	13	7	13	4	2	0	0	0
Great Lakes—Total	4,219	3,153	567	213	122	60	28	24	8	44
Illinois	924	800	62	25	15	10	3	6	0	3
Indiana	576	466	53	27	15	5	2	1	1	6
Michigan	432	285	75	25	25	10	5	1	1	5
Minnesota	477	275	85	37	29	16	9	5	1	20
No. Dakota	464	353	79	20	5	3	2	1	1	0
Ohio	714	554	90	39	15	6	2	2	1	5
So. Dakota	160	77	52	18	5	5	1	2	0	0
Wisconsin	472	343	71	22	13	5	4	6	3	5
New England—Total	662	497	52	31	40	11	9	3	2	17
Connecticut	134	116	5	6	4	0	1	0	1	1
Maine	159	90	18	14	13	5	3	2	0	14
Massachusetts	197	156	15	5	13	3	1	1	1	2
New Hampshire	79	60	6	3	6	3	1	0	0	0
Rhode Island	23	18	0	2	1	0	2	0	0	0
Vermont	70	57	8	1	3	0	1	0	0	0
Northwest Mountain—Total	1,808	1,082	300	181	117	45	25	15	16	27
Colorado	373	229	51	38	22	11	6	6	4	6
Idaho	211	107	45	38	10	3	1	1	3	3
Montana	227	95	70	35	13	3	1	2	4	4
Oregon	378	283	45	18	22	6	1	1	0	2
Utah	112	33	21	23	18	8	5	2	1	1
Washington	411	305	52	13	19	6	4	0	3	9
Wyoming	96	30	16	16	13	8	7	3	1	2
Southern—Total	2,364	1,396	456	231	148	53	24	24	9	23
Alabama	203	103	41	30	11	8	2	4	2	2
Florida	698	439	112	66	33	15	11	9	2	11
Georgia	375	230	70	30	33	8	0	2	1	1
Kentucky	144	90	19	19	9	4	1	0	0	2
Mississippi	207	97	73	14	11	7	0	4	1	0
No. Carolina	336	213	63	32	15	4	5	1	0	3
Puerto Rico	29	18	4	2	1	2	0	0	0	2
So. Carolina	146	73	38	16	14	2	1	2	0	0
Tennessee	218	129	36	22	20	3	2	2	3	1
Virgin Islands	8	4	0	0	1	0	2	0	0	1
Southwest—Total	2,884	1,721	563	256	207	60	31	19	6	21
Arkansas	236	138	46	24	18	8	1	1	0	0
Louisiana	413	290	57	17	32	6	2	2	0	7
New Mexico	170	46	26	29	37	12	11	6	0	3
Oklahoma	403	262	78	29	19	7	3	1	1	3
Texas	1,662	985	356	157	101	27	14	9	5	8
Western-Pacific—Total	1,400	851	207	129	91	52	27	14	8	21
Arizona	273	140	36	45	24	13	8	5	0	2
California	922	623	147	58	39	21	9	6	4	15
Hawaii	48	34	5	2	2	2	1	0	1	1
Nevada	122	39	16	22	23	10	6	2	1	3
South Pacific ³	35	15	3	2	3	6	3	1	2	0

¹ Length in feet

² Excludes Puerto Rico, Virgin Islands, and South Pacific

³ American Samoa, Guam, and Trust Territories

TABLE 3.5
U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES
ON RECORD, BY FAA REGION AND STATE AND OTHER AREAS
DECEMBER 31, 1982-1991

FAA Region and State	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total	15,831	16,029	16,079	16,318	16,582	17,015	17,327	17,446	17,490	17,581
United States—Total¹	15,778	15,966	16,013	16,252	16,516	16,949	17,259	17,377	17,419	17,509
Alaskan—Total	666	615	609	610	614	593	603	593	602	545
Central—Total	1,379	1,425	1,430	1,437	1,421	1,437	1,417	1,406	1,401	1,453
Iowa	273	280	282	278	279	277	274	273	273	290
Kansas	377	380	384	385	382	389	390	385	386	394
Missouri	398	419	423	437	429	440	431	431	440	462
Nebraska	331	346	341	337	331	331	322	317	302	307
Eastern—Total	2,011	2,051	2,048	2,076	2,134	2,175	2,192	2,208	2,192	2,246
Delaware	35	37	36	36	37	35	34	34	33	34
District of Columbia	16	16	15	15	15	15	16	17	16	16
Maryland	147	147	149	151	155	154	157	162	158	168
New Jersey	280	291	294	295	286	317	317	322	321	329
New York	486	476	480	485	495	507	506	493	497	512
Pennsylvania	696	720	708	719	755	744	756	765	742	752
Virginia	262	270	274	282	299	308	313	322	331	341
West Virginia	89	94	92	93	92	95	93	93	94	94
Great Lakes—Total	4,023	4,031	4,027	4,060	4,071	4,135	4,190	4,235	4,222	4,219
Illinois	908	909	901	838	894	913	924	938	928	924
Indiana	490	498	495	523	518	530	545	554	566	576
Michigan	421	422	427	422	419	431	434	434	431	432
Minnesota	498	492	480	479	472	477	475	475	472	477
North Dakota	442	451	457	484	499	487	486	480	475	464
Ohio	681	678	689	690	697	716	714	720	715	714
South Dakota	163	165	165	164	161	158	155	158	159	160
Wisconsin	420	416	413	410	411	423	457	476	476	472
New England—Total	521	513	509	515	536	568	595	612	648	662
Connecticut	105	105	104	108	112	120	128	130	132	134
Maine	147	146	143	144	144	144	146	148	157	159
Massachusetts	134	130	130	131	141	158	170	181	195	197
New Hampshire	54	54	54	53	58	62	67	69	74	79
Rhode Island	18	18	18	18	20	22	23	23	24	23
Vermont	63	60	60	61	61	62	61	61	66	70
Northwest Mountain—Total	1,619	1,636	1,626	1,662	1,685	1,737	1,812	1,805	1,804	1,808
Colorado	326	321	315	321	323	333	396	385	384	373
Idaho	197	196	198	202	205	207	209	211	211	211
Montana	191	197	194	200	203	210	212	214	220	227
Oregon	332	341	336	342	351	366	367	372	370	378
Utah	96	95	97	101	105	109	113	111	112	112
Washington	372	382	385	395	396	408	413	412	410	411
Wyoming	105	104	101	101	102	104	102	100	97	96
Southern—Total	1,919	1,947	1,961	2,002	2,099	2,165	2,293	2,285	2,305	2,364
Alabama	167	169	173	174	183	193	201	195	196	203
Florida	529	541	542	557	594	607	669	645	662	698
Georgia	295	302	301	304	325	334	352	363	368	375
Kentucky	127	127	129	134	139	139	148	148	143	144
Mississippi	180	181	180	188	190	194	205	207	207	207
North Carolina	284	288	292	307	316	322	332	331	336	336
Puerto Rico	32	31	31	31	30	27	28	29	29	29
South Carolina	135	137	139	139	137	146	152	150	150	146
Tennessee	168	169	171	176	186	201	208	208	211	218
Virgin Islands	6	6	7	7	8	8	8	8	8	8
Southwest—Total	2,425	2,506	2,541	2,624	2,661	2,818	2,833	2,910	2,923	2,884
Arkansas	157	160	156	163	167	173	195	218	230	236
Louisiana	303	311	317	353	357	381	385	419	426	413
New Mexico	159	160	167	169	168	174	167	170	164	170
Oklahoma	322	332	335	336	341	403	399	406	411	403
Texas	1,484	1,543	1,566	1,603	1,628	1,687	1,687	1,697	11,692	1,662
Western-Pacific—Total	1,268	1,305	1,328	1,332	1,361	1,387	1,392	1,392	1,393	1,400
Arizona	233	240	244	246	262	265	272	270	2272	273
California	843	862	881	887	895	909	907	910	918	922
Hawaii	49	51	51	50	51	54	54	53	50	48
Nevada	128	126	124	121	125	128	127	127	119	122
South Pacific ²	15	26	28	28	28	31	32	32	34	35

¹ Excludes Puerto Rico, Virgin Islands, and South Pacific.

² American Samoa, Guam, and Trust Territories.

TABLE 3.6
AIRPORT IMPROVEMENT PROGRAM: FISCAL YEAR 1991
(Excludes Amendment to Grants) (Thousands of Dollars)

FAA Region and State	Primary		Commercial		Reliever		General Aviation		System Planning	
	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects
Total	1,106,750.5	577	45,963.5	77	207,416.8	199	252,080.6	479	9,337.7	69
US Total	1,072,841.1	567	43,861.5	73	207,416.8	199	251,246.6	478	9,337.7	69
Alaska	16,430.6	11	4,380.2	3	0.0	0	36,579.1	38	500.0	1
Central Total	48,914.4	28	7,109.4	9	3,502.4	5	13,821.8	33	511.7	5
Iowa	8,058.7	11	2,218.9	3	35.6	1	4,043.8	9	0.0	0
Kansas	10,096.0	5	4,890.5	6	3,133.8	3	5,627.6	17	27.4	1
Missouri	25,721.4	8	0.0	0	0.0	0	0.0	0	337.5	3
Nebraska	5,038.3	4	0.0	0	333.0	1	4,150.4	7	146.8	1
Eastern—Total	188,853.2	102	2,219.2	5	42,508.1	40	28,439.8	70	1,725.8	22
Delaware	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
District	0.0	0	0.0	0	0.0	0	0.0	0	59.4	1
Maryland	13,400.6	9	572.2	1	2,593.5	3	3,163.6	9	166.4	1
New Jersey	6,446.1	6	748.6	1	6,721.8	6	1,429.8	4	112.5	1
New York	82,599.3	36	898.4	3	21,902.1	17	10,929.1	27	735.3	15
Pennsylvania	42,282.0	28	0.0	0	7,887.4	8	6,141.6	13	582.4	2
Virginia	40,455.6	15	0.0	0	3,403.3	6	4,427.1	11	90.0	1
W. Virginia	3,669.6	8	0.0	0	0.0	0	2,348.6	6	179.8	1
Great Lakes—										
Total	141,851.8	98	11,342.3	22	41,428.8	37	35,151.1	58	1,552.1	8
Illinois	41,909.6	21	0.0	0	14,500.0	3	526.2	1	200.0	1
Indiana	20,299.7	13	3,301.3	4	3,975.6	7	6,313.4	8	0.0	0
Michigan	31,982.1	20	1,149.7	3	6,419.5	4	6,968.2	11	190.0	2
Minnesota	10,052.0	10	1,451.5	3	1,797.0	4	6,543.9	4	305.0	1
N. Dakota	1,956.9	6	1,110.7	5	0.0	0	2,255.3	5	0.0	0
Ohio	23,187.4	13	463.3	2	8,462.3	13	5,875.2	16	662.8	1
S. Dakota	3,239.1	4	3,405.8	3	0.0	0	2,398.5	7	0.0	0
Wisconsin	9,225.0	11	460.0	2	6,274.4	6	4,270.4	6	194.3	3
New England—										
Total	46,805.3	21	2,590.6	3	6,389.7	8	10,311.0	20	0.0	0
Connecticut	6,359.2	4	0.0	0	2,961.0	1	4,028.6	3	0.0	0
Maine	4,046.9	2	2,146.8	2	557.1	1	1,537.6	6	0.0	0
Massachusetts	17,120.6	9	443.8	1	2,319.3	4	3,656.7	8	0.0	0
New Hampshire	7,694.9	3	0.0	0	552.3	2	681.3	1	0.0	0
Rhode Island	10,968.9	2	0.0	0	0.0	0	0.0	0	0.0	0
Vermont	614.8	1	0.0	0	0.0	0	406.8	2	0.0	0
Northwest										
Mountain—Total	124,787.5	60	5,528.4	10	15,695.3	19	28,308.8	62	1,039.9	12
Colorado	54,484.8	15	1,764.5	4	8,989.0	7	5,383.3	16	358.4	4
Idaho	4,981.1	8	0.0	0	432.0	1	2,816.5	5	0.0	0
Montana	11,241.1	10	1,224.0	1	0.0	0	4,626.1	6	26.2	1
Oregon	13,288.8	7	134.9	1	2,784.3	3	4,738.7	7	210.0	2
Utah	8,888.9	3	503.3	2	1,441.2	4	3,698.3	7	190.0	2
Washington	29,252.4	12	1,641.7	1	2,048.8	4	3,958.0	10	315.3	4
Wyoming	2,650.4	5	260.0	1	0.0	0	3,087.9	11	0.0	0
Southern—Total	252,563.2	122	3,925.2	8	30,891.7	40	36,091.5	94	1,995.5	8
Alabama	12,527.0	9	0.0	0	2,810.0	2	4,948.5	15	697.6	2
Florida	79,505.1	33	2,149.2	6	12,316.5	20	7,877.4	24	366.6	1
Georgia	29,507.8	12	0.0	0	8,790.5	10	4,177.6	10	250.0	1
Kentucky	36,039.3	11	0.0	0	3,262.5	3	4,706.4	15	58.6	1
Mississippi	2,806.7	14	0.0	0	335.5	1	5,342.3	14	0.0	0
N. Carolina	28,171.5	17	0.0	0	0.0	0	0.0	0	445.9	2
Puerto Rico	12,893.0	4	776.0	1	0.0	0	0.0	0	0.0	0
S. Carolina	5,529.4	6	0.0	0	2,858.7	3	5,684.6	11	176.8	1
Tennessee	38,809.7	14	1,000.0	1	518.0	1	3,354.7	5	0.0	0
Virgin Islands	6,773.7	2	0.0	0	0.0	0	0.0	0	0.0	0
Southwest total	120,173.6	56	2,193.4	8	34,197.9	30	32,117.1	56	563.0	5
Arkansas	8,004.5	7	0.0	0	3,197.0	2	2,446.8	6	130.0	1
Louisiana	27,745.1	16	0.0	0	6,420.5	4	3,915.2	6	0.0	0
New Mexico	8,717.5	3	2,493.4	8	129.7	1	5,173.6	6	69.1	1
Oklahoma	14,807.4	8	0.0	0	5,567.4	8	5,919.7	16	57.7	1
Texas	60,899.1	32	0.0	0	18,883.3	15	14,661.8	22	306.2	2
Western-Pacific—										
Total	166,370.9	69	6,374.8	9	32,802.9	20	31,260.4	48	1,389.7	8
Arizona	25,511.3	10	5,048.8	6	9,583.3	6	4,685.4	11	518.3	2
California	92,318.5	44	0.0	0	20,719.6	12	21,309.1	27	871.4	6
Hawaii	20,138.8	5	0.0	0	0.0	0	635.9	1	0.0	0
Nevada	14,159.6	6	0.0	0	2,500.0	2	3,796.0	8	0.0	0
South Pacific ²	14,242.7	4.0	1,326.0	3.0	0.0	0.0	834.0	1.0	0.0	0.0

¹ Excludes Puerto Rico, Virgin Islands, and South Pacific

² American Samoa, Guam, North Mariana, and Trust Territories

Note: Excludes State Block Grants: Illinois 24,899.01, Missouri 14,003.21, N. Carolina 159.51, Total 48,761.73

IV. AIRPORT ACTIVITY OF CERTIFICATED ROUTE AIR CARRIERS

The data presented in this chapter were obtained from information reported quarterly to the Department of Transportation's Research and Special Programs Administration (RSPA) by the large scheduled certificated air carriers on Schedules T-100 and T-3, RSPA Form 41, Uniform System of Accounts and Reports for Large Certificated Air Carriers. These statistics summarize scheduled and non scheduled service revenue; passenger enplanements; aircraft departures; and tons of freight, express, and mail enplaned at certificated points in the 50 States, the District of Columbia, and other U.S. areas served by the carriers.

This chapter covers only the large scheduled certificated air carriers;* and thus excludes the charter only, small certificated, commuter, intrastate and foreign-flag air carriers. Note that this chapter covers only a subset of the carriers covered by Chapter VI—U.S. Certificated Air Carriers—Operating Data.

The activity information in Tables 4.5-4.9 is presented by "hubs". Air traffic hubs are geographical areas, and are based on the percentage of total passengers enplaned in the area. A hub may have more than one airport in it. This definition of hub should not be confused with the definition being used by the airlines in describing their "hub and spoke" structures. The hubs constitute a primary focal point for the transportation research programs of the FAA, and the analyses of individual cities within an area are treated in relationship to the entire area.

Individual communities fall into four hub classifications as determined by each community's percentage of the total enplaned revenue passengers in all services and all operations of U.S. certificated route air carriers within the 50 States, the District of Columbia, and other U.S. areas. Classifications in this issues are based on 428,319,248 total enplaned revenue passengers.

The percentage and number of enplaned passengers in the hub classifications for 12 months ending December 31, 1991 are:

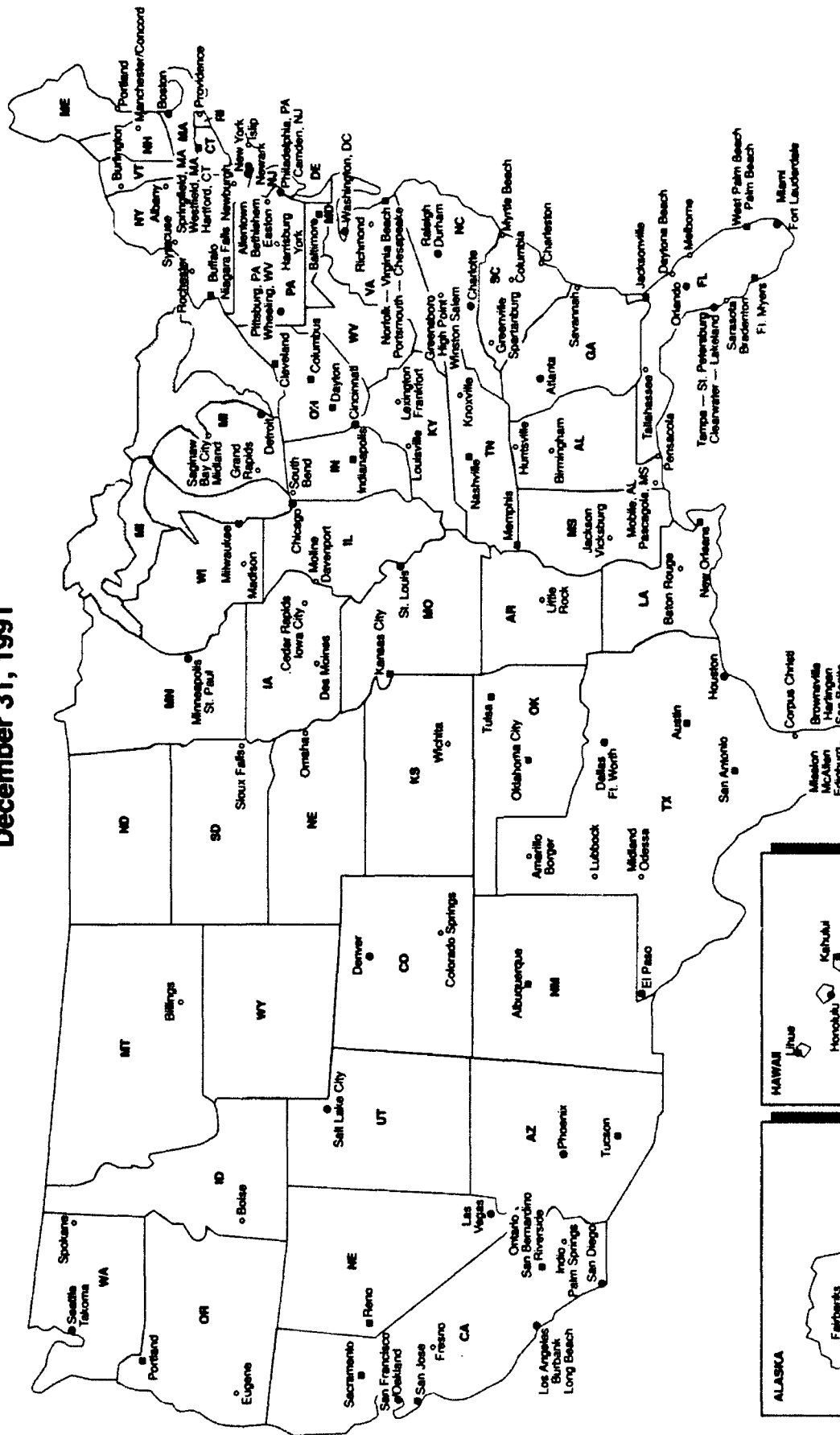
Hub Classification	Percentage of Total Enplaned Passengers	Number of Enplaned Passengers
Large (L)	1.00 or more	4,283,192 or more
Medium (M)	0.25 to 0.99	1,070,798 to 4,283,192
Small (S)	0.05 to 0.24	214,160 to 1,070,798
Nonhub (N)	less than 0.05	less than 214,159

During 1991 there were 121 air traffic hubs representing 24% of the 513 air traffic hubs and nonhubs in the 50 states, the District of Columbia, and other U. S. areas receiving air carrier service during the year. The dominance of the hubs in air traffic patterns is brought out by the fact that 97% of passenger enplanements were recorded at these 121 hubs. The table below shows the number of hubs/nonhubs and the number of airports in those hubs. It also shows the number and percentage of passenger enplanements at the hubs/nonhubs.

Hub Classification	Number of Hubs/Nonhubs	Number of Airports	Passengers Enplaned	Passengers Percent
Large	28	55	313,375,097	73.16
Medium	32	43	72,985,169	17.04
Small	61	66	31,224,974	7.29
Nonhub	392	414	10,734,008	2.51
TOTAL	513	578	428,319,248	100.00

* Large Certificated Air Carrier—carrier holding a certificate issued under Section 401 of the Federal Aviation Act of 1958 and operating aircraft designed to have a maximum passenger seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds or conducting international operations.

Air Traffic Hubs December 31, 1991



LEGEND

- Large Hubs 28
- Medium Hubs 32
- Small Hubs 61

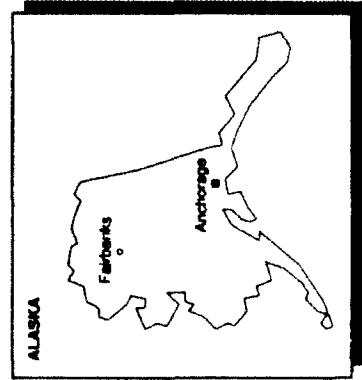
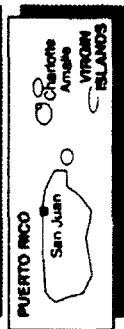
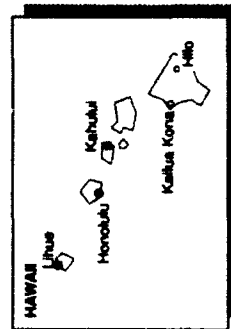
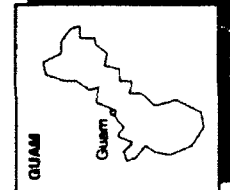
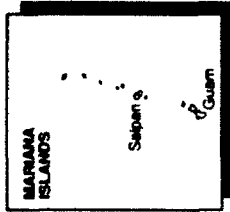


TABLE 4.1
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
AS OF DECEMBER 31, 1991

Aerial Transit	Federal Express
Air Transport	Hawaiian Airlines
Air Wisconsin	Horizon Air
Alaska Airlines	Jet Fleet
Aloha Airlines	Markair
America West Airlines	MGM Grand
American Airlines	Midway Airlines
American Int'l.	Midwest Express Airlines
American Trans Air	Northern Air Cargo
Amerijet	Northwest Airlines
Arrow Air	Pan American World Airways
Aspen Airways	Reeve Aleutian Airways
Braniff Int'l.	Simmons
Buffalo	Southwest Airlines
Carnival	Tower Air
Casino Express	Trans States
Challenge Air Transport	Trans World Airlines
Conner	Trump Shuttle
Continental Air Lines	United Air Lines
Delta Air Lines	United Parcel
Eastern Air Lines	U.S. Air
Executive Airlines	Westair
	Zantop

TABLE 4.2 ¹
AMERICAN FLAG AIRLINE TRAFFIC ENPLANED SYSTEM TOTAL
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1982-1991

Year	Enplaned Passengers			Air Carrier Aircraft Departures	Tons of Enplaned Mail	Tons of Enplaned Cargo
	Total	Domestic	International			
1982.....	292,538,822	272,449,376	19,789,450	4,921,628	1,247,351.2	2,951,619.9
1983.....	319,886,291	297,484,708	22,401,583	5,043,040	1,293,103.6	3,219,495.8
1984.....	344,831,718	321,136,409	23,695,309	5,449,541	1,389,154.7	3,579,216.1
1985.....	381,108,118	356,103,027	25,005,091	5,696,217	1,486,900.6	3,415,759.7
1986.....	418,563,577	393,267,950	25,295,582	6,401,599	2,066,173.6	4,718,544.1
1987.....	448,913,726	417,869,993	31,043,733	6,640,400	1,621,734.2	5,073,264.9
1988.....	456,026,372	420,326,215	35,700,157	6,724,445	1,717,738.7	5,860,039.0
1989.....	455,263,066	417,644,895	37,618,171	6,648,452	1,631,316.3	6,573,790.5
1990 ²	438,544,001	NA	NA	6,641,681	1,566,098.1	4,732,726.1
1991 ²	428,319,248	NA	NA	6,545,000	1,562,990.7	4,854,513.1

¹ Includes operations of certificated all-cargo carriers.

² Excludes traffic enplaned in foreign countries.

NA—No longer available.

Source: RSPA-FAA Airport Activity Statistics of Certificated Route Air Carriers.

TABLE 4.3 ¹
AMERICAN FLAG AIRLINE TRAFFIC ENPLANED—50 STATES
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1982-1991

Year	Enplaned Passengers			Air Carrier Aircraft Departures	Tons of Enplaned Mail	Tons of Enplaned Cargo
	Total	Domestic	International			
1982.....	275,540,455	268,118,227	7,422,228	4,716,900	1,185,857.7	2,389,304.9
1983.....	301,347,773	292,962,603	8,385,170	4,825,467	1,227,581.1	2,558,106.8
1984.....	325,233,918	316,280,548	8,953,370	5,232,782	1,310,016.9	2,749,633.9
1985.....	360,710,517	351,346,625	9,363,892	5,476,633	1,416,643.1	2,549,025.1
1986.....	396,961,967	387,599,481	9,362,486	6,153,247	1,980,248.3	3,728,296.2
1987.....	422,747,715	411,311,165	11,436,550	6,372,793	1,534,719.8	3,948,060.7
1988.....	426,937,914	413,790,076	13,147,838	6,426,421	1,626,030.8	4,550,772.8
1989.....	425,103,192	411,139,530	13,963,662	6,331,555	1,537,234.6	5,116,092.4
1990.....	433,254,832	NA	NA	6,572,179	1,558,021.6	4,629,653.7
1991.....	422,601,128	NA	NA	6,456,329	1,550,220.5	4,750,582.2

¹ Includes operations of certificated all-cargo carriers.

NA— No longer available.

Source: RSPA-FAA Airport Activity Statistics of Certificated Route Air Carriers.

TABLE 4.4 ¹
AMERICAN FLAG AIRLINE TRAFFIC ENPLANED—U.S. TERRITORIES
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1982-1991

Year	Enplaned Passengers			Air Carrier Aircraft Departures	Tons of Enplaned Mail	Tons of Enplaned Cargo
	Total	Domestic	International			
1982.....	2,210,575	1,718,635	491,940	28,414	5,770.7	56,612.0
1983.....	2,372,861	1,788,115	584,746	34,942	6,035.8	68,088.1
1984.....	2,537,084	1,888,024	649,060	34,196	6,746.3	69,167.6
1985.....	2,630,980	1,940,298	690,682	29,026	6,799.9	53,001.9
1986.....	3,046,033	2,249,694	796,339	38,960	6,856.5	62,206.8
1987.....	4,068,330	2,940,763	1,127,567	39,690	7,389.6	66,511.0
1988.....	4,478,219	3,081,000	1,397,219	43,435	8,143.1	75,496.4
1989.....	4,551,410	2,974,207	1,577,203	41,978	7,693.8	85,661.0
1990.....	5,289,169	NA	NA	69,502	8,076.5	103,072.3
1991.....	5,718,120	NA	NA	88,671	12,770.2	103,931.0

¹ Includes operations of certificated all-cargo carriers.

NA—No longer available.

Source: RSPA, FAA Airport Activity Statistics of Certificated Route Air Carriers.

TABLE 4.5 ¹
AMERICAN FLAG AIRLINE TRAFFIC ENPLANED—FOREIGN COUNTRIES
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1982-1991

Year	Enplaned Passengers			Air Carrier Aircraft Departures	Tons of Enplaned Mail	Tons of Enplaned Cargo
	Total	Domestic	International			
1982.....	14,787,796	2,912,514	11,875,282	176,314	55,722.8	505,703.0
1983.....	16,165,657	2,733,990	13,431,667	182,631	59,486.7	593,300.9
1984.....	17,060,716	2,967,837	14,092,879	182,563	72,391.5	760,414.6
1985.....	17,766,621	2,816,104	14,950,517	190,558	63,477.6	814,732.7
1986.....	18,555,577	3,418,820	15,136,757	209,392	78,068.8	928,041.1
1987.....	22,097,681	3,618,065	18,479,616	227,917	79,624.7	1,058,693.2
1988.....	24,610,239	3,455,139	21,155,100	254,589	83,564.8	1,233,769.8
1989.....	25,608,464	3,531,158	22,077,306	274,919	86,387.8	1,374,037.1
1990.....	NA	NA	NA	NA	NA	NA
1991.....	NA	NA	NA	NA	NA	NA

¹ Includes operations of certificated all-cargo carriers.

NA—No longer available.

Source: RSPA-FAA Airport Activity Statistics of Certificated Route Air Carriers.

TABLE 4.6
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
BY TYPE OF SERVICE, BY CARRIER GROUP, AND BY AIR CARRIER
12 MONTHS ENDED DECEMBER 31, 1991

Carrier Group Air Carrier	Operation	Service	Aircraft Departures		Enplaned Passengers	Enplaned Revenue Tons	
			Total Performed	Scheduled		Freight	Mail
MAJORS							
AMERICA WEST	TOTAL	S	225,402	228,132	16,789,270	47,622 60	36,807 95
		NS	908		34,399		
		AS	226,310	228,132	16,823,669	47,622 60	36,807 95
AMERICAN	TOTAL	S	800,384	813,487	70,535,482	379,994 29	228,534 61
		NS	356		13,852		
		AS	800,740	813,487	70,549,334	379,994 29	228,534 61
CONTINENTAL	TOTAL	S	458,927	465,258	34,278,920	196,355 99	92,463 04
		NS	5,036		587,209		
		AS	463,963	465,258	34,866,129	196,355 99	92,463 04
DELTA	TOTAL	S	909,777	915,910	71,519,584	406,133 93	304,102 68
		NS	890		49,788		
		AS	910,667	915,910	71,569,372	406,133 93	304,102 68
EASTERN	TOTAL	S	13,129	13,671	804,322	4,633 48	3,197 69
		NS	10		2,998		
		AS	13,139	13,671	807,320	4,633 48	3,197 69
FEDERAL EXPRESS	TOTAL	S	204,712	204,712		2,189,341 51	19,147 07
		NS	1,795		194,172	31,732 92	
		AS	206,507	204,712	194,172	2,221,074 43	19,147 07
NORTHWEST	TOTAL	S	491,144	498,647	36,711,112	319,487 95	164,766 80
		NS	384		19,609	580 18	
		AS	491,528	498,647	36,730,721	320,068 13	164,766 80
PAN AMERICAN	TOTAL	S	84,226	82,381	7,841,147	83,224 89	26,424 38
		NS	197		16,581	21 87	
		AS	84,423	82,381	7,857,728	83,246 76	26,424 38
SOUTHWEST	TOTAL	S	382,571	388,804	25,210,877	19,328 76	13,579 42
		NS	102		11,172		
		AS	382,673	388,804	25,222,049	19,328 76	13,579 42
TRANS WORLD	TOTAL	S	244,123	249,906	18,938,784	124,654 77	86,335 06
		NS	1,906		150,117		
		AS	246,029	249,906	19,088,901	124,654 77	86,335 06
UNITED	TOTAL	S	661,395	675,140	57,204,782	400,583 35	239,520 08
		NS	689		79,350		
		AS	662,084	675,140	57,284,132	400,583 35	239,520 08
US AIR	TOTAL	S	931,331	941,675	54,770,567	110,349 36	152,948 02
		NS	2,717		217,783		
		AS	934,048	941,675	54,988,350	110,349 36	152,948 02
TOTAL, MAJORS	TOTAL	S	5,407,121	5,477,723	394,604,847	4,281,710.88	1,367,826.80
		NS	14,990		1,377,030	32,334.97	
		AS	5,422,111	5,477,723	395,981,877	4,314,045.85	1,367,826.80
NATIONALS							
AIR WISCONSIN	TOTAL	S	91,099	96,592	2,365,449	835.79	1,802.39
ALASKA	TOTAL	S	106,886	106,661	5,529,250	52,118 41	33,521.96
		NS	489		29,934	355 25	211 56
		AS	107,375	106,661	5,559,184	52,473 66	33,733.52
ALOHA	TOTAL	S	76,830	81,738	4,915,020	8,846 75	4,787 06
		NS	115		6,134	34.71	21
		AS	76,945	81,738	4,921,154	8,881 46	4,787 27
AMERICAN TRANS	TOTAL	S	2,623	2,565	358,941		
		NS	2,216		284,104		
		AS	4,839	2,565	643,045		
HAWAIIAN	TOTAL	S	58,486	58,630	3,706,234	12,317 85	4,399 54
		NS	1,332		89,260		
		AS	59,818	58,630	3,795,494	12,317 85	4,399 54
HORIZON AIR	TOTAL	S	174,375	180,849	1,918,521	4,734 64	1,621 62
		NS	128		7,321		
		AS	174,503	180,849	1,925,842	4,734 64	1,621 62
MARKAIR	TOTAL	S	15,800	15,966	304,037	89,206 47	64,570 55
		NS	1,738		6,769	65,932 27	650 43
		AS	17,538	15,966	310,806	155,138 74	65,220 98
MIDWAY	TOTAL	S	76,562	78,873	4,286,707	11,376 05	13,539 49
		NS	83		5,270		
		AS	76,645	78,873	4,291,977	11,376 05	13,539 49
MIDWEST EXPRESS	TOTAL	S	21,931	22,085	768,037	3,893 70	4,844 30
		NS	176		8,169		
		AS	22,107	22,085	776,206	3,893 70	4,844 30
TOWER	TOTAL	S	570	570	189,329	5 48	
		NS	109		44,629		
		AS	679	570	233,958	5 48	
TRUMP	TOTAL	S	21,447	22,645	1,429,964	47 96	240 43
		NS	460		59,705		
		AS	21,907	22,645	1,489,669	47 96	240 43
UNITED PARCEL	TOTAL	S	1,062	420,751		27,790 70	
		NS	18,837			4,468 24	
		AS	19,899	420,751		32,258 94	
WESTAIR	TOTAL	S	265,470	273,361	3,061,019		

