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U. S. CIVIL AIRMEN STATISTICS 1987

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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: 1986 data
 Order from: U.S. Government Printing Office or
 National Technical Information Service

Date 1987 information will be available: Various

Date next publication is scheduled: December 1988 (1987 data)

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.

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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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Date next publication
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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.

Reporting period: Fiscal Year
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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
Latest edition: 1986 data
Order from: Government Printing Office or
National Technical Information Service

Date 1987 Information
will be available: November 1988

Date next publication
is available: December 1988 (1987 data)

Person to contact: Shung-Chai Huang

FAA Directory is published twice a year, it contains six sections of data: Washington/Region/Center headquarters' managers; field facilities' managers/supervisors; regional area maps/organizational charts; alphabetical listing; special interest groups; and glossary.

Latest edition: April 1988
Order from: U.S. Government Printing Office

Date next publication
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Person to contact: Nancy Trembley

Airport Activity Statistics of Certificated Route Air Carriers 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, express and mail. Both scheduled/nonscheduled service and domestic/international operations 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
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PREFACE

The U.S. Civil Airmen Statistics is an annual study published to meet the demands of FAA, other government agencies, and industry for more detailed airmen statistics than those published in other FAA reports.

Statistics pertaining to airmen, both pilot and nonpilot, were obtained from the official airman certification records maintained at the FAA Aeronautical Center, Oklahoma City, Oklahoma.

An active Airmen is one who hold both an airmen certificate and a valid medical certificate. Airmen who must have a valid medical to exercise the privileges of their certificate are all airplane pilots, control tower operators, flight navigators, and lighter-than-air pilots are not required to have a medical examination but the numbers represent only those who had a valid medical certificate. Mechanics, parachute riggers, ground instructors, and dispatchers certificates represent all certificates on record at the Aeronautical Center.

This study was prepared in the Office of Management Systems, Management Standards and Statistics Division, Statistical Analysis Branch (AMS-420), by Patricia W. Carter.

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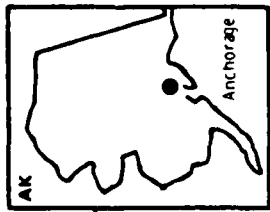
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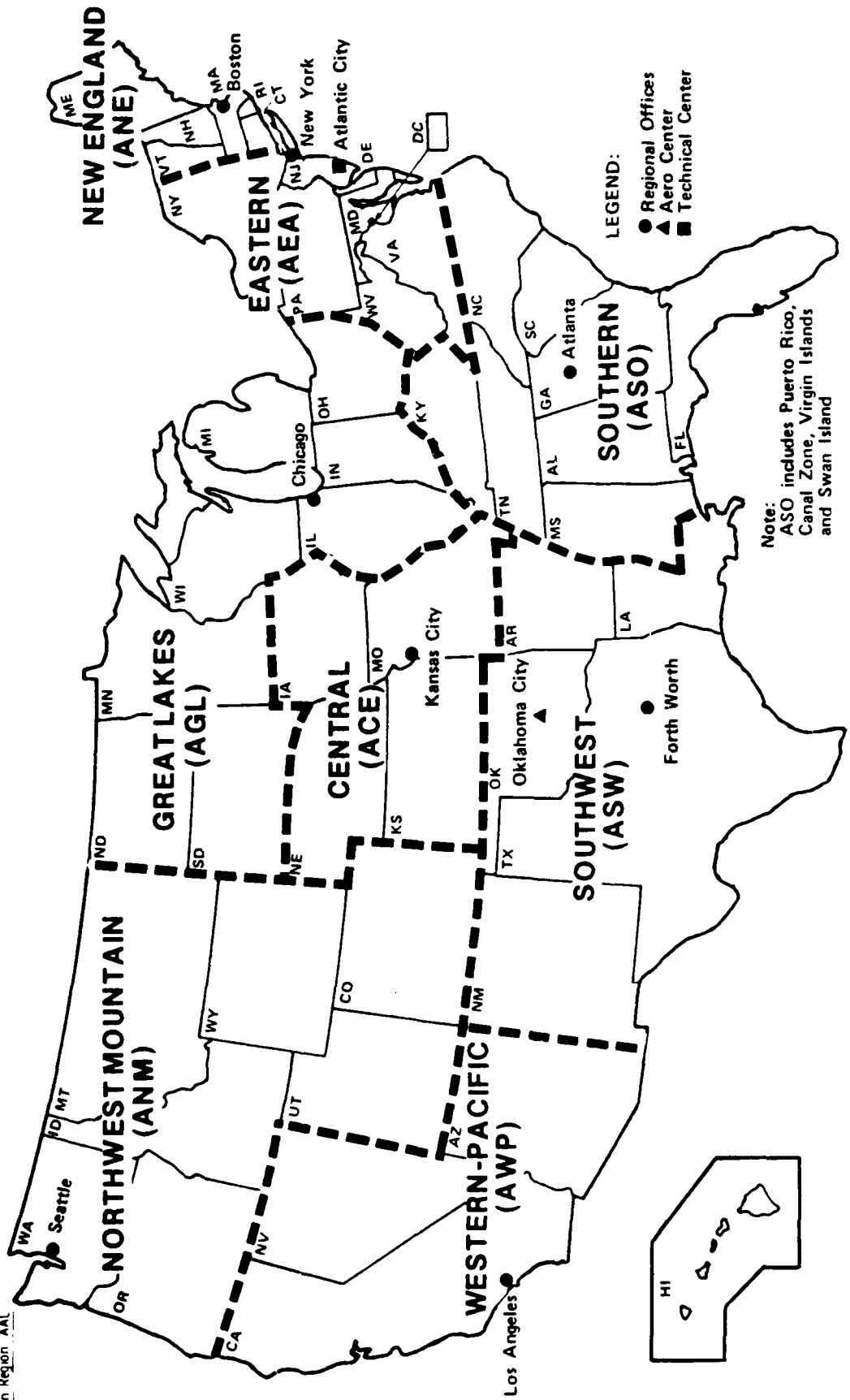
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FAA REGIONAL BOUNDARIES

Includes Locations of Regional Headquarters and Centers



Alaskan Region AAL



I. ACTIVE PILOT CERTIFICATES HELD

TABLE 1
ESTIMATED ACTIVE PILOT CERTIFICATES HELD: DECEMBER 31, 1978 - 1987

Category	1978	1979	1980 ^{1/}	1981	1982	1983	1984	1985	1986	1987
Pilot—Total	798,833	814,667	827,071	764,182	733,255	718,004	722,376	709,540	709,118	699,653
Student	204,874	210,180	199,833	179,912	156,361	147,197	150,081	146,652	150,273	146,016
Private	337,644	343,276	357,479	328,562	322,094	318,643	320,086	311,086	305,736	300,949
Commercial	185,833	182,097	183,442	168,580	165,093	159,495	155,929	151,632	147,796	143,645
Airline Transport	55,881	63,652	69,569	70,311	73,471	75,938	79,192	82,740	87,186	91,287
Helicopter (only)	4,874	5,218	6,030	6,453	7,034	7,237	7,532	8,123	8,581	8,702
Glider (only) ^{2/}	6,541	6,796	7,039	7,388	7,842	8,157	8,390	8,168	8,411	7,901
Lighter-than-air ^{2/}	3,186	3,448	3,679	2,976	1,360	1,337	1,166	1,139	1,153	1,153
Nonpilot—Total ^{2/}	336,962	351,981	368,356	382,840	399,661	413,199	426,802	395,139	410,079	427,962
Mechanic ^{3/}	228,743	237,611	250,157	262,705	277,436	288,335	298,028	274,100	284,241	297,178
Parachute Rigger ^{3/}	9,200	9,381	9,547	9,716	9,893	10,074	10,194	9,395	9,535	9,659
Ground Instructor ^{3/}	57,738	59,680	61,550	63,246	65,004	66,385	67,463	58,214	59,443	60,861
Dispatcher ^{3/}	6,161	6,446	6,799	7,094	7,580	8,223	8,980	8,511	9,025	9,491
Flight Navigator	2,092	1,994	1,936	1,785	1,695	1,636	1,603	1,542	1,512	1,445
Flight Engineer	33,028	36,869	38,367	38,294	38,053	38,546	40,534	43,377	46,323	49,328
Flight Instructor Certificates ^{4/}	52,201	54,398	60,440	57,523	62,492	62,201	61,173	58,940	57,355	60,316
Instrument Ratings ^{5/}	236,312	247,096	260,461	252,535	255,073	254,271	256,584	258,559	262,388	266,122

^{1/} For 1980 only, a valid medical certificate was defined as one that was issued within the last 27 months.

^{2/} 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.

^{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.

^{r/} Revised.

TABLE 2

ESTIMATED ACTIVE WOMEN PILOT CERTIFICATES HELD: DECEMBER 1978 - 1987

Category of Certificates Held	1978	1979	1980 ^{1/}	1981	1982	1983	1984	1985	1986	1987
Pilot—Total	49,874	51,733	52,902	47,721	45,305	43,648	44,339	43,483	43,022	42,578
Student	26,354	26,714	26,006	22,591	19,958	18,696	19,435	19,058	18,899	18,367
Private	19,267	20,275	21,554	19,602	19,388	18,801	18,616	17,974	17,532	17,349
Commercial	3,306	3,618	3,993	4,101	4,257	4,281	4,232	4,185	4,176	4,208
Airline Transport	270	361	480	584	749	884	1,032	1,184	1,334	1,538
Helicopter (only)	17	27	55	87	113	144	167	196	232	247
Glider (only) ^{2/}	433	461	496	540	574	599	631	653	667	627
Lighter-than-air ^{2/}	227	277	318	216	266	243	226	233	242	242
Nonpilot—Total ^{5/}	3,984	4,350	4,779	5,201	5,697	6,151	6,591	6,017	6,502	7,101
Mechanic ^{3/}	600	695	890	1,051	1,298	1,493	1,649	1,775	1,964	2,237
Parachute Rigger ^{3/}	544	553	562	580	593	605	614	612	614	628
Ground Instructor ^{3/}	2,682	2,852	3,015	3,213	3,391	3,554	3,680	2,980	3,087	3,232
Dispatcher ^{3/}	76	105	141	167	199	249	310	394	460	524
Flight Engineer	82	145	171	189	215	248	336	455	577	680
Flight Navigator	0	0	0	1	1	2	2	1	0	0
Flight Instructor ^{4/}	1,458	1,699	2,079	2,165	2,532	2,685	2,736	2,731	2,687	2,909

Note: Instrument ratings not reported.