TABLE 4.6—Continued
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
BY TYPE OF SERVICE, BY CARRIER GROUP, AND BY AIR CARRIER
12 MONTHS ENDED DECEMBER 31, 1991

Carrier Group Air Carrier	Operation	Service	Aircraft Departures		Enplaned Passengers	Enplaned Revenue Tons	
			Total Performed	Scheduled		Freight	Mail
TOTAL, NATIONALS	TOTAL	S	913,141	1,361,288	28,832,508	211,173.80	129,327.34
		NS	25,683		541,295	70,790.47	862.20
		AS	938,824	1,361,288	29,373,803	281,964.27	130,189.54
LARGE REGIONALS							
AIR TRANSPORT	TOTAL	S	221	222		14,737.23	
		NS	1			205.61	
		AS	222	222		14,942.84	
AMERICAN INTL	TOTAL	S	5				
		NS	3			40	
		AS	8			40	
AMERIJET	TOTAL	S	301	1		4,878.57	
		NS	181			2,407.41	59.91
		AS	482	1		7,285.98	59.91
ARROW	TOTAL	S	1,086	1,104		46,788.50	
		NS	1,881			46,383.83	17,364.53
		AS	2,967	1,104		93,172.33	17,364.53
ASPEN	TOTAL	S	2,642	2,808	144,140	23.07	2.45
BRANIFF INTL	TOTAL	S	737	744	51,363		
CARNIVAL	TOTAL	S	3,295	2,137	305,444	511.54	
		NS	718		81,578	8.13	
		AS	4,013	2,137	387,022	519.67	
CHALLENGE	TOTAL	S	1,451	1,451		39,373.62	1,753.07
		NS	47			1,241.68	
		AS	1,498	1,451		40,615.30	1,753.07
EXECUTIVE AIRLINES	TOTAL	S	37,806	39,552	759,842	6.96	8.21
		NS	7		156		
		AS	37,813	39,552	759,998	6.96	8.21
MGM GRAND	TOTAL	S	1,288	1,288	50,926	1,388.29	560.68
		NS	127		3,052		
		AS	1,415	1,288	53,978	1,388.29	560.68
NORTHERN AIR	TOTAL	S	8,555	8,490		27,014.12	21,306.56
		NS	557			4,616.73	53.32
		AS	9,112	8,490		31,630.85	21,359.88
REEVE	TOTAL	S	2,646	2,573	37,680	1,537.86	2,957.37
		NS	651		8,332	792.36	267.25
		AS	3,297	2,573	46,012	2,330.22	3,224.62
SIMMONS	TOTAL	S	27,800	29,193	547,655	159.16	284.50
TRANS STATES	TOTAL	S	71,524	75,301	915,190		
ZANTOP	TOTAL	S	9,316	19,548		56,545.93	20,356.55
		NS	10,232			4,416.91	
		AS	19,548	19,548		60,962.84	20,356.55
TOTAL, LARGE REGIONALS	TOTAL	S	168,473	184,412	2,812,240	192,964.85	47,229.39
		NS	14,405		93,118	60,073.06	17,745.01
		AS	182,878	184,412	2,905,358	253,037.91	64,974.40
MEDIUM REGIONALS							
AERIAL TRANSIT	TOTAL	S	48	48		685.72	
		NS	183			2,378.86	
		AS	231	48		3,064.58	
BUFFALO	TOTAL	S		166		849.91	
		NS	170			970.19	
		AS	170	166		1,820.10	
CASINO EXPRESS	TOTAL	S	684	684	57,264		
		NS	1		118		
		AS	685	684	57,382		
CONNER	TOTAL	S	26	31		376.31	
		NS	15			204.09	
		AS	41	31		580.40	
JET FLEET	TOTAL	S		60			
		NS	60		828		
		AS	60	60	828		
TOTAL, MEDIUM REGIONALS	TOTAL	S	758	989	57,264	1,911.94	
		NS	429		946	3,553.14	
		AS	1,187	989	58,210	5,465.08	
OVERALL TOTAL, ALL CARRIERS	TOTAL	S	6,489,493	7,024,412	426,306,859	4,687,761.47	1,544,383.53
		NS	55,507		2,012,389	166,751.64	18,607.21
		AS	6,545,000	7,024,412	428,319,248	4,854,513.11	1,562,990.74

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
BY TYPE OF SERVICE, AND BY STATE AND U.S. AREA
12 MONTHS ENDED DECEMBER 31, 1991

State or County	Operation	Service	Aircraft Departures		Enplaned Passengers	Enplaned Revenue Tons	
			Total Performed	Scheduled		Freight	Mail
50 U. S. STATES							
ALABAMA	TOTAL	S	39,676	41,516	1,764,969	12,318.64	5,873.79
		NS	285		1,319	241.51	20.19
		AS	39,961	41,516	1,766,288	12,560.15	5,893.98
ALASKA	TOTAL	S	68,138	77,063	2,095,309	358,194.80	113,685.07
		NS	3,812		109,185	81,895.37	943.19
		AS	71,950	77,063	2,204,494	440,090.17	114,628.26
ARIZONA	TOTAL	S	169,640	175,874	12,195,620	47,197.09	25,264.34
		NS	942		19,161	46.66	
		AS	170,582	175,874	12,214,781	47,243.75	25,264.34
ARKANSAS	TOTAL	S	17,904	19,901	957,140	1,050.99	3,638.59
		NS	543		500	12.62	
		AS	18,447	19,901	957,640	1,063.61	3,638.59
CALIFORNIA	TOTAL	S	760,499	833,287	54,851,624	696,092.39	153,531.61
		NS	4,476		302,553	4,329.67	960.67
		AS	764,975	833,287	55,154,177	700,422.06	154,492.28
COLORADO	TOTAL	S	171,810	182,052	13,247,343	75,037.08	38,474.40
		NS	698		20,857	96.09	15.68
		AS	172,508	182,052	13,268,200	75,133.17	38,490.08
CONNECTICUT	TOTAL	S	31,771	35,838	2,158,580	20,004.10	14,374.60
		NS	460		2,929	6,147.92	4,318.74
		AS	32,231	35,838	2,161,509	26,152.02	18,693.34
DELAWARE	TOTAL	S	2	26		546.80	
		NS	41			385.00	132.00
		AS	43	26		931.80	132.00
DIST. OF COL.	TOTAL	S	183,327	186,839	11,334,170	59,848.73	52,841.41
		NS	141		6,503	355.63	26.00
		AS	183,468	186,839	11,340,673	60,204.36	52,867.41
FLORIDA	TOTAL	S	394,337	408,544	32,064,180	275,982.67	73,041.93
		NS	5,394		272,077	33,897.32	202.01
		AS	399,731	408,544	32,336,257	309,879.99	73,243.94
GEORGIA	TOTAL	S	218,712	239,909	18,392,449	139,999.20	88,773.39
		NS	1,935		12,953	384.61	17.03
		AS	220,647	239,909	18,405,402	140,383.81	88,790.42
HAWAII	TOTAL	S	165,407	176,815	13,893,508	152,710.86	25,992.24
		NS	1,545		81,537	461.20	.21
		AS	166,952	176,815	13,975,045	153,172.06	25,992.45
IDAHO	TOTAL	S	37,323	39,124	733,516	4,297.47	1,935.03
		NS	307		984	5.79	
		AS	37,630	39,124	734,500	4,303.26	1,935.03
ILLINOIS	TOTAL	S	412,441	435,259	29,388,372	292,902.03	135,128.81
		NS	1,054		39,054	1,490.48	
		AS	413,495	435,259	29,427,426	294,392.51	135,128.81
INDIANA	TOTAL	S	72,202	74,601	3,077,636	110,862.67	11,169.93
		NS	883		60,738	298.30	
		AS	73,085	74,601	3,138,374	111,160.97	11,169.93
IOWA	TOTAL	S	26,906	38,195	1,110,617	9,421.82	12,006.48
		NS	472		1,722	105.21	
		AS	27,378	38,195	1,112,339	9,527.03	12,006.48
KANSAS	TOTAL	S	13,677	14,373	536,772	7,982.57	2,529.31
		NS	72		432	7.31	
		AS	13,749	14,373	537,204	7,989.88	2,529.31
KENTUCKY	TOTAL	S	31,291	166,145	1,176,505	8,375.20	7,466.85
		NS	5,280		3,258	2,362.22	131.67
		AS	36,571	166,145	1,179,763	10,737.42	7,598.52
LOUISIANA	TOTAL	S	61,076	62,712	3,880,681	21,074.18	8,536.80
		NS	405		8,926	9.03	
		AS	61,481	62,712	3,889,607	21,083.21	8,536.80
MAINE	TOTAL	S	13,120	13,253	576,463	5,341.52	1,386.18
		NS	127		27,322	1,267.42	736.73
		AS	13,247	13,253	603,785	6,608.94	2,122.91
MARYLAND	TOTAL	S	67,140	69,325	4,245,553	17,357.11	19,726.24
		NS	229		4,534	255.70	165.05
		AS	67,369	69,325	4,250,087	17,612.81	19,891.29
MASSACHUSETTS	TOTAL	S	111,185	118,477	8,885,357	122,125.47	29,965.88
		NS	699		50,759	252.78	46.28
		AS	111,884	118,477	8,936,116	122,378.25	30,012.16
MICHIGAN	TOTAL	S	172,567	181,884	11,082,948	85,509.84	45,472.50
		NS	2,700		141,387	2,979.44	
		AS	175,267	181,884	11,224,335	88,489.28	45,472.50
MINNESOTA	TOTAL	S	121,031	128,359	9,062,451	68,816.27	42,700.38
		NS	777		42,289	170.14	
		AS	121,808	128,359	9,104,740	68,986.41	42,700.38

TABLE 4.7—Continued
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
BY TYPE OF SERVICE, AND BY STATE AND U.S. AREA
12 MONTHS ENDED DECEMBER 31, 1991

State or County	Operation	Service	Aircraft Departures		Enplaned Passengers	Enplaned Revenue Tons	
			Total Performed	Scheduled		Freight	Mail
MISSISSIPPI	TOTAL	S	8,786	10,196	393,072	617.42	1,602.82
		NS	350			16.16	
		AS	9,136	10,196	393,072	633.58	1,602.82
MISSOURI	TOTAL	S	220,010	230,200	12,725,400	61,774.63	49,244.09
		NS	1,376		74,999	113.74	
		AS	221,386	230,200	12,800,399	61,888.37	49,244.09
MONTANA	TOTAL	S	43,677	45,773	813,208	7,634.91	3,136.40
		NS	354			60.36	
		AS	44,031	45,773	813,208	7,695.27	3,136.40
NEBRASKA	TOTAL	S	24,277	28,286	1,220,830	7,549.85	16,499.35
		NS	188		534	42.08	
		AS	24,465	28,286	1,221,364	7,591.93	16,499.35
NEVADA	TOTAL	S	120,469	121,929	9,657,615	18,617.75	13,842.36
		NS	1,675		135,642	36.43	
		AS	122,144	121,929	9,793,257	18,654.18	13,842.36
NEW HAMPSHIRE	TOTAL	S	7,632	8,859	292,376	8,341.84	425.23
		NS	113		417	12.05	
		AS	7,745	8,859	292,793	8,353.89	425.23
NEW JERSEY	TOTAL	S	128,579	143,252	9,825,047	161,096.50	34,734.97
		NS	1,511		97,960	1,338.22	756.31
		AS	130,090	143,252	9,923,007	162,434.72	35,491.28
NEW MEXICO	TOTAL	S	33,871	38,111	2,348,157	7,893.97	6,168.42
		NS	252		2,614	40.39	
		AS	34,123	38,111	2,350,771	7,934.36	6,168.42
NEW YORK	TOTAL	S	308,580	324,667	22,942,375	284,767.21	105,321.48
		NS	2,718		105,015	8,350.60	
		AS	311,298	324,667	23,047,390	293,117.81	105,321.48
NORTH CAROLINA	TOTAL	S	227,169	234,832	13,318,597	67,341.97	31,111.95
		NS	1,047		8,186	332.25	67.97
		AS	228,216	234,832	13,326,783	67,674.22	31,199.92
NORTH DAKOTA	TOTAL	S	12,180	12,697	468,819	3,764.82	1,781.12
		NS	457				
		AS	12,637	12,697	468,819	3,764.82	1,781.12
OHIO	TOTAL	S	212,168	218,629	11,553,480	60,957.51	44,157.55
		NS	1,179		46,310	679.44	384.94
		AS	213,347	218,629	11,599,790	61,636.95	44,542.49
OKLAHOMA	TOTAL	S	51,663	54,784	2,853,564	18,172.30	10,104.38
		NS	771		2,525	468.04	61.29
		AS	52,434	54,784	2,856,089	18,640.34	10,165.67
OREGON	TOTAL	S	116,260	125,615	3,654,431	38,875.84	11,788.49
		NS	462		8,988	367.29	
		AS	116,722	125,615	3,663,419	39,243.13	11,788.49
PENNSYLVANIA	TOTAL	S	243,998	270,692	15,100,274	87,889.35	66,179.66
		NS	1,743		42,953	2,824.92	1,299.16
		AS	245,741	270,692	15,143,227	90,714.27	67,478.82
RHODE ISLAND	TOTAL	S	16,183	16,456	952,823	1,971.60	3,318.19
		NS	20		1,385		
		AS	16,203	16,456	954,208	1,971.60	3,318.19
SOUTH CAROLINA	TOTAL	S	35,627	37,609	1,720,238	9,472.12	5,826.42
		NS	183		5,136	120.42	81.00
		AS	35,810	37,609	1,725,374	9,592.54	5,907.42
SOUTH DAKOTA	TOTAL	S	10,228	10,785	318,005	2,034.72	1,997.20
		NS	461				
		AS	10,689	10,785	318,005	2,034.72	1,997.20
TENNESSEE	TOTAL	S	172,866	177,953	8,223,387	699,375.78	25,248.96
		NS	300		6,960	144.02	
		AS	173,166	177,953	8,230,347	699,519.80	25,248.96
TEXAS	TOTAL	S	608,803	637,191	45,777,347	253,522.71	120,750.73
		NS	2,160		47,680	4,440.30	10.86
		AS	610,963	637,191	45,825,027	257,963.01	120,761.59
UTAH	TOTAL	S	75,338	81,191	5,317,456	38,147.93	18,383.92
		NS	2,321		152,673	64.97	8.18
		AS	77,659	81,191	5,470,129	38,212.90	18,392.10
VERMONT	TOTAL	S	6,862	7,002	281,388	1,906.52	841.41
		NS	1				
		AS	6,863	7,002	281,388	1,906.52	841.41
VIRGINIA	TOTAL	S	57,374	63,159	2,306,154	11,920.68	7,841.08
		NS	462		1,128	1,752.50	1,541.80
		AS	57,836	63,159	2,307,282	13,673.18	9,382.88
WASHINGTON	TOTAL	S	219,474	229,119	8,889,243	118,297.96	35,995.40
		NS	1,050		23,711	3,522.64	221.46
		AS	220,524	229,119	8,912,954	121,820.60	36,216.86
WEST VIRGINIA	TOTAL	S	8,031	8,199	212,801	1,253.32	181.31
		NS	337		21,955	37.02	
		AS	8,368	8,199	212,801	1,253.32	181.31
WISCONSIN	TOTAL	S	64,456	68,705	2,576,594	21,267.60	8,044.46
		NS	337		21,955	37.02	
		AS	64,793	68,705	2,598,549	21,304.62	8,044.46
WYOMING	TOTAL	S	5,599	5,808	148,804	844.58	8.98
		NS	219		130		
		AS	5,818	5,808	148,934	844.58	8.98

TABLE 4.7—Continued
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
BY TYPE OF SERVICE, AND BY STATE AND U.S. AREA
12 MONTHS ENDED DECEMBER 31, 1991

State or County	Operation	Service	Aircraft Departures		enplaned Passengers	Enplaned Revenue Tons	
			Total Performed	Scheduled		Freight	Mail
TOTAL FOR 50 U. S. STATES	TOTAL	S	6,401,342	6,931,070	420,603,248	4,588,360.89	1,538,052.09
		NS	54,987		1,997,880	162,221.26	12,168.42
		AS	6,456,329	6,931,070	422,601,128	4,750,582.15	1,550,220.51
OTHER U. S. AREAS							
AMERICAN SAMOA	TOTAL	S	337	338	25,334	95.11	50.36
		NS	2		325		
		AS	339	338	25,659	95.11	50.36
PALAU ISLANDS	TOTAL	S	712	745	37,458	894.35	25.87
GUAM	TOTAL	S	7,852	8,102	828,209	19,246.70	2,551.13
		NS	23		1,951	25.39	
		AS	7,875	8,102	830,160	19,272.09	2,551.13
JOHNSTON ISLAND	TOTAL	S	256	260	323	4.33	4.25
MARIANA ISLANDS	TOTAL	S	6,548	6,805	328,171	4,333.37	170.86
		NS	4		298		
		AS	6,552	6,805	328,469	4,333.37	170.86
PUERTO RICO	TOTAL	S	55,605	59,589	3,869,628	73,813.33	3,008.08
		NS	491		11,935	4,504.99	6,438.79
		AS	56,096	59,589	3,881,563	78,318.32	9,446.87
U.S. VIRGIN ISLANDS	TOTAL	S	16,841	17,503	614,488	1,013.39	520.89
TOTAL FOR OTHER U. S. AREAS	TOTAL	S	88,151	93,342	5,703,611	99,400.58	6,331.44
		NS	520		14,509	4,530.38	6,438.79
		AS	88,671	93,342	5,718,120	103,930.96	12,770.23
OVERALL TOTAL FOR ALL STATES, AND OTHER U.S. AREAS	TOTAL	S	6,489,493	7,024,412	426,306,859	4,687,761.47	1,544,383.53
		NS	55,507		2,012,389	166,751.64	18,607.21
		AS	6,545,000	7,024,412	428,319,248	4,854,513.11	1,562,990.74

TABLE 4.8
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT LARGE AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures		Enplaned Passengers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Mail
ATLANTA, GEORGIA (WILLIAM B HARTSFIELD INT'L).....	4.13	205,773	223,373	17,691,130	138,389.56	88,356.64
BOSTON, MASSACHUSETTS (LOGAN INTERNATIONAL).....	2.07	109,090	115,600	8,862,052	122,162.83	29,806.74
CHARLOTTE, NORTH CAROLINA (DOUGLAS MUNI).....	1.79	128,928	132,572	7,668,793	39,277.18	18,278.54
CHICAGO, ILLINOIS (MEIGS FIELD).....	0.00	894	1,095	7,701		
(MIDWAY).....	0.69	53,933	55,548	2,936,521	5,304.03	4,302.13
(O'HARE INTERNATIONAL).....	6.04	328,933	345,545	25,872,241	286,874.95	130,552.93
COMMUNITY TOTAL.....	6.73	383,760	402,188	28,816,463	292,178.98	134,855.66
CINCINNATI, OHIO (GREATER CINCINNATI).....	1.01	69,574	70,233	4,314,474	19,677.03	14,960.11
(LUKEN FIELD).....	0.00	1	1		.25	
COMMUNITY TOTAL.....	1.01	69,575	70,234	4,314,474	19,677.28	14,960.11
DALLAS/FT. WORTH, TEXAS (CARSWELL AFB).....	0.00	12	12			
(DALLAS/FT. WORTH INTL).....	5.29	268,647	283,771	22,656,394	138,925.33	86,203.03
(LOVE FIELD).....	0.65	41,076	41,992	2,792,557	2,377.17	441.68
COMMUNITY TOTAL.....	5.94	309,735	325,775	25,448,951	141,302.50	86,644.71
DENVER, COLORADO (STAPLETON INTERNATIONAL).....	2.87	151,380	160,575	12,313,733	73,881.13	37,066.71
DETROIT, MICHIGAN (DETROIT CITY).....	0.07	5,229	5,390	320,623	244.37	
(WAYNE COUNTY).....	2.25	132,025	136,490	9,618,283	51,455.80	33,604.06
(WILLOW RUN).....	0.00	4,994	4,994		30,589.43	8,460.52
COMMUNITY TOTAL.....	2.32	142,248	146,874	9,938,906	82,289.60	42,064.58
HONOLULU, OAHU, HAWAII (HONOLULU INTERNATIONAL).....	2.05	87,572	94,925	8,772,316	131,475.29	21,246.24
HOUSTON, TEXAS (ELLINGTON FIELD).....	0.00	893	4,914	5,545	1,916.53	1.05
(HOUSTON INTERCONTINENTAL).....	1.82	100,323	101,164	7,813,856	69,098.76	18,892.47
(WILLIAM P HOBBY).....	0.88	59,023	60,339	3,765,759	4,416.59	499.95
COMMUNITY TOTAL.....	2.70	160,239	166,417	11,585,160	75,431.88	19,393.47
LAS VEGAS, NEVADA (MC CARRAN INTL).....	1.92	96,888	97,016	8,222,488	13,683.93	12,246.09
(NELLIS AFB).....	0.01	730	225	26,637		
COMMUNITY TOTAL.....	1.93	97,618	97,241	8,249,125	13,683.93	12,246.09

TABLE 4.8—Continued
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT LARGE AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures		Enplaned Passengers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Mail
LOS ANGELES/BURBNK/LNG.BCH,CAL						
(HOLLYWOOD-BURBANK).....	0.43	29,960	30,361	1,822,489	6,756.49	1,991.62
(LONG BEACH).....	0.15	11,790	13,924	650,061	13,646.27	782.43
(LOS ANGELES INTERNATIONAL).....	4.27	198,514	206,439	18,303,046	342,775.48	62,477.82
(ORANGE COUNTY).....	0.60	35,980	36,518	2,573,035	1,466.11	126.20
COMMUNITY TOTAL.....	5.45	276,244	287,242	23,348,631	364,644.35	65,378.07
MIAMI/FT LAUDERDALE,FLORIDA						
(FT LAUDERDALE-HOLLYWOOD INTL).....	0.81	40,435	40,059	3,451,761	41,041.13	7,373.84
(MIAMI INTERNATIONAL).....	2.17	102,328	104,482	9,309,591	201,093.89	22,748.10
(FT LAUDERDALE EXECUTIVE).....	0.00	1	1		.16	
COMMUNITY TOTAL.....	2.98	142,764	144,542	12,761,352	242,135.18	30,121.94
MINNEAPOLIS/ST. PAUL,MINNESOTA						
(MINNEAPOLIS-ST PAUL INTL).....	2.07	115,634	122,090	8,862,828	68,569.24	42,690.88
NEWARK, NEW JERSEY						
(NEWARK).....	2.27	127,927	141,443	9,737,488	161,155.82	34,903.04
NEW YORK, NEW YORK						
(JOHN F KENNEDY INTL).....	1.92	67,537	70,816	8,245,014	236,013.51	57,105.33
(LA GUARDIA).....	2.15	120,412	123,146	9,194,825	22,190.44	33,509.42
(WEST 30TH ST HELIPRT).....	0.00	14	14		1.93	
COMMUNITY TOTAL.....	4.07	187,963	193,976	17,439,839	258,205.88	90,614.75
ORLANDO, FLORIDA						
(ORLANDO INTERNATIONAL).....	1.78	86,642	89,546	7,605,356	28,462.70	11,898.96
PHILADELPHIA,PA/CAMDEN,NJ						
(PHILADELPHIA INTL).....	1.49	90,567	111,683	6,381,130	51,676.92	41,843.24
PHOENIX, ARIZONA						
(LUKE AFB).....	0.00	225	225			
(PHOENIX SKY HARBOR INTL).....	2.56	144,830	149,863	10,972,232	42,826.29	22,917.04
COMMUNITY TOTAL.....	2.56	145,055	150,088	10,972,232	42,826.29	22,917.04
PITTSBURGH,PA/WHEELING W VA						
(ALLEGHENY COUNTY).....	0.00	1	1		1.25	
(GREATER PITTSBURGH).....	1.80	125,880	128,176	7,707,902	28,314.11	23,826.56
COMMUNITY TOTAL.....	1.80	125,881	128,177	7,707,902	28,315.36	23,826.56
RALEIGH/DURHAM, NORTH CAROLINA						
(RALEIGH-DURHAM).....	1.01	63,137	65,626	4,309,550	15,853.56	8,790.84
ST. LOUIS, MISSOURI						
(LAMBERT-ST LOUIS MUNI).....	2.18	160,113	165,721	9,351,642	47,483.99	32,263.92
(SPIRIT OF ST LOUIS).....	0.00	7	7			
COMMUNITY TOTAL.....	2.18	160,120	165,728	9,351,642	47,483.99	32,263.92

TABLE 4.8—Continued
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT LARGE AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures		Enplaned Passengers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Mail
SALT LAKE CITY, UTAH (SALT LAKE CITY INTL)	1.28	76,389	79,929	5,470,129	38,157.14	18,391.68
SAN DIEGO, CALIFORNIA (BROWN FIELD MUNICIPAL)	0.00	1	1		1.35	
(SAN DIEGO INTL-LINDBERGH)	1.26	6,533	70,897	5,386,803	17,636.88	7,736.72
COMMUNITY TOTAL	1.26	69,534	70,898	5,386,803	17,638.23	7,736.72
SAN FRANCISCO/OAKLAND, CAL. (BUCHANAN FIELD)	0.00	201	216	5,135	83	
(OAKLAND METROPOLITAN INTL)	0.69	49,704	60,322	2,956,220	84,345.74	3,113.73
(SAN FRANCISCO INTL)	3.27	167,802	170,508	14,025,226	187,563.13	52,261.85
COMMUNITY TOTAL	3.97	217,707	231,046	16,987,581	271,909.70	55,375.58
SEATTLE/TACOMA, WASHINGTON (BOEING FIELD INTL)	0.00	225	3,842	957	49.64	2.10
(SEATTLE-TACOMA INTERNATIONAL)	1.80	142,028	144,631	7,696,481	110,944.72	33,514.12
COMMUNITY TOTAL	1.80	142,253	148,473	7,697,438	110,994.36	33,516.22
TAMPA&ST.PTSBG/CLWTR&LKLND,FLA (MACDILL AFB)	0.00	185	184		14.00	7.00
(ST. PETERSBURG/CLWTR INTL)	0.00	230	1,242	15,225	50.98	
(TAMPA INTERNATIONAL)	1.01	57,332	57,506	4,338,195	22,556.09	16,955.91
COMMUNITY TOTAL	1.02	57,747	58,932	4,353,420	22,621.07	16,962.91
WASHINGTON, DIST. OF COL. (DULLES INTERNATIONAL)	1.10	93,107	95,199	4,709,400	52,794.18	23,836.39
(WASHINGTON NATIONAL)	1.55	90,361	91,640	6,631,273	7,410.18	29,031.02
COMMUNITY TOTAL	2.65	183,468	186,839	11,340,673	60,204.36	52,867.41
03OVER-ALL TOTAL, LARGE HUBS	73.16	4,114,950	4,312,032	313,375,097	2,960,604.31	1,095,619.26

TABLE 4.9
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT MEDIUM AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane-ments	Aircraft Departures		Enplaned Passen-gers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Express
ALBUQUERQUE, NEW MEXICO (ALBUQUERQUE INTL)	0.55	32,690	36,679	2,350,612	7,593.61	6,168.42
ANCHORAGE, ALASKA (ANCHORAGE INTERNATIONAL)	0.31	33,516	40,679	1,321,269	316,717.34	91,393.47
(ELMENDORF AFB)	0.00	281	22	1,176	12,254.28	28.02
COMMUNITY TOTAL	0.31	33,797	40,701	1,322,445	328,971.62	91,421.49
AUSTIN, TEXAS (ROBERT MUELLER MUNI)	0.47	32,508	32,778	2,021,120	9,528.49	3,594.91
BALTIMORE, MARYLAND (BALTO/WASH INTL)	0.99	66,885	68,843	4,249,906	17,234.16	19,891.29
BUFFALO&NIAGARA FALLS, NEW YORK (GREATER BUFFALO INTERNATIONAL)	0.36	28,327	31,388	1,542,816	6,669.80	3,894.57
CLEVELAND, OHIO (HOPKINS INTERNATIONAL)	0.93	65,025	67,627	3,545,000	17,550.80	9,995.95
COLUMBUS, OHIO (LOCKE/DOWNIE AFB)	0.00	1,697	1,697		7,436.63	2.69
(PORT COLUMBUS INTERNATIONAL)	0.37	29,591	30,724	1,580,112	5,594.86	13,211.51
COMMUNITY TOTAL	0.37	31,288	32,421	1,580,112	13,031.51	13,221.20
DAYTON, OHIO (JAMES M COX/DAYTON INTL)	0.41	35,739	36,259	1,757,893	10,931.37	5,467.06
(WRIGHT-PATTERSON AFB)	0.00	268	268			
COMMUNITY TOTAL	0.41	36,007	36,527	1,757,893	10,931.37	5,467.06
EL PASO, TEXAS (EL PASO INTERNATIONAL)	0.39	27,876	28,651	1,670,171	5,756.84	1,601.30
FORT MYER, FLORIDA* (PAGE FIELD)	0.00	1	1		31	
(SOUTHWEST)	0.37	20,651	21,010	1,585,515	2,098.71	1,996.57
COMMUNITY TOTAL	0.37	20,652	21,011	1,585,515	2,099.02	1,996.57
HARTFORD/SPRINGFIELD/WESTFIELD, CT (BRADLEY INTERNATIONAL)	0.49	30,541	34,112	2,107,004	26,147.69	18,693.21

TABLE 4.9—Continued
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT MEDIUM AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures Total Performed	Scheduled	Enplaned Passen- gers	Enplaned Revenue Tons Freight	Express
INDIANAPOLIS, INDIANA						
(INDIANAPOLIS INTERNATIONAL)	0.60	52,784	52,555	2,585,727	106,272.93	8,770.20
JACKSONVILLE, FLORIDA						
(JACKSONVILLE INTERNATIONAL)	0.27	20,240	21,192	1,146,229	7,616.16	6,175.65
(JACKSONVILLE NAS)	0.00	188	188			
COMMUNITY TOTAL	0.27	20,428	21,380	1,146,229	7,616.16	6,375.68
KAHULUI, MAUI, HAWAII						
(KAHULUI)	0.49	28,389	29,722	2,092,277	9,754.27	1,735.54
KANSAS CITY, MISSOURI						
(KANSAS CITY INTL)	0.77	52,245	53,629	3,288,900	13,535.51	16,978.88
(KANSAS CITY MUNI)	0.00	1	1			
COMMUNITY TOTAL	0.77	52,246	53,630	3,288,900	13,535.51	16,978.88
LIHUE, KAUAI, HAWAII						
(LIHUE)	0.29	17,584	18,264	1,253,576	981.05	806.51
MEMPHIS, TENNESSEE						
(MEMPHIS INTERNATIONAL)	0.82	88,771	91,784	3,494,675	682,015.38	14,944.57
MILWAUKEE, WISCONSIN						
(GENERAL MITCHELL FIELD)	0.41	37,643	40,450	1,756,680	15,302.41	7,156.55
NASHVILLE, TENNESSEE						
(METROPOLITAN)	0.91	65,599	66,250	3,901,875	7,994.85	8,521.77
NEW ORLEANS, LOUISIANA						
(NEW ORLEANS INTL)	0.74	42,548	43,644	3,151,718	13,801.61	5,221.36
NORFLK/VA BCH/PTSMH/CHESPK,VA						
(CHAMBERS NAS)	0.00	98	18		3,255.66	1,541.80
(NORFOLK REGIONAL)	0.27	23,887	24,241	1,169,437	5,614.55	2,633.91
COMMUNITY TOTAL	0.27	23,985	24,259	1,169,437	8,870.21	4,175.71
OKLAHOMA CITY, OKLAHOMA						
(TINKER AFB)	0.00	530	523		252.79	61.29
(WILL ROGERS WORLD)	0.34	25,850	26,486	1,456,747	9,022.57	4,799.15
COMMUNITY TOTAL	0.34	26,380	27,009	1,456,747	9,275.36	4,860.44
ONTARIO/SAN BERNARD/RIVERSE,CA						
(ONTARIO INTERNATIONAL)	0.66	43,531	81,573	2,837,028	11,529.25	11,489.64
PORTLAND, OREGON						
(PORTLAND INTERNATIONAL)	0.74	83,617	91,521	3,164,431	37,020.44	10,625.47

TABLE 4.9—Continued
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT MEDIUM AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures		Enplaned Passen- gers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Express
RENO, NEVADA						
(RENO INTL)	0.35	24,236	24,402	1,515,996	4,969.14	1,596.27
SACRAMENTO, CALIFORNIA						
(MCCLELLAN AFB)	0.00	7	7		63.40	
(SACRAMENTO METROPOLITAN)	0.49	39,202	39,928	2,105,016	7,498.12	9,488.90
COMMUNITY TOTAL	0.49	39,209	39,935	2,105,016	7,561.52	9,488.90
SAN ANTONIO, TEXAS						
(KELLY AFB)	0.00	268	268			
(SAN ANTONIO INTERNATIONAL)	0.59	37,830	40,282	2,520,324	11,265.34	7,120.45
COMMUNITY TOTAL	0.59	38,098	40,550	2,520,324	11,265.34	7,120.45
SAN JOSE, CALIFORNIA						
(SAN JOSE MUNI)	0.74	45,978	48,159	3,150,397	22,820.73	4,070.71
SAN JUAN, PUERTO RICO						
(LUIS MUNOZ MARIN INTL)	0.87	49,127	52,855	3,739,126	72,642.73	9,444.01
TUCSON, ARIZONA						
(DAVIS MONTHAN AFB)	0.00	2	2			
(TUCSON INTL)	0.27	19,274	19,272	1,167,152	3,849.84	2,337.29
COMMUNITY TOTAL	0.27	19,276	19,274	1,167,152	3,849.84	2,337.29
TULSA, OKLAHOMA						
(TULSA INTL)	0.33	26,054	27,775	1,399,342	9,364.96	5,305.23
WEST PALM BEACH/PALM BEACH, FLA						
(PALM BEACH INTERNATIONAL)	0.55	25,227	26,586	2,355,922	3,058.91	4,067.17
OVER-ALL TOTAL, MEDIUM HUBS	17.04	1,256,306	1,352,515	72,985,169	1,507,016.73	321,040.53