^{1/} For 1980 only, a valid medical certificate was defined as one that was issued within the last 27 months.^{2/} 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.^{3/} Numbers represent all certificates on record. No medical examination required.^{4/} Not included in total.^{5/} Revised.

TABLE 3
ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD, BY CLASS OF CERTIFICATES AND BY FAA REGION:
DECEMBER 31, 1987

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. 2/
Total—All Pilots	<u>699,653</u>	<u>10,685</u>	<u>35,584</u>	<u>91,723</u>	<u>116,254</u>	<u>34,175</u>	<u>65,664</u>	<u>116,661</u>	<u>85,537</u>	<u>124,484</u>	<u>18,686</u>
Student Pilots—Total	<u>146,016</u>	<u>1,993</u>	<u>6,312</u>	<u>21,912</u>	<u>24,838</u>	<u>8,565</u>	<u>13,138</u>	<u>24,634</u>	<u>16,719</u>	<u>24,720</u>	<u>3,185</u>
Private Pilots—Total	<u>300,949</u>	<u>5,013</u>	<u>18,187</u>	<u>37,768</u>	<u>56,665</u>	<u>14,413</u>	<u>28,745</u>	<u>45,591</u>	<u>36,131</u>	<u>55,220</u>	<u>3,216</u>
Private Airplane (only)	290,694	4,870	17,779	36,209	55,308	13,954	27,702	43,797	34,946	53,124	3,005
Private Airplane, Private Glider	4,105	34	148	710	636	189	374	625	391	953	45
Private Airplane, Commercial Glider	795	4	26	153	113	60	101	82	71	181	4
Private Airplane, Private Gyroplane	29	0	2	4	7	1	0	2	7	6	0
Private Airplane, Private Helicopter	1,316	16	60	154	165	78	152	214	180	260	37
Private Airplane, Private Glider, Private Helicopter	55	0	1	8	9	5	4	8	6	12	2
Private Airplane, Commercial Helicopter	3,904	88	171	522	424	126	399	850	527	675	122
Private Airplane, Private Glider, Commercial Helicopter	37	0	0	5	1	0	12	8	3	7	1
Private Airplane, Commercial Glider, Commercial Helicopter	12	1	0	3	0	0	1	5	0	2	0
Private Airplane, Commercial Gyroplane, Commercial Helicopter	2	0	0	0	2	0	0	0	0	0	0
Commercial Pilots—Total	<u>143,645</u>	<u>2,586</u>	<u>7,312</u>	<u>17,857</u>	<u>21,219</u>	<u>5,885</u>	<u>13,225</u>	<u>25,634</u>	<u>18,958</u>	<u>25,253</u>	<u>5,716</u>
Commercial Airplane (only)	121,934	2,237	6,405	14,806	18,853	5,034	11,018	20,998	16,105	21,078	5,395
Commercial Airplane, Private Glider	2,070	22	90	321	268	77	236	333	225	478	20
Commercial Airplane, Commercial Glider	3,777	25	146	585	515	207	442	602	420	803	32
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1	0	0	0	0	0	0	0	0	1	0

TABLE 3 (Continued)

ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD, BY CLASS OF CERTIFICATES AND BY FAA REGION:
DECEMBER 31, 1987

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. 2/
Commercial Airplane, Private Helicopter	274	6	11	39	51	9	26	43	33	48	8
Commercial Airplane, Commercial Glider, Private Helicopter	18	0	0	4	4	1	0	1	1	6	1
Commercial Airplane, Commercial Helicopter	14,778	284	635	1,982	1,432	517	1,416	3,521	2,094	2,648	249
Commercial Airplane, Private Glider, Commercial Helicopter	152	0	3	23	25	6	13	32	13	33	4
Commercial Airplane, Commercial Glider, Commercial Helicopter	587	11	20	93	60	28	65	95	61	147	7
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	20	1	1	2	5	0	3	4	1	3	0
Commercial Airplane, Commercial Gyroplane	24	0	1	1	4	1	5	4	4	4	0
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter, Commercial Glider	10	0	0	1	1	2	0	1	1	4	0
Airline Transport Pilots—Total	91,287	962	3,226	11,165	11,560	4,402	8,698	17,764	11,800	15,445	6,265
Airline Transport Airplane (only)	89,694	927	3,192	10,890	11,421	4,297	8,569	17,461	11,526	15,192	6,219
Airline Transport Airplane, Airline Transport Helicopter	1,593	35	34	275	139	105	129	303	274	253	46
Rotorcraft (only) Pilots—Total	8,702	107	365	1,293	772	419	661	2,271	1,211	1,242	361
Private Gyroplane	10	0	0	0	1	1	2	2	1	2	1
Private Helicopter	1,019	6	33	136	96	130	103	96	94	263	62
Commercial Helicopter	7,228	90	325	1,109	649	273	528	2,103	997	932	222
Commercial Helicopter, Private Glider	5	0	0	2	0	1	0	2	0	0	0
Commercial Helicopter, Commercial Glider	5	0	2	0	1	0	0	0	0	2	0
Commercial Gyroplane	1	0	1	0	0	0	0	0	0	0	0