TABLE 4.10
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures		Enplaned Passen- gers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Mail
ALBANY, NEW YORK (ALBANY COUNTY)	0.18	13,600	13,782	762,023	2,210.85	2,420.05
ALLENTOWN/BETHLEHEM/EASTON, PA (ALLENTOWN-BETHLEHEM-EASTON)	0.08	8,183	8,249	340,076	1,733.00	441.46
AMARILLO/BORGER, TEXAS (AMARILLO AIR TERMINAL)	0.09	6,026	6,072	393,074	343.70	684.30
BATON ROUGE, LOUISIANA (RYAN)	0.09	8,420	8,502	406,214	479.55	1,790.86
BILLINGS, MONTANA (LOGAN FIELD)	0.06	9,214	9,902	253,592	589.04	1,602.12
BIRMINGHAM, ALABAMA (BIRMINGHAM MUNI)	0.22	18,858	19,884	932,512	5,741.83	5,026.74
BOISE, IDAHO (BOISE AIR TERMINAL/GOWEN FLD)	0.13	20,112	21,158	547,723	3,263.85	1,861.30
BROWNSVILLE/HRLGN/SAN BNTG, TEX (HARLINGEN INDUSTRIAL AIRPARK)	0.11	6,721	6,843	462,945	4,782.60	3.15
(SOUTH PADRE ISLAND INTL)	0.00	6	6		167.88	
COMMUNITY TOTAL	0.11	6,727	6,849	462,945	4,950.48	3.15
BURLINGTON, VERMONT (BURLINGTON INTERNATIONAL)	0.07	6,602	6,741	281,388	1,794.78	841.41
CEDAR RAPIDS/IOWA CITY, IOWA (CEDAR RAPIDS MUNI)	0.08	8,691	10,059	345,944	5,854.99	2,658.82
CHARLESTON, SOUTH CAROLINA (CHARLESTON AFB/MUNI)	0.14	11,422	11,490	591,916	2,158.26	855.44
CHARLOTTE AMALIE, ST. THOMAS, VI (HARRY S. TRUMAN)	0.11	9,592	10,029	450,952	638.38	334.67
COLORADO SPRINGS, COLORADO (PETERSON FIELD)	0.14	12,171	12,393	608,831	527.00	1,154.58
COLUMBIA, SOUTH CAROLINA (COLUMBIA METROPOLITAN)	0.11	10,909	12,486	476,079	6,446.09	2,423.70

TABLE 4.10—Continued
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures		Enplaned Passen- gers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Mail
CORPUS CHRISTI, TEXAS (CORPUS CHRISTI INTERNATIONAL)	0.10	7,046	7,153	413,718	280.36	539.68
DAYTONA BEACH, FLORIDA (DAYTONA BEACH REGIONAL)	0.09	6,022	6,027	391,313	431.09	10.85
DES MOINES, IOWA (DES MOINES MUNI)	0.16	12,796	21,920	677,739	3,275.42	9,328.21
EUGENE, OREGON (MAHLON SWEET FIELD)	0.06	11,227	11,580	256,950	756.46	757.64
FAIRBANKS, ALASKA (FAIRBANKS INTERNATIONAL)	0.06	6,041	5,841	237,535	10,941.33	16,041.08
(FORT WAINWRIGHT)	0.00	3			56.20	
COMMUNITY TOTAL	0.06	6,044	5,841	237,535	10,997.53	16,041.08
FRESNO, CALIFORNIA (FRESNO AIR TERMINAL)	0.08	18,709	19,051	348,134	992.23	894.81
(FRESNO CHANDLER)	0.00	2	2		2.48	
COMMUNITY TOTAL	0.08	18,711	19,053	348,134	994.71	894.81
GRAND RAPIDS, MICHIGAN (KENT COUNTY)	0.14	12,373	12,572	583,723	4,674.06	2,725.35
GREENSBORO/HIGH PT/WINSTN,N.C. (GREENSBORO-HIGH PT-WINSTN REG.)	0.19	21,367	21,677	810,404	11,231.59	4,087.04
GREENVILLE/SPARTANBURG, SC (GREENVILLE/SPARTANBURG)	0.10	9,883	9,999	435,383	703.38	2,627.93
GUAM, GUAM (AGANA FIELD)	0.19	7,864	8,091	830,160	19,221.31	2,551.13
(ANDERSON AFB)	0.00	11	11		50.78	
COMMUNITY TOTAL	0.19	7,875	8,102	830,160	19,272.09	2,551.13
HARRISBURG/YORK, PA. (HARRISBURG INTERNATIONAL)	0.11	11,395	12,821	452,218	6,439.89	1,354.17
HILO, HAWAII, HAWAII (GENERAL LYMAN FIELD)	0.15	11,261	11,218	660,455	4,597.30	1,163.72
HUNTSVILLE, ALABAMA (MADISON COUNTY)	0.09	9,299	9,435	378,501	935.52	563.38
INDIO/PALM SPRINGS, CALIFORNIA (PALM SPRINGS MUNI)	0.08	9,515	9,754	331,221	132.56	11.74

TABLE 4.10—Continued
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures		Enplaned Passen- gers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Mail
ISLIP, LONG ISLAND, NEW YORK (LONG ISLAND-MACARTHUR)	0.10	7,384	7,601	414,523	342.62	1,651.51
JACKSON-VICKSBURG, MISS. (ALLEN C THOMPSON FIELD)	0.08	7,911	8,972	347,435	415.17	1,583.69
KAILUA-KONA, HAWAII, HAWAII (KE-AHOLE)	0.23	14,595	15,035	994,544	5,891.31	954.36
KNOXVILLE, TENNESSEE (MC GHEE TYSON)	0.12	11,170	12,234	495,927	8,291.43	1,270.80
LEXINGTON/FRANKFORT, KENTUCKY (BLUE GRASS)	0.06	8,422	8,561	277,864	349.98	1,088.46
LITTLE ROCK, ARKANSAS (ADAMS FIELD)	0.22	16,038	17,387	932,424	1,055.54	3,638.59
LOUISVILLE, KENTUCKY (STANDIFORD FIELD)	0.21	26,429	155,831	893,817	9,810.23	6,510.06
LUBBOCK, TEXAS (LUBBOCK INTL)	0.13	10,549	10,652	542,491	6,887.09	512.21
MADISON, WISCONSIN (TRUAX FIELD)	0.09	8,722	8,985	390,951	2,838.28	780.64
MANCHESTER/CONCORD, N. HAMPSHIRE (MUNICIPAL)	0.07	7,740	8,854	292,793	8,353.00	425.23
MELBOURNE, FLORIDA (CAPE KENNEDY REGIONAL)	0.07	5,009	5,032	305,371	161.00	1.93
MIDLAND/ODESSA, TEXAS (MIDLAND REGIONAL)	0.12	7,904	8,009	518,566	610.85	306.52
MISSION/MCALLEEN/EDINBURG, TEXAS (MILLER INTERNATIONAL)	0.06	3,156	3,187	248,293	869.43	360.89
MOBILE, AL/PASCAGOULA, MISS (BATES FIELD)	0.08	8,917	9,304	332,001	5,398.16	292.44
MOLINE, ILLINOIS (QUAD-CITY)	0.06	7,813	9,067	255,029	529.01	251.52
MYRTLE BEACH, SOUTH CAROLINA (MYRTLE BEACH AFB)	0.05	3,596	3,634	221,996	284.81	35
NEWBURGH, NEW YORK (STEWART)	0.08	8,403	8,532	356,602	5,623.57	657.45
OMAHA, NEBRASKA (EPPLEY AIRFIELD)	0.25	19,316	23,016	1,057,836	6,910.55	16,378.02
PENSACOLA, FLORIDA (PENSACOLA REGIONAL)	0.09	7,930	8,016	377,592	405.08	1,178.85
PORTLAND, MAINE (PORTLAND INTERNATIONAL JETPORT)	0.11	8,911	9,167	450,252	3,133.30	1,028.19

TABLE 4.10—Continued
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS,
AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS,
ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1991

Community (Airport Name)	% of Enplane- ments	Aircraft Departures		Enplaned Passen- gers	Enplaned Revenue Tons	
		Total Performed	Scheduled		Freight	Mail
PROVIDENCE, RHODE ISLAND (THEODORE FRANCIS GREEN STATE)	0.22	16,203	16,456	954,208	1,971.60	3,318.19
RICHMOND, VIRGINIA (RICHARD E BYRD FLYING FIELD)	0.19	18,792	21,359	819,539	4,567.47	4,627.48
ROCHESTER, NEW YORK (ROCHESTER-MONROE COUNTY)	0.25	23,832	24,129	1,067,343	7,203.56	2,603.20
SAGINAW/BAY CITY/MIDLAND,MICH. (TRI CITY)	0.05	3,902	3,907	218,113	517.09	289.13
SAIPAN, MARIANA ISLANDS (SAIPAN INTERNATIONAL)	0.07	4,737	4,873	297,165	4,081.19	164.47
SARASOTA/BRADENTON, FLORIDA (SARASOTA-BRADENTON)	0.21	13,505	13,571	883,000	484.79	6.78
SAVANNAH, GEORGIA (SAVANNAH INTL)	0.11	9,181	9,307	478,568	1,398.85	419.80
SIOUX FALLS, SOUTH DAKOTA (JOE FOSS FIELD)	0.05	6,384	6,470	216,787	1,282.51	1,562.84
SOUTH BEND, INDIANA (MICHIANA REGIONAL)	0.06	8,066	8,431	242,206	1,648.00	723.42
SPOKANE, WASHINGTON (FAIRCHILD AFB)	0.00	228	228		.44	
(SPOKANE INTERNATIONAL)	0.18	30,543	31,215	791,583	8,552.13	2,289.59
COMMUNITY TOTAL	0.18	30,771	31,443	791,583	8,552.57	2,289.59
SYRACUSE, NEW YORK (CLARENCE E HANCOCK)	0.24	28,333	31,470	1,037,087	11,609.40	3,273.36
TALLAHASSEE, FLORIDA (TALLAHASSEE MUNI)	0.07	7,685	7,764	318,946	1,368.72	435.59
WICHITA, KANSAS (MID-CONTINENT)	0.12	12,871	13,445	533,393	7,927.57	2,529.31
OVER-ALL TOTAL, SMALL HUBS	7.29	689,518	858,429	31,224,974	222,247.49	126,070.20

TABLE 4.11
TOP 100 AIRPORTS
IN RANK ORDER BY TOTAL ENPLANED PASSENGERS
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1991

Rank	Airport	Total Enplaned Passengers	Rank	Airport	Total Enplaned Passengers
1	Chicago (O'Hare), IL	25,872,241	51	Hartford, CT	2,107,004
2	Dallas/Ft. Worth (Regional), TX	22,656,394	52	Sacramento, CA	2,105,016
3	Los Angeles, CA	18,303,046	53	Kahului, Maui, HI	2,092,277
4	Atlanta, GA	17,691,130	54	Austin, TX	2,021,120
5	San Francisco, CA	14,026,226	55	Burbank, CA	1,822,489
6	Denver, CO	12,313,733	56	Dayton, OH	1,757,893
7	Phoenix, AZ	10,972,232	57	Milwaukee, WI	1,756,680
8	Newark, NJ	9,737,488	58	El Paso, TX	1,670,171
9	Detroit, MI	9,618,283	59	Ft. Myers, FL	1,585,515
10	St. Louis, MO	9,351,652	60	Columbus, OH	1,580,112
11	Miami, FL	9,309,591	61	Buffalo, NY	1,542,816
12	New York (La Guardia), NY	9,194,825	62	Reno, NV	1,515,996
13	Minneapolis/St. Paul, MN	8,862,828	63	Okalahoma City, OK	1,456,747
14	Boston, MA	8,862,052	64	Tulsa, OK	1,399,342
15	Honolulu, Oahu, HI	8,772,316	65	Anchorage, AK	1,321,269
16	New York (John F. Kennedy), NY	8,245,014	66	Lihue, Kauai, HI	1,253,576
17	Las Vegas, NV	8,222,488	67	Norfolk, VA	1,169,437
18	Houston (Intercontinental), TX	7,813,856	68	Tucson, AZ	1,167,152
19	Pittsburgh, PA	7,707,902	69	Jacksonville, FL	1,146,229
20	Seattle-Tacoma, WA	7,696,481	70	Rochester, NY	1,067,343
21	Charlotte, NC	7,668,793	71	Omaha, NE	1,057,836
22	Orlando, FL	7,605,356	72	Syracuse, NY	1,037,087
23	Washington (National), DC	6,631,273	73	Kailua-Kona, Hawaii, HI	994,544
24	Philadelphia, PA	6,381,130	74	Providence, RI	954,208
25	Salt Lake City, UT	5,470,129	75	Birmingham, AL	932,512
26	San Diego, CA	5,386,803	76	Little Rock, AR	932,424
27	Washington (Dulles Int'l), DC	4,709,400	77	Louisville, KY	893,817
28	Tampa, FL	4,338,195	78	Sarasota, FL	883,000
29	Cincinnati, OH	4,314,474	79	Guam, Guam	830,160
30	Raleigh/Durham, NC	4,309,550	80	Richmond, VA	819,539
31	Baltimore, MD	4,249,906	81	Greensboro, NC	810,404
32	Nashville, TN	3,901,875	82	Spokane, WA	791,583
33	Houston (William P. Hobby), TX	3,765,759	83	Albany, NY	762,023
34	San Juan, PR	3,739,126	84	Des Moines, IA	677,739
35	Cleveland, OH	3,545,000	85	Hilo, HI	660,455
36	Memphis, TN	3,494,675	86	Long Beach, CA	650,061
37	Ft. Lauderdale, FL	3,451,761	87	Colorado Springs, CO	608,831
38	Kansas City, MO	3,288,900	88	Charleston, SC	591,916
39	Portland, OR	3,164,431	89	Grand Rapids, MI	583,723
40	New Orleans, LA	3,151,718	90	Boise, ID	547,723
41	San Jose, CA	3,150,397	91	Lubbock, TX	542,491
42	Oakland, CA	2,956,220	92	Wichita, KS	533,393
43	Chicago (Midway), IL	2,936,521	93	Midland, TX	518,566
44	Ontario, CA	2,837,028	94	Knoxville, TN	495,927
45	Dallas (Love Field), TX	2,792,557	95	Savannah, GA	478,568
46	Indianapolis, IN	2,585,727	96	Columbia, SC	476,079
47	Orange County, CA	2,573,035	97	Brownsville, TX	462,945
48	San Antonio, TX	2,520,324	98	Harrisburg, PA	452,218
49	West Palm Beach, FL	2,355,922	99	Charlotte Amalie, St. Thomas, VI	450,952
50	Albuquerque, NM	2,350,612	100	Portland, ME	450,252

V. U.S. CIVIL AIR CARRIER FLEET

U.S. air carrier fleet data shown in this chapter were developed from monthly Aircraft/Engine Utilization Reports submitted by air carrier operators. The aircraft population discussed here is not an inventory of the aircraft owned by the air carriers, but represents the aircraft reported in air carrier use during the last quarter of the year.

Prior to 1987, the fleet size was the number of aircraft reported in operation by the carriers in December. Some of the carriers do not report each month. To adjust for this undercount, beginning in 1987, the fleet size is the monthly average of the number of aircraft reported in operation for the last quarter of the year. For example, if the carrier reported for two months, the fleet count is the average for the two months. If the carrier did not report any aircraft in the last quarter, there is no fleet data for that carrier.

TABLE 5.1
TOTAL AIRCRAFT REPORTED IN OPERATION
BY AIR CARRIERS BY TYPE OF AIRCRAFT
1982-1991

Year	Total	Fixed-Wing					Total Rotary-Wing
		Total Fixed-Wing	Turbine			Piston	
			Total	Turbojet	Turboprop		
1982	4,071	4,066	3,498	2,675	823	568	5
1983	4,203	4,194	3,640	2,768	872	554	9
1984	4,371	4,359	3,916	2,960	956	443	12
1985	4,678	4,673	4,240	3,164	1,076	433	5
1986	4,909	4,907	4,487	3,283	1,204	420	2
1987	5,250	5,237	4,816	3,575	1,241	421	13
1988	5,660	5,652	5,290	3,915	1,375	362	8
1989	5,778	5,771	5,418	3,942	1,476	353	7
1990	6,083	6,072	5,743	4,148	1,595	329	11
1991	6,054	6,048	5,765	4,167	1,598	283	6

Note: Beginning in 1987, the number of aircraft is the monthly average of the number of aircraft reported in use for the last three months of the year. Prior to 1987, it was the number of aircraft reported in use during December of the year.

Source: Air Carrier Aircraft Utilization and Propulsion Reliability Report; Aviation Standards National Field Office, Federal Aviation Administration.

TABLE 5.2
AIRCRAFT REPORTED IN OPERATION
BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1982-1991

Aircraft Make and Model	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
TOTAL	6,054	6,083	5,778	5,660	5,250	4,909	4,678	4,370	4,201	4,067
Turbojet-4-engine—Total	410	432	428	427	382	322	322	349	309	354
Boeing B707.....	27	25	27	31	31	35	27	22	24	55
Boeing B720.....	—	—	—	—	—	—	—	—	1	1
Boeing B747.....	184	190	180	171	156	150	151	156	146	144
British Aerospace Aircraft Group BAE146.....	17	44	53	57	57	25	29	14	3	—
Convair CV22.....	—	—	—	—	—	—	—	—	2	2
Convair CV30.....	—	—	—	—	—	—	—	—	—	1
Douglas DC8.....	182	173	168	168	138	112	115	157	133	151
Turbojet-3-engine—Total	1,376	1,438	1,459	1,542	1,469	1,466	1,488	1,438	1,393	1,387
Boeing B727.....	1,073	1,152	1,167	1,246	1,168	1,172	1,195	1,161	1,122	1,110
Douglas DC10/MD-11.....	203	185	185	184	185	180	179	174	155	166
Lockheed L1011.....	100	101	107	112	116	114	114	103	116	111
Turbojet-2-engine—Total	2,381	2,278	2,055	1,946	1,724	1,495	1,354	1,172	1,065	934
Airbus A300.....	63	67	63	57	52	52	46	38	34	30
Airbus A310.....	42	21	19	19	13	7	4	—	—	—
Airbus A320.....	35	10	11	—	—	—	—	—	—	—
Boeing B737.....	835	812	756	706	633	555	476	391	348	290
Boeing B757.....	234	199	146	122	95	73	48	19	15	2
Boeing B767.....	136	120	111	126	83	69	59	53	49	13
British Aircraft BAC111.....	1	3	—	30	39	45	32	33	36	36
Canadair CL600.....	—	—	—	—	—	—	—	—	—	1
Cessna C500/C501.....	—	0	—	—	—	—	2	1	1	2
Cessna C550.....	—	7	5	—	—	—	—	—	—	—
Dassault Falcon.....	2	—	—	—	—	—	—	—	—	—
Dassault MD10.....	—	—	—	—	—	—	—	2	—	—
Dassault MD20.....	—	—	—	—	—	—	2	9	12	23
Douglas DC9/MD-80.....	953	967	888	837	760	643	641	594	557	509
Fokker F28.....	75	68	53	47	47	50	41	23	6	11
Grumman G1159.....	3	1	—	—	—	—	—	1	1	3
Hamberger Flugzeugbau HFB320.....	—	—	—	—	—	—	—	—	1	—
Hawker-Siddeley HS125.....	—	—	—	—	—	—	—	—	—	2
Israel Aircraft 1124.....	—	—	—	—	—	—	—	—	—	1
Learjet LR23.....	—	—	—	—	—	—	—	—	—	3
Learjet LR24.....	—	—	—	—	—	—	—	—	—	1
Learjet LR25.....	2	1	2	1	—	—	—	—	—	—
Learjet LR35.....	—	2	1	1	2	1	3	8	4	3
Learjet LR55.....	—	—	—	—	—	—	—	—	—	1
Rockwell International NA265.....	—	—	—	—	—	—	—	—	—	1
Sud Aviation SE210.....	—	—	—	—	—	—	—	—	1	2
Turboprop-4-engine—Total	75	88	96	95	102	96	108	109	99	116
Canadair CL44.....	—	5	5	6	6	2	6	5	2	4
DeHavilland DHC7.....	33	40	41	39	41	40	42	46	46	43
Lockheed L188.....	24	24	30	30	34	33	38	34	37	47
Lockheed L382.....	18	19	20	20	21	21	22	22	11	19
Vickers V745.....	—	—	—	—	—	—	—	2	3	3
Turboprop-2-engine—Total	1,523	1,507	1,380	1,280	1,139	1,108	965	847	777	707
Beech BE65.....	—	—	—	1	4	1	—	—	—	—
Beech BE90.....	—	—	—	1	4	—	3	2	2	4
Beech BE99.....	32	54	53	84	52	95	103	85	101	108
Beech BE100.....	1	2	1	1	—	1	1	2	1	—
Beech BE200.....	8	16	10	7	5	2	1	6	4	2
Beech BE1900.....	167	147	109	80	48	60	42	17	—	—
Beech STC18.....	—	—	—	—	—	—	—	1	1	1
British Aerospace Aircraft Group Jetstream.....	214	222	165	135	113	69	46	10	10	12
British Aerospace BA ATP.....	10	4	—	—	—	—	—	—	—	—

TABLE 5.2—Continued
AIRCRAFT REPORTED IN OPERATION
BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1982-1991

Aircraft Make and Model	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Cessna C441.....	2	2	4	3	2	3	1	3	1	2
Construcciones Aeronautics CA212.....	13	16	16	18	16	19	24	27	28	16
Concair CV580/CV640/CV600.....	37	33	58	72	77	91	100	107	100	98
DeHavilland DHC6.....	69	67	69	63	71	68	86	107	112	101
DeHavilland DHC8.....	81	74	64	44	34	26	10	—	—	—
Dornier DO228.....	31	32	34	33	18	12	6	—	—	—
Douglas DC3.....	—	—	—	—	—	—	1	—	—	—
Embraer EM110.....	23	48	59	77	97	91	79	81	83	83
Embraer EM120.....	167	156	105	62	36	16	0	0	0	0
Fairchild FH27.....	7	9	7	7	13	20	28	23	19	10
Fairchild FH227.....	3	3	4	11	8	7	8	9	9	9
Fokker F27.....	40	46	42	33	26	36	27	14	7	4
GAF Nomad N22.....	—	—	—	—	—	—	—	—	—	2
Grumman G73.....	4	7	5	7	—	—	—	—	4	—
Grumman G159.....	2	7	6	5	14	15	23	21	16	19
Grumman G500.....	—	—	—	1	—	—	—	—	—	—
Hawker-Siddeley HS748.....	—	—	—	—	—	—	—	2	5	5
Isreal Aircraft AR101B.....	—	—	—	—	—	—	—	—	—	3
Mitsubishi MU2.....	1	1	—	—	1	6	3	1	2	—
Nihon YS11.....	22	21	21	22	36	36	42	30	35	27
Nord ND262.....	—	1	2	9	12	15	14	14	9	15
Piper 31T.....	8	8	12	9	6	5	4	8	6	1
Piper 42.....	1	—	—	—	—	—	—	—	—	—
Rockwell AC690.....	—	—	—	1	1	4	4	4	1	—
Saab-Fairchild SF340.....	153	109	85	68	51	34	17	3	—	—
Short SC7.....	2	2	—	—	—	1	1	1	1	2
Short SD3.....	93	103	118	110	110	110	77	78	66	52
S.N.I.A.S. ATR42.....	101	77	62	35	20	8	—	—	—	—
Swearingen SA226.....	31	22	57	90	101	122	113	121	99	105
Swearingen SA227.....	200	218	212	191	163	135	101	70	55	26
Piston-4-engine—Total.....	26	31	35	36	38	32	38	50	52	58
DeHavilland DH114.....	—	—	—	—	—	—	—	6	11	17
Douglas DC4.....	—	—	—	—	—	1	3	3	3	3
Douglas DC6.....	25	30	34	35	37	30	34	41	38	38
Douglas DC7.....	1	1	1	1	1	1	1	—	—	—
Piston-3-engine—Total.....	5	6	5	3	3	3	4	4	1	—
Britten Norman MK3.....	5	6	5	3	3	3	4	4	1	—
Piston-2-engine—Total.....	252	292	313	323	380	385	394	389	496	506
Aero Commander AC500.....	—	—	—	—	—	—	—	—	2	1
Aero Commander AC680.....	—	—	—	—	—	—	—	—	—	1
Beech BE18.....	5	3	5	6	5	9	7	15	20	14
Beech BE36.....	—	—	1	3	—	—	—	—	—	—
Beech BE55.....	—	—	—	—	2	1	—	—	1	2
Beech BE58.....	4	4	6	15	7	4	9	9	6	5
Beech BE65.....	2	2	2	2	2	3	—	—	3	2
Beech BE76.....	—	—	—	—	—	2	3	3	1	1
Beech BE80.....	—	—	—	—	—	—	4	8	—	—
Beech BE95.....	1	1	1	3	—	—	—	—	—	—
Beech BE99.....	—	—	—	—	—	—	—	—	1	—
Britten Norman BN2A.....	14	15	16	30	29	29	7	27	29	33
Cessna C207T.....	—	—	—	—	—	—	—	—	1	1
Cessna C303T.....	—	—	—	1	1	1	1	—	—	—
Cessna C310.....	2	2	2	—	1	1	1	2	3	4
Cessna C320.....	—	—	—	—	—	—	—	1	—	—
Cessna C401.....	1	1	1	4	—	—	—	—	—	2
Cessna C402.....	91	110	98	101	143	147	155	112	152	130

TABLE 5.2—Continued
AIRCRAFT REPORTED IN OPERATION
BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1982-1991

Aircraft Make and Model	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Cessna C404.....	1	1	1	4	4	6	5	4	8	22
Cessna C411.....	—	—	—	—	—	—	—	1	—	—
Cessna C414.....	1	1	—	—	—	2	1	1	1	—
Cessna C421.....	—	—	—	1	—	—	—	1	—	1
Convair CV240.....	13	11	9	9	10	9	12	15	10	11
Convair CV340/CV440.....	24	25	26	21	23	17	18	14	22	23
Curtiss-Wright C46.....	—	—	—	—	—	—	3	2	4	5
Douglas DC3.....	12	15	19	20	38	43	39	30	42	50
Fairchild C82.....	—	—	—	—	—	—	—	—	2	1
Grumman G21.....	—	—	—	—	—	—	3	4	3	3
Grumman G44.....	—	—	—	1	1	1	1	1	1	1
Grumman G73.....	—	2	3	4	12	11	3	5	5	5
Grumman G111.....	—	—	—	—	2	3	6	—	4	2
Martin M404.....	—	—	2	2	1	—	—	1	13	11
Partenavia PT68.....	—	—	—	—	2	—	—	—	—	—
Piper P23.....	8	9	9	9	11	9	3	10	16	18
Piper P28.....	—	—	—	—	—	—	—	—	7	—
Piper P30.....	—	—	—	—	—	—	—	1	2	2
Piper P31.....	66	81	100	71	77	73	100	110	121	139
Piper P32.....	4	2	2	2	2	—	—	—	—	—
Piper P34.....	3	7	9	12	4	9	12	11	17	16
Piper P44.....	—	—	—	1	1	1	1	1	1	1
Piper PA600.....	—	—	1	1	2	2	—	—	—	1
Piper PA1020T.....	—	—	—	—	—	2	—	—	—	—
Helicopter—Total.....	6	11	7	8	13	2	5	12	9	5

TABLE 5.3
TOTAL FLIGHT HOURS FOR
AIRCRAFT REPORTED IN OPERATION
BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1982-1991

Aircraft Make and Model	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
TOTAL	13,483,182	13,500,128	12,687,084	12,284,089	11,885,699	11,221,578	10,498,546	9,674,406	8,555,538	6,916,316
Turbojet-4-engine—Total	999,133	1,139,210	1,120,917	1,093,392	997,951	921,409	817,058	861,389	816,114	728,412
Boeing B707	34,125	39,522	40,046	43,946	36,206	37,448	15,904	39,243	64,819	83,515
Boeing B720	—	—	—	—	—	—	—	136	438	317
Boeing B747	630,850	680,668	643,231	620,327	575,426	559,137	537,954	537,142	504,573	439,003
British Aerospace Aircraft										
Group BAE146	49,806	94,574	121,415	128,339	125,918	92,431	52,452	14,140	1,623	—
Convair CV22	—	—	—	—	—	—	—	—	—	656
Convair CV30	—	—	—	—	—	—	—	—	—	—
Douglas DC8	284,352	324,446	316,225	300,780	260,401	232,393	210,748	270,728	245,171	204,702
Turbojet-3-engine—Total	3,125,859	3,459,434	3,533,071	3,705,084	3,865,525	3,960,406	3,843,357	3,786,832	3,278,501	2,971,583
Boeing B727	2,208,622	2,528,818	2,606,796	2,780,240	2,930,107	3,036,233	2,989,848	2,990,821	2,529,074	2,289,310
Douglas DC10	613,916	587,954	589,989	583,558	566,751	580,200	529,073	487,831	423,824	377,811
Lockheed L1011	303,321	342,662	336,286	341,286	368,667	343,973	324,436	308,180	325,603	304,462
Turbojet-2-engine—Total	6,286,850	5,999,153	5,295,578	4,951,466	4,575,179	4,057,267	3,568,486	2,872,265	2,494,072	1,751,513
Airbus A300	166,833	177,996	158,716	150,603	156,947	150,898	131,904	101,143	84,674	56,390
Airbus A310	79,073	80,040	76,537	61,663	27,234	17,054	5,613	—	—	—
Airbus A320	81,881	27,290	8,523	—	—	—	—	—	—	—
Boeing B737	2,318,936	2,253,106	2,039,117	1,859,347	1,730,473	1,499,831	1,312,425	1,006,238	829,359	562,521
Boeing B757	666,430	549,289	359,955	321,369	270,729	195,957	108,320	50,022	17,000	—
Boeing B767	499,962	429,958	412,183	367,591	274,429	223,227	192,467	172,705	104,222	1,811
British Aircraft BAC111	159	630	27,611	65,095	84,642	68,908	73,873	52,555	79,011	54,306
Cessna C500/C501	—	—	—	—	54	50	546	657	652	423
Cessna C550	—	10,073	3,237	—	—	—	—	—	—	—
Dassault Falcon	278	—	—	—	—	—	—	—	—	—
Dassault MD10	—	—	—	—	—	—	2,262	698	—	—
Dassault MD20	—	—	—	—	—	—	4,336	3,218	11,097	18,303
Douglas DC9	2,317,321	2,323,334	2,106,800	2,035,672	1,931,391	1,809,888	1,655,353	1,438,339	1,348,511	1,028,836
Fokker F28	155,122	145,547	101,421	88,682	97,727	98,918	73,494	33,036	13,224	23,996
Grumman G1159	413	60	—	47	—	—	334	650	309	1,308
Hamberger Flugzeugbau										
HFB320	—	—	—	—	—	—	—	102	734	—
Hawker-Siddeley HS125	—	—	—	—	—	—	—	—	—	304
Israel Aircraft 1121	—	—	—	—	—	—	—	—	8	—
Israel Aircraft 1124	—	—	—	—	—	—	—	—	—	208
Learjet LR23	—	—	—	—	—	—	—	—	1,227	785
Learjet LR24	—	—	—	—	—	—	—	—	537	436
Learjet LR25	291	384	482	44	—	—	—	—	—	26
Learjet LR35	151	1,446	996	1,353	1,553	2,536	7,559	5,892	3,148	688
Learjet LR55	—	—	—	—	—	—	—	—	—	253
Rockwell International										
NA265	—	—	—	—	—	—	—	—	49	20
Sud Aviation SE210	—	—	—	—	—	—	—	—	220	899
Turboprop-4-engine—										
Total	138,463	164,771	175,469	154,747	181,424	169,884	209,197	216,405	206,435	163,552
Canadair CL44	1,892	5,896	6,527	8,427	9,355	8,687	9,147	7,567	6,066	5,303
DeHavilland DHC7	58,579	76,007	86,434	76,027	91,899	73,574	98,315	106,287	103,528	73,069
Lockheed L188	28,543	32,286	31,457	23,691	33,618	30,019	44,765	45,182	47,591	41,594
Lockheed L382	49,449	50,582	51,051	46,602	46,552	49,654	56,597	56,165	47,877	42,250
Vickers V745	—	—	—	—	—	—	373	1,204	983	912
Vickers V814	—	—	—	—	—	—	—	—	—	424
Turboprop-2-engine—										
Total	2,734,707	2,508,271	2,335,386	2,118,066	1,943,532	1,720,179	1,616,425	1,487,032	1,288,616	935,588
Beech BE85	—	—	—	—	596	639	—	—	—	—
Beech BE90	—	—	40	374	303	158	360	443	626	479
Beech BE99	60,176	51,481	86,255	125,247	141,691	175,543	199,736	199,205	183,534	137,968
Beech BE100	787	828	934	769	803	259	806	202	13	—
Beech BE200	12,751	31,140	15,134	9,679	3,625	970	3,541	2,522	1,868	1,413
Beech BE1900	323,440	238,129	196,469	153,473	135,960	107,128	73,211	23,289	—	—
Beech STC18	—	—	—	—	—	982	—	648	632	181

TABLE 5.3—Continued
TOTAL FLIGHT HOURS FOR
AIRCRAFT REPORTED IN OPERATION
BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1982-1991

Aircraft Make and Model	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
British Aerospace Aircraft										
Group Jetstream	391,062	307,585	274,357	252,253	188,315	108,723	60,492	27,712	18,485	16,222
British Aerospace BA										
ATP	13,762	3,778	—	—	—	—	—	—	—	—
Cessna C441	1,588	2,782	3,713	4,948	3,874	1,364	1,745	1,672	1,265	501
Construcciones										
Aeronautics CA212	16,240	22,574	21,710	23,610	21,643	19,891	24,886	34,252	33,902	21,870
Concrair CV580/CV640/ CV600	21,709	23,534	38,641	63,141	82,371	100,288	113,053	121,399	121,785	104,432
DeHavilland DH1C6	95,433	103,670	107,403	113,810	122,783	113,958	162,340	176,233	169,980	139,042
DeHavilland DHC8	174,306	160,925	127,911	80,964	55,680	36,835	7,362	—	—	—
Dornier DO228	59,906	72,680	57,357	56,580	26,032	16,044	12,306	—	—	—
Douglas DC3	—	—	—	531	—	—	1,478	—	—	—
Embraer EM110	47,802	85,513	124,773	148,880	177,781	149,585	156,363	199,536	196,128	127,153
Embraer EM120	383,804	310,440	211,897	114,296	66,054	18,838	—	—	—	—
Fairchild FH27	2,187	4,605	4,700	9,821	13,502	31,232	36,440	35,521	24,777	12,438
Fairchild FH227	1,030	1,509	4,209	12,169	11,787	13,244	—	17,053	19,525	13,341
Fokker F27	61,698	65,309	60,371	50,645	59,910	61,144	50,521	25,056	13,151	6,047
GAF Nomad N22	—	—	—	—	—	—	—	—	69	3,628
Grumman G73	2,562	1,968	6,328	10,036	—	—	—	—	—	—
Grumman G159	1,499	9,348	9,669	7,139	15,177	23,328	23,911	20,773	18,339	8,532
Grumman G500	—	—	88	93	—	—	—	—	—	—
Hawker-Siddeley HS748	—	—	—	—	—	—	2,500	7,385	9,320	12,091
Israel Aircraft AR101B	—	—	—	—	—	—	—	—	587	2,284
Mitsubishi MU2	222	142	—	88	256	2,980	1,390	314	14	—
Nihon YS11	14,071	14,254	16,003	17,645	38,093	46,268	53,707	48,246	43,260	25,610
Nomad N24	1,160	—	—	1,907	—	—	—	—	—	—
Nord ND262	100	487	898	11,132	23,313	24,860	20,604	20,820	22,446	14,650
Piper 31T	8,256	9,024	11,410	8,232	5,656	4,860	7,003	10,103	2,692	—
Rockwell AC690	—	—	—	4	476	3,057	3,076	2,683	22	—
Saab-Fairchild SF340	287,144	197,149	171,936	152,177	98,616	56,392	20,627	386	—	—
Short SC7	1,454	964	112	—	—	101	315	475	733	520
Short SD3	167,255	203,871	192,509	183,422	217,177	184,680	178,862	150,714	123,285	79,909
S.N.I.A.S. ATR42	174,754	142,741	120,074	60,029	27,943	5,923	—	—	—	—
Swearingen SA226	33,583	52,104	97,484	144,032	163,994	185,243	217,667	218,716	194,324	169,688
Swearingen SA227	374,966	389,737	372,992	300,940	240,121	225,657	177,622	141,674	87,754	37,209
Piston-4-engine—Total	21,044	22,919	24,536	25,083	24,367	24,909	30,854	29,215	33,616	35,782
DeHavilland DH114	—	—	—	—	—	—	2,626	7,847	16,835	22,599
Douglas DC4	—	266	—	—	—	1,038	1,512	720	1,187	256
Douglas DC6	20,465	21,979	23,418	24,055	23,405	23,049	26,039	20,648	15,594	12,928
Douglas DC7	579	674	1,120	1,028	962	822	677	—	—	—
Piston-3-engine—Total	3,786	4,664	3,229	2,831	2,477	1,716	5,470	2,983	1,191	—
Britten Norman MK3	3,786	4,664	3,229	2,831	2,477	1,716	5,470	2,983	1,191	—
Piston-2-engine—Total	168,388	193,646	194,168	229,150	291,397	360,823	402,377	410,287	427,446	324,506
Aero Commander AC500	—	—	—	13	—	6	28	300	878	678
Aero Commander AC600	—	—	—	70	—	—	—	—	581	759
Beech BE18	1,658	1,218	1,157	466	578	345	3,015	9,723	10,721	5,928
Beech A36TC	—	—	1,003	1,040	659	—	—	—	—	—
Beech BE55	—	—	—	—	—	194	—	284	674	936
Beech BE58	3,665	1,823	2,285	2,498	2,165	1,727	4,262	2,637	1,430	1,558
Beech BE65	1,042	2,408	2,355	3,940	2,181	5,252	—	—	3,385	1,632
Beech BE76	—	—	—	—	28	142	525	586	306	78
Beech BE7J	—	—	—	—	—	—	7,031	7,667	—	—
Beech BE95	341	442	435	899	635	—	—	—	—	95
Beech BE99	—	—	—	—	—	—	—	—	3,719	—
Britten Norman BN2A	10,288	11,379	15,033	18,129	19,729	26,166	22,774	28,306	31,204	32,003
Cessna C207T	—	—	639	—	—	—	—	—	218	60
Cessna C210T	—	—	—	—	—	—	—	45	244	—
Cessna C303T	—	—	—	67	6	—	237	207	—	—
Cessna C310	376	1,135	573	—	440	490	372	956	1,059	2,573

TABLE 5.3—Continued
TOTAL FLIGHT HOURS FOR
AIRCRAFT REPORTED IN OPERATION
BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1982-1991

Aircraft Make and Model	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Cessna C320	—	—	—	—	—	—	8	21	—	—
Cessna C340	—	—	—	134	—	—	—	6	—	—
Cessna C401	770	1,032	1,632	376	—	—	—	—	789	—
Cessna C402	74,396	86,705	86,012	104,933	135,843	184,470	191,070	166,914	102,094	111,311
Cessna C404	462	468	837	2,321	4,022	4,959	4,562	6,735	16,554	12,184
Cessna C411	—	—	—	—	—	—	102	135	—	—
Cessna C414	133	50	—	11	189	1,279	523	522	2,287	—
Cessna C421	—	—	26	89	—	—	46	26	—	—
Convair CV240	3,618	2,950	3,045	3,694	2,967	3,106	6,284	7,661	8,659	—
Convair CV340/CV440	6,316	6,189	6,820	6,225	6,384	5,584	4,664	6,910	15,932	11,114
Curtiss-Wright C46	—	—	—	—	—	411	1,104	466	1,421	—
DeHavilland DHC104	—	—	—	—	—	—	—	—	—	—
Douglas DC3	3,702	5,279	7,389	14,680	21,485	25,971	25,916	23,448	21,838	11,114
Fairchild C82	—	—	—	—	—	—	6	108	1,252	—
Grumman G10	—	—	—	—	—	—	—	—	—	—
Grumman G21	—	—	—	—	—	787	1,861	1,927	1,458	—
Grumman G44	—	—	—	—	—	56	110	161	—	—
Grumman G73	—	93	1,191	1,887	11,178	10,411	7,979	7,669	7,630	10,114
Grumman G111	—	—	—	—	1,712	3,476	3,207	4,238	1,611	—
Martin M404	—	—	—	127	10	—	217	5,054	5,730	6,111
Partenavia PT68	—	—	—	13	1,362	—	—	—	—	—
Piper P23	2,495	3,217	3,419	4,024	5,100	4,113	6,308	4,681	6,659	11,511
Piper P30	—	—	—	—	—	—	17	460	721	228
Piper P31	56,405	66,000	56,781	61,016	67,554	72,782	102,855	114,930	128,195	95,115
Piper P32	933	350	530	768	698	—	—	—	—	—
Piper P34	1,702	2,865	2,895	1,266	961	7,352	7,255	6,660	1,298	9,630
Piper P44	86	—	20	354	524	418	39	—	269	205
Piper PA600	—	43	11	106	409	321	—	—	189	219
Piper PA1020T	—	—	—	—	558	1,005	—	—	—	—
Helicopter—Total	4,952	8,060	4,728	4,270	3,847	4,985	5,322	7,998	9,037	5,380

TABLE 5.4
TOTAL LARGE AIRCRAFT REPORTED IN OPERATION BY DOMESTIC, FLAG AND
SUPPLEMENTAL/SCHEDULED
CARGO AIR CARRIERS AND COMMERCIAL OPERATORS
BY CARRIER, AND BY ENGINE TYPE
1991

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	Wing
Total	4,695	4,165	410	1,376	2,379	455	75	380	75	26	—	49	—
ABX Air dba Airborne Express	62	50	12	—	38	12	—	12	—	—	—	—	—
Aerial Transit	2	—	—	—	—	—	—	—	2	2	—	—	—
Air Berlin	3	3	—	—	3	—	—	—	—	—	—	—	—
Air Transport Intn'l	7	7	7	—	—	—	—	—	—	—	—	—	—
Air Wisconsin dba United Express	37	12	12	—	—	25	—	25	—	—	—	—	—
Airlift Int'l	7	2	2	—	—	5	—	5	—	—	—	—	—
Alaska Airlines	62	62	—	24	38	—	—	—	—	—	—	—	—
Allegheny Commuter Airlines	24	—	—	—	24	—	24	—	—	—	—	—	—
Aloha Airlines	19	19	—	—	19	—	—	—	—	—	—	—	—
American Airlines	616	605	2	225	378	11	—	11	—	—	—	—	—
American Intn'l Airways dba Connie Kalitta Services	20	20	17	2	1	—	—	—	—	—	—	—	—
American Trans Air	24	24	—	20	4	—	—	—	—	—	—	—	—
American West Airlines	101	95	3	—	92	6	—	6	—	—	—	—	—
Amerijet Intn'l	10	10	—	8	2	—	—	—	—	—	—	—	—
Arrow Air	10	10	10	—	—	—	—	—	—	—	—	—	—
Atlantic Southeast Airlines	2	—	—	—	—	2	2	—	—	—	—	—	—
Austin Jet Corp.	2	2	—	—	2	—	—	—	—	—	—	—	—
Basler Flight Service	3	—	—	—	—	—	—	—	3	—	—	3	—
Britt Airways /Rocky Mountain dba Continental Express	43	—	—	—	—	43	5	38	—	—	—	—	—
Buffalo Airways	10	10	10	—	—	—	—	—	—	—	—	—	—
Business Air	1	—	—	—	—	—	—	—	1	—	—	1	—
Business Express	11	—	—	—	—	11	—	11	—	—	—	—	—
Carnival Air Lines	7	7	—	3	4	—	—	—	—	—	—	—	—
Challenge Air Cargo	3	3	1	—	2	—	—	—	—	—	—	—	—
Chautauqua Airlines dba USAir Express	2	—	—	—	—	2	—	2	—	—	—	—	—
Condor Aviation	1	—	—	—	—	—	—	—	1	—	—	1	—
Continental Airlines	325	325	8	105	212	—	—	—	—	—	—	—	—
Crown Airways dba USAir Express	2	—	—	—	—	2	—	2	—	—	—	—	—
Delta Air Lines	522	522	—	198	324	—	—	—	—	—	—	—	—
DHL Airways	16	16	—	16	—	—	—	—	—	—	—	—	—
Emerald Airlines	6	6	—	4	2	—	—	—	—	—	—	—	—
Emery Worldwide Airlines	30	30	30	—	—	—	—	—	—	—	—	—	—
Empire Airlines	6	—	—	—	—	6	—	6	—	—	—	—	—
ERA Aviation dba ERA Helicopters	6	—	—	—	—	6	—	6	—	—	—	—	—
Evergreen Intn'l Airlines	26	26	14	6	6	—	—	—	—	—	—	—	—
Executive Airlines	9	—	—	—	—	9	—	9	—	—	—	—	—
Express One Intn'l	14	14	—	12	2	—	—	—	—	—	—	—	—
Fairways	2	1	—	—	1	1	—	1	—	—	—	—	—
Federal Express	190	190	15	175	—	—	—	—	—	—	—	—	—
Flamenco Airways	3	—	—	—	—	—	—	—	3	—	—	3	—
Flight Trails dba Air Resorts Airlines	9	—	—	—	—	3	—	3	6	—	—	6	—
Florida West Airlines	6	6	6	—	—	—	—	—	—	—	—	—	—
Frontier Flying Service	1	—	—	—	—	—	—	—	1	—	—	1	—
G E Governments Services	2	—	—	—	—	2	—	2	—	—	—	—	—
Great American Airways	2	2	—	—	2	—	—	—	—	—	—	—	—
Ground-Air Transfer dba Charter One	2	—	—	—	—	—	—	—	2	—	—	2	—
H C L Aviation dba AV Atlantic	2	2	—	2	—	—	—	—	—	—	—	—	—
Hawaiian Airlines	29	25	7	5	13	4	4	—	—	—	—	—	—
Henson Airlines	38	—	—	—	—	38	5	33	—	—	—	—	—
Horizon Air	21	3	—	—	3	18	—	18	—	—	—	—	—

TABLE 5.4—Continued
TOTAL LARGE AIRCRAFT REPORTED IN OPERATION BY DOMESTIC, FLAG AND
SUPPLEMENTAL/SCHEDULED
CARGO AIR CARRIERS AND COMMERCIAL OPERATORS
BY CARRIER, AND BY ENGINE TYPE
1991

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary Wing
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	
Jet Fleet	1	1	—	—	—	—	—	—	—	—	—	—	—
Key Airlines	9	9	—	9	—	—	—	—	—	—	—	—	—
Kitty Hawk Air Cargo	6	0	—	—	—	3	—	3	3	—	—	3	—
Markair	16	10	—	—	10	6	4	2	—	—	—	—	—
Markair Express	4	—	—	—	—	4	2	2	—	—	—	—	—
Mesaba Airlines	14	—	—	—	—	14	—	14	—	—	—	—	—
MGM Grand Air	9	9	3	6	—	—	—	—	—	—	—	—	—
Miami Air Int'l	1	1	—	1	—	—	—	—	—	—	—	—	—
Mid Pacific Air	8	—	—	—	—	8	—	8	—	—	—	—	—
Midway Airlines	45	45	—	—	45	—	—	—	—	—	—	—	—
Midwest Express Airlines	13	13	—	—	13	—	—	—	—	—	—	—	—
Million Air	3	3	3	—	—	—	—	—	—	—	—	—	—
Nashville Eagle dba American Eagle	24	—	—	—	—	24	—	24	—	—	—	—	—
North American Airlines	1	1	—	—	1	—	—	—	—	—	—	—	—
Northern Air Cargo	12	—	—	—	—	—	—	—	12	12	—	—	—
Northwest Airlines	339	339	50	88	201	—	—	—	—	—	—	—	—
Pan Am Express	19	—	—	—	—	19	8	11	—	—	—	—	—
Pan American World Airways	102	102	15	54	33	—	—	—	—	—	—	—	—
Paradise Island Airlines	4	—	—	—	—	4	4	—	—	—	—	—	—
Pennsylvania Commuter Airlines dba USAir Express	11	—	—	—	—	11	—	11	—	—	—	—	—
Private Jet Expeditions	6	6	—	6	—	—	—	—	—	—	—	—	—
Reeve Aleutian Airways	7	2	—	2	—	5	3	2	—	—	—	—	—
Renown Aviation	12	—	—	—	—	4	—	4	8	—	—	8	—
Rhoades Aviation	8	—	—	—	—	—	—	—	8	—	—	8	—
Rich Int'l	5	5	3	2	—	—	—	—	—	—	—	—	—
Rosenbalm Aviation	28	28	28	—	—	—	—	—	—	—	—	—	—
Ross Aviation	1	—	—	—	—	1	1	—	—	—	—	—	—
Ryan Int'l Airlines	36	36	—	29	7	—	—	—	—	—	—	—	—
Salair	7	—	—	—	—	—	—	—	7	—	—	7	—
Scenic Airlines	9	9	—	9	—	—	—	—	—	—	—	—	—
Sierra Pacific Airlines	12	7	—	—	7	5	—	5	—	—	—	—	—
Simmons Airlines	50	—	—	—	—	50	—	50	—	—	—	—	—
Southern Air Transport	26	10	10	—	—	16	16	—	—	—	—	—	—
Southwest Airlines	123	123	—	—	123	—	—	—	—	—	—	—	—
Tem Enterprises dba Casino Express	1	1	—	—	1	—	—	—	—	—	—	—	—
Tower Air	5	5	5	—	—	—	—	—	—	—	—	—	—
Trans Air Link	4	—	—	—	—	—	—	—	4	4	—	—	—
Trans Continental Airlines	10	3	3	—	—	—	—	—	7	4	—	3	—
Trans Florida Airlines	3	—	—	—	—	—	—	—	3	—	—	3	—
Trans States Airlines dba Trans World Express	10	—	—	—	—	10	—	10	—	—	—	—	—
Trans World Airlines	195	195	15	96	84	—	—	—	—	—	—	—	—
Trump Shuttle	22	22	—	22	0	—	—	—	—	—	—	—	—
United Air Lines	496	496	55	177	264	—	—	—	—	—	—	—	—
United Parcel Service	129	129	59	46	24	—	—	—	—	—	—	—	—
Universal Airlines	4	—	—	—	—	—	—	—	4	4	—	—	—
USAir	434	434	—	17	417	—	—	—	—	—	—	—	—
Viking Int'l Airlines	3	—	—	—	—	3	—	3	—	—	—	—	—
Westair Commuter Airlines dba United Express	7	5	5	—	—	2	—	2	—	—	—	—	—
Weststates Airlines	4	—	—	—	—	4	—	4	—	—	—	—	—
World Airways	7	7	—	7	—	—	—	—	—	—	—	—	—
Zantop Int'l Airlines	32	0	—	—	—	32	21	11	—	—	—	—	—

TABLE 5.5
TOTAL SMALL AIRCRAFT REPORTED IN OPERATION
BY COMMUTER AIR CARRIERS AND ON-DEMAND AIR TAXIS
BY CARRIER, AND BY ENGINE TYPE
1991

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary Wing
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	
Total	1,359	2	—	—	2	1,143	—	1,143	208	—	5	203	6
Air Midwest.....	24	—	—	—	—	24	—	24	—	—	—	—	—
Air Cape dba Nantucket Airlines.....	5	—	—	—	—	—	—	—	5	—	—	5	—
Air L. A.....	2	—	—	—	—	2	—	2	—	—	—	—	—
Air Molokai, Inc.....	3	—	—	—	—	—	—	—	3	—	—	3	—
Air Nevada Airlines.....	9	—	—	—	—	—	—	—	9	—	—	9	—
Air Sunshine.....	4	—	—	—	—	—	—	—	4	—	—	4	—
Air Vegas.....	19	—	—	—	—	—	—	—	19	—	—	19	—
Airvantage Inc.....	6	—	—	—	—	6	—	6	—	—	—	—	—
Airways Int'l.....	23	—	—	—	—	—	—	—	23	—	—	23	—
Allegheny Commuter Airlines.....	6	—	—	—	—	6	—	6	—	—	—	—	—
Aloha Islandair.....	9	—	—	—	—	9	—	9	—	—	—	—	—
Alpha Air.....	3	—	—	—	—	3	—	3	—	—	—	—	—
Alpine Air.....	3	—	—	—	—	1	—	1	2	—	—	2	—
Arctic Circle Air Service.....	2	—	—	—	—	2	—	2	—	—	—	—	—
Atlantic Southeast Airlines.....	60	—	—	—	—	60	—	60	—	—	—	—	—
Aviation Associates dba Sunaire.....	12	—	—	—	—	12	—	12	—	—	—	—	—
Baker Aviation.....	3	—	—	—	—	—	—	—	3	—	—	3	—
Bemidji Airlines.....	2	—	—	—	—	—	—	—	2	—	—	2	—
Bering Air.....	10	—	—	—	—	1	—	1	9	—	—	9	—
Berry Aviation.....	2	—	—	—	—	2	—	2	—	—	—	—	—
Big Sky Transportation.....	8	—	—	—	—	2	—	2	6	—	—	6	—
Britt Airways /Rocky Mountain dba Continental Express.....	48	—	—	—	—	48	—	48	—	—	—	—	—
Business Air.....	8	—	—	—	—	—	—	—	8	—	—	8	—
Business Express.....	46	—	—	—	—	46	—	46	—	—	—	—	—
Cape Smythe Air Service.....	9	—	—	—	—	4	—	4	5	—	—	5	—
Champlain Enterprises dba Commutair.....	17	—	—	—	—	17	—	17	—	—	—	—	—
Chartair.....	4	—	—	—	—	—	—	—	4	—	—	4	—
Chautauqua Airlines dba USAir Express.....	15	—	—	—	—	15	—	15	—	—	—	—	—
Christman Trucking dba Christman Air Systems.....	2	—	—	—	—	2	—	2	—	—	—	—	—
Comair Airlines.....	69	—	—	—	—	69	—	69	—	—	—	—	—
Conquest Airlines.....	7	—	—	—	—	6	—	6	1	—	—	1	—
Crown Airways dba USAir Express.....	8	—	—	—	—	8	—	8	—	—	—	—	—
DHL Airways.....	11	—	—	—	—	10	—	10	—	—	—	—	1
Direct Air.....	4	—	—	—	—	3	—	3	1	—	—	1	—
Empire Airlines.....	2	—	—	—	—	2	—	2	—	—	—	—	—
ERA Aviation dba ERA Helicopters.....	9	—	—	—	—	9	—	9	—	—	—	—	—
Evergreen Helicopters Int'l.....	1	—	—	—	—	—	—	—	—	—	—	—	1
Exec Express II.....	12	—	—	—	—	10	—	10	2	—	—	2	—
Executive Airlines.....	9	—	—	—	—	9	—	9	—	—	—	—	—
Express Air.....	2	—	—	—	—	—	—	—	2	—	—	2	—
Express Airlines I dba Northwest Airlink.....	60	—	—	—	—	60	—	60	—	—	—	—	—
Fairways.....	2	1	—	—	1	1	—	1	—	—	—	—	—
Far West Airlines.....	1	—	—	—	—	—	—	—	1	—	—	1	—
Flamenco Airways.....	10	—	—	—	—	—	—	—	10	—	1	9	—
Flying Boat Inc. dba Chalks Int'l. Airlines.....	4	—	—	—	—	4	—	4	—	—	—	—	—
Frontier Flying Service.....	8	—	—	—	—	3	—	3	5	—	—	5	—

TABLE 5.5—Continued
TOTAL SMALL AIRCRAFT REPORTED IN OPERATION
BY COMMUTER AIR CARRIERS AND ON-DEMAND AIR TAXIS
BY CARRIER, AND BY ENGINE TYPE
1991

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	Wing
GP Express.....	11	—	—	—	—	8	—	8	3	—	—	3	—
Grand Airways.....	5	—	—	—	—	5	—	5	—	—	—	—	—
Grand Canyon Airlines.....	5	—	—	—	—	5	—	5	—	—	—	—	—
Great Lakes Aviation.....	20	—	—	—	—	20	—	20	—	—	—	—	—
Harbor Airlines.....	4	—	—	—	—	—	—	—	4	—	—	4	—
Horizon Air dba Manhattan Express Airlines.....	7	—	—	—	—	7	—	7	—	—	—	—	—
Horizon Air Industries dba Horizon Air.....	32	—	—	—	—	32	—	32	—	—	—	—	—
Jet Express dba Trans World Express.....	6	—	—	—	—	6	—	6	—	—	—	—	—
Jetstream Int'l Airlines.....	28	—	—	—	—	28	—	28	—	—	—	—	—
JIB inc.....	5	—	—	—	—	—	—	—	5	—	—	5	—
L A P S A, Inc.....	2	—	—	—	—	1	—	1	1	—	—	1	—
L'Express.....	8	—	—	—	—	8	—	8	—	—	—	—	—
Lake Union Air Service.....	1	—	—	—	—	1	—	1	—	—	—	—	—
Larry's Flying Service.....	9	—	—	—	—	1	—	1	8	—	—	8	—
Las Vegas Airlines.....	4	—	—	—	—	—	—	—	4	—	—	4	—
Markair Express.....	12	—	—	—	—	12	—	12	—	—	—	—	—
Merlin Express.....	11	—	—	—	—	11	—	11	—	—	—	—	—
Mesa Airlines.....	40	—	—	—	—	40	—	40	—	—	—	—	—
Mesaba Airlines.....	23	—	—	—	—	23	—	23	—	—	—	—	—
Metro Express II dba Starlight Express.....	3	—	—	—	—	3	—	3	—	—	—	—	—
Metroflight dba American Eagle.....	41	—	—	—	—	41	—	41	—	—	—	—	—
Midway Airlines 1987 dba Midway Commuter.....	17	—	—	—	—	17	—	17	—	—	—	—	—
Midwest Aviation Div. of Southwest Airlines.....	3	—	—	—	—	—	—	—	3	—	—	3	—
Montauk Caribbean Airways dba Long Island Airlines.....	9	1	—	—	1	2	—	2	6	—	—	6	—
Nashville Eagle dba American Eagle.....	80	—	—	—	—	80	—	80	—	—	—	—	—
New England Airlines.....	2	—	—	—	—	—	—	—	2	—	—	2	—
New York Helicopter.....	4	—	—	—	—	—	—	—	—	—	—	—	4
New York Helicopter.....	5	—	—	—	—	—	—	—	5	—	—	5	—
Northwest Express Regional Airlines.....	17	—	—	—	—	17	—	17	—	—	—	—	—
Olson Air Service.....	2	—	—	—	—	—	—	—	2	—	—	2	—
Pan Am Express.....	10	—	—	—	—	10	—	10	—	—	—	—	—
Pennsylvania Commuter Airlines dba USAir Express.....	13	—	—	—	—	13	—	13	—	—	—	—	—
Pensinsula Airways.....	7	—	—	—	—	7	—	7	—	—	—	—	—
Precision Valley Aviation dba Precision Airlines.....	14	—	—	—	—	14	—	14	—	—	—	—	—
R I C, Inc dba Skymaster Air Taxi.....	3	—	—	—	—	—	—	—	3	—	—	3	—
Ross Aviation.....	1	—	—	—	—	1	—	1	—	—	—	—	—
Ryan Air Service.....	4	—	—	—	—	—	—	—	4	—	—	4	—
Safe Air Int'l dba Island Express.....	2	—	—	—	—	—	—	—	2	—	—	2	—
Samoa A.....	3	—	—	—	—	3	—	3	—	—	—	—	—
Scenic Airlines.....	17	—	—	—	—	17	—	17	—	—	—	—	—
Skywest Airlines.....	49	—	—	—	—	49	—	49	—	—	—	—	—
Southcentral Air.....	10	—	—	—	—	7	—	7	3	—	—	3	—
Stateswest Airlines.....	16	—	—	—	—	16	—	16	—	—	—	—	—
Summit Aviation.....	1	—	—	—	—	1	—	1	—	—	—	—	—
Sunbird Air Services.....	4	—	—	—	—	4	—	4	—	—	—	—	—
Temsco Helicopters dba Temsco Airlines.....	1	—	—	—	—	—	—	—	1	—	1	—	—

TABLE 5.5—Continued
TOTAL SMALL AIRCRAFT REPORTED IN OPERATION
BY COMMUTER AIR CARRIERS AND ON-DEMAND AIR TAXIS
BY CARRIER, AND BY ENGINE TYPE
1991

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	Wing
Texas National Airlines.....	1	—	—	—	—	1	—	1	—	—	—	—	—
Trans Executive Airlines of Hawaii dba Transair.....	2	—	—	—	—	—	—	—	2	—	—	2	—
Trans States Airlines dba Trans World Express.....	37	—	—	—	—	37	—	37	—	—	—	—	—
Twin Town Leasing.....	1	—	—	—	—	1	—	1	—	—	—	—	—
United Jet Center.....	1	—	—	—	—	1	—	1	—	—	—	—	—
Viesques Air Link.....	7	—	—	—	—	—	—	—	7	—	3	4	—
Virgin Air dba Air St Thomas.....	7	—	—	—	—	—	—	—	7	—	—	7	—
Walkers Aviation.....	1	—	—	—	—	1	—	1	—	—	—	—	—
Warbelow Air Ventures.....	3	—	—	—	—	—	—	—	3	—	—	3	—
Westair Commuter Airlines dba United Express.....	86	—	—	—	—	86	—	86	—	—	—	—	—
Wilburs Flight Operations.....	4	—	—	—	—	1	—	1	3	—	—	3	—
Wings West dba American Eagle.....	49	—	—	—	—	49	—	49	—	—	—	—	—
Wright Air Service.....	4	—	—	—	—	—	—	—	4	—	—	4	—
Yute Air Alaska.....	2	—	—	—	—	—	—	—	2	—	—	2	—

VI. U.S. CERTIFICATED AIR CARRIERS—OPERATING DATA

The traffic and financial data contained in this chapter include data for all U.S. Certificated Air Carriers—those holding a certificate issued under Section 401 of the Federal Aviation Act of 1958; and the commuter air carriers—those holding a certificate under Section 298C of the Federal Aviation Act of 1958.

The data are classified in two broad operational categories: "domestic" and "international". Beginning January 1, 1981, "domestic" encompasses operations within and between the 50 states of the United States, the District of Columbia, the Commonwealth of Puerto Rico and the Virgin Islands. It also encompasses Canadian transborder operations and for certain carriers, Mexican transborder operations. All other categories are considered "international". For periods prior to January 1, 1981, the data are classified in this same manner, except statistics for Puerto Rico and Virgin Islands operations are included in the international category rather than the domestic.

The certificated carriers are also grouped into "large" and "small" according to the size aircraft that the carrier operates. A "large" carrier is one that operates aircraft designed to have a maximum passenger seating capacity of 60 seats or more or a maximum payload capacity of 18,000 pounds or more, or conducts international operations. A "small" certificated carrier operates aircraft of less than 60 seats or a payload capacity of less than 18,000. The commuter carriers are grouped with the small certificated carriers.

The large certificated air carriers are grouped according to their total operating revenue as listed below:

Carrier Groups	Carriers with Annual Operating Revenues of:
Major.....	\$1,000,000,000 +
Nationals	\$100,000,000 - \$1,000,000,000
Large Regionals	\$10,000,000 - \$99,999,999
Medium Regionals.....	0 - \$9,999,999

The tables in this chapter are divided into two groups: 6.1-6.15 cover the large carriers and 6.16-6.18 cover the small commuter and large certificated medium regional carriers. Please note that some large certificated medium regional carriers are included in both groups of tables. The information for the large air carriers was obtained from the following sources published by the Research & Special Programs Administration of the Department of Transportation.

Air Carrier Traffic Statistics compiled from RSPA Form 41 Schedules T-1(a), T-1(b) and T-1(c).

Air Carrier Financial Statistics compiled from RSPA Form 41 Schedules B-1 and P-1.

The information for the small certificated, commuter and large certificated medium regional carriers was obtained from:

Air Carrier Industry Scheduled Service Traffic Statistics: Medium Regional Section: compiled from RSPA Form 298C Schedules A-1 and T-1.

TABLE 6.1
LARGE CERTIFICATED AIR CARRIERS
1990 AND 1991

MAJORS

American West	Northwest
American	Pan American
Continental	Southwest
Delta	Trans World
Eastern	United
Federal Express	US Air

NATIONALS

Air Wisconsin	Midway
Alaska	Midwest Express
Aloha	Southern Air
American Trans Air	Tower
Evergreen	Trump Shuttle
Hawaiian	United Parcel Service
Horizon Air	Westair
Markair	World

LARGE REGIONALS

Air Transport Int'l	Florida West
American Int'l	Key
Amerijet	MGM Grand
Arrow	Northern Air
Aspen	Reeve
Braniff Int'l	Rich
Carnival	Simmons
Challenge Air Cargo	Sun Country
Emerald	Trans Continental
Executive Airlines	Trans States
Express One	Zantop
Flagship	

MEDIUM REGIONALS

Aerial	Millon
Buffalo	North American
Casino Express	Private Jet
Conner	TPI International
Discovery	Trans Air Link
Emery	Universal
Great American	Wilbur's
Independent Air	Wangler
Jet Fleet	

TABLE 6.2
TRAFFIC DATA, ALL SERVICES (SCHEDULED AND NONSCHEDULED)
OF THE LARGE CERTIFICATED AIR CARRIERS
1990 AND 1991

Traffic Category	Total System ¹		Domestic Operations		International Operations	
	1990 ²	1991 ³	1990 ²	1991 ³	1990 ²	1991 ³
Revenue Passenger Miles Flown (000)	472,235,647	462,491,571	345,872,950	337,525,637	126,362,697	124,965,934
Available Seat Miles (000)	753,210,577	736,832,949	570,558,491	550,763,222	182,652,086	186,069,727
Revenue Passenger Enplanements (000)	474,893	460,656	428,767	416,988	46,126	43,668
Revenue Ton Miles Flown (000)*	63,627,077	62,344,542	43,651,162	42,536,363	19,975,915	19,808,179
Passenger	47,223,558	46,249,161	34,587,300	33,752,566	12,636,258	12,496,597
Freight	14,408,660	14,190,901	7,581,718	7,372,445	6,826,942	6,818,456
U.S. Mail	2,002,775	1,904,474	1,489,337	1,411,353	513,438	493,121
Foreign Mail	0	0	0	0	0	0
Revenue Aircraft Miles Flown (000)	4,723,601	4,647,747	3,963,263	3,843,466	760,338	804,281

¹ Details may not add to total due to rounding.

² Revised

³ Preliminary

Source: Air Carrier Traffic Statistics - RSPA

TABLE 6.3
REVENUE AIRCRAFT DEPARTURES, MILES AND HOURS FLOWN,
AND AVERAGE SPEED IN DOMESTIC ALL SERVICES
OF THE LARGE CERTIFICATED AIR CARRIERS
1982-1991

Year	Revenue Aircraft Departures	Revenue Aircraft Miles Flown (000)	Revenue Aircraft Hours Flown	Average Airborne Speed (Miles Per Hour)
1982	4,860,482	2,442,292	5,962,431	410
1983	4,920,125	2,552,942	6,174,957	413
1984	5,358,454	2,875,402	6,970,886	412
1985	5,760,232	3,046,440	7,457,030	409
1986	6,336,150	3,421,492	8,223,615	416
1987	6,511,609	3,652,542	8,823,269	414
1988	6,607,067	3,738,242	9,135,430	409
1989	6,528,085	3,748,139	9,222,252	406
1990 ¹	6,756,704	3,963,263	9,717,375	408
1991 ²	6,608,935	3,843,466	9,468,363	406

¹ Revised.

² Preliminary.

Source: Air Carrier Traffic Statistics - RSPA

TABLE 6.4
REVENUE AIRCRAFT DEPARTURES, MILES AND HOURS FLOWN,
AND AVERAGE SPEED IN INTERNATIONAL ALL SERVICES
OF THE LARGE CERTIFICATED AIR CARRIERS
1982-1991

Year	Revenue Aircraft Departures	Revenue Aircraft Miles Flown (000)	Revenue Aircraft Hours Flown	Average Airborne Speed (Miles Per Hour)
1982	233,726	362,183	739,820	490
1983	243,029	362,994	740,896	490
1984	241,087	388,794	792,267	491
1985	244,888	415,355	846,197	491
1986	271,735	451,338	923,641	489
1987	311,411	529,786	82,189	490
1988	354,463	615,270	260,927	488
1989	391,786	693,887	1,426,410	486
1990 ¹	419,522	760,338	1,556,760	488
1992 ²	416,919	804,281	1,639,944	490

¹ Revised.

² Preliminary.

Source: Air Carrier Traffic Statistics - RSPA

TABLE 6.5
TOTAL TON-MILES AVAILABLE IN ALL SERVICES OF THE
LARGE CERTIFICATED AIR CARRIERS
1982-1991
(Thousands of Ton-Miles)

Year	Large Certificated Air Carriers		
	Total System ¹	Domestic Operations	International Operations
1982	65,769,930	49,757,601	16,012,329
1983	68,778,295	52,724,653	15,920,720
1984	76,298,288	58,942,974	17,355,314
1985	80,565,182	61,337,807	19,227,375
1986	90,243,958	69,771,737	20,472,221
1987	99,152,795	75,741,397	23,411,398
1988	105,272,555	78,264,976	27,107,579
1989	109,397,126	78,955,003	30,442,123
1990 ²	117,112,475	83,354,510	33,757,965
1991 ³	115,867,151	80,460,413	35,406,738

¹ Categories may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Traffic Statistics - RSPA

TABLE 6.6
REVENUE TON-MILES FLOWN IN ALL SERVICES BY
LARGE CERTIFICATED AIR CARRIERS
1982-1991
(Thousands of Tons)

Year	Large Certificated Air Carriers		
	Total System ¹	Domestic Operations	International Operations
1982	35,050,938	25,838,708	9,212,230
1983	38,011,227	28,271,465	9,624,208
1984	41,277,948	30,561,436	10,716,512
1985	44,154,779	32,939,216	11,215,563
1986	48,883,854	37,148,059	11,735,795
1987	54,917,632	40,509,782	14,407,850
1988	58,397,186	41,598,662	16,798,524
1989	61,095,371	42,475,761	18,619,610
1990 ²	63,627,077	43,651,162	19,975,915
1991 ³	62,344,542	42,536,363	19,808,179

¹ Categories may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Traffic Statistics - RSPA

TABLE 6.7
PASSENGER OPERATIONS IN SCHEDULED DOMESTIC OPERATIONS
OF THE LARGE CERTIFICATED AIR CARRIERS
1982-1991

Year	Revenue Passenger Enplanements (000)	Revenue Passenger Miles (000)	Available Seat-Miles (000)	Revenue Passenger Load Factor ¹ Percent	Average On-line Passenger Trip Length (Miles)	Average Passenger Revenue Per Passenger Miles (Cents)
1982	274,342	210,149,315	359,527,716	58.5	766	12.21
1983	296,721	226,908,925	379,150,158	59.8	765	12.13
1984	321,047	243,692,254	422,506,609	57.7	759	12.79
1985	357,109	270,584,011	445,825,864	60.7	758	12.32
1986	393,864	302,089,903	497,990,815	60.7	767	11.18
1987	416,831	324,637,336	526,958,361	61.6	779	11.42
1988	419,210	329,309,489	536,662,591	61.4	786	12.31
1989	416,331	329,975,206	530,079,041	62.3	792	13.08
1990 ²	423,565	340,230,892	563,064,938	60.4	803	13.43
1991 ³	412,269	332,406,755	543,413,011	61.2	806	13.22

¹ Percent revenue passenger-miles of available seat-miles.