TABLE 3 (Continued)

ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD, BY CLASS OF CERTIFICATES AND BY FAA REGION:
DECEMBER 31, 1967

Class of Certificate	Total ^{1/}	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. ^{2/}
Commercial Helicopter, Commercial Gyroplane	1	0	0	0	0	0	0	0	1	0	0
Airline Transport Helicopter	433	11	4	46	25	14	28	68	118	43	76
Glider (only)—Total	<u>7,901</u>	<u>16</u>	<u>116</u>	<u>1,562</u>	<u>981</u>	<u>438</u>	<u>1,071</u>	<u>624</u>	<u>548</u>	<u>2,411</u>	<u>134</u>
Private Glider	6,734	13	103	1,317	849	359	830	551	463	2,132	117
Commercial Glider	1,167	3	13	245	132	79	241	73	85	279	17
Lighter-Than-Air	<u>1,153</u>	<u>8</u>	<u>66</u>	<u>166</u>	<u>219</u>	<u>53</u>	<u>126</u>	<u>143</u>	<u>170</u>	<u>193</u>	<u>9</u>
Total—All Nonpilot	<u>427,962</u>	<u>4,427</u>	<u>21,403</u>	<u>61,836</u>	<u>55,820</u>	<u>18,652</u>	<u>35,786</u>	<u>72,847</u>	<u>55,489</u>	<u>81,819</u>	<u>19,883</u>
Mechanic ^{3/}	297,178	3,107	16,607	44,337	38,060	12,782	22,802	48,420	39,362	58,278	13,423
Parachute Rigger ^{3/}	9,659	149	420	1,638	1,219	344	1,299	1,849	978	1,602	161
Ground Instructor ^{3/}	60,861	717	3,047	8,426	9,635	2,680	5,490	10,290	8,130	10,956	1,490
Dispatcher ^{3/}	9,491	142	145	1,931	879	244	471	1,688	662	1,421	1,908
Flight Navigator	1,445	4	11	232	41	163	147	241	87	418	101
Flight Engineer	49,328	308	1,173	5,272	5,986	2,439	5,577	10,359	6,270	9,144	2,800
Flight Instructor Certificates— Total ^{4/}	<u>60,316</u>	<u>798</u>	<u>3,100</u>	<u>8,595</u>	<u>10,331</u>	<u>2,768</u>	<u>5,980</u>	<u>10,097</u>	<u>7,667</u>	<u>10,067</u>	<u>893</u>
Instrument Ratings ^{5/}	<u>266,122</u>	<u>3,489</u>	<u>12,145</u>	<u>34,659</u>	<u>39,753</u>	<u>12,019</u>	<u>23,677</u>	<u>49,879</u>	<u>34,035</u>	<u>46,138</u>	<u>10,328</u>

^{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 4
ESTIMATED ACTIVE PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:
DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous 2/	Flight Instructor 3/
Total 1/	<u>699,653</u>	<u>146,016</u>	<u>300,949</u>	<u>143,645</u>	<u>91,287</u>	<u>17,756</u>	<u>60,316</u>
United States—Total	<u>680,767</u>	<u>142,831</u>	<u>297,733</u>	<u>137,929</u>	<u>85,022</u>	<u>17,252</u>	<u>59,423</u>
Alaskan Region—Total	<u>10,685</u>	<u>1,993</u>	<u>5,013</u>	<u>2,586</u>	<u>962</u>	<u>131</u>	<u>798</u>
Central—Total	<u>35,584</u>	<u>6,312</u>	<u>18,187</u>	<u>7,312</u>	<u>3,226</u>	<u>547</u>	<u>3,100</u>
Iowa	7,619	1,371	4,323	1,414	423	88	634
Kansas	9,799	1,491	5,124	2,135	905	144	871
Missouri	12,781	2,492	5,973	2,490	1,580	246	1,196
Nebraska	5,385	958	2,767	1,273	318	69	399
Eastern—Total	<u>91,723</u>	<u>21,912</u>	<u>37,768</u>	<u>17,857</u>	<u>11,165</u>	<u>3,021</u>	<u>8,595</u>
Delaware	1,643	353	674	354	232	30	190
District of Columbia	666	156	281	137	55	37	51
Maryland	10,037	2,266	4,417	1,948	1,108	298	896
New Jersey	14,921	3,507	5,966	2,684	2,279	485	1,411
New York	25,688	6,596	10,866	4,854	2,284	1,088	2,293
Pennsylvania	20,861	5,124	8,938	3,618	2,596	585	2,130
Virginia	15,374	3,241	5,430	3,825	2,432	446	1,405
West Virginia	2,533	669	1,196	437	179	52	219
Great Lakes—Total	<u>116,254</u>	<u>24,838</u>	<u>56,665</u>	<u>21,219</u>	<u>11,560</u>	<u>1,972</u>	<u>10,331</u>
Illinois	27,229	6,036	12,411	4,788	3,528	466	2,522
Indiana	12,479	2,766	6,237	2,327	960	189	1,145
Michigan	20,348	4,510	10,172	3,500	1,689	477	1,751
Minnesota	16,188	3,095	7,810	2,910	2,199	174	1,344
North Dakota	3,293	692	1,597	888	93	23	255
Ohio	22,565	4,940	11,029	4,170	1,947	479	2,154
South Dakota	2,582	448	1,308	622	167	37	207
Wisconsin	11,570	2,351	6,101	2,014	977	127	953
New England—Total	<u>34,175</u>	<u>8,565</u>	<u>14,413</u>	<u>5,885</u>	<u>4,402</u>	<u>910</u>	<u>2,768</u>
Connecticut	9,204	2,133	3,511	1,579	1,747	234	750
Maine	3,917	909	1,816	809	337	46	294
Massachusetts	12,813	3,537	5,745	2,040	1,098	393	1,021
New Hampshire	4,729	1,100	1,754	853	889	133	419
Rhode Island	1,671	422	762	291	150	46	123
Vermont	1,841	464	825	313	181	58	161

TABLE 4 (continued)

ESTIMATED ACTIVE PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:
DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous ^{2/}	Flight Instructor ^{3/}
Northwest Mountain—Total	<u>65,664</u>	<u>13,138</u>	<u>28,745</u>	<u>13,225</u>	<u>8,698</u>	<u>1,858</u>	<u>5,980</u>
Colorado	18,202	4,262	6,622	3,417	3,100	801	1,904
Idaho	4,150	660	2,076	983	355	76	366
Montana	4,063	687	2,101	934	296	45	371
Oregon	9,801	1,758	5,215	1,989	622	217	802
Utah	5,610	1,252	2,513	982	703	160	457
Washington	21,686	4,114	9,069	4,504	3,469	530	1,906
Wyoming	2,152	405	1,149	416	153	29	174
Southern—Total	<u>116,661</u>	<u>24,634</u>	<u>45,591</u>	<u>25,634</u>	<u>17,764</u>	<u>3,038</u>	<u>10,097</u>
Alabama	9,271	1,824	3,539	2,360	659	889	955
Florida	45,095	8,883	17,691	10,445	7,311	765	3,871
Georgia	18,047	3,620	6,361	3,751	4,006	309	1,422
Kentucky	5,848	1,412	2,561	1,007	695	173	518
Mississippi	4,789	1,031	1,900	1,425	348	85	363
North Carolina	14,784	3,573	6,032	2,855	1,910	414	1,199
South Carolina	6,916	1,634	2,833	1,613	690	146	597
Tennessee	11,911	2,657	4,674	2,178	2,145	257	1,172
Southwest—Total	<u>85,537</u>	<u>16,719</u>	<u>36,131</u>	<u>18,958</u>	<u>11,800</u>	<u>1,929</u>	<u>7,667</u>
Arkansas	6,266	1,370	2,817	1,584	413	82	529
Louisiana	8,694	1,699	3,501	2,323	876	295	777
New Mexico	5,233	1,139	2,276	1,162	447	209	429
Oklahoma	12,004	2,508	5,927	2,504	882	183	957
Texas	53,340	10,003	21,610	11,385	9,182	1,160	4,975
Western-Pacific—Total	<u>124,484</u>	<u>24,720</u>	<u>55,220</u>	<u>25,253</u>	<u>15,445</u>	<u>3,846</u>	<u>10,087</u>
Arizona	15,445	3,194	6,661	3,209	1,849	532	1,408
California	100,102	19,662	45,541	20,043	11,916	2,940	7,870
Hawaii	3,373	862	834	803	664	230	271
Nevada	5,564	1,022	2,184	1,198	1,016	144	538
Outside U.S.—Total ^{4/}	<u>18,886</u>	<u>3,185</u>	<u>3,216</u>	<u>5,716</u>	<u>6,265</u>	<u>504</u>	<u>893</u>
Other U.S. Areas	<u>1,935</u>	<u>581</u>	<u>648</u>	<u>336</u>	<u>331</u>	<u>39</u>	<u>0</u>
American Samoa	10	1	2	1	6	0	0
Canal Zone	2	1	0	1	0	0	0
Guam	102	20	22	19	40	1	0
Puerto Rico	1,493	495	506	236	223	33	0
Virgin Island	325	63	118	78	61	5	0
Wake Island	3	1	0	1	1	0	0