² Revised.

³ Preliminary.

Source: Air Carrier Traffic Statistics - RSPA

TABLE 6.8
PASSENGER OPERATIONS IN SCHEDULED INTERNATIONAL OPERATIONS
OF THE LARGE CERTIFICATED AIR CARRIERS
1982-1991

Year	Revenue Passenger Enplanements (000)	Revenue Passenger Miles (000)	Available Seat-Miles (000)	Revenue Passenger Load Factor ¹ Percent	Average On-line Passenger Trip Length (Miles)	Average Passenger Revenue Per Passenger Miles (Cents)
1982	19,760	49,494,555	80,591,490	61.4	2,505	9.57
1983	21,917	54,920,223	85,387,821	64.3	2,506	10.21
1984	23,636	61,423,601	92,816,730	66.2	2,599	9.38
1985	24,913	65,819,010	101,962,568	64.6	2,642	9.80
1986	25,082	64,455,952	109,445,032	58.9	2,570	10.16
1987	30,847	79,834,148	121,762,577	65.6	2,588	9.82
1988	35,404	93,992,070	140,139,737	67.1	2,655	10.40
1989	37,361	102,739,103	154,296,835	66.6	2,750	10.36
1990 ²	41,995	117,695,394	170,309,955	69.1	2,803	10.83
1991 ³	39,941	115,388,948	171,561,164	67.3	2,889	11.29

¹ Percent revenue passenger-miles of available seat-miles.

² Revised.

³ Preliminary.

Source: Air Carrier Traffic Statistics - RSPA

TABLE 6.9
REVENUE AIRCRAFT-MILES FLOWN IN ALL SERVICES
OF LARGE CERTIFICATED AIR CARRIERS
1982-1991
(Thousands of Miles)

Year	Total ¹	Domestic Operations	International Operations
1982	2,804,475	2,442,292	362,183
1983	2,922,583	2,552,942	362,994
1984	3,264,196	2,875,402	388,794
1985	3,461,795	3,046,440	415,355
1986	3,872,830	3,421,492	451,338
1987	4,182,327	3,652,542	529,786
1988	4,353,512	3,738,242	615,270
1989	4,442,026	3,748,139	693,887
1990 ²	4,723,601	3,963,263	760,338
1991 ³	4,647,747	3,843,466	804,281

¹ Details may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Traffic Statistics - RSPA

TABLE 6.10
OPERATING REVENUE OF DOMESTIC OPERATIONS, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MAJOR, NATIONAL, AND LARGE REGIONAL GROUPS
1982-1991
(Thousands of Dollars)

Year	Total Operating Revenues ¹		Passenger		U.S. Mail (Including Subsidy)		Express and Freight		Excess Baggage		Other	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent*	Amount	Percent
1982.....	28,727,699	100.0	25,439,640	88.6	571,822	2.0	1,505,035	5.2	42,045	0.1	1,169,148	4.1
1983.....	31,014,393	100.0	27,519,079	88.7	537,234	1.7	1,601,895	5.2	51,967	0.2	1,304,221	4.2
1984.....	35,393,945	100.0	31,436,951	88.8	559,138	1.6	1,715,979	4.8	70,032	0.2	1,611,842	4.6
1985.....	37,628,540	100.0	33,343,005	88.6	740,384	1.9	1,580,914	4.2	78,113	0.2	1,886,123	5.0
1986.....	41,000,506	100.0	33,813,923	82.5	682,643	1.7	4,278,008	10.4	85,438	0.2	2,140,496	5.2
1987.....	45,657,800	100.0	37,492,065	82.2	706,178	1.5	4,951,924	10.9	66,756	0.1	2,440,877	5.3
1988.....	50,187,181	100.0	41,001,173	81.7	791,929	1.6	5,807,058	11.6	71,791	0.1	2,514,841	5.0
1989.....	54,314,210	100.0	43,670,025	80.4	770,333	1.4	5,408,336	10.0	69,761	0.1	4,395,754	8.1
1990 ²	57,994,041	100.0	46,282,413	79.8	749,428	1.3	4,275,637	7.4	76,129	0.1	6,610,433	11.4
1991 ³	56,118,570	100.0	44,514,894	79.3	723,640	1.3	4,477,811	8.0	77,819	0.1	6,323,406	11.3

¹ Details may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Financial Statistics, Table 1 -- RSPA

TABLE 6.11
OPERATING EXPENSES OF DOMESTIC OPERATIONS, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MAJOR, NATIONAL, AND LARGE REGIONAL GROUPS
1982-1991
(Thousands of Dollars)

Year	Total Operating Expenses ¹		Aircraft Operating Expenses						Ground and Indirect Expense		Net Operating Income or Loss Amount
	Amount	Percent	Flight Operations		Maintenance		Depreciation and Amortization		Amount	Percent	
			Amount	Percent	Amount	Percent	Amount	Percent			
1982.....	29,478,115	100.0	11,529,364	39.1	2,709,440	9.2	1,876,106	6.4	13,363,206	45.3	-750,416
1983.....	31,185,661	100.0	11,370,479	36.5	2,877,991	9.2	2,107,283	6.8	14,829,909	47.6	-171,268
1984.....	33,811,742	100.0	12,160,526	36.0	3,175,865	9.4	2,223,275	6.6	16,252,075	48.1	1,582,203
1985.....	36,610,744	100.0	12,684,018	34.7	3,604,447	9.8	2,318,066	6.3	18,004,213	49.2	1,017,796
1986.....	39,934,036	100.0	11,368,346	28.5	4,475,477	11.2	2,652,497	6.6	21,437,719	53.7	1,066,470
1987.....	43,925,149	100.0	12,508,716	28.5	4,950,558	11.3	2,854,806	6.5	23,611,068	53.7	1,732,650
1988.....	47,738,808	100.0	13,175,525	27.6	5,642,790	11.8	2,977,236	6.2	25,943,257	54.4	2,448,873
1989.....	52,459,535	100.0	14,749,292	28.1	6,184,193	11.8	3,077,602	5.9	28,448,448	54.2	1,854,675
1990 ²	58,983,230	100.0	18,166,482	30.8	6,921,512	11.7	3,272,818	5.5	30,622,417	51.9	-989,189
1991 ³	56,595,858	100.0	16,765,995	29.6	6,654,077	11.8	3,174,578	5.6	30,001,209	53.0	-477,288

¹ Details may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Financial Statistics, Table 1 -- RSPA

TABLE 6.12
OPERATING REVENUE OF INTERNATIONAL OPERATIONS, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MAJOR, NATIONAL, AND LARGE REGIONAL GROUPS
1982-1991
(Thousands of Dollars)

Year	Total Operating Revenues ¹		Passenger		U.S. Mail (Including Subsidy)		Express and Freight		Express Baggage		Other	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1982.....	6,434,904	100.0	4,959,347	77.1	176,930	2.8	989,620	15.4	25,358	0.4	283,448	4.4
1983.....	7,163,275	100.0	5,604,902	78.2	152,455	2.1	999,405	14.0	23,012	0.3	383,502	5.4
1984.....	7,974,706	100.0	6,074,406	76.2	157,703	2.0	1,169,259	14.8	27,447	0.3	545,892	6.8
1985.....	8,302,279	100.0	6,451,324	77.7	160,543	1.9	1,130,050	13.6	27,832	0.3	531,528	6.4
1986.....	8,621,149	100.0	6,550,550	76.0	153,627	1.8	1,451,488	16.8	28,254	0.3	437,291	5.1
1987.....	10,924,837	100.0	8,374,295	76.7	180,052	1.6	1,782,832	16.3	32,686	0.3	554,971	5.1
1988.....	13,401,710	100.0	10,356,637	77.3	183,251	1.4	2,150,132	16.0	39,265	0.3	672,405	5.0
1989.....	14,910,912	100.0	11,181,198	75.0	188,284	1.3	2,416,980	16.2	46,759	0.3	1,077,692	7.3
1990 ²	17,990,355	100.0	13,467,960	74.9	223,840	1.2	2,601,668	14.5	43,244	0.2	1,653,644	9.2
1991 ³	18,823,045	100.0	14,062,825	74.7	222,177	1.2	3,069,303	16.3	48,508	0.3	1,419,233	7.5

¹ Details may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Financial Statistics, Table 1 -- RSPA

TABLE 6.13
OPERATING EXPENSES OF INTERNATIONAL OPERATIONS, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MAJOR, NATIONAL, AND LARGE REGIONAL GROUPS
1982-1991
(Thousands of Dollars)

Year	Total Operating Expenses ¹		Aircraft Operating Expenses						Ground and Indirect Expense		Net Operating Income or Loss Amount
	Amount	Percent	Flight Operations		Maintenance		Depreciation and Amortization		Amount	Percent	
			Amount	Percent	Amount	Percent	Amount	Percent			
1982.....	6,451,807	100.0	2,596,134	40.2	511,795	7.9	396,159	6.1	2,947,719	45.7	-17,103
1983.....	6,692,776	100.0	2,490,076	37.2	547,741	8.2	388,708	5.8	3,266,252	48.8	470,499
1984.....	7,484,679	100.0	2,628,664	35.1	676,950	9.0	445,857	6.0	3,733,208	49.9	490,028
1985.....	7,983,705	100.0	2,738,439	34.4	768,018	9.6	481,560	6.0	3,995,687	50.0	318,574
1986.....	8,458,084	100.0	2,401,911	28.4	900,784	10.7	517,524	6.1	4,637,866	54.8	163,066
1987.....	10,226,388	100.0	2,836,095	27.7	1,095,635	10.7	533,079	5.2	5,761,579	56.4	698,450
1988.....	12,403,323	100.0	3,230,335	26.1	1,331,687	10.7	617,734	5.0	7,223,567	58.2	998,388
1989.....	14,953,533	100.0	3,918,537	26.2	1,723,953	11.5	746,047	5.0	8,564,996	57.3	42,620
1990 ²	18,914,480	100.0	5,453,830	28.8	2,051,246	10.8	886,735	4.7	10,522,670	55.6	924,123
1991 ³	20,073,160	100.0	5,608,758	27.9	2,121,446	10.6	886,115	4.4	11,456,841	57.1	1,250,115

¹ Details may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Financial Statistics, Table 1 -- RSPA

TABLE 6.14
OPERATING REVENUE, SYSTEM, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MEDIUM REGIONAL GROUP
1982-1991
(Thousands of Dollars)

Year	Total Operating Revenues ¹		Scheduled Passenger		Scheduled Other		Non Scheduled Service		Subsidy		Other Transport Related	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1982.....	448,159	100.0	154,261	34.5	39,690	8.9	207,558	46.3	6,030	1.3	40,259	9.0
1983.....	108,082	100.0	19,126	17.7	9,897	9.2	73,469	68.0	2,132	2.0	3,457	3.2
1984.....	159,837	100.0	61,966	38.8	7,063	4.4	83,249	52.1	1,561	1.0	5,998	3.7
1985.....	150,754	100.0	38,045	25.2	19,467	12.9	89,863	59.6	0	0.0	3,379	2.2
1986.....	81,971	100.0	10,576	12.9	43	0.0	61,729	75.4	0	0.0	9,624	11.7
1987.....	114,593	100.0	6,845	6.0	4,521	3.9	85,406	74.5	0	0.0	17,821	15.6
1988.....	70,035	100.0	0	0.0	716	1.1	65,850	94.0	0	0.0	3,470	5.0
1989.....	90,733	100.0	5,773	6.4	7,494	8.3	64,392	70.9	31	0.0	13,042	14.4
1990 ²	82,133	100.0	3,040	3.7	6,112	7.4	68,667	83.6	0	0.0	4,314	5.3
1991 ³	70,136	100.0	0	0.0	9,573	13.6	57,366	81.8	1,048	1.5	2,149	3.1

¹ Details may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Financial Statistics, Table 3 -- RSPA

Note: Wide fluctuations in total revenues and expenses are caused by fluctuations in the number of medium regional carriers. Some have been upgraded to large regional carriers and some have gone out of business. For list of medium regional carriers see Air Carrier Financial Statistics for year in question.

TABLE 6.15
OPERATING EXPENSES, SYSTEM, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MEDIUM REGIONAL GROUP
1982-1991
(Thousands of Dollars)

Year	Total Operating Expenses ¹		Flying Operations		Maintenance		General and Administrative		Depreciation and Amortization		Transport Related	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1982.....	467,998	100.0	242,231	51.8	52,816	11.2	122,861	26.3	19,791	4.2	30,299	6.5
1983.....	111,713	100.0	68,130	61.0	17,693	15.8	18,327	16.4	7,353	6.6	210	0.2
1984.....	159,680	100.0	89,995	56.4	21,572	13.5	37,866	23.7	9,885	6.2	361	0.2
1985.....	151,527	100.0	79,920	52.8	22,585	14.9	42,703	28.2	5,179	3.4	1,140	0.7
1986.....	87,359	100.0	45,435	52.0	14,515	16.6	17,436	20.0	2,616	3.0	7,356	8.4
1987.....	120,019	100.0	56,061	46.7	25,533	21.3	27,351	22.8	6,269	5.2	4,803	4.0
1988.....	76,823	100.0	32,629	42.5	18,191	23.7	18,779	24.4	5,731	7.5	1,494	1.9
1989.....	91,518	100.0	43,560	47.6	15,469	16.9	21,400	23.4	1,214	1.3	9,876	10.8
1990 ²	87,081	100.0	51,067	58.6	15,643	18.0	16,684	19.2	3,636	4.2	50	0.1
1991 ³	72,241	100.0	44,923	62.2	11,828	16.4	12,313	17.0	2,790	3.9	387	0.5

¹ Details may not add to total due to rounding.

² Revised.

³ Preliminary.

Source: Air Carrier Financial Statistics, Table 3 -- RSPA

Note: Wide fluctuations in total revenues and expenses are caused by fluctuations in the number of medium regional carriers. Some have been upgraded to large regional carriers and some have gone out of business. For list of medium regional carriers see Air Carrier Financial Statistics for year in question.

TABLE 6.16
SMALL CERTIFICATED AND COMMUTER AIR CARRIERS
1990 and 1991

Action Airlines	Ellis Air Taxi	NPA
Aerial Transit Company	Empire Airways	Olson Air Service
Aero Coach	Enterprise Airlines	Pacific Coast
Air Cape	ERA Aviation	Pan Am Express
Air L. A.	Exec Express II	Panama Aviation
Air Midwest	Executive Transport*	Panorama Air Tours
Air Molakai	Express Airlines I	Paradise Island
Air Nevada Airlines	Flagship*	Peninsula Airways
Air Resorts	Flamenco Airways	Pennsylvania Airlines
Air Sedona	Flying Boat	Precision Valley Aviation
Air Sunshine	Freedom Air	Propheter Aviation
Air Vegas	Frontier Flying Service	Redwing
Airvantage	GP Express	Rocky Mountain Airways
Airways Int'l	Grand Airways	Ross Aviation
Alaska Island Air	Grand Canyon Helicopters	Ryan Air Service
Aleutian Air	Great Lakes Aviation	Sallee's
Aloha Island Air	Gulf Air Taxi	Samoa
Alpha Air	Gulf Flite Center	Scenic Airlines
Alpine Air	Gulfstream Int'l	Sea Air Shuttle
Artic Circle Air Service	Haines Airways	Simmons Airlines*
Arizona Pacific	Harbor Air Service	Skagway Air Service
Atlantic Southeast Airlines	Harbor Airlines	Sky West Airlines
Aviation Associates	Helitrans	Skymaster
Baker Aviation	Henson Aviation	Southcentral
Bar Harbor Airways	Hermens Air	Southern Airways
Barrow Air	Hub Express	Southern Jersey Airways
Bellair	Iliamna Air Taxi	Sportsman Flying Service
Bemidji Airlines	Iowa Airways	Springdale Air
Bering Air	Island Express	Stateswest Airlines
Big Sky Airlines	Jet Express	Suburban Airlines
Britt Airways	Jetstream Int'l Airlines	Tanana Air Service
Business Express Airlines	Kenmore Air Harbor	Taquan Air Service
California Air Shuttle	Ketchikan Air Service	Tatonduk Flying Service
Cape Air	L.A.B. Flying Service	Temsco Airlines
Cape Smythe Air Service	Lake Union Air Services	Trans Air (Hawaii)
Casino	Lapsa	Trans World
CCair	Larry's Flying Service	Trump Air
Central States	Las Vegas Air Lines	Valley Air Services
Chalks Int'l Airlines	Loken	Valley Airlines
Channel Flying	L'Express	Vieques Air Link
Chaparral Airlines	Long Island Airlines	Village Aviation
Chartair	Mall Airways	Virgin Air
Charter One	Mesa Airlines	Walker's International
Chautauqua Airlines	Mesaba Airlines	Warbelow's Air Ventures
Chitina Air Service	Metro Air Northeast NY	West Isle Air
Christman Air System	Metro Air Northeast Vermont	Westates
Coastal Air Transport	Metro Express	Wilbur
Columbia Pacific	Metroflight Airlines	Wings Airways
Comair	Michigan Airways	Wings of Alaska
Command Airways	Midway Commuter	Wings West
Commutair	Midwest Aviation	WRA
Conner Air lines	Mohawk Airlines	Wrangell Air Service
Conquest Airlines	Nashville Eagle	Wright Air Service
Crown Airways	National Capital	Yutana Airlines
Dawn Air	New England Airlines	Yute Air Alaska
Direct Air	New York Helicopter	
East Hampton Air	Northcoast Executive	

* Large certificated medium regional air carrier

TABLE 6.17
SMALL CERTIFICATED, COMMUTER AND LARGE CERTIFICATED MEDIUM REGIONAL
AIR CARRIERS TRAFFIC DATA
SCHEDULED SERVICES ONLY
1982-1991

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Revenue Passenger Miles (000).....	2,905,243	2,228,453	4,601,837	3,031,817	3,352,187	3,986,637	4,582,522	5,052,222	5,875,960	5,852,364
Revenue Enplanements (000).....	17,444	15,941	20,230	18,853	20,849	24,839	27,801	29,612	33,491	31,662
Passenger Ton Miles (000).....	286,608	222,189	460,135	302,783	335,264	396,887	456,894	456,794	586,266	580,268
Cargo Ton Miles (000).....	30,911	7,752	18,291	67,400	49,927	54,659	6,333	43,031	67,693	73,342
Aircraft Revenue Miles (000).....	264,176	242,120	304,217	323,945	347,181	395,998	437,818	546,652	612,018	523,451
Aircraft Revenue Hours.....	1,504,406	1,464,879	1,759,848	1,832,623	1,940,095	2,193,230	2,389,988	2,589,223	3,016,836	2,717,120
Aircraft Departures.....	2,353,081	2,287,504	2,706,142	2,755,616	2,866,653	3,132,899	3,323,772	3,284,610	3,624,162	3,493,140

¹ Preliminary

² Revised

Source: Air Carrier Industry Scheduled Traffic Statistics, RSPA

TABLE 6.18
SMALL CERTIFICATED, COMMUTER AND LARGE CERTIFICATED
MEDIUM REGIONAL AIR CARRIERS
TRAFFIC AVERAGES
SCHEDULED SERVICES ONLY
1982-1991

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Passengers Per Aircraft Mile.....	11.0	9.2	15.1	9.4	9.7	10.1	10.5	9.2	9.9	11.2
Available Seats Per Aircraft Mile.....	23.7	20.7	30.0	21.3	21.5	21.8	22.6	19.5	20.9	25.1
Revenue Tons Per Aircraft Mile.....	1.2	1.0	1.6	1.1	1.1	1.1	1.1	1.0	1.2	1.1
Available Tons Per Aircraft Mile.....	2.8	2.3	3.3	2.7	2.5	2.7	2.4	2.2	2.4	2.7
Flight Stage Length (Miles).....	112.3	105.8	112.3	117.6	128.7	126.4	131.7	165.5	168.9	149.9

¹ Preliminary

² Revised

Source: Air Carrier Industry Scheduled Traffic Statistics, RSPA

VII. U.S. CIVIL AIRMEN

Statistics pertaining to airmen, both pilot and nonpilot, were obtained from the official airmen certification records maintained by the Airmen Certification and Medical Certification Branches of the Mike Monroney Aeronautical Center at Oklahoma City, Oklahoma.

Active pilots are those pilots who hold a pilot certificate and a valid medical certificate—one that was issued within the last 25 months. Glider and Lighter-than-air pilots may have, but are not required to have, a medical examination. The inventory data for these categories include only those with a valid medical certificate.

For those nonpilot certificates for which a medical certificate is not required (mechanics, parachute riggers, ground instructors, and dispatchers), the numbers shown include all who have been issued that airman certificate.

TABLE 7.1
ESTIMATED ACTIVE PILOT CERTIFICATES HELD:
DECEMBER 31, 1982-1991

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Pilot—Total	733,255	718,004	722,376	709,540	709,118	699,653	694,016	700,010	702,659	692,095
Student.....	156,361	147,197	150,081	146,652	150,273	146,016	136,913	142,544	128,663	120,203
Private.....	322,094	318,643	320,086	311,086	305,736	300,949	299,786	293,179	299,111	293,306
Commercial.....	165,093	159,495	155,929	151,632	147,798	143,645	143,030	144,540	149,666	148,365
Airline Transport.....	73,471	75,938	79,192	82,740	87,186	91,287	96,968	102,087	107,732	112,167
Helicopter (only).....	7,034	7,237	7,532	8,123	8,581	8,702	8,608	8,863	9,567	9,860
Glider (only) ¹	7,842	8,157	8,390	8,168	8,411	7,901	7,600	7,708	7,833	8,033
Lighter-than-air ¹	1,360	1,337	1,166	1,139	1,133	1,153	1,111	1,089	2	2
Recreational.....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	87	161
Nonpilot—Total ¹	399,661	413,199	426,802	395,139	410,079	427,962	448,710	468,405	492,237	517,462
Mechanic ³	277,436	288,335	298,028	274,100	284,241	297,178	312,419	326,243	344,282	366,392
Parachute Rigger ²	9,893	10,074	10,194	9,395	9,535	9,659	9,770	9,879	10,094	7,916
Ground Instructor ²	65,004	66,385	67,463	58,214	59,443	60,861	62,582	64,503	66,882	70,086
Dispatcher ³	7,580	8,223	8,980	8,511	9,025	9,491	10,020	10,455	11,002	11,607
Flight Navigator.....	1,695	1,636	1,603	1,542	1,512	1,445	1,400	1,357	1,299	1,225
Flight Engineer.....	38,053	38,546	40,534	43,377	46,323	49,328	52,519	55,968	58,687	60,236
Flight Instructor Certificates ⁴	62,492	62,201	61,173	58,940	57,355	60,316	61,798	61,472	63,775	69,209
Instrument Ratings ⁵	255,073	254,271	256,584	258,559	262,388	266,122	273,804	282,804	297,073	303,193

¹ Glider and lighter-than-air pilots are not required to have a medical examination; however, the totals above represent pilots who received a medical examination within the last 25 months.

² Lighter-than-air type ratings are no longer being issued.

³ Numbers represent all certificates on record. No medical examination required.

⁴ Not included in total.

⁵ Special ratings shown on pilot certificates, do not indicate additional certificates.

N/A Not Available.

TABLE 7.2
ESTIMATED ACTIVE WOMEN PILOT CERTIFICATES HELD:
DECEMBER 31, 1982-1991

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Pilot—Total	45,305	43,648	44,339	43,483	43,082	42,578	42,299	42,366	40,515	40,931
Student.....	19,958	18,696	19,435	19,058	18,899	18,367	17,529	17,637	15,007	14,501
Private.....	19,388	18,801	18,616	17,974	17,532	17,349	17,544	16,988	17,301	17,514
Commercial.....	4,257	4,281	4,232	4,185	4,176	4,208	4,410	4,760	5,210	5,652
Airline Transport.....	749	884	1,032	1,184	1,334	1,538	1,745	1,898	2,082	2,308
Helicopter (only).....	113	144	167	196	232	247	259	273	292	307
Glider (only) ¹	574	599	631	653	667	627	590	586	617	634
Lighter-than-air ¹	266	243	226	233	242	242	222	224	2	2
Recreational.....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	15
Nonpilot—Total ³	5,697	6,151	6,591	6,017	6,502	7,101	7,842	10,683	9,557	10,324
Mechanic ³	1,298	1,493	1,649	1,775	1,964	2,237	2,565	2,892	3,333	3,901
Parachute Rigger ³	593	605	614	412	411	428	441	451	474	363
Ground Instructor ³	3,391	3,554	3,680	2,980	3,087	3,232	3,391	3,554	3,760	3,952
Dispatcher ³	199	249	310	394	460	524	622	711	802	852
Flight Navigator.....	1	2	2	1	0	0	1	1	0	0
Flight Engineer.....	215	248	336	455	577	680	822	3,074	1,188	1,256
Flight Instructor Certificates ⁴	2,532	2,685	2,736	2,731	2,687	2,909	3,018	3,074	3,239	3,629

¹ Glider and lighter-than-air pilots are not required to have a medical examination; however, the totals above represent pilots who received a medical examination within the last 25 months.

² Lighter-than-air type rating is no longer being issued.

³ Numbers represent all certificates on record. No medical examination required.

⁴ Not included in total.

N/A Not Available.

TABLE 7.3
ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD,
BY CLASS OF CERTIFICATES AND BY FAA REGION:
DECEMBER 31, 1991

Class of Certificate	Total ¹	Alaskan	Central	Eastern	Great Lakes	New England	North-west Mountain	Southern	South-west	Western Pacific	Outside U.S. ²
Total—All Pilots	692,095	9,678	33,567	89,351	113,130	32,013	65,550	120,397	79,625	119,434	29,350
Student Pilots—Total	120,203	1,346	5,495	17,608	20,550	5,755	10,741	20,524	12,655	20,142	5,387
Private Pilots—Total	293,306	4,498	16,883	37,610	54,396	14,461	28,239	46,524	32,211	52,477	6,007
Private Airplane (only)	282,047	4,358	16,432	35,984	52,966	13,954	27,135	44,615	31,067	50,155	5,381
Private Airplane, Private Glider	4,113	41	157	663	645	199	381	659	393	915	60
Private Airplane, Commercial Glider	878	3	19	182	131	63	119	99	74	182	6
Private Airplane, Private Gyroplane	20	0	2	0	8	1	2	0	5	2	0
Private Airplane, Private Helicopter	1,722	17	71	208	169	86	180	245	172	388	186
Private Airplane, Private Glider, Private Helicopter	71	0	1	15	8	9	3	11	4	14	6
Private Airplane, Commercial Helicopter	4,405	78	200	550	466	148	413	883	492	811	364
Private Airplane, Private Glider, Commercial Helicopter	35	1	1	6	1	0	5	9	2	8	2
Private Airplane, Commercial Glider, Commercial Helicopter	14	0	0	2	1	1	1	3	2	2	2
Private Airplane, Commercial Gyroplane, Commercial Helicopter	1	0	0	0	1	0	0	0	0	0	0
Commercial Pilots—Total	148,365	2,476	6,915	18,071	22,115	5,919	13,674	26,559	18,451	24,349	9,836
Commercial Airplane (only)	128,207	2,174	6,072	15,225	19,884	5,122	11,622	22,332	15,883	20,426	9,467
Commercial Airplane, Private Glider	2,072	24	86	328	293	84	227	365	223	423	19
Commercial Airplane, Commercial Glider	3,645	28	140	556	471	210	439	566	404	795	36
Commercial Airplane, Commercial Gyroplane, Commercial Glider	2	0	0	0	0	0	0	0	1	1	0
Commercial Airplane, Private Helicopter	379	5	16	50	53	23	33	70	32	77	20
Commercial Airplane, Commercial Glider, Private Helicopter	26	0	0	7	4	1	1	2	3	8	0
Commercial Airplane, Commercial Helicopter	13,316	234	571	1,802	1,335	441	1,274	3,094	1,828	2,457	280
Commercial Airplane, Private Glider, Commercial Helicopter	146	2	5	20	21	8	18	26	12	29	5
Commercial Airplane, Commercial Glider, Commercial Helicopter	518	7	21	79	46	29	52	93	61	124	6
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	19	0	1	2	2	0	3	4	0	5	2
Commercial Airplane, Commercial Gyroplane	25	2	2	1	4	1	4	6	3	2	0
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter	10	0	1	1	2	0	1	1	1	2	1
Airline Transport Pilots—Total	112,167	1,242	3,755	12,980	14,249	4,904	11,369	24,002	14,543	18,377	6,746
Airline Transport Airplane (only)	110,131	1,183	3,713	12,615	14,071	4,780	11,192	23,590	14,219	18,094	6,674
Airline Transport Airplane, Airline Transport Helicopter	2,036	59	42	365	178	124	177	412	324	283	72
Rotorcraft (only) Pilots—Total	9,860	101	379	1,389	812	463	676	2,052	1,138	1,659	1,191
Private Gyroplane	15	0	1	0	5	2	3	1	0	1	2
Private Helicopter	1,864	4	27	217	111	152	99	143	70	494	547
Commercial Helicopter	7,469	83	344	1,091	668	295	539	1,809	962	1,116	562
Commercial Helicopter, Private Glider	7	0	0	2	1	0	0	2	1	1	0
Commercial Helicopter, Commercial Glider	2	0	0	1	1	0	0	0	0	0	0
Commercial Gyroplane	1	0	0	0	1	0	0	0	0	0	0
Commercial Helicopter, Commercial Gyroplane	2	0	1	0	0	0	0	0	1	0	0
Airline Transport Helicopter	500	14	6	78	25	14	35	97	104	47	80

TABLE 7.3—Continued
ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD,
BY CLASS OF CERTIFICATES AND BY FAA REGION:
DECEMBER 31, 1991

Class of Certificate	Total ¹	Alaskan	Central	Eastern	Great Lakes	New England	North-west Mountain	Southern	South-west	Western Pacific	Outside U.S. ²
Glider (only)—Total	8,033	14	130	1,655	972	499	846	704	616	2,418	179
Private Glider	6,929	10	112	1,398	833	411	702	615	532	2,160	156
Commercial Glider	1,104	4	18	257	139	88	144	89	84	258	23
Recreational Pilots	161	1	10	38	36	12	5	32	11	12	4
Nonpilots—Total	517,432	5,252	24,660	70,152	66,954	20,615	44,773	93,377	71,009	97,194	23,446
Mechanic ³	366,362	3,633	19,292	51,030	46,610	14,266	29,135	62,719	52,048	71,565	16,064
Parachute Rigger ³	7,916	111	375	1,234	1,048	279	1,102	1,444	863	1,277	183
Ground Instructor ³	70,086	830	3,387	9,449	10,809	2,976	6,510	12,476	9,096	12,439	2,114
Dispatcher ³	11,607	219	167	2,188	1,200	294	586	2,180	995	1,546	2,232
Flight Navigator	1,225	7	5	191	32	142	147	252	72	346	31
Flight Engineer	60,236	452	1,434	6,060	7,255	2,658	7,293	14,306	7,935	10,021	2,822
Flight Instructor Certificates—Total ⁴ ..	69,209	840	3,363	9,597	11,776	3,135	6,695	12,272	8,366	11,350	1,815
Instrument Ratings ⁵	303,193	3,764	12,975	38,232	45,364	13,224	28,088	58,947	37,287	50,143	15,169

¹ Includes Outside U.S. total.

² Outside U.S. includes airmen certificated by the FAA who live outside the 50 states or foreign countries.

³ Total ratings issued to date. These ratings retain their validity without periodic medical examinations.

⁴ Not included in total.

⁵ Special ratings shown on pilot certificates, do not indicate additional ratings.

TABLE 7.4
ESTIMATED ACTIVE PILOTS AND FLIGHT INSTRUCTORS
BY FAA REGION AND STATE:
DECEMBER 31, 1991

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous	Flight Instructor
Total ¹	692,095	120,203	293,306	148,365	112,167	18,054	69,209
United States—Total	662,745	114,816	287,299	138,529	105,421	16,680	67,394
Alaskan Region—Total	9,679	1,346	4,498	2,476	1,242	116	840
Central Region—Total	33,567	5,495	16,883	6,915	3,755	519	3,363
Iowa	6,904	1,161	3,798	1,386	469	99	667
Kansas	9,177	1,392	4,696	1,952	993	144	919
Missouri	12,585	2,093	5,926	2,451	1,875	249	1,355
Nebraska	4,901	849	2,463	1,126	418	45	431
Eastern Region—Total	89,351	17,608	37,610	18,071	12,980	3,082	9,597
Delaware	1,715	293	700	361	318	43	214
District of Columbia	544	94	249	120	48	39	50
Maryland	9,999	1,917	4,378	2,020	1,374	310	1,037
New Jersey	14,037	2,824	5,949	2,508	2,268	486	1,506
New York	22,538	4,776	9,938	4,393	2,410	1,021	2,340
Pennsylvania	21,265	4,155	9,246	4,001	3,267	596	2,488
Virginia	15,595	2,710	5,611	3,828	2,994	452	1,637
West Virginia	2,516	540	1,215	486	210	65	240
Armed Forces Europe (AE) ⁴	1,142	299	324	354	91	74	85
Great Lakes Region—Total	113,130	20,550	54,396	22,115	14,249	1,820	11,776
Illinois	25,653	4,643	11,525	4,917	4,130	438	2,902
Indiana	12,357	2,398	6,105	2,410	1,282	162	1,250
Michigan	19,461	3,618	9,795	3,603	2,046	399	1,984
Minnesota	16,976	2,958	7,790	3,378	2,628	222	1,665
North Dakota	3,321	534	1,581	1,028	153	25	335
Ohio	21,154	3,795	10,356	4,105	2,486	412	2,295
South Dakota	2,366	394	1,111	602	233	26	223
Wisconsin	11,842	2,210	6,133	2,072	1,291	136	1,122
New England Region—Total	32,013	5,755	14,461	5,919	4,904	974	3,135
Connecticut	8,406	1,400	3,469	1,466	1,793	256	830
Maine	3,788	766	1,769	814	379	60	318
Massachusetts	11,813	2,294	5,760	2,089	1,248	422	1,165
New Hampshire	4,639	667	1,902	861	1,088	121	514
Rhode Island	1,530	281	729	315	166	39	138
Vermont	1,837	347	832	354	230	74	170
Northwest Mountain Region—Total	65,550	10,741	28,239	13,674	11,369	1,527	6,695
Colorado	16,811	2,538	6,255	3,631	3,879	508	2,110
Idaho	4,345	688	2,151	952	462	72	404
Montana	3,713	588	1,842	897	343	43	365
Oregon	10,271	1,737	5,303	2,125	856	250	992
Utah	6,030	1,134	2,527	1,101	1,140	128	527
Washington	22,457	3,778	9,120	4,590	4,477	492	2,128
Wyoming	1,923	278	1,041	378	192	34	169
Southern Region—Total	120,397	20,524	46,524	26,559	24,002	2,788	12,272
Alabama	8,730	1,600	3,638	2,121	820	551	972
Florida	47,630	7,525	18,228	11,280	9,796	801	5,108
Georgia	18,370	2,849	6,397	3,593	5,173	358	1,617
Kentucky	6,210	1,192	2,506	1,077	1,276	159	618
Mississippi	4,570	912	1,770	1,350	436	102	420
North Carolina	15,288	2,773	6,264	3,028	2,825	398	1,405
South Carolina	6,859	1,348	2,821	1,644	906	140	654
Tennessee	12,626	2,307	4,874	2,422	2,760	263	1,473
Armed Forces Europe (AE) ⁴	114	18	26	44	10	16	5
Southwest Region—Total	79,625	12,655	32,211	18,451	14,543	1,765	8,366
Arkansas	5,895	1,092	2,588	1,546	591	78	529
Louisiana	7,598	1,268	2,930	2,125	963	312	787
New Mexico	4,794	738	2,098	1,222	602	134	549
Oklahoma	10,361	1,799	5,043	2,314	1,066	139	1,061
Texas	50,977	7,758	19,552	11,244	11,321	1,102	5,440
Western-Pacific Region—Total	119,434	20,142	52,477	24,349	18,377	4,089	11,350
Arizona	16,364	3,026	6,406	3,533	2,896	503	1,920
California	93,416	15,504	42,753	18,748	13,256	3,155	8,466
Hawaii	3,339	620	870	756	842	251	350
Nevada	5,568	740	2,249	1,095	1,327	157	578
Armed Forces Pacific (AP) ⁴	747	252	199	217	56	23	36
Outside U. S. —Total ⁵	29,350	5,387	6,007	9,836	6,746	1,374	1,815
Other U. S. Areas:	2,134	626	664	376	414	54	0
American Samoa	13	2	1	5	4	1	0
Guam	166	19	32	27	84	4	0
Puerto Rico	1,659	529	532	285	269	44	0
Virgin Island	296	76	99	59	57	5	0

¹ Includes helicopter, glider, and recreational. Lighter-than-air type rating is no longer being issued

² Not included in total.