^{1/} Includes Outside U.S.^{2/} Includes helicopter, glider, and lighter-than-air.^{3/} Not included in total.^{4/} Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 5

ESTIMATED ACTIVE WOMEN PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:
DECEMBER 31, 1967

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous 2/	Flight Instructor 3/
Total 1/	<u>42,578</u>	<u>18,367</u>	<u>17,349</u>	<u>4,208</u>	<u>1,538</u>	<u>1,116</u>	<u>2,909</u>
United States--Total	<u>42,063</u>	<u>18,144</u>	<u>17,195</u>	<u>4,119</u>	<u>1,510</u>	<u>1,095</u>	<u>2,869</u>
Alaskan Region--Total	<u>863</u>	<u>365</u>	<u>400</u>	<u>78</u>	<u>14</u>	<u>6</u>	<u>37</u>
Central--Total	<u>1,906</u>	<u>777</u>	<u>880</u>	<u>167</u>	<u>50</u>	<u>32</u>	<u>112</u>
Iowa	378	149	184	35	7	3	20
Kansas	554	206	275	49	14	10	34
Missouri	710	315	298	61	24	12	43
Nebraska	264	107	123	22	5	7	15
Eastern--Total	<u>5,796</u>	<u>2,621</u>	<u>2,168</u>	<u>610</u>	<u>186</u>	<u>211</u>	<u>428</u>
Delaware	93	46	31	9	6	1	7
District of Columbia	75	29	35	6	4	1	4
Maryland	719	291	302	76	29	21	48
New Jersey	897	394	333	101	31	38	66
New York	1,570	709	572	169	40	80	125
Pennsylvania	1,391	651	514	146	38	42	99
Virginia	933	433	340	97	37	26	76
West Virginia	118	68	41	6	1	2	3
Great Lakes--Total	<u>6,848</u>	<u>2,882</u>	<u>2,888</u>	<u>719</u>	<u>235</u>	<u>124</u>	<u>514</u>
Illinois	1,670	693	718	167	70	22	123
Indiana	677	288	274	81	22	12	53
Michigan	1,201	520	481	123	35	42	94
Minnesota	913	361	399	98	43	12	65
North Dakota	177	66	77	33	0	1	14
Ohio	1,446	647	577	145	46	31	110
South Dakota	115	51	50	9	4	1	6
Wisconsin	649	256	312	63	15	3	49
New England--Total	<u>2,392</u>	<u>1,116</u>	<u>910</u>	<u>204</u>	<u>92</u>	<u>70</u>	<u>162</u>
Connecticut	596	275	210	53	38	20	41
Maine	224	106	94	15	8	1	16
Massachusetts	969	474	366	80	24	25	55
New Hampshire	345	158	117	39	16	15	31
Rhode Island	127	48	66	8	2	3	8
Vermont	131	55	57	9	4	6	11

TABLE 5 (continued)

ESTIMATED ACTIVE WOMEN PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:
DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous ^{2/}	Flight Instructor ^{3/}
Northwest Mountain—Total	<u>4,464</u>	<u>1,910</u>	<u>1,861</u>	<u>429</u>	<u>154</u>	<u>130</u>	<u>303</u>
Colorado	1,329	627	448	133	57	64	111
Idaho	257	98	122	28	5	4	18
Montana	205	88	96	18	3	0	15
Oregon	722	277	353	60	14	18	38
Utah	287	135	108	19	14	11	15
Washington	1,531	628	651	159	60	33	102
Wyoming	133	57	63	12	1	0	4
Southern—Total	<u>6,249</u>	<u>2,905</u>	<u>2,299</u>	<u>609</u>	<u>298</u>	<u>138</u>	<u>418</u>
Alabama	378	167	158	21	8	24	20
Florida	2,707	1,189	1,056	302	111	49	192
Georgia	861	430	304	68	47	12	46
Kentucky	317	158	108	27	20	4	25
Mississippi	215	102	83	22	5	3	12
North Carolina	770	369	266	70	43	22	56
South Carolina	349	183	111	35	12	8	28
Tennessee	652	307	213	64	52	16	39
Southwest—Total	<u>4,689</u>	<u>2,075</u>	<u>1,925</u>	<u>417</u>	<u>156</u>	<u>116</u>	<u>302</u>
Arkansas	304	158	112	31	3	0	22
Louisiana	377	177	137	44	10	9	34
New Mexico	415	177	154	32	14	38	25
Oklahoma	724	314	319	62	21	8	51
Texas	2,869	1,249	1,203	248	108	61	170
Western-Pacific—Total	<u>8,856</u>	<u>3,493</u>	<u>3,884</u>	<u>886</u>	<u>325</u>	<u>268</u>	<u>593</u>
Arizona	1,151	443	503	117	40	48	71
California	7,088	2,778	3,158	702	255	195	477
Hawaii	245	112	70	29	18	16	19
Nevada	372	160	153	38	12	9	26
Outside U.S.—Total ^{4/}	<u>515</u>	<u>223</u>	<u>154</u>	<u>89</u>	<u>28</u>	<u>21</u>	<u>40</u>
Other U.S. Areas	<u>69</u>	<u>35</u>	<u>19</u>	<u>7</u>	<u>5</u>	<u>3</u>	<u>0</u>
Guam	7	5	1	1	0	0	0
Puerto Rico	39	22	9	3	3	2	0
Virgin Island	23	8	9	3	2	1	0

1/ Includes Outside U.S.

2/ Includes helicopter, glider, and lighter-than-air.

3/ Not included in total.

4/ Other U.S. Areas are included in Outside U.S. Total.

TABLE 6

ESTIMATED ACTIVE HELICOPTER PILOTS BY CLASS OF CERTIFICATES
DECEMBER 31, 1967

Class of Certificates	Number of Certificates Held
Total	<u>31,513</u>
Private Helicopter	1,019
Private Gyroplane, Private Airplane	29
Private Helicopter, Private Airplane	1,316
Private Helicopter, Private Airplane, Private Glider	55
Private Airplane, Commercial Gyroplane, Commercial Helicopter	2
Private Airplane, Private Glider, Commercial Helicopter	37
Private Gyroplane	10
Private Airplane, Commercial Glider, Commercial Helicopter	12
Commercial Helicopter	7,228
Commercial Helicopter, Private Airplane	3,904
Commercial Airplane, Commercial Helicopter	14,778
Commercial Airplane, Private Helicopter	274
Commercial Airplane, Private Glider, Commercial Helicopter	152
Commercial Airplane, Commercial Glider, Commercial Helicopter	587
Commercial Helicopter, Private Glider	5
Commercial Helicopter, Commercial Glider	5
Commercial Gyroplane, Commercial Airplane	24
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter	20
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter Commercial Glider	10
Commercial Helicopter, Commercial Gyroplane	1
Commercial Airplane, Commercial Glider, Private Helicopter	18
Airline Transport Helicopter	433
Airline Transport Airplane, Airline Transport Helicopter	1,593

TABLE 7
ESTIMATED ACTIVE GLIDER PILOTS BY CLASS OF CERTIFICATES
DECEMBER 31, 1987

Class of Certificates	Number of Certificates Held
Total	<u>19,530</u>
Private Glider	6,734
Private Airplane, Private Glider	4,105
Private Airplane, Commercial Glider	795
Private Airplane, Private Glider, Private Helicopter	55
Private Airplane, Private Glider, Commercial Helicopter	37
Private Airplane, Commercial Glider, Commercial Helicopter	12
Private Glider, Commercial Airplane	2,070
Private Glider, Commercial Airplane, Commercial Helicopter	152
Private Glider, Commercial Helicopter	5
Commercial Glider	1,167
Commercial Airplane, Commercial Glider	3,777
Commercial Airplane, Commercial Glider, Private Helicopter	18
Commercial Airplane, Commercial Glider, Commercial Helicopter	587
Commercial Helicopter, Commercial Glider	5
Commercial Airplane, Commercial Gyroplane, Commercial Glider, Commercial Helicopter	10
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1

TABLE 8
ESTIMATED ACTIVE HELICOPTER AND GLIDER PILOTS
DECEMBER 31, 1983-87

Calendar Year	Total Helicopter Pilots <u>1/</u>		Total Glider Pilots <u>2/</u>	
	Number	Percent Change	Number	Percent Change
1987	31,513	-1	19,530	-6
1986	31,697	+2	20,355	
1985	31,206	+2	20,308	-2
1984	30,507	+1	20,733	+2
1983	30,090	+1	20,395	+3

1/ Includes pilots with ratings to fly helicopters only.
2/ Includes pilots with ratings to fly gliders only.

TABLE 9
ESTIMATED TOTAL PILOTS AND INSTRUMENT RATED PILOTS
DECEMBER 31, 1983-87

Calendar Year	Total Pilots <u>1/</u>	Instrument Rated Pilots	
		Number	Percent of Total
1987	553,637	266,122	48
1986	558,845	262,388	47
1985	562,888	258,559	46
1984	572,295	256,584	45
1983	570,807	254,271	45

1/ Excludes student pilots.