³ Includes Outside U.S.

⁴ Military personnel holding civilian certificate stationed in foreign country

⁵ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries

TABLE 7.5
ESTIMATED ACTIVE WOMEN PILOTS AND FLIGHT INSTRUCTORS
BY FAA REGION AND STATE:
DECEMBER 31, 1991

FAA Region and State	Total Pilots	Students	Private	Commer- cial	Airline Transport	Miscellane- ous	Flight Instructor
Total ¹	40,931	14,501	17,514	5,652	2,308	956	3,705
United States—Total	39,812	14,132	17,140	5,392	2,251	897	3,629
Alaskan Region—Total	710	223	358	100	25	4	58
Central Region—Total	1,773	646	863	183	58	23	125
Iowa	304	119	148	30	6	1	16
Kansas	492	159	256	48	21	8	37
Missouri	735	279	340	80	25	11	54
Nebraska	242	89	119	25	6	3	18
Eastern Region—Total	5,496	2,052	2,241	728	288	187	501
Delaware	82	20	39	15	5	3	8
District of Columbia	56	24	22	4	5	1	2
Maryland	721	257	322	78	40	24	58
New Jersey	870	341	339	121	45	24	78
New York	1,353	497	540	176	68	72	126
Pennsylvania	1,348	511	566	187	58	26	129
Virginia	875	318	342	126	61	28	90
West Virginia	132	53	54	16	5	4	7
Armed Forces Europe (AE) ⁴	59	31	17	5	1	5	3
Great Lakes Region—Total	6,835	2,492	2,979	971	310	83	638
Illinois	1,655	567	704	271	97	16	170
Indiana	658	256	271	102	26	3	63
Michigan	1,195	447	523	142	50	33	102
Minnesota	1,043	380	445	151	55	12	106
North Dakota	188	58	86	41	3	0	22
Ohio	1,281	478	565	171	52	15	119
South Dakota	94	36	39	13	5	1	6
Wisconsin	721	270	346	80	22	3	50
New England Region—Total	2,079	724	908	268	117	62	193
Connecticut	519	176	207	76	42	18	52
Maine	219	95	93	20	7	4	11
Massachusetts	794	288	357	94	38	17	78
New Hampshire	286	75	136	50	20	15	36
Rhode Island	109	38	54	13	3	1	5
Vermont	142	52	61	15	7	7	11
Northwest Mountain Region—Total	4,358	1,500	1,853	634	271	100	422
Colorado	1,209	410	427	238	97	37	158
Idaho	243	72	116	39	11	5	27
Montana	203	68	104	22	9	0	17
Oregon	726	250	354	78	27	17	54
Utah	287	124	100	38	18	7	22
Washington	1,572	534	693	209	103	33	136
Wyoming	118	42	59	10	6	1	8
Southern Region—Total	6,334	2,435	2,471	865	456	107	579
Alabama	395	176	156	39	8	16	22
Florida	2,884	999	1,206	439	193	47	282
Georgia	777	331	288	95	55	8	67
Kentucky	289	121	89	32	44	3	29
Mississippi	196	95	61	25	12	3	18
North Carolina	813	305	333	101	61	13	69
South Carolina	337	143	115	55	17	7	32
Tennessee	639	263	223	78	66	9	60
Armed Forces Europe (AE) ⁴	4	2	0	1	0	1	0
Southwest Region—Total	3,981	1,423	1,709	531	242	76	371
Arkansas	246	83	123	33	4	3	16
Louisiana	275	106	109	40	15	5	33
New Mexico	312	106	132	43	18	13	37
Oklahoma	603	221	271	76	31	4	56
Texas	2,545	907	1,074	339	174	51	229
Western-Pacific Region—Total	8,246	2,637	3,758	1,112	484	255	742
Arizona	1,121	342	517	157	74	31	105
California	6,474	2,073	2,980	870	350	201	581
Hawaii	226	78	71	32	30	15	27
Nevada	369	110	176	47	29	7	28
Armed Forces Pacific (AP) ⁴	56	34	14	6	1	1	1
Outside U. S.—Total ⁵	1,119	369	374	260	57	59	76
Other U. S. Areas:	92	52	18	9	6	7	0
Guam	9	0	5	1	2	1	0
Puerto Rico	61	39	9	6	2	5	0
Virgin Island	22	13	4	2	2	1	0

¹ Includes helicopter, glider, and recreational pilots. Lighter-than-air type rating is no longer being issued.

² Not included in total.

³ Includes Outside U.S.

⁴ Military personnel holding civilian certificate stationed in foreign country.

⁵ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 7.6
ESTIMATED ACTIVE HELICOPTER PILOTS
BY CLASS OF CERTIFICATES
DECEMBER 31, 1991

Class of Certificates	Number of Certificates Held
Total	32,605
Private Helicopter.....	1,864
Private Helicopter, Private Airplane.....	1,722
Private Helicopter, Private Airplane, Private Glider.....	71
Private Helicopter, Commercial Airplane.....	379
Private Helicopter, Commercial Airplane, Commercial Glider.....	26
Private Gyroplane.....	15
Private Gyroplane, Private Airplane.....	20
Commercial Helicopter.....	7,469
Commercial Helicopter, Private Airplane.....	4,405
Commercial Helicopter, Private Glider.....	7
Commercial Helicopter, Commercial Glider.....	2
Commercial Helicopter, Private Airplane, Commercial Gyroplane.....	1
Commercial Helicopter, Private Airplane, Private Glider.....	35
Commercial Helicopter, Private Airplane, Commercial Glider.....	14
Commercial Helicopter, Commercial Airplane.....	13,316
Commercial Helicopter, Commercial Airplane, Private Glider.....	146
Commercial Helicopter, Commercial Airplane, Commercial Glider.....	518
Commercial Gyroplane.....	1
Commercial Helicopter, Commercial Airplane, Commercial Gyroplane.....	19
Commercial Helicopter, Commercial Airplane, Commercial Gyroplane, Commercial Glider.....	10
Commercial Helicopter, Commercial Gyroplane.....	2
Commercial Gyroplane, Commercial Airplane.....	25
Commercial Gyroplane, Commercial Airplane, Commercial Glider.....	2
Airline Transport Helicopter.....	500
Airline Transport Airplane, Airline Transport Helicopter.....	2,036

TABLE 7.7
ESTIMATED ACTIVE HELICOPTER PILOTS
BY CLASS OF CERTIFICATES
DECEMBER 31, 1991

Class of Certificates	Number of Certificates Held
Total	19,570
Private Glider.....	6,929
Private Glider, Private Airplane.....	4,113
Private Glider, Private Airplane, Private Helicopter.....	71
Private Glider, Private Airplane, Commercial Helicopter.....	35
Private Glider, Commercial Airplane.....	2,072
Private Glider, Commercial Airplane, Commercial Helicopter.....	146
Private Glider, Commercial Helicopter.....	4
Commercial Glider.....	1,104
Commercial Glider, Commercial Airplane.....	3,645
Commercial Glider, Private Airplane.....	878
Commercial Glider, Private Airplane, Commercial Helicopter.....	14
Commercial Glider, Commercial Helicopter.....	3
Commercial Glider, Commercial Airplane, Private Helicopter.....	26
Commercial Glider, Commercial Airplane, Commercial Helicopter.....	518
Commercial Glider, Commercial Airplane, Commercial Gyroplane.....	2
Commercial Glider, Commercial Airplane, Commercial Gyroplane, Commercial Helicopter.....	10

TABLE 7.8
ESTIMATED ACTIVE HELICOPTER AND GLIDER PILOTS
DECEMBER 31, 1987-1991

Calendar Year	Total Helicopter Pilots ¹		Total Glider Pilots ²	
	Number	Percent Change	Number	Percent Change
1991	32,605	-0.4%	19,570	0.1%
1990	32,741	3.6%	19,546	2.1%
1989	31,602	0.8%	19,149	0.3%
1988	31,349	-0.5%	19,095	-2.2%
1987	31,513	-0.6%	19,530	-4.1%

¹ Includes pilots with ratings to fly helicopters only.

² Includes pilots with ratings to fly gliders only.

TABLE 7.9
ESTIMATED TOTAL PILOTS AND INSTRUMENT RATED PILOTS
DECEMBER 31, 1985-89

Calendar Year	Total Pilots ¹	Instrument Rated Pilots	
		Number	Percent of Total
1991	571,892	303,193	53.0%
1990	574,208	297,073	51.7%
1989	557,466	282,804	50.7%
1988	557,103	273,804	49.1%
1987	553,637	266,122	48.1%

¹ Excludes student pilots.

TABLE 7.10
ESTIMATED ACTIVE PILOT CERTIFICATES HELD
BY CATEGORY AND AGE GROUP OF HOLDER
1991, 1990, 1987

YEAR	Type of Pilot Certificates								
	Total Active Pilots			Student			Private		
	1991	1990	1987	1991	1990	1987	1991	1990	1987
Total	692,095	702,659	699,653	120,203	128,863	146,016	293,306	299,111	305,736
Age Group									
14-15.....	30	36	264	30	236	264	0	0	0
16-19.....	17,558	17,810	19,752	12,888	13,743	15,542	4,259	3,715	3,222
20-24.....	58,349	57,022	56,575	22,070	23,510	26,443	22,095	20,888	21,096
25-29.....	78,697	80,880	86,336	21,111	23,410	27,617	26,572	27,929	33,569
30-34.....	91,805	94,816	99,311	18,757	20,262	23,762	35,772	37,790	44,654
35-39.....	95,334	97,095	99,686	15,601	16,557	18,413	43,227	44,881	46,367
40-44.....	93,317	98,681	97,082	11,492	12,272	13,437	42,122	43,646	41,428
45-49.....	82,624	80,583	75,194	7,740	7,859	8,251	35,823	35,207	32,152
50-54.....	59,672	60,586	57,844	4,508	4,705	5,214	26,223	26,729	27,064
55-59.....	45,449	46,550	47,529	2,756	2,984	3,621	20,615	21,929	26,539
60 and over.....	69,260	68,600	60,080	3,250	3,325	3,452	36,598	36,397	29,645

YEAR	Type of Pilot Certificates								
	Commercial			Airline Transport			Helicopter (Only)		
	1991	1990	1987	1991	1990	1987	1991	1990	1987
Total	148,365	149,666	143,645	112,167	107,732	91,287	9,860	9,567	8,702
Age Group									
14-15.....	0	0	0	0	0	0	0	0	0
16-19.....	291	247	215	0	0	0	43	33	10
20-24.....	12,531	11,107	7,791	402	382	453	987	872	891
25-29.....	21,627	20,354	16,999	6,379	6,216	6,436	2,529	2,465	2,416
30-34.....	17,981	18,132	16,497	16,466	15,701	13,117	2,001	2,016	1,709
35-39.....	15,867	16,040	17,514	17,951	16,992	15,614	1,328	1,297	1,575
40-44.....	16,990	19,546	22,637	19,758	20,167	16,792	1,560	1,671	1,322
45-49.....	18,254	18,518	18,146	18,855	17,378	14,342	887	717	441
50-54.....	13,446	14,077	14,349	14,512	14,123	11,335	315	311	198
55-59.....	11,353	11,623	11,140	10,074	9,389	7,184	120	109	86
60 and over.....	20,025	20,022	18,357	7,770	7,384	6,014	90	76	54

YEAR	Type of Pilot Certificates								
	Glider (Only) ¹			Recreational			Flight Instructor ²		
	1991	1990	1987	1991	1990	1987	1991	1990	1987
Total	8,033	7,833	7,901	161	87	N/A	69,209	63,775	60,316
Age Group									
14-15.....	0	0	0	0	N/A	0	0	0	0
16-19.....	72	72	118	5	N/A	0	84	87	91
20-24.....	259	260	428	5	N/A	3	6,079	5,258	4,349
25-29.....	470	495	678	9	N/A	11	10,168	8,879	7,927
30-34.....	805	899	1,237	23	N/A	16	9,267	8,493	8,518
35-39.....	1,335	1,313	1,363	25	N/A	15	8,853	8,372	8,734
40-44.....	1,373	1,369	1,112	22	N/A	10	9,118	9,102	9,343
45-49.....	1,046	897	732	19	N/A	7	8,584	7,627	6,895
50-54.....	651	634	549	17	N/A	7	5,977	5,715	5,195
55-59.....	524	510	596	7	N/A	6	4,585	4,262	3,968
60 and over.....	1,498	1,384	1,088	29	N/A	12	6,494	5,980	5,296

¹ Glider pilots are not required to have a medical examination; however, totals above represent pilots who received a medical examination

² Not included in total active pilots.

TABLE 7.11
AVERAGE AGE OF ACTIVE PILOTS BY CATEGORY
DECEMBER 31, 1982-1991

Year	Total ¹	Student	Private	Commercial	Airline Transport
1982	38.3	31.2	39.5	41.0	42.3
1983	38.8	31.7	40.0	41.5	42.5
1984	39.2	32.1	40.4	42.0	42.7
1985	39.5	32.4	40.8	42.4	42.8
1986	39.7	32.2	41.1	42.6	43.0
1987	39.9	32.3	41.4	42.7	43.1
1988	40.1	32.5	41.4	42.6	43.2
1989	40.2	32.7	41.8	42.5	43.4
1990	40.5	32.5	42.0	42.2	43.6
1991	40.5	32.6	42.0	41.8	43.7

¹ Includes helicopter (only), glider (only), and recreational pilots not shown separately.

TABLE 7.12
ESTIMATED INSTRUMENT RATING HELD
BY CLASS OF CERTIFICATES
DECEMBER 31, 1990 AND 1991

Class of Certificates	1991	1990	Percent Change 1991-1990
Total—All Pilots	303,193	297,073	2%
Private Pilots—Total	55,557	53,920	3%
Private Airplane (only)	51,215	49,550	3%
Private Airplane, Private Glider	1,103	1,069	3%
Private Airplane, Commercial Glider	134	122	10%
Private Airplane, Private Helicopter	451	432	4%
Private Airplane, Private Glider, Private Helicopter	31	32	-3%
Private Airplane, Commercial Helicopter	2,594	2,683	-3%
Private Airplane, Private Gyroplane	3	5	-40%
Private Airplane, Private Glider, Commercial Helicopter	16	16	0%
Private Airplane, Commercial Glider, Commercial Helicopter	9	10	-10%
Private Airplane, Other	1	1	0%
Commercial Pilots—Total	129,774	129,426	0%
Commercial Airplane (only)	111,835	110,719	1%
Commercial Airplane, Private Glider	1,802	1,825	-1%
Commercial Airplane, Commercial Glider	3,048	3,141	-3%
Commercial Airplane, Private Helicopter	336	307	9%
Commercial Airplane, Commercial Helicopter	12,079	12,716	-5%
Commercial Airplane, Private Glider, Commercial Helicopter	130	145	-10%
Commercial Airplane, Commercial Glider, Commercial Helicopter	474	496	-4%
Commercial Airplane, Commercial Gyroplane	18	22	-18%
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	16	17	-6%
Commercial Airplane, Commercial Gyroplane, Commercial Glider	2	2	0%
Commercial Airplane, Commercial Glider, Private Helicopter	25	27	-7%
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter, Commercial Glider	9	9	0%
Airline Transport Pilots—Total	112,167	107,732	4%
Airline Transport Airplane (only)	110,131	105,830	4%
Airline Transport Airplane, Airline Transport Helicopter	2,036	1,902	7%
Rotorcraft Pilots—Total	5,695	5,995	-5%
Commercial Helicopter	5,624	5,923	-5%
Airline Transport Helicopter	59	62	-5%
Other	12	10	20%

TABLE 7.14
ESTIMATED ACTIVE NONPILOT AIRMEN CERTIFICATES HELD,
BY FAA REGION AND STATE:
DECEMBER 31, 1991 ¹

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Total ²	517,432	366,362	7,916	70,086	11,607	1,225	60,236
United States—Total	493,986	350,298	7,733	67,972	9,375	1,194	57,414
Alaskan Region—Total	5,252	3,633	111	830	219	7	452
Central Region—Total	24,660	19,292	375	3,387	167	5	1,434
Iowa	3,055	2,302	83	552	11	0	107
Kansas	6,817	5,348	93	1,000	44	0	332
Missouri	12,619	10,027	136	1,477	107	3	869
Nebraska	2,169	1,615	63	358	5	2	126
Eastern Region—Total	70,152	51,030	1,234	9,449	2,188	191	6,060
Delaware	1,356	986	21	162	17	5	165
District of Columbia	350	211	20	80	17	0	22
Maryland	4,756	2,963	109	909	73	10	692
New Jersey	11,595	8,315	183	1,438	340	50	1,269
New York	25,559	20,400	245	2,669	1,192	54	999
Pennsylvania	16,773	12,331	292	2,389	368	39	1,354
Virginia	8,013	4,547	301	1,483	168	33	1,481
West Virginia	1,157	813	39	238	5	0	62
Armed Forces Europe (AE) ³	593	464	24	81	8	0	16
Great Lakes Region—Total	66,954	46,610	1,048	10,809	1,200	32	7,255
Illinois	17,660	11,739	237	2,733	366	13	2,572
Indiana	6,740	4,810	151	1,069	77	4	629
Michigan	10,663	7,580	162	2,052	112	5	752
Minnesota	11,890	8,209	112	1,369	427	3	1,770
North Dakota	1,179	936	20	170	4	0	49
Ohio	12,410	8,910	234	2,201	145	5	915
South Dakota	1,091	774	18	220	4	0	75
Wisconsin	5,321	3,652	114	995	65	2	493
New England Region—Total	20,615	14,266	279	2,976	294	142	2,658
Connecticut	6,243	4,184	69	822	95	92	981
Maine	1,500	984	39	268	32	6	171
Massachusetts	8,942	6,940	123	1,160	104	13	602
New Hampshire	2,326	1,115	26	411	34	24	716
Rhode Island	879	607	12	162	14	2	82
Vermont	725	436	10	153	15	5	106
Northwest Mountain Region—Total	44,773	29,135	1,102	6,510	586	147	7,293
Colorado	13,789	8,499	131	2,103	222	29	2,805
Idaho	1,876	1,265	150	316	13	5	127
Montana	2,135	1,414	233	363	5	4	116
Oregon	4,750	3,364	187	795	51	24	329
Utah	3,574	2,188	75	489	23	5	794
Washington	17,411	11,469	297	2,274	261	77	3,033
Wyoming	1,238	936	29	170	11	3	89
Southern Region—Total	93,377	62,719	1,444	12,476	2,180	252	14,306
Alabama	6,630	5,290	105	992	12	9	222
Florida	41,901	28,692	459	5,653	1,286	198	5,613
Georgia	19,206	12,870	191	1,663	363	10	4,105
Kentucky	3,743	2,140	133	584	115	1	770
Mississippi	2,083	1,490	32	386	11	5	159
North Carolina	8,863	5,569	303	1,366	144	18	1,463
South Carolina	3,454	2,298	73	630	30	2	421
Tennessee	7,460	4,341	142	1,197	219	9	1,552
Armed Forces Europe (AE) ³	37	29	2	5	0	0	1
Southwest Region—Total	71,009	52,048	863	9,096	995	72	7,935
Arkansas	2,916	2,121	64	507	20	1	203
Louisiana	5,219	4,010	78	698	46	6	381
New Mexico	2,549	1,769	56	544	28	5	147
Oklahoma	16,179	14,159	145	1,449	33	5	388
Texas	44,146	29,989	520	5,898	868	55	6,816
Western-Pacific Region—Total	97,194	71,565	1,277	12,439	1,546	346	10,021
Arizona	11,316	8,027	159	1,867	263	18	982
California	78,656	58,748	1,003	9,546	1,072	265	8,022
Hawaii	3,492	2,561	31	398	149	6	347
Nevada	3,305	1,892	54	587	53	57	662
Armed Forces Pacific (AP) ³	425	337	30	41	9	0	8
Outside U. S. —Total ⁴	23,446	16,064	183	2,114	2,232	31	2,822
Other U. S. Areas:	1,778	1,309	36	225	84	0	124
American Samoa	16	10	0	5	0	0	1
Canal Zone	36	13	18	3	2	0	0
Guam	241	127	3	30	10	0	71
Puerto Rico	1,333	1,048	12	161	69	0	43
Virgin Island	143	102	3	26	3	0	9
Wake Island	9	9	0	0	0	0	0

¹ Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, mechanics, parachute riggers and ground instructors represent total ratings issued to date. These ratings retain their validity.

² Includes Outside U. S.

³ Military personnel holding civilian certificate stationed in foreign country.

⁴ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 7.15
ESTIMATED ACTIVE WOMEN NONPILOT CERTIFICATES HELD,
BY FAA REGION AND STATE:
DECEMBER 31, 1991 ¹

FAA Region and State	Total Nonpilot Women	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Total ²	10,516	3,917	370	4,034	904	0	1,274
United States—Total	10,324	3,895	360	3,946	851	0	1,255
Alaskan Region—Total	166	40	6	57	53	0	10
Central Region—Total	445	232	13	170	7	0	23
Iowa	85	48	0	34	2	0	1
Kansas	158	91	5	54	0	0	8
Missouri	161	78	5	61	5	0	12
Nebraska	41	15	3	21	0	0	2
Eastern Region—Total	1,280	331	67	523	185	0	157
Delaware	29	13	1	10	2	0	3
District of Columbia	11	0	2	4	1	0	4
Maryland	110	20	2	58	10	0	20
New Jersey	172	44	7	64	32	0	25
New York	405	120	14	153	88	0	30
Pennsylvania	304	67	22	136	44	0	35
Virginia	204	49	19	89	7	0	40
West Virginia	28	18	0	9	1	0	0
Armed Forces Europe (AE) ³	17	6	3	6	1	0	1
Great Lakes Region—Total	1,645	609	50	658	130	0	198
Illinois	482	168	11	182	29	0	92
Indiana	182	44	16	63	11	0	28
Michigan	263	85	3	142	12	0	18
Minnesota	241	100	3	58	48	0	32
North Dakota	16	4	0	10	0	0	2
Ohio	329	166	10	124	18	0	11
South Dakota	22	6	0	15	1	0	0
Wisconsin	130	36	4	64	11	0	15
New England Region—Total	426	146	14	182	26	0	58
Connecticut	150	63	3	46	14	0	24
Maine	40	9	2	19	3	0	7
Massachusetts	152	47	7	79	6	0	13
New Hampshire	55	20	1	22	2	0	10
Rhode Island	14	5	0	7	1	0	1
Vermont	15	2	1	9	0	0	3
Northwest Mountain Region—Total	1,059	398	26	404	49	0	182
Colorado	362	118	0	138	15	0	91
Idaho	36	11	2	18	3	0	2
Montana	40	7	4	25	1	0	3
Oregon	107	28	7	60	4	0	8
Utah	73	30	6	27	2	0	8
Washington	408	191	5	124	22	0	66
Wyoming	33	13	2	12	2	0	4
Southern Region—Total	1,839	580	94	714	178	0	273
Alabama	161	59	5	95	1	0	1
Florida	806	268	21	298	104	0	115
Georgia	209	85	6	67	18	0	33
Kentucky	129	29	6	43	21	0	30
Mississippi	36	13	1	20	1	0	1
North Carolina	198	48	23	88	6	0	31
South Carolina	79	28	2	37	3	0	9
Tennessee	221	50	30	66	22	0	53
Southwest Region—Total	1,354	607	43	493	98	0	113
Arkansas	45	17	1	22	1	0	4
Louisiana	98	47	2	38	9	0	2
New Mexico	71	23	2	40	2	0	4
Oklahoma	287	185	8	84	2	0	8
Texas	853	335	30	309	84	0	95
Western-Pacific Region—Total	2,110	952	47	745	125	0	241
Arizona	265	97	5	115	24	0	24
California	1,697	815	39	574	74	0	195
Hawaii	83	19	0	33	20	0	11
Nevada	60	20	0	22	7	0	11
Armed Forces Pacific (AP) ³	5	1	3	1	0	0	0
Outside U. S. —Total ⁴	192	22	10	88	53	0	19
Other U. S. Areas	21	9	0	8	2	0	2
American Samoa	0	0	0	0	0	0	0
Canal Zone	0	0	0	0	0	0	0
Guam	4	2	0	0	0	0	2
Puerto Rico	13	5	0	6	2	0	0
Virgin Island	4	2	0	2	0	0	0
Wake Island	0	0	0	0	0	0	0

¹ Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, mechanics, parachute riggers and ground instructors represent total ratings issued to date. These ratings retain their validity.

² Includes Outside U. S.

³ Military personnel holding civilian certificate stationed in foreign country.

⁴ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 7.16
PILOT CERTIFICATES ISSUED, BY CATEGORY:
1987-1991

Category of Certificates	1987		1988		1989		1990		1991	
	Original	Additional	Original	Additional	Original	Additional	Original	Additional	Original	Additional
Pilot—Total	149,640	39,990	148,018	37,921	146,951	46,990	156,955	45,730	161,009	51,435
Student	85,611	0	86,193	0	87,427	0	88,586	0	82,205	0
Private	42,278	16,302	39,900	15,800	35,360	22,240	41,749	19,299	49,580	23,630
Commercial	11,314	11,365	12,042	10,597	13,739	11,778	15,500	12,584	16,869	13,506
Airline Transport	7,678	11,956	7,461	11,209	7,829	12,698	8,013	13,540	8,437	13,979
Helicopter (only)	2,217	293	1,947	287	2,240	252	2,700	266	3,344	291
Glider (only)	542	74	475	28	336	22	378	41	487	29
Recreational	N/A	N/A	N/A	N/A	N/A	N/A	29	0	87	0
Nonpilot—Total ¹	21,878	5,486	21,064	6,107	23,078	7,688	27,113	8,387	31,882	9,567
Mechanic	15,089	4,195	14,907	4,353	15,923	5,728	19,861	6,381	24,299	7,653
Parachute Rigger	194	11	142	8	167	21	227	12	228	33
Ground Instructor	1,825	366	1,716	334	2,133	399	2,664	434	3,527	493
Dispatcher	533	3	510	2	431	5	550	2	623	3
Flight Navigator	4	0	17	0	14	0	1	1	3	0
Flight Engineer	4,233	911	3,772	1,410	4,410	1,535	3,810	1,557	3,202	1,385
Flight Instructor Certificates ¹	6,327	6,378	4,898	5,234	5,365	7,532	7,071	8,517	8,164	9,470
Instrument Ratings ²	0	18,296	0	16,810	0	20,911	0	22,528	26,007	0

¹ Not included in total.

² Special ratings shown on pilot certificates represented above; not included in total.

³ Revised 1987-1988.

N/A Not Available.

Note: Additional ratings are entered on current airman certificates as follows: Private, commercial, and airline transport pilot—aircraft category, class, and type instrument rating.

Helicopter pilot—instrument and type ratings.

Flight instructor—ratings for each aircraft category in which the holder is qualified, and for instrument flying instructions.

Mechanic—airframe and powerplant ratings.

Parachute rigger—senior or master rigger—senior or master rigger ratings.

Ground instructor—ratings for each subject in which the holder is qualified to give instruction.

TABLE 7.17
PILOT CERTIFICATES ISSUED, BY CATEGORY AND CONDUCTOR:
DECEMBER 31, 1991

Category of Certificates	Total Ratings Issued	Original Issuances				Additional Ratings			
		Total	Examiner	Inspector	No Test	Total	Examiner	Inspector	No Test
Pilot—Total	212,444	161,009	63,120	83,194	14,695	51,435	44,958	1,790	4,687
Student	82,205	82,205	0	82,205	0	0	0	0	0
Private	73,210	49,580	40,231	147	9,202	23,630	21,705	164	1,761
Commercial	30,375	16,869	13,037	71	3,761	13,506	11,314	222	1,970
Airline Transport	22,416	8,437	7,449	556	432	13,979	11,746	1,356	877
Helicopter (only)	3,635	3,344	1,953	106	1,285	291	193	23	75
Glider (only)	516	487	450	22	15	29	0	25	4
Recreational	87	87	0	87	0	0	0	0	0
Nonpilot—Total	41,449	31,882	24,241	280	7,361	9,567	7,005	20	2,542
Mechanic	31,952	24,299	20,635	12	3,652	7,653	6,441	7	1,205
Parachute Rigger	261	228	124	29	75	33	22	2	9
Ground Instructor	4,020	3,527	521	14	2,992	493	89	8	396
Dispatcher	626	623	390	89	144	3	0	0	3
Flight Navigator	3	3	0	1	2	0	0	0	0
Flight Engineer	4,587	3,202	2,571	135	496	1,385	453	3	929
Flight Instructor Certificates *	17,634	8,164	6,004	1,925	235	9,470	9,169	252	49

Note: Additional ratings are entered on current airman certificates as follows: Private, commercial, and airline transport pilot—aircraft category, class, and type instrument rating.

Helicopter pilot—instrument and type ratings.

Flight instructor—ratings for each aircraft category in which the holder is qualified, and for instrument flying instructions.

Mechanic—airframe and powerplant ratings.

Parachute rigger—senior or master rigger—senior or master rigger ratings.

Ground instructor—ratings for each subject in which the holder is qualified to give instruction.

* Special ratings shown on pilot certificates represented above; not included in total.

TABLE 7.18
INSTRUMENT RATINGS ISSUED:
1991, 1990, 1987

Class of Certificates	1991	1990	1987	Percent Change 1991-1987
Total—All Pilots	25,992	22,528	18,296	15%
Private Pilots—Total	15,934	13,065	11,142	22%
Private Airplane (only).....	14,362	11,848	10,397	21%
Private Airplane, Private Glider.....	128	111	135	15%
Private Airplane, Commercial Glider.....	30	15	12	100%
Private Airplane, Private Helicopter.....	59	36	35	64%
Private Airplane, Private Glider, Private Helicopter.....	2	1	1	100%
Private Airplane, Commercial Helicopter.....	359	309	234	16%
Private Airplane, Other.....	994	745	328	33%
Commercial Pilots—Total	8,911	8,338	5,996	7%
Commercial Airplane (only).....	7,070	7,408	5,044	6%
Commercial Airplane, Private Glider.....	58	54	48	7%
Commercial Airplane, Commercial Glider.....	54	66	61	-18%
Commercial Airplane, Private Helicopter.....	22	12	14	83%
Commercial Airplane, Commercial Helicopter.....	802	788	814	2%
Commercial Airplane, Private Glider, Commercial Helicopter.....	1	4	7	-75%
Commercial Airplane, Commercial Glider, Commercial Helicopter.....	3	4	7	-25%
Commercial Airplane, Other.....	1	2	1	-50%
Rotorcraft Pilots—Total	1,147	1,125	1,158	2%
Commercial Helicopter.....	1,103	1,097	1,135	1%
Commercial Helicopter, Private Glider.....	4	1	1	300%
Commercial Helicopter, Airline Transport Helicopter.....	28	20	20	40%
Commercial Helicopter, Other.....	12	7	2	71%

TABLE 7.19
STUDENT CERTIFICATES ISSUED, BY MONTH:
1987-1991

Month	1987	1988	1989	1990	1991
Total	85,661	82,110	87,427	88,586	82,205
January.....	6,098	5,410	7,789	6,699	5,704
February.....	6,543	6,157	7,156	6,266	5,541
March.....	7,125	7,133	6,833	7,372	5,950
April.....	7,139	6,606	6,059	7,044	6,513
May.....	6,164	7,014	6,870	7,604	6,622
June.....	8,491	8,539	8,675	8,284	7,932
July.....	8,973	7,796	8,305	9,037	8,442
August.....	8,389	8,981	8,976	9,155	8,580
September.....	8,109	7,624	8,080	7,509	7,630
October.....	7,585	7,133	7,616	8,103	7,956
November.....	5,912	6,086	6,203	6,551	7,661
December.....	5,133	3,631	4,865	4,962	3,674

VIII. GENERAL AVIATION AIRCRAFT

General aviation aircraft activity information was obtained using the General Aviation Activity and Avionics Survey, which is mailed to the owners of a sample of registered general aviation aircraft. The sample is a scientifically designed random sample which represents all general aviation aircraft registered in the United States.

The survey collects data relative to flight hours, airframe hours and the avionics equipment on board the aircraft. In addition, the survey collects information about the number of hours flown under instrument flight rules, fuel consumption rates, and the state where the aircraft is based.

The estimates for 1991 were adjusted to reflect the effects on nonrespondents. A survey of nonrespondents to the 1990 survey found that the proportion of nonrespondents that were active was less than that of the respondents. It also found that if the aircraft was active it flew about the same number of annual hours as the respondent's aircraft. The table below shows estimates for 1986—1990 adjusted for nonresponse.

Year	Number of Active Aircraft (000)	Total Flight Hours (000)
1986	205.3	31,782
1987	202.7	30,883
1988	196.2	31,114
1989	205.0	32,332
1990	198.0	32,096

Because the estimates are derived from a sample—not the total population of aircraft—a certain amount of sampling error is introduced. The user must consider this error along with the estimate itself when making an inference or drawing any conclusions about the aircraft population. Although the exact value of the sample error is unknown, a quantity known as the standard error is used to approximate it. Using the standard error, one can develop an interval within which the true population estimate will lie with a known probability. The probability that the true value lies within the interval depends on the width of the interval, i.e., the estimate plus or minus 1, 2, or 3 times the standard error. The table below shows selected interval widths and their corresponding confidence.

Width of Interval	Approximate Confidence That Interval Includes True Value
1 standard error	68%
2 standard errors	95%
3 standard errors	99%

For example, if the estimate for the total number of active piston powered rotorcraft were 2,658 and the standard error was 176, then the 95% confidence interval would be $2,658 + 2(176)$ or (2306, 3010). One would say that there is a 95% chance that the number of active piston powered rotorcraft lies between 2306 and 3010.

In some tables, the standard error is expressed as a percent. To calculate the standard error, multiply the estimated by the percentage. To derive the 95% confidence interval, proceed as before. For example, if total hours flown were 35,792 thousand hours and the percentage standard error was 3.0%, the 95% confidence interval would be:

$$35,792 + (2 \times 3\% \times 35,792) = 35,792 \pm 2148 = (33,644: 37,940)$$

The standard error, percent standard error, or a code for the standard error is shown for each estimate made from the sample in this chapter.

More detailed estimates and more detailed discussion of the survey and its methodology are available in *General Aviation Activity and Avionics Survey*.

TABLE 8.1
ACTIVE GENERAL AVIATION AIRCRAFT
BY AIRCRAFT TYPE AND PRIMARY USE
1991

(Percent standard error is shown in parenthesis)

Aircraft Type	Total	Corporate	Business	Personal	Instructional	Aerial Application	Aerial Observation	Other Work	Commuter Air Carrier	Air Taxi	Other
Fixed-Wing—Total.....	184,620	9,248	31,164	108,718	16,336	5,971	3,728	1,057	692	4,639	3,067
	(0.7%)	(4.3%)	(3.0%)	(1.1%)	(4.7%)	(3.8%)	(10.3%)	(17.6%)	(16.0%)	(7.7%)	(9.8%)
Piston—Total.....	175,347	3,912	30,140	108,353	16,196	5,788	3,694	1,025	374	3,506	2,362
	(0.7%)	(9.1%)	(3.1%)	(1.1%)	(4.7%)	(3.9%)	(10.3%)	(18.1%)	(26.6%)	(9.5%)	(11.9%)
One Engine	154,102	1,323	22,538	102,411	15,154	5,217	3,240	921	172	1,345	1,782
	(0.8%)	(17.3%)	(3.7%)	(1.1%)	(4.9%)	(3.5%)	(11.2%)	(19.9%)	(35.5%)	(15.5%)	(14.1%)
Two Engine	21,119	2,589	7,596	5,912	1,042	547	453	93	196	2,151	539
	(1.7%)	(10.5%)	(5.4%)	(6.4%)	(18.3%)	(23.1%)	(26.9%)	(30.4%)	(40.0%)	(12.1%)	(23.3%)
Other Piston	127	0	7	29	0	23	0	11	7	10	41
	(22.2%)	(0.0%)	(144.0%)	(41.5%)	(0.0%)	(37.7%)	(0.0%)	(66.8%)	(144.0%)	(109.0%)	(33.9%)
Turboprop—Total.....	4,920	2,365	646	224	134	183	21	13	312	687	335
	(2.7%)	(5.4%)	(14.8%)	(32.1%)	(32.0%)	(13.1%)	(80.0%)	(111.7%)	(14.6%)	(13.2%)	(21.8%)
Two Engine	4,398	2,347	640	180	134	1	20	9	300	590	175
	(3.0%)	(5.4%)	(14.7%)	(33.8%)	(32.0%)	(267.6%)	(77.0%)	(68.3%)	(13.3%)	(14.8%)	(31.0%)
Other Turboprop	522	18	6	43	0	182	1	4	12	97	160
	(2.4%)	(123.0%)	(265.0%)	(88.2%)	(0.0%)	(13.1%)	(627.3%)	(311.1%)	(182.2%)	(25.4%)	(30.4%)
Turbojet—Total.....	4,353	2,971	378	142	6	0	13	19	6	447	370
	(2.0%)	(4.3%)	(21.9%)	(34.8%)	(110.1%)	(0.0%)	(86.9%)	(58.2%)	(251.3%)	(19.6%)	(20.9%)
Two Engine	4,066	2,768	376	126	2	0	13	9	6	444	323
	(1.9%)	(4.6%)	(22.0%)	(38.8%)	(344.2%)	(0.0%)	(86.9%)	(103.7%)	(251.3%)	(19.8%)	(23.7%)
Other Turbojet.....	286	203	2	16	4	0	0	10	0	3	48
	(14.4%)	(6.3%)	(142.7%)	(42.1%)	(41.2%)	(0.0%)	(0.0%)	(60.4%)	(0.0%)	(113.4%)	(24.0%)
Rotorcraft—Total.....	6,292	669	366	746	791	1,035	1,027	302	5	861	489
	(3.5%)	(18.8%)	(23.0%)	(13.8%)	(13.8%)	(12.5%)	(15.3%)	(23.0%)	(210.2%)	(16.0%)	(20.5%)
Piston	2,470	76	136	509	738	544	253	59	0	15	141
	(7.6%)	(60.4%)	(37.2%)	(14.2%)	(13.8%)	(16.1%)	(27.7%)	(78.5%)	(0.0%)	(126.4%)	(34.7%)
Turbine	3,822	593	230	237	53	491	774	243	5	847	348
	(2.9%)	(19.5%)	(29.3%)	(30.9%)	(75.0%)	(19.4%)	(18.1%)	(21.4%)	(210.2%)	(16.1%)	(25.2%)
Other—Total.....	7,563	116	53	5,605	774	0	291	317	41	0	366
	(2.9%)	(49.4%)	(80.6%)	(3.2%)	(14.8%)	(0.0%)	(30.9%)	(27.8%)	(83.6%)	(0.0%)	(23.8%)
Total All Aircraft.....	198,474	10,033	31,583	115,069	17,901	7,006	5,045	1,676	738	5,501	3,922
	(0.7%)	(4.2%)	(3.0%)	(1.1%)	(4.4%)	(3.7%)	(8.4%)	(13.0%)	(15.7%)	(6.9%)	(8.4%)

NOTE: Columns may not add to totals due to rounding and estimation procedures.

TABLE 8.2
ACTIVE GENERAL AVIATION AIRCRAFT
BY AIRCRAFT TYPE
1982-1991
(Percent Standard error is shown in parenthesis)

Aircraft Type	1991 *	1990	1989	1988	1987	1986	1985	1984	1983	1982
Fixed-Wing—Total	184,620 (0.7%)	197,782 (0.5%)	204,541 (0.5%)	197,003 (0.6%)	204,067 (0.5%)	206,090 (0.5%)	197,974 (0.6%)	207,571 (0.5%)	200,831 (0.7%)	198,377 (0.6%)
Piston—Total	175,347 (0.7%)	187,773 (0.6%)	193,815 (0.5%)	187,556 (0.6%)	194,455 (0.5%)	195,646 (0.6%)	188,191 (0.6%)	197,442 (0.5%)	191,480 (0.7%)	189,195 (0.6%)
One Engine	154,102 (0.8%)	165,073 (0.6%)	170,370 (0.6%)	164,760 (0.6%)	171,035 (0.6%)	171,777 (0.6%)	164,385 (0.7%)	171,922 (0.5%)	166,247 (0.8%)	164,173 (0.7%)
Two Engine	21,119 (1.7%)	22,606 (1.3%)	23,359 (1.2%)	22,698 (1.4%)	23,307 (1.3%)	23,721 (1.6%)	23,659 (1.5%)	25,258 (1.2%)	24,910 (1.4%)	24,882 (1.4%)
Other Piston	127 (22.2%)	94 (30.0%)	86 (33.8%)	99 (21.7%)	112 (25.0%)	148 (24.3%)	148 (20.9%)	262 (13.4%)	143 (9.8%)	140 (17.1%)
Turboprop—Total	4,920 (2.7%)	5,634 (1.8%)	6,324 (1.5%)	5,259 (1.7%)	5,274 (1.9%)	5,964 (1.9%)	5,407 (2.1%)	5,809 (1.0%)	5,453 (1.7%)	5,186 (1.2%)
Two Engine	4,398 (3.0%)	5,239 (1.8%)	6,093 (1.5%)	5,057 (1.8%)	5,060 (1.9%)	5,779 (1.9%)	5,240 (2.1%)	5,633 (1.0%)	5,311 (1.6%)	5,037 (1.1%)
Other Turboprop	522 (2.4%)	395 (7.0%)	230 (14.2%)	202 (7.1%)	214 (8.9%)	185 (16.2%)	167 (7.8%)	176 (8.5%)	142 (26.8%)	149 (18.8%)
Turbojet—Total	4,353 (2.0%)	4,374 (2.0%)	4,402 (1.5%)	4,187 (2.0%)	4,338 (1.5%)	4,480 (2.2%)	4,375 (1.7%)	4,320 (1.6%)	3,898 (3.3%)	3,996 (2.8%)
Two Engine	4,066 (1.9%)	3,950 (2.0%)	4,004 (1.4%)	3,821 (2.1%)	3,900 (1.6%)	4,037 (1.6%)	3,914 (1.7%)	3,780 (1.3%)	3,447 (2.7%)	3,309 (2.5%)
Other Turbojet	286 (14.4%)	425 (8.2%)	398 (8.2%)	367 (5.5%)	438 (5.0%)	444 (16.2%)	460 (7.2%)	540 (26.9%)	451 (20.2%)	687 (10.6%)
Rotorcraft—Total	6,292 (3.5%)	7,397 (3.0%)	7,475 (0.6%)	6,406 (3.6%)	6,333 (3.2%)	6,943 (3.1%)	6,418 (4.0%)	7,096 (3.1%)	6,540 (3.7%)	6,169 (3.7%)
Piston	2,470 (7.6%)	3,459 (5.3%)	3,244 (1.2%)	2,584 (7.9%)	2,813 (5.0%)	2,921 (6.0%)	2,877 (7.0%)	2,936 (6.3%)	2,541 (7.5%)	2,419 (7.4%)
Turbine	3,822 (2.9%)	3,938 (3.1%)	4,232 (0.4%)	3,822 (2.7%)	3,520 (4.2%)	4,022 (3.1%)	3,541 (4.5%)	4,160 (2.8%)	3,998 (3.8%)	3,749 (3.7%)
Other—Total	7,563 (2.9%)	7,032 (3.0%)	7,721 (2.4%)	6,857 (4.1%)	6,783 (3.4%)	7,010 (3.0%)	6,263 (3.3%)	6,275 (2.7%)	5,923 (3.5%)	5,233 (4.0%)
Total All Aircraft	198,475 (0.7%)	212,211 (0.5%)	219,737 (0.5%)	210,266 (0.5%)	217,183 (0.5%)	220,044 (0.5%)	210,654 (0.6%)	220,943 (0.5%)	213,293 (0.6%)	209,779 (0.6%)

* Estimates adjusted for nonrespondents. See text.

NOTE: Columns may not add to totals due to rounding and estimation procedures.

TABLE 8.3
ACTIVE GENERAL AVIATION AIRCRAFT TOTAL HOURS FLOWN,
BY AIRCRAFT TYPE AND PRIMARY USE
1991

(Percent standard error is shown in parenthesis)

Aircraft Type	Total	Corporate	Business	Personal	Instructional	Aerial Application	Aerial Observation	Other Work	Commuter Air Carrier	Air Taxi	Other
Fixed-Wing—Total.....	26,851,118 (1.9%)	2,263,679 (5.3%)	4,103,699 (4.0%)	9,371,905 (2.5%)	5,784,303 (6.7%)	1,608,579 (5.7%)	1,075,779 (14.9%)	246,434 (20.1%)	561,147 (16.3%)	1,581,538 (9.6%)	247,429 (10.7%)
Piston—Total.....	24,102,168 (2.1%)	760,576 (11.3%)	3,921,288 (4.1%)	9,315,835 (2.5%)	5,741,642 (6.7%)	1,526,638 (5.9%)	1,061,002 (15.1%)	239,374 (20.7%)	246,306 (26.8%)	1,123,863 (12.2%)	159,018 (12.2%)
One Engine	20,540,232 (2.3%)	221,687 (21.5%)	2,906,267 (5.0%)	8,696,751 (2.6%)	5,336,241 (7.0%)	1,457,073 (5.8%)	916,778 (16.5%)	220,773 (22.4%)	118,973 (35.0%)	541,826 (19.8%)	117,359 (14.9%)
Two Engine	3,555,265 (4.1%)	538,889 (13.3%)	1,014,878 (7.2%)	615,222 (9.2%)	405,402 (20.6%)	68,780 (23.6%)	144,224 (30.4%)	18,348 (33.5%)	126,538 (39.9%)	581,741 (13.5%)	41,120 (19.7%)
Other Piston	6,673 (33.5%)	0 (0.0%)	143 (144.0%)	3,862 (30.3%)	0 (0.0%)	785 (59.6%)	0 (0.0%)	252 (66.8%)	795 (144.0%)	296 (109.0%)	539 (72.7%)
Turboprop—Total.....	1,512,668 (5.3%)	624,985 (7.2%)	99,894 (18.0%)	32,693 (35.1%)	42,596 (45.8%)	81,941 (15.0%)	6,027 (84.1%)	5,729 (87.9%)	310,559 (15.7%)	272,018 (14.6%)	36,227 (37.1%)
Two Engine	1,358,723 (5.8%)	619,941 (7.2%)	98,563 (18.1%)	29,719 (38.7%)	42,596 (45.8%)	167 (267.6%)	5,934 (82.6%)	5,027 (61.6%)	305,213 (14.7%)	228,323 (16.4%)	23,240 (32.6%)
Other Turboprop	153,945 (12.8%)	5,044 (113.0%)	1,330 (254.3%)	2,974 (89.3%)	0 (0.0%)	81,774 (14.9%)	93 (627.3%)	702 (316.1%)	5,346 (182.2%)	43,695 (27.2%)	12,987 (75.8%)
Turbojet—Total.....	1,236,283 (4.5%)	878,119 (6.1%)	82,518 (25.2%)	23,375 (40.5%)	65 (96.6%)	0 (0.0%)	8,750 (100.6%)	1,332 (46.9%)	4,282 (251.3%)	185,657 (21.5%)	52,185 (23.1%)
Two Engine	1,182,578 (4.7%)	832,659 (6.5%)	82,193 (25.3%)	20,104 (46.0%)	40 (344.2%)	0 (0.0%)	8,750 (100.6%)	1,140 (114.8%)	4,282 (251.3%)	185,064 (21.6%)	48,347 (26.2%)
Other Turbojet.....	53,705 (15.1%)	45,460 (10.2%)	326 (164.2%)	3,271 (41.0%)	25 (41.2%)	0 (0.0%)	0 (0.0%)	192 (60.4%)	0 (0.0%)	594 (113.4%)	3,838 (34.3%)
Rotorcraft—Total.....	2,756,555 (7.5%)	323,993 (27.9%)	47,224 (23.8%)	49,793 (18.0%)	255,077 (17.5%)	302,379 (16.4%)	699,566 (19.0%)	209,617 (26.1%)	3,224 (225.0%)	659,537 (29.6%)	205,996 (25.4%)
Piston	584,644 (12.0%)	4,707 (93.6%)	12,572 (37.6%)	21,963 (19.8%)	243,088 (17.8%)	137,489 (22.1%)	130,698 (29.5%)	17,907 (81.8%)	0 (0.0%)	2,502 (130.8%)	13,569 (55.2%)
Turbine	2,171,911 (9.0%)	319,285 (28.7%)	34,652 (30.6%)	27,830 (37.0%)	11,989 (77.8%)	164,890 (24.6%)	568,868 (22.4%)	191,710 (25.3%)	3,224 (225.0%)	657,035 (29.8%)	192,427 (30.3%)
Other—Total.....	459,359 (8.9%)	29,595 (112.1%)	3,325 (83.0%)	263,091 (7.8%)	101,742 (22.1%)	0 (0.0%)	22,006 (32.5%)	14,708 (34.3%)	5,200 (83.6%)	0 (0.0%)	19,692 (26.3%)
Total All Aircraft.....	30,067,032 (1.8%)	2,617,266 (5.8%)	4,154,249 (4.0%)	9,684,792 (2.4%)	6,141,122 (6.3%)	1,910,558 (5.4%)	1,797,351 (11.4%)	470,760 (13.4%)	569,571 (15.7%)	2,241,076 (10.8%)	473,116 (10.1%)

TABLE 8.4
ACTIVE GENERAL AVIATION AIRCRAFT
TOTAL HOURS FLOWN, BY AIRCRAFT TYPE
1982-1991

(Hours in Thousands)
(Percent Standard Error is shown in parenthesis)

Aircraft Type	1991 *	1990	1989	1988	1987	1986	1985	1984	1983	1982
Fixed-Wing —Total.....	26,851 (1.9%)	31,995 (1.8%)	31,758 (1.7%)	30,274 (1.8%)	30,744 (1.7%)	31,397 (1.7%)	31,495 (1.7%)	33,265 (2.1%)	32,558 (2.1%)	33,728 (1.9%)
Piston—Total.....	24,102 (2.1%)	27,973 (2.0%)	26,971 (1.9%)	26,226 (2.0%)	27,039 (1.9%)	26,861 (1.9%)	27,793 (1.9%)	29,194 (1.8%)	28,911 (2.3%)	29,950 (2.2%)
One Engine	20,540 (2.3%)	23,697 (2.2%)	22,307 (2.2%)	21,946 (2.2%)	22,141 (2.0%)	21,939 (2.1%)	22,851 (2.1%)	23,506 (2.1%)	23,149 (2.6%)	24,259 (2.5%)
Two Engine	3,555 (4.1%)	4,220 (3.8%)	4,648 (3.3%)	4,257 (4.1%)	4,883 (5.2%)	4,911 (4.6%)	4,915 (4.1%)	5,585 (3.6%)	5,730 (5.3%)	5,657 (4.7%)
Other Piston	7 (33.5%)	57 (48.7%)	17 (67.3%)	22 (44.5%)	15 (33.3%)	11 (45.5%)	26 (34.6%)	102 (29.4%)	32 (31.2%)	33 (30.3%)
Turboprop—Total.....	1,513 (5.3%)	2,511 (6.4%)	3,132 (5.0%)	2,370 (5.0%)	2,177 (5.0%)	2,882 (5.1%)	2,080 (4.6%)	2,506 (4.7%)	2,173 (7.1%)	2,168 (6.7%)
Two Engine	1,359 (5.8%)	2,341 (6.8%)	3,006 (5.2%)	2,286 (5.1%)	1,994 (5.0%)	2,797 (5.3%)	2,016 (4.8%)	2,452 (4.7%)	2,090 (7.2%)	2,096 (6.8%)
Other Turboprop	154 (12.8%)	170 (10.9%)	126 (16.6%)	84 (14.9%)	183 (24.6%)	85 (14.1%)	64 (10.9%)	54 (25.9%)	83 (37.3%)	71 (28.2%)
Turbojet—Total.....	1,236 (4.5%)	1,512 (4.1%)	1,654 (3.7%)	1,678 (4.4%)	1,528 (3.9%)	1,654 (4.7%)	1,622 (4.4%)	1,566 (4.7%)	1,473 (6.6%)	1,611 (6.8%)
Two Engine	1,183 (4.7%)	1,385 (4.3%)	1,542 (3.9%)	1,548 (4.7%)	1,421 (4.2%)	1,566 (4.9%)	1,461 (4.8%)	1,328 (5.0%)	1,350 (6.8%)	1,347 (7.3%)
Other Turbojet.....	54 (15.1%)	127 (12.2%)	112 (12.2%)	130 (10.9%)	107 (10.3%)	98 (19.4%)	161 (10.6%)	237 (13.9%)	124 (25.0%)	264 (17.4%)
Rotorcraft—Total.....	2,757 (7.5%)	2,392 (5.9%)	2,826 (0.9%)	2,707 (6.5%)	2,283 (7.4%)	2,625 (6.7%)	2,155 (7.7%)	2,495 (5.5%)	2,271 (7.0%)	2,350 (6.6%)
Piston	585 (12.0%)	775 (10.2%)	749 (2.1%)	576 (11.6%)	652 (9.2%)	804 (12.8%)	564 (15.1%)	592 (11.3%)	572 (8.6%)	579 (10.0%)
Turbine.....	2,172 (9.0%)	1,617 (7.2%)	2,077 (0.9%)	2,131 (7.6%)	1,631 (9.6%)	1,821 (7.7%)	1,590 (8.9%)	1,903 (6.4%)	1,700 (8.9%)	1,771 (8.2%)
Other—Total.....	459 (8.9%)	369 (7.0%)	429 (7.4%)	613 (24.2%)	416 (6.0%)	394 (7.6%)	414 (8.2%)	358 (6.7%)	420 (11.7%)	379 (10.6%)
Total All Aircraft.....	30,067 (1.8%)	34,756 (1.7%)	35,012 (1.6%)	33,593 (1.7%)	33,443 (1.7%)	34,416 (1.6%)	34,063 (1.6%)	36,119 (1.6%)	35,249 (2.0%)	36,457 (1.9%)

* Estimates adjusted for nonrespondents. See text.

NOTE: Columns may not add to totals due to rounding and estimation procedures.

TABLE 8.5
ACTIVE GENERAL AVIATION AIRCRAFT
AVERAGE HOURS FLOWN, BY AIRCRAFT TYPE
1982-1991
(Percent Standard error is shown in parenthesis)

Aircraft Type	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Fixed-Wing —Total	143.8 (1.9%)	157.8 (1.8%)	150.1 (1.7%)	148.0 (1.8%)	145.6 (1.7%)	145.1 (1.7%)	155.5 (1.7%)	156.0 (1.7%)	160.9 (2.1%)	170.6 (2.0%)
Piston—Total	137.5 (2.0%)	147.9 (1.9%)	137.9 (1.9%)	138.2 (1.9%)	136.9 (1.8%)	135.4 (1.8%)	147.1 (1.8%)	147.1 (1.8%)	150.6 (2.3%)	159.8 (2.1%)
One Engine	134.2 (2.2%)	143.6 (2.2%)	131.0 (2.2%)	133.0 (2.2%)	129.0 (2.0%)	127.0 (2.0%)	139.0 (2.0%)	137.0 (2.0%)	139.0 (2.5%)	149.0 (2.4%)
Two Engine	167.0 (3.8%)	182.3 (3.8%)	195.0 (3.1%)	181.0 (3.5%)	202.0 (5.1%)	204.0 (4.4%)	207.0 (3.8%)	218.0 (3.2%)	230.0 (5.2%)	230.0 (4.6%)
Other Piston	41.3 (26.1%)	623.0 (30.6%)	133.0 (24.9%)	225.0 (42.2%)	140.0 (22.7%)	111.0 (45.4%)	184.0 (27.0%)	433.0 (24.8%)	240.0 (13.4%)	246.0 (15.9%)
Turboprop—Total	307.7 (4.3%)	425.6 (4.4%)	471.3 (4.3%)	447.9 (4.5%)	388.9 (4.7%)	422.9 (4.5%)	362.0 (4.2%)	414.2 (4.4%)	389.4 (6.3%)	396.3 (6.4%)
Two Engine	311.9 (4.5%)	424.0 (4.7%)	467.0 (4.4%)	450.0 (4.6%)	374.0 (4.7%)	420.0 (4.6%)	360.0 (4.4%)	416.0 (4.5%)	386.0 (6.5%)	394.0 (6.6%)
Other Turboprop	279.2 (14.0%)	445.8 (8.3%)	568.0 (13.7%)	392.0 (16.7%)	839.0 (24.5%)	498.0 (13.8%)	396.0 (6.0%)	339.0 (17.2%)	578.0 (22.7%)	473.0 (17.8%)
Turbojet—Total	289.7 (4.0%)	352.6 (3.7%)	375.1 (3.4%)	405.0 (3.8%)	356.2 (3.6%)	353.8 (4.8%)	368.7 (4.0%)	353.6 (4.0%)	382.2 (5.9%)	404.0 (6.2%)
Two Engine	296.7 (4.2%)	358.9 (4.0%)	384.0 (3.6%)	412.0 (4.1%)	371.0 (3.8%)	385.0 (4.8%)	374.0 (4.4%)	348.0 (4.1%)	391.0 (6.2%)	407.0 (6.8%)
Other Turbojet.....	192.0 (7.5%)	292.9 (10.8%)	274.0 (11.5%)	346.0 (10.4%)	229.0 (9.6%)	153.0 (28.0%)	325.0 (5.8%)	392.0 (14.7%)	273.0 (14.7%)	385.0 (13.5%)
Rotorcraft—Total	451.6 (7.8%)	320.7 (5.5%)	390.2 (0.8%)	423.3 (6.2%)	359.3 (7.0%)	380.2 (6.3%)	336.1 (6.8%)	343.6 (5.4%)	350.2 (6.3%)	383.2 (5.7%)
Piston.....	233.7 (9.0%)	216.4 (8.9%)	235.0 (1.9%)	227.0 (9.0%)	228.0 (7.8%)	273.0 (11.1%)	191.0 (12.8%)	186.0 (9.7%)	221.0 (6.3%)	236.0 (8.0%)
Turbine.....	592.2 (9.6%)	424.9 (6.9%)	496.0 (8.0%)	576.0 (7.6%)	485.0 (9.5%)	459.0 (7.6%)	460.0 (8.0%)	468.0 (6.4%)	431.0 (8.0%)	474.0 (7.1%)
Other—Total	61.4 (9.7%)	52.2 (6.8%)	55.6 (7.5%)	95.2 (25.1%)	62.0 (5.5%)	56.2 (7.5%)	67.1 (7.6%)	56.5 (6.4%)	71.1 (11.3%)	72.4 (9.9%)
Total All Aircraft	149.1 (1.8%)	159.2 (1.7%)	154.5 (1.6%)	153.6 (1.7%)	148.4 (1.6%)	148.9 (1.6%)	158.2 (1.6%)	158.1 (1.6%)	164.0 (2.0%)	174.0 (1.9%)

NOTE: Columns may not add to totals due to rounding and estimation procedures.

TABLE 8.6
ACTIVE GENERAL AVIATION AIRCRAFT AND HOURS FLOWN
BY FAA REGION AND STATE OF BASED AIRCRAFT
1991

FAA Region & State	Active Aircraft		Hours Flown	
	Aircraft	Standard Error	Hours(000)	Standard Error
Total	198,475	0.6%	30,055	1.8%
Alaskan—Total	6,616	6.6%	995	8.5%
Central—Total	11,404	5.7%	1,444	7.5%
Iowa.....	2,597	12.4%	320	15.1%
Kansas.....	3,421	10.7%	387	13.4%
Missouri.....	3,781	10.3%	555	13.4%
Nebraska.....	1,605	15.0%	181	17.7%
Eastern—Total	22,505	3.9%	3,369	5.3%
Delaware.....	891	20.2%	203	28.3%
District of Columbia.....	46	80.4%	16	113.3%
Maryland.....	2,717	12.3%	311	15.4%
New Jersey.....	3,512	10.4%	613	13.1%
New York.....	5,419	8.5%	807	10.4%
Pennsylvania.....	5,688	8.1%	716	9.8%
Virginia.....	3,288	10.7%	603	13.6%
West Virginia.....	945	21.3%	100	26.3%
Great Lakes—Total	34,792	3.1%	4,531	4.3%
Illinois.....	6,543	7.7%	912	9.3%
Indiana.....	3,460	10.7%	480	13.3%
Michigan.....	6,823	7.4%	906	9.4%
Minnesota.....	4,097	9.7%	546	13.8%
North Dakota.....	1,489	16.6%	155	20.1%
Ohio.....	6,919	7.4%	916	9.5%
South Dakota.....	1,072	18.8%	132	28.6%
Wisconsin.....	4,389	9.4%	483	11.4%
New England—Total	8,269	6.8%	1,212	9.5%
Connecticut.....	1,872	14.7%	257	20.7%
Maine.....	1,251	17.7%	159	25.6%
Massachusetts.....	2,776	12.1%	488	16.2%
New Hampshire.....	1,393	17.0%	172	20.4%
Rhode Island.....	415	31.8%	67	43.5%
Vermont.....	561	26.4%	69	34.0%
Northwest Mountain—Total	19,399	4.2%	2,982	6.3%
Colorado.....	4,064	9.8%	601	13.5%
Idaho.....	1,820	14.1%	273	18.1%
Montana.....	1,851	14.5%	166	19.2%
Oregon.....	4,559	9.0%	563	11.0%
Utah.....	1,031	19.3%	210	27.5%
Washington.....	5,376	8.3%	1,041	11.9%
Wyoming.....	698	23.4%	128	39.3%
Southern—Total	32,428	3.2%	5,326	4.4%
Alabama.....	3,010	11.4%	387	13.2%
Florida.....	12,336	5.4%	2,237	7.2%
Georgia.....	4,540	9.3%	718	12.4%
Kentucky.....	1,446	16.7%	238	19.2%
Mississippi.....	1,770	14.8%	290	17.1%
North Carolina.....	4,493	9.3%	705	12.1%
Puerto Rico.....	394	30.7%	72	36.0%
South Carolina.....	1,878	14.5%	250	17.7%
Tennessee.....	2,513	12.4%	406	16.1%
Southwest—Total	26,517	3.6%	4,663	5.3%
Arkansas.....	2,206	13.1%	401	14.3%
Louisiana.....	2,843	11.4%	976	17.1%
New Mexico.....	1,891	13.8%	267	16.5%
Oklahoma.....	3,371	10.9%	433	13.0%
Texas.....	16,206	4.7%	2,856	6.1%
Western-Pacific—Total	36,545	2.9%	5,523	3.8%
Arizona.....	4,789	8.9%	854	12.3%
California.....	29,261	3.3%	4,143	3.7%
Hawaii.....	484	27.9%	259	34.1%
Nevada.....	1,988	13.7%	269	17.7%

NOTE: Column totals may differ from printed totals due to estimation procedures.

IX. AIRCRAFT ACCIDENTS

The data presented in this chapter were obtained from the National Transportation Safety Board.

The Safety Board's statistics categorize aviation accidents according to the Federal Air Regulations under which the accident flights were made. The groupings are:

- Large airlines in scheduled and nonscheduled service under Part 121 of the regulations
- Commuter carriers in scheduled service under Part 135
- "On-demand" air taxis in unscheduled operations under Part 135, and
- General aviation—all other civil flying.

See Glossary under "Aircraft Accident": for NTSB definitions for the following terms: "Fatal Injury", "Operator", "Serious Injury", and "Substantial Damage".

More detailed accident data may be obtained from the National Transportation Safety Board.

TABLE 9.1
AIR CARRIER and GENERAL AVIATION
AIRCRAFT ACCIDENTS AND FATALITIES
(Preliminary Data)
1991

Air Carrier and General Aviation Operations	Number of Accidents		Number of Fatalities
	Total	Fatal	
Air Carriers			
Air Carriers Operating Under 14 CFR 121 ¹			
Scheduled.....	26	4	62
Nonscheduled.....	1	0	0
Air Carriers Operating under 14 CFR 135			
Scheduled ³	22	8	99
Nonscheduled ⁴	84	26	69
General Aviation ⁵	2,143	414	746

¹ Airlines.

² Includes 12 persons killed on a Skywest commuter aircraft and 22 persons killed on an USAir airliner when the two aircraft collided.

³ Commuters.

⁴ On-Demand Air Taxis.

⁵ Includes accidents involving aircraft flown under rules other than 14 CFR 121 and 14 CFR 135.

Source: National Transportation Safety Board.

TABLE 9.2
AIRLINES
(Air Carriers Operating under 14 CFR 121)
ACCIDENTS, FATALITIES, AND RATES
(Preliminary Data)
1991

	Scheduled	Non-scheduled
Accidents		
Total.....	26	1
Fatal.....	4	0
Fatalities.....	62 ¹	0
Aircraft Hours Flown (000) ²	11,250	580
Departures (000) ²	7,500	270
Accident Rate Per 100,000 Hours Flown		
Total.....	0.23	0.17
Fatal.....	0.04	0.00
Accident Rate Per 100,000 Departures		
Total.....	0.35	0.37
Fatal.....	0.05	0.00

¹ Includes 12 persons killed on a Skywest commuter aircraft and 22 persons killed on an USAir airliner when the two aircraft collided.

² Exposure data estimate source: Research and Special Programs Administration and FAA.

Source: National Transportation Safety Board.

TABLE 9.3
AIRLINES
(Air Carriers Operating under 14 CFR 121)
FATAL ACCIDENTS, FATALITIES
(Preliminary Data)
1991

Location	Operator	Date	Service	Aircraft	Fatalities				Total Aboard	Reported Type of Accident
					Total	Passenger	Crew	Others		
SCHEDULED SERVICE										
Total					62	40	9	13	138	
Los Angeles, CA	USAir	1-Feb	Psg	B-737	34	20	2	12	99	Collided with a Fairchild SA 227 on runway after landing
Cleveland, OH	Ryan Int'l	17-Feb	Mail	DC-9	2	0	2	0	2	Crashed out of control during takeoff
Colorado Springs, CO	United	3-Mar	Psg	B-737	25	20	5	0	25	Crashed out of control on approach
Bridgeport, CT	Continental Express	12-Oct	Psg	ATR-42	1	0	0	1	12	Company employee, an intended passenger, struck by propeller while helping prepare airplane for flight
NONSCHEDULED SERVICE										
	None									

Source: National Transportation Safety Board.

TABLE 9.4
AIRLINES: SCHEDULED AND NONSCHEDULED SERVICE ¹
ACCIDENTS, FATALITIES AND RATES
(U.S. Air Carriers Operating Under 14 CFR 121)
1982-1991

	1982	1983	1984	1985	1986 ⁴	1987 ⁴	1988 ⁴	1989 ⁴	1990 ⁴	1991 ⁵
Accidents										
Total.....	20	24	17	22	24	36	29	29	27	27
Fatal.....	5	4	1	7	3	5	3	11	6	4
Total Fatalities.....	235	15	4	526	8	232	285	278	39	62 ⁶
Aircraft Hours Flown (000) ²	7,040	7,299	8,165	8,710	9,976	10,645	11,140	11,263	12,129	11,830
Aircraft Miles Flown (000,000) ²	2,939	3,069	3,428	3,631	4,017	4,361	4,503	4,605	4,971	4,760
Departures (000) ²	5,351	5,444	5,899	6,307	7,202	7,601	7,716	7,645	8,027	7,770
Accident Rate Per 100,000 Hours Flown										
Total.....	0.27	0.33	0.21	0.25	0.23	0.33	0.25	0.26	0.22	0.23
Fatal.....	0.06	0.06	0.01	0.08	0.02	0.04	0.02	0.10	0.05	0.03
Accident Rate Per Million Miles Flown										
Total.....	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Fatal.....	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³
Accident Rate Per 100,000 Departures										
Total.....	0.36	0.44	0.29	0.35	0.32	0.46	0.37	0.38	0.34	0.35
Fatal.....	0.08	0.07	0.02	0.11	0.03	0.05	0.03	0.14	0.08	0.05

¹ Includes accidents involving deregulated all-cargo air carriers and commercial operators of large aircraft when those accidents occurred during scheduled 14 CFR 121 operations.