TABLE 10
ESTIMATED ACTIVE PILOT CERTIFICATES HELD
BY CATEGORY AND AGE GROUP OF HOLDER
1987, 1986, 1983

Type of Pilot Certificates															
Age Group	Total Active Pilots			Student			Private			Commercial			Airline Transport		
	1987	1986	1983	1987	1986	1983	1987	1986	1983	1987	1986	1983	1987	1986	1983
Total	699,653	709,118	718,004	146,016	150,273	147,197	300,949	305,736	318,643	143,645	147,798	159,495	91,287	87,166	75,938
14-15	264	252	280	264	252	280	0	0	0	0	0	0	0	0	0
16-19	19,752	18,135	19,595	15,542	14,652	14,188	3,854	3,222	4,959	215	114	267	0	0	0
20-24	56,575	58,029	70,679	26,443	27,477	29,759	20,522	21,096	28,039	7,791	7,600	10,806	453	413	622
25-29	86,336	89,246	97,060	27,617	28,885	29,019	32,058	33,569	40,229	16,999	17,226	18,640	6,436	6,308	6,038
30-34	99,311	102,263	104,166	23,762	25,066	24,195	42,746	44,654	46,459	16,497	16,769	18,585	13,117	12,438	11,577
35-39	99,686	105,580	107,927	18,413	19,531	18,089	44,903	46,367	45,670	17,514	20,169	26,219	15,614	15,933	14,628
40-44	97,082	96,586	89,756	13,437	13,606	11,857	41,570	41,428	39,859	22,637	23,661	23,913	16,792	15,437	12,494
45-49	75,194	73,040	71,234	8,251	8,234	7,819	33,189	32,152	32,483	18,146	18,000	18,684	14,342	13,409	11,221
50-54	57,844	59,077	61,035	5,214	5,438	5,718	26,151	27,064	30,941	14,349	14,947	15,065	11,335	10,819	8,475
55-59	47,529	46,211	46,738	3,621	3,685	3,541	24,862	26,539	26,481	11,140	10,816	10,825	7,184	6,398	5,175
60 and over	60,060	58,699	49,534	3,452	3,427	2,732	31,094	29,645	23,523	18,357	18,496	16,491	6,014	6,031	5,704

Type of Pilot Certificates												
Age Group	Helicopter (Only)			Glider (Only) ^{1/}			Lighter-than-air ^{1/}			Flight Instructor ^{2/}		
	1987	1986	1983	1987	1986	1983	1987	1986	1983	1987	1986	1983
Total	8,702	8,581	7,237	7,901	8,411	8,157	1,153	1,133	1,337	60,316	57,355	62,201
14-15	0	0	0	0	0	0	0	0	0	0	0	0
16-19	10	23	11	118	105	152	13	18	18	91	48	108
20-24	891	889	811	428	518	551	47	37	91	4,349	4,033	5,533
25-29	2,416	2,379	1,891	678	741	1,043	132	138	200	7,927	7,700	9,511
30-34	1,709	1,672	1,633	1,237	1,397	1,373	243	247	344	8,518	8,301	9,612
35-39	1,575	1,779	1,732	1,363	1,495	1,260	304	306	329	8,734	8,978	10,642
40-44	1,322	1,118	668	1,112	1,137	833	212	199	152	9,343	8,633	8,081
45-49	441	418	296	732	737	647	93	90	84	6,895	6,275	6,221
50-54	198	173	125	549	582	632	48	54	75	5,195	4,984	4,831
55-59	86	81	63	596	665	632	40	27	21	3,966	3,469	3,272
60 and over	54	49	27	1,088	1,034	1,034	21	17	23	5,296	4,934	4,390

^{1/} Glider and lighter-than-air 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 11
 AVERAGE AGE OF ACTIVE PILOTS BY CATEGORY

YEAR	TOTAL ^{1/}	STUDENT	PRIVATE	COMMERCIAL	AIRLINE TRANSPORT
1978	37.1	30.5	38.6	39.9	42.6
1979	37.2	30.5	38.7	40.2	42.1
1980	37.5	30.5	39.0	40.4	41.9
1981	37.8	30.7	39.3	40.7	42.0
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

^{1/} Includes helicopter (only), glider (only) and lighter than air (only) pilots not shown separately.

TABLE 12

ESTIMATED INSTRUMENT RATING HELD BY CLASS OF CERTIFICATES

DECEMBER 31, 1987 AND 1986

Class of Certificates	1987	1986	Percent Change 1987-1986
Total—all groups	<u>266,122</u>	<u>262,388</u>	<u>1</u>
Private Pilots—Total	47,746	45,672	5
Private Airplane (only)	43,885	41,947	5
Private Airplane, Private Glider	983	955	3
Private Airplane, Commercial Glider	102	95	7
Private Airplane, Private Helicopter	332	318	4
Private Airplane, Private Glider, Private Helicopter	25	20	-25
Private Airplane, Commercial Helicopter	2,385	2,302	4
Private Airplane, Private Gyroplane	3	2	50
Private Airplane, Private Glider, Commercial Helicopter	21	20	5
Private Airplane, Commercial Glider, Commercial Helicopter	9	12	25
Private Airplane, Other	1	1	0
Commercial Pilots—Total	<u>121,072</u>	<u>123,559</u>	<u>-2</u>
Commercial Airplane (only)	102,017	103,913	-2
Commercial Airplane, Private Glider	1,756	1,825	-4
Commercial Airplane, Commercial Glider	3,098	3,227	-4
Commercial Airplane, Private Helicopter	234	224	4
Commercial Airplane, Commercial Helicopter	13,250	13,624	-3
Commercial Airplane, Private Glider, Commercial Helicopter	134	143	-6
Commercial Airplane, Commercial Glider, Commercial Helicopter	526	549	-4
Commercial Airplane, Commercial Gyroplane	15	13	15
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	15	16	-6
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1	1	0
Commercial Airplane, Commercial Glider, Private Helicopter	16	15	7
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter Commercial Glider	10	9	11
Airline Transport