² Exposure data estimate source: Research and Special Programs Administration.

³ Rounds to 0.00.

⁴ Revised.

⁵ Preliminary.

⁶ Includes 12 persons killed on a Skywest commuter aircraft and 22 persons killed on an USAir airliner when the two aircraft collided.

NOTE: The following suicide/sabotage cases are included in Accidents and Fatalities but not in Accident Rates:

Source: National Transportation Safety Board

Date	Location	Operator	Total	Aboard
8/11/82.....	Honolulu, HI.....	Pan American.....	1	1
4/2/86.....	Near Athens, Greece.....	Trans World.....	4	4
12/7/87.....	San Luis Obispo, CA.....	Pacific Southwest.....	43	43
12/21/88.....	Lockerbie, Scotland.....	Pan American.....	270	259

TABLE 9.5
AIRLINES: SCHEDULED SERVICE ¹
ACCIDENTS, FATALITIES AND RATES
(U.S. Air Carriers Operating Under 14 CFR 121)
1982-1991

	1982	1983	1984	1985	1986 ⁴	1987 ⁴	1988 ⁴	1989 ⁴	1990 ⁴	1991 ⁴
Accidents										
Total.....	16	22	13	17	21	32	28	24	25	26
Fatal.....	4	4	1	4	2	4	3	8	6	4
Total Fatalities.....	234	15	4	197	5	231	285	131	39	62 ⁴
Aircraft Hours Flown (000) ²	6,698	6,915	7,736	8,265	9,497	10,119	10,524	11,595	11,533	11,250
Aircraft Miles Flown (000,000) ²	2,807	2,921	3,259	3,453	3,829	4,126	4,261	4,338	4,724	4,520
Departures (000) ²	5,162	5,235	5,666	6,069	6,928	7,293	7,347	7,269	7,743	7,500
Accident Rate Per 100,000 Hours Flown										
Total.....	0.22	0.32	0.17	0.21	0.21	0.31	0.26	0.23	0.22	0.23
Fatal.....	0.04	0.06	0.01	0.05	0.01	0.03	0.02	0.08	0.05	0.04
Accident Rate Per Million Miles Flown										
Total.....	0.01	0.01	0.00 ³	0.00 ³	0.01	0.01	0.01	0.01	0.01	0.01
Fatal.....	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³	0.00 ³
Accident Rate Per 100,000 Departures										
Total.....	0.29	0.42	0.23	0.28	0.29	0.43	0.37	0.33	0.32	0.35
Fatal.....	0.06	0.08	0.02	0.07	0.01	0.04	0.03	0.11	0.08	0.05

¹ Includes accidents involving deregulated all-cargo air carriers and commercial operators of large aircraft when those accidents occurred during scheduled 14 CFR 121 operations.

² Exposure data estimate source: Research and Special Programs Administration.

³ Rounds to 0.00.

⁴ Revised.

⁵ Preliminary.

⁶ Includes 12 persons killed on a Skywest commuter aircraft and 22 persons killed on an USAir airliner when the two aircraft collided.

Source: National Transportation Safety Board

NOTE: The following suicide/sabotage cases are included in Accidents and Fatalities but not in Accident Rates:

Date	Location	Operator	Total	Aboard
8/11/82.....	Honolulu, HI.....	Pan American.....	1	1
4/2/86.....	Near Athens, Greece.....	Trans World.....	4	4
12/7/87.....	San Luis Obispo, CA.....	Pacific Southwest.....	43	43
12/21/88.....	Lockerbie, Scotland.....	Pan American.....	270	59

TABLE 9.6
AIRLINES: NONSCHEDULED SERVICE ¹
ACCIDENTS, FATALITIES AND RATES
(U.S. Air Carriers Operating Under 14 CFR 121)
1982-1991

	1982	1983	1984	1985	1986 ⁴	1987 ⁴	1988 ⁴	1989 ⁴	1990 ⁴	1991 ⁵
Accidents										
Total.....	4	2	4	5	3	4	1	5	2	1
Fatal.....	1	0	0	3	1	1	0	3	0	0
Total Fatalities.....	1	0	0	329	3	1	0	147	0	0
Aircraft Hours Flown (000) ¹	343	384	429	445	479	524	615	669	596	580
Aircraft Miles Flown (000,000) ¹	132	148	169	178	188	235	243	267	247	240
Departures (000) ¹	189	209	233	238	274	308	368	376	284	270
Accident Rate Per 100,000 Hours Flown										
Total.....	1.17	0.52	0.93	1.12	0.63	0.76	0.16	0.75	0.34	0.17
Fatal.....	0.29	0.00	0.00	0.68	0.21	0.19	0.00	0.45	0.00	0.00
Accident Rate Per Million Miles Flown										
Total.....	0.03	0.01	0.02	0.03	0.02	0.02	0.00 ³	0.02	0.01	0.00 ³
Fatal.....	0.01	0.00	0.00	0.02	0.00 ³	0.00 ³	0.00	0.01	0.00	0.00
Accident Rate Per 100,000 Departures										
Total.....	2.12	0.96	1.72	2.10	1.10	1.30	0.27	1.32	0.7	0.37
Fatal.....	0.53	0.00	0.00	1.26	0.37	0.32	0.00	0.80	0.00	0.00

¹ Includes accidents involving deregulated all-cargo air carriers and commercial operators of large aircraft when those accidents occurred during scheduled 14 CFR 121 operations.

² Exposure data estimate source: Research and Special Programs Administration.

³ Rounds to 0.00.

⁴ Revised.

⁵ Preliminary.

Source: National Transportation Safety Board

TABLE 9.7
COMMUTER AIR CARRIERS
(Air Carriers Operating under 14 CFR 135)
FATAL ACCIDENTS, FATALITIES
(Preliminary Data)
1991

Location	Operation	Date	Service	Aircraft	Fatalities				Total Aboard	Reported Type of Accident
					Total	Passenger	Crew	Others		
Total					99	64	13	22	79	
Los Angeles, CA	Skywest	1-Feb	Psgr	SA-227	34	10	2	22	12	Struck by a landing B-737 while awaiting takeoff clearance on active runway.
Treasure Cay, Bahamas	Aero Coach	18-Mar	Psgr	C-402	5	4	1	0	5	Crashed on approach
Brunswick, GA	Atlantic Southeast	5-Apr	Psgr	EMB-120	23	20	3	0	23	Crashed on approach
Birmingham, AL	L'Express	10-Jul	Psgr	BE-99	13	12	1	0	15	Crashed on approach
Ketchikan, AK	Temco	20-Aug	Psgr	BN-2a	4	3	1	0	4	Collided with terrain
Eagle Lake, TX	Continental Express	11-Sep	Psgr	EMB-120	14	11	3	0	14	Crashed on descent
Tempe Bar, AZ	Las Vegas	10-Dec	Psgr	PA-31	5	4	1	0	5	Collided with terrain
Kenai, AK	Southcentral	13-Dec	Psgr	PA-31	1	0	1	0	1	Missing aircraft, fatality assumed

Source: National Transportation Safety Board

TABLE 9.8
COMMUTER AIR CARRIERS
(U.S. Air Carriers Operating under 14 CFR 135) ¹
AIRCRAFT ACCIDENTS, FATALITIES, AND RATES
1982-1991

	1982	1983	1984	1985	1986 ⁴	1987 ⁴	1988 ⁴	1989 ⁴	1990 ⁴	1991 ⁵
Accidents										
Total	26	17	22	21	15	32	19	16	15	22
Fatal	5	2	7	7	2	10	2	5	2	8
Fatalities	14	11	48	37	4	59	21	31	4	99 ⁶
Aircraft Hours Flown (000) ²	1,300	1,511	1,746	1,737	1,724	1,946	2,093	2,241	2,483	2100
Aircraft Miles Flown (000,000) ²	222	254	291	301	307	351	380	394	444	370
Departures (000) ²	2,027	2,328	2,677	2,561	2,798	2,810	2,909	2,819	3,079	2700
Accident Rate Per 100,000 Hours Flown ³										
Total	2.00	1.12	1.26	1.21	0.87	1.64	0.91	0.71	0.60	1.05
Fatal	0.38	0.13	0.40	0.40	0.12	0.51	0.10	0.22	0.08	0.38
Accident Rate Per Million Miles Flown ³										
Total	0.12	0.07	0.08	0.07	0.05	0.09	0.05	0.04	0.03	0.06
Fatal	0.02	0.01	0.02	0.02	0.01	0.03	0.01	0.01	0.01	0.02
Accident Rate Per 100,000 Departures ³										
Total	1.28	0.73	0.82	0.82	0.54	1.14	0.65	0.57	0.49	0.82
Fatal	0.25	0.09	0.26	0.27	0.07	0.36	0.07	0.18	0.07	0.30

¹ Includes accidents involving deregulated all-cargo air carriers and commercial operators of large aircraft when those accidents occurred during scheduled 14 CFR 121 operations.

² Exposure data estimate source: Research and Special Programs Administration.

³ Rates are based on all accidents including some involving operators not reporting to RSPA.

⁴ Revised.

⁵ Preliminary.

⁶ Includes 12 persons killed on a Skywest commuter aircraft and 22 persons killed on an USAir airliner when the two aircraft collided.

Source: National Transportation Safety Board

TABLE 9.9
ON-DEMAND AIR TAXIS
 (U.S. Air Carriers Operating under 14 CFR 135)
AIRCRAFT ACCIDENTS, FATALITIES, AND RATES
1982-1991

Year	Number Of Accidents		Total Fatalities	Aircraft Hours Flown (000) ¹	Accident Rate Per 100,000 Aircraft Hours	
	Total	Fatal			Total Accidents	Fatal Accidents
1982.....	132	31	72	3,257	4.05	0.95
1983.....	141	27	62	2,575	5.48	1.05
1984.....	146	23	52	3,079	4.74	0.75
1985.....	152	35	76	2,783	5.46	1.26
1986.....	116	31	65	2,913	3.98	1.06
1987.....	97	30	65	2,877	3.37	1.04
1988 ²	97	27	58	2,842	3.41	0.95
1989 ²	107	25	83	3,270	3.27	0.76
1990 ²	107	29	50	3,170	3.38	0.91
1991 ³	84	26	69	3,270	2.57	0.80

¹ Exposure data estimate from FAA.

² Revised

³ Preliminary

Source: National Transportation Safety Board.

TABLE 9.10
U.S. GENERAL AVIATION FLYING
 (All Operations other than those Operating under 14 CFR 121 or 14 CFR 135)
AIRCRAFT ACCIDENTS, FATALITIES, AND RATES
1982-1991

Year	Number Of Accidents		Total Fatalities	Aircraft Hours Flown (000) ¹	Accident Rate Per 100,000 Aircraft Hours ²	
	Total	Fatal			Total Accidents	Fatal Accidents
1982.....	3,233	591	1,187	32,095	10.06	1.84
1983.....	3,075	555	1,064	31,048	9.90	1.79
1984.....	3,011	543	1,039	31,510	9.55	1.72
1985.....	2,737	497	951	30,590	8.94	1.62
1986.....	2,576	473	965	29,317	8.79	1.61
1987.....	2,464	431	807	29,208	8.43	1.47
1988 ³	2,369	454	789	29,634	7.99	1.53
1989 ³	2,216	424	759	30,234	7.32	1.4
1990 ³	2,187	435	745	30,886	7.08	1.41
1991 ⁴	2,143	414	746	30,760	6.90	1.35

¹ Suicide/sabotage accidents are excluded from rates.

² Exposure data estimate from FAA.

³ Revised

⁴ Preliminary

Source: National Transportation Safety Board.

X. AERONAUTICAL PRODUCTION AND IMPORTS/EXPORTS

The aircraft production information presented in this chapter was obtained from the Bureau of Census: Complete Aircraft Plant Report (Form M37G). The shipment data shows the number of civil aircraft shipped by the United States manufacturers and includes both aircraft shipped within the United States and those exported.

Import and export data were obtained from the Aerospace Industries Association of America, Inc. and were based on Bureau of the Census data from special monthly compilation of Annual Reports 246 and 446, respectively.

TABLE 10.1
TOTAL CIVIL AIRCRAFT PRODUCTION, WEIGHT, AND COST
CALENDAR YEARS 1982-1991

Calendar Year	Number of Aircraft	Value Complete Aircraft (\$000)	Average Complete Aircraft Cost
1982.....	4,053	8,639,782	2,131,700
1983.....	2,784	9,915,761	3,561,696
1984.....	2,635	7,911,543	3,002,483
1985.....	2,457	10,939,831	4,452,516
1986.....	2,888	12,517,992	4,334,485
1987.....	2,319	12,491,743	5,386,394
1988.....	2,681	16,019,855	5,975,328
1989.....	3,129	17,467,335	5,582,402
1990.....	2,785	24,864,289	8,927,931
1991.....	2,898	29,947,190	10,333,744

Source: U.S. Department of Commerce, Bureau of the Census, Industry Division.

TABLE 10.2
NUMBER OF SHIPMENTS OF COMPLETE CIVIL AIRCRAFT
1982-1991

Item	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Total	2898	2,785	3,129	2,681	2,319	2,888	2,842	3,028	3,217	4,669
Fixed Wing.....	1598	1,759	2,014	1,734	1,516	1,858	2,457	2,635	2,784	4,055
Rotorcraft.....	605	582	603	517	360	493	385	393	433	614
Other.....	695	444	512	430	443	537	NA	NA	NA	NA

NOTE: Other includes balloons, dirigibles, airships, gliders, sailplanes, and aircraft sold in kits (except hang gliders).

Source: Current Industrial Reports: Complete Aircraft and Aircraft Engines, M37G-13; Department of Commerce, Bureau of the Census.

TABLE 10.3
NUMBER OF U.S. IMPORTS OF CIVIL AEROSPACE PRODUCTS
1982-1991

Item	1988	1987	1986	1985	1984	1983	1982
Aircraft Used or Rebuilt, Civil	194	115	141	246	223	181	186
Helicopters, Civil.....	114	98	87	60	61	100	184
Aircraft, Single-Engine, Civil.....	40	41	71	46	21	6	23
Aircraft, Multiengine Under 4,400 lbs., Civil.....	3	1	18	8	33	18	13
Aircraft, Multiengine, 4,400 to 10,000 lbs., Civil.....	74	101	58	46	58	52	87
Aircraft, Multiengine, 10,000 to 33,000 lbs., Civil.....	152	155	150	103	95	93	159
Aircraft, Multiengine, Over 33,000 lbs., Civil.....	18	22	36	29	12	7	8
Balloons, and Airships, Civil.....	0	0	0	0	0	0	0
Glider, Civil.....	111	117	181	628	448	229	200

NOTE: Categories were changed to reflect Commerce Department's change to the Harmonized Trade Schedule. Historical data are not available in these new categories.

Item	1991	1990	1989
Complete Aircraft.....	955	1,262	674
Transports.....	44	30	36
Passenger.....	44	30	33
Cargo.....	—	—	—
Other Combinations.....	—	—	3
General Aviation.....	254	743	213
Single Engine.....	72	522	59
Multi Engine.....	182	221	154
Small.....	1	5	1
Medium.....	41	53	27
Large.....	140	163	126
Turbojet/Turbofan.....	45	63	39
Others.....	95	100	87
Helicopters.....	244	167	124
Small.....	4	21	9
Large.....	240	146	115
Others.....	413	322	301
Used/Rebuilt.....	246	130	210
New.....	167	192	91

Source: Aerospace Industries Association, Inc. based on Bureau of Census data from special monthly compilation of Annual Report, FT-410.

TABLE 10.4
NUMBER OF U.S. EXPORTS OF CIVIL AEROSPACE PRODUCTS
1982-1991

Item	1988	1987	1986	1985	1984	1983	1982
Aircraft Used or Rebuilt, Civil	1,644	969	494	277	304	224	242
Aircraft Helicopter, New, Under 2200 lbs., Civil	161	129	104	68	155	141	162
Aircraft, Helicopter, New, Over 2200 lbs., Civil	119	152	106	69	78	75	92
Aircraft, Single-Engine New Civil	459	307	220	334	271	279	539
Aircraft, Multiengine, New, Under 4400 lbs., Civil	51	51	63	66	53	106	167
Aircraft, Multiengine, New, Over 4400 lbs., Under 10,000 lbs., Civil	109	127	93	65	83	112	209
Aircraft, Multiengine, New, Over 10,000 lbs., Under 33,000 lbs., Civil	24	24	38	19	18	22	25
Aircraft, Passenger, New, Over 33,000 lbs., Civil	205	160	149	140	77	122	110
Aircraft, Cargo, New, Over 33,000 lbs., Civil	8	4	2	6	3	2	6
Aircraft Other, New, Over 33,000 lbs., Including Combinations, Civil	4	6	8	6	3	5	5
Aircraft Other, New, Including Balloons, Gliders & Kites, Civil	0	0	0	0	0	0	0

NOTE: Categories were changed to reflect Commerce Department's change to the Harmonized Trade Schedule. Historical data are not available in these new categories.

Item	1991	1990	1989
Complete Aircraft	4,204	4,814	6,452
Transports	385	297	260
Passenger	371	294	256
Cargo	5	3	1
Other Combinations	9	0	3
General Aviation	534	1,144	1,597
Single Engine	345	896	1,406
Multi Engine	189	248	191
Small	22	33	39
Medium	98	136	104
Large	69	79	48
Turbojet/Turbofan	58	63	35
Others	11	16	13
Helicopters	318	349	294
Small	246	266	186
Large	72	83	108
Others	2,967	3,024	4,301
Used/Rebuilt	1,834	1,911	1,700
New	1,133	1,113	2,601

Source: Aerospace Industries Association, Inc. based on Bureau of Census data from special monthly compilation of Annual Report, FT-410.

COMMON ACRONYMS

AAS	Airport Advisory Service
ADF	Automatic Direction Finder
ARSR	Air Route Surveillance Radar
ARTCC	Air Route Traffic Control Center
ASR	Airport Surveillance Radar
ATC	Air Traffic Control
ATCT	Airport Traffic Control Tower
CAB	Civil Aeronautics Board
DME	Distance Measuring Equipment
DVFR	Defense Visual Flight Rules
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FSS	Flight Service Station
ICAO	International Civil Aviation Organization (Montreal, Canada)
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	Instrument Landing System
LDA	Landing Directional Aid
LRNAV	Long Range Navigation
MLS	Microwave Landing System
NAS	National Airspace System
NAVAIDS	Navigation Aids
NOTAMS	Notice to Airmen
NTSB	National Transportation Safety Board
RNAV	Area Navigation
RSPA	Research and Special Programs Administration
VFR	Visual Flight Rules
VHR	Very High Frequency
VOR/VORTAC	Very High Frequency Omnidirectional Radio Range

GLOSSARY

Active Aircraft—All legally registered civil aircraft which flew one or more hours.

Aerial Application—See Primary Use.

Aerial Observation—See Primary Use.

Air Carriers—The commercial system of air transportation consisting of the certificated air carriers, air taxis (including commuters), supplemental air carriers, commercial operators of large aircraft, and air travel clubs.

Certificated air carrier—An air carrier holding a Certificate of Public Convenience and Necessity issued by DOT to conduct scheduled services interstate. Nonscheduled or charter operations may also be conducted by these carriers. These carriers operate large aircraft (30 seats or more or a maximum payload capacity of 7,500 pounds or more) in accordance with FAR Part 121.

Air taxi—A classification of air carriers which transports in accordance with FAR part 135 persons, property, and mail using small aircraft (under 30 seats or a maximum payload capacity of less than 7,500 pounds).

Commuter air carrier—an air taxi operator which performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week, and points between which such flights are performed.

Supplemental air carrier (Charter)—An air carrier which holds Certificates of Public Convenience and Necessity issued by the DOT, authorizing performance of passenger and cargo interstate charter services supplementing the scheduled service of the certificated air carriers. The authority of supplemental air carriers to engage in military charters is of an indefinite period. In addition, they can perform on an emergency basis, as may be authorized by the DOT, scheduled operations including the transportation of individually ticketed passengers and individually way-billed cargo.

Commercial operator—a person who for compensation or hire engages in the intrastate carriage of aircraft in air commerce of persons or property other than as an air carrier or foreign air carrier.

Commercial operator of large aircraft—commercial operator operating aircraft with 30 seats or more or a maximum payload capacity of 7,500 pounds or more.

Aircraft Accident—As defined by the National Transportation Safety Board, it is "an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage."

Fatal Injury means any injury which results in death within 7 days of the accident.

Operator means any person who causes or authorizes the operation of an aircraft, such as the owner, leasee, or bailee of an aircraft.

Serious Injury means any injury which (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) involves lacerations which cause severe hemorrhages, nerve, muscle, or tendon damage; (4) involves injury to any internal organ; (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Substantial damage:

Except as described below, substantial damage means damage or structural failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component.

Exceptions: engine failure, damage limited to an engine, bent fairings or cowlings, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes or wingtips are not considered substantial for the purpose of this part.

Aircraft Contact—Aircraft with which the flight service stations (FSS) have established radio communications contact. One count is made for each enroute, landing, or departing aircraft contacted by an FSS regardless of the number of contacts made with an individual aircraft during the same flight. A flight contacting five FSS's would be counted as five aircraft contacted.

Aircraft Handled—See IFR Aircraft Handled.

Aircraft Type—A term used in this publication in grouping aircraft by basic configuration—fixed—wing, rotorcraft, glider, dirigible, and balloon.

Airline Transport Pilot—See Pilot.

Airman—A pilot, mechanic, or other licensed aviation technician.

Airman Certificate—A document issued by the Administrator of the Federal Aviation Administration certifying that the holder complies with the regulations governing the capacity in which the certificate authorizes the holder to act as an airman in connection with aircraft.

Airport—An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

Airport Advisory Service (AAS)—A service provided by flight service stations at airports not served by a control tower. This service consists of providing information to landing and departing aircraft concerning wind direction and velocity, favored runway, altimeter setting, pertinent known traffic, pertinent known field conditions, airport taxi routes and traffic patterns, and authorized instrument approach procedures.

Airport Operation—an aircraft takeoff or landing. There are two types of operations—local and itinerant.

Local operations are performed by aircraft which:

- (a) Operate in the local traffic pattern or within sight of the airport.
- (b) Are known to be departing for, or arriving from, flight in local practice areas within a 20-mile radius of the airport.
- (c) Execute simulated instrument approaches or low passes at the airport.

Itinerant operations are all airport operations other than local operations.

Airport Traffic—Aircraft operating in the air or on an airport surface exclusive of loading ramps and parking areas.

Airport Traffic Control Service—Air traffic control service provided by an airport traffic control tower for aircraft operating on the movement area and in the vicinity of an airport.

Airport Traffic Control Tower (ATCT)—A central operations facility in the terminal air traffic control system, which consist of a tower cab structure, including an associated IFR room if radar equipped, and

uses air/ground communications, radar, visual signaling, and other services to provide safe and expeditious movement of terminal air traffic.

Airports Grants-in-Aid Program—A grant of funds by the Secretary of Transportation under the Airport & Airway Improvement Act of 1982 to a sponsor for the accomplishment of one or more projects.

Project—Projects (or separate projects submitted together) for the accomplishment of airport development or airport planning, including the combined submission of all projects which are to be undertaken at an airport in a fiscal year.

Sponsor—Any private owner of a public-use air OR any public agency (either individually or jointly with other public agencies) that submit to the Secretary of Transportation, in accordance with the Airport & Airway Improvement Act of 1982, an application for financial assistance.

Primary Airports—A commercial service airport which is determined to have .01 percent or more of the total number of passengers enplaned annually at all commercial service airports.

Commercial Airports—(also known as commercial service airports)—A public airport which is determined to enplane annually 2,500 or more passengers and receive scheduled passenger service of aircraft.

Reliever Airports—An airport designated as having the function of relieving congestion at a commercial service airport and providing more general aviation access to the overall community.

General Aviation Airports—(also known as public airports)—Any airport which is used or to be used for public purposes, under the control of a public agency, the landing area of which is publicly owned.

System Planning—(also known as integrated airport system planning)—The initial, as well as continuing development for planning purposes of information and guidance to determine the extent, type, nature, location, and timing of airport development needed in a specific area to establish a viable balanced, and integrated system of public-use airports.

Airports of Entry—Aircraft may land at these airports without prior permission to land from U.S. Customs.

Air Route Traffic Control Center (ARTCC)—A facility established to provide air traffic control service to aircraft operating on IFR flight plans within controlled airspace, and principally during the enroute phase of flight.

Air Taxi—See Air Carrier and Primary Use.

Air Traffic Control (ATC)—A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.

Air Traffic Control Facility—A facility which provides air traffic control services located in the U.S., its possessions and territories, and in foreign countries especially established by international agreement.

Air Traffic Hub—Air traffic hubs are not airports; they are the cities or twin cities requiring aviation services. The hubs fall into four classes as determined by each community's percentage of the total enplaned passengers all services and all operations U. S. certificated air carriers in the 50 States, the District of Columbia, and other U.S. areas.

Large air traffic hub—a community enplaning 1.00 percent or more of the total enplaned passengers.

Medium air traffic hub—a community enplaning from 0.25 to 0.99 percent of the total enplaned passengers.

Small air traffic hub—a community enplaning from 0.05 to 0.24 percent of the total enplaned passengers.

Nonhub—a community enplaning less than 0.05 percent of the total enplaned passengers.

American Flag Carrier—See U.S. Flag Carrier.

Approach Control Facility—A terminal area traffic control facility providing approach control service.

Approach Control Service—Air traffic control service provided by an approach control-facility for arriving and departing aircraft and, on occasion, tower enroute control service.

Business Transportation—See Primary Use.

Carrier Group—A grouping of certificated air carriers determined by annual operating revenues as shown below:

Carrier Group	Annual Operating Revenues
Majors	\$1,000,000,000 +
Nationals	\$100,000,000 - \$1,000,000,000
Large regionals	\$10,000,000 - \$99,999,999
Medium regionals	0 - \$9,999,999 or that operate aircraft with 60 or less seats or maximum payload capacity of 18,000 lbs.

Certificated Route Air Carrier—See Air Carrier.

Commercial Operator—See Air Carrier.

Commercial Pilot—See Pilot.

Commuter Air Carrier—See Air Carrier.

Defense Visual Flight Rules (DVFR)—A flight within an Air Defense Identification Zone conducted under the visual flight rules in Federal Aviation Regulation, Part 99.

Domestic Operations—In general, operations within and between the 50 States, and the District of Columbia.

Executive Transportation—See Primary Use.

Flight Plan—Specified oral or written information about the intended flight of an aircraft that is filed with air traffic control.

Flight Service Station (FSS)—Air traffic Service facilities within the National Airspace System (NAS) which provide preflight pilot briefings and en route communications with VFR flights, assist lost IFR/VFR aircraft, assist aircraft having emergencies, relay Air Traffic Control clearances, originate, classify, and disseminate Notices to Airmen, broadcast aviation weather and NAS information, receive the close flight plans, monitor radio NAVAIDS, notify search and rescue units of missing VFR aircraft, and operate the national weather teletypewriter system. In addition, at selected locations, FSSs take weather observations issue airport advisories, administer airmen written examinations, and advise Customs and Immigration on across-the-border flights.

Flight Services—The sum of flight plans originated and pilot briefs, multiplied by two, plus the number of aircraft contacted. See tables 2.6 and 2.14.

Foreign Flag Air Carrier—An air carrier other than a U.S. flag air carrier engaged in international air transportation (see also U.S. Flag Carrier).

Foreign Mail—Mail transported outside the United States by U.S. flag carriers for a foreign government.

General Aviation—That portion of civil aviation which encompasses all facets of civil aviation except air carriers.

Heliport—An area of land, water, or any structure used or intended to be used for the landing and takeoff of helicopters.

Hub—See Air Traffic Hub.

IFR Aircraft Handled—The number of IFR departures multiplied by two plus the number of IFR overs. This definition assumes that the number of departures (acceptances, extensions, and originations of IFR flight plans) is equal to the number of landings (IFR flight plans closed).

IFR Departure—An IFR departure includes IFR flights originating in center's area, accepted by the center under SOLE EN ROUTE clearance procedures, and extended by the center.

IFR Over—An IFR flight that originates outside the ARTCC area and passes through the area without landing.

Inactive Aircraft—All legally registered civil aircraft which flew zero hours.

Instructional Flying—See Primary Use.

Instrument Approach—An approach to an airport, with intent to land, by an aircraft flying in accordance with an IFR flight plan, when the visibility is less than 3 miles and/or when the ceiling is at or below the minimum initial altitude.

Instrument Flight Rules (IFR)—Rules governing the procedures for conducting instrument flight. Also a term used by pilots and controllers to indicate type of flight plan.

Instrument Landing System (ILS)—A precision instrument approach system which normally consists of the following electronic and visual aids:

Localizer—Provides course guidance to the runway.

Glide Slope—Provides vertical guidance during approach.

Marker Beacon—Provides aural and/or visual identification of a specific position along an instrument approach landing.

Instrument Operation—An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility or air route traffic control center.

International Flight Service Station (IFSS)—A central operations facility in the flight advisory system, staffed and equipped to control aeronautical point-to-point telecommunications, and air-ground telecommunications with pilots operating over international territory or waters, which provides flight plan following, weather information, search and rescue action, and other flight assistance operations.

International Operations—In general, operations outside the territory of the U.S., including operations between the U.S. and foreign countries, and the U.S. and its territories or possessions. Includes both the

combination passenger/cargo carrier and the all-cargo carriers engaged in international and territorial operations.

Itinerant Operation—See Airport Operation.

Jet Route—A route designed to serve aircraft operations from 18,000 feet to 45,000 feet.

Landing Rights Airports—Any aircraft may land at one of these airports after securing prior permission to land from U.S. Customs.

Large Air Traffic Hub—See Air Traffic Hub.

Large Regional Carrier—See Carrier Groups.

Large Certificated Air Carrier—Carrier holding a certificate issued under section 401 of the Federal Aviation Act of 1958 and operating aircraft designed to have a maximum passenger seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds, or conducting international operations.

Local Operation—See Airport Operation.

Major Carriers—See Carrier Groups.

Medium Air Traffic Hub—See Air Traffic Hub.

Medium Regional Carrier—See Carrier Groups.

Microwave Landing System (MLS)—An instrument landing system operating in the microwave spectrum which provides lateral and vertical guidance to aircraft having compatible avionics equipment.

National Carriers—See Carrier Groups.

Nonhub—See Air Traffic Hub.

Notice to Airmen—A notice containing information concerning the establishment, condition or change in any component of, or hazard in the National Airspace System, the timely knowledge of which is essential to personnel concerned with flight operations.

Other—See Primary Use.

Other Work Use—See Primary Use.

Over—See IFR Over.

Personal Flying—See Primary Use.

Pilot—

Student Pilot—A student pilot may not operate an aircraft that is carrying a passenger or that is carrying property for compensation or hire.

Private Pilot—A private pilot may not act as a pilot-in-command of aircraft that is carrying passengers for compensation or hire nor act as pilot-in-command in an aircraft that is being operated for compensation or hire (e. g.; one that has been hired to do pipeline patrol but carries no passengers.)

Commercial Pilot—A commercial pilot may act as pilot-in-command of an aircraft carrying passengers for compensation or hire and act as pilot-in-command in an aircraft that is being operated

for compensation or hire (e. g.; one that has been hired to do pipeline patrol but carries no passengers.)

Airline Transport Pilot—An airline transport pilot may act as a pilot-in-command of an aircraft engaged in air carrier service.

Pilot Briefing—Information furnished a pilot to assist in flight planning. Principal items are weather conditions, notices to airmen, routes, and preparation and handling of the flight plan.

Primary Use—The use category in which an aircraft flew the most hours. The eleven use categories are defined below:

Aerial Application—Any use of an aircraft for work purposes which concerns the production of foods, fibers, and health control in which the aircraft is used in lieu of farm implements or ground vehicles for the particular task accomplished. This includes fire fighting operations, the distribution of chemicals or seeds in agriculture, reforestation, or insect control.

Aerial Observation—Any use of an aircraft for aerial mapping/photography, survey, patrol, fish spotting, search and rescue, hunting, highway traffic advisory, or sightseeing; not included under Part 135.

Commuter Air Carrier—An air taxi that performs at least five scheduled round trips per week between two or more points or carries mail.

Demand Air Taxi—Use of an aircraft operating under Federal Aviation Regulations, Part 135, passenger and cargo operations, including charter and excluding commuter air carrier.

Business Transportation—Use of an aircraft not for compensation or hire by individuals for the purposes of transportation required by business in which they are engaged.

Executive/Corporate Transportation—Any use of an aircraft by a corporation, company, or other organization for the purposes of transporting its employees and/or property not for compensation or hire, and employing professional pilots for the operation of the aircraft.

Instructional Flying—Any use of an aircraft for the purpose of formal instruction with the flying instructor aboard, or with the maneuvers on the particular flight(s) specified by the flight instructor; excludes proficiency flying.

Personal Flying—Any use of an aircraft for personal purposes not associated with a business or profession, and not for hire. This includes maintenance of pilot proficiency.

Other Work Use—Any aircraft used for construction work (not included under Part 135), helicopter, hoist, towing gliders, or parachuting.

Other—Any other use of an aircraft not included above. (Example: experimentation, R&D; testing, demonstration, government).

Private Pilot—See Pilot.

Private-Use Airport—An airport which is not open for the use of the general public.

Privately Owned Airport—An airport which is owned by a private individual or corporation.

Public-Use Airport—An airport open to for public use without prior permission, and without restrictions within the physical capacities of available facilities. May or may not be publicly owned.

Publicly Owned Airport—An airport which is publicly owned and under control of a public agency.

Small Air Traffic Hub—See Air Traffic Hub.

Small Certificated Air Carrier—Carrier holding a certificate issued under section 401 of the Federal Aviation Act of 1958 and operating aircraft designed to have a maximum seating capacity of 60 or less seats or a maximum payload of 18,000 pounds or less.

Stolport—An airport specifically designed for STOL (Short Take-off and Landing) aircraft, separate from conventional airport facilities.

Student Pilot—See Pilot.

Supplemental Air Carrier—See Air Carrier.

Terminal Area—A general term used to describe airspace in which approach control service or airport traffic control service is provided.

Tower—See Airport Traffic Control Tower.

U.S. Flag Carrier or American Flag Carrier—One of a class of air carriers holding a Certificate of Public Convenience and Necessity issued by the DOT, approved by the President, authorizing scheduled operations over specified routes between the United States (and/or its territories) and one or more foreign countries. (See also Foreign Flag Air Carrier.)

VFR Flight—Flight conducted in accordance with Visual Flight Rules.

VOR—Very high frequency omnidirectional radio range. Used as the basis for navigation in the national Airspace System.

VORTAC—A navigation aid providing azimuth and distance measuring equipment as one site.

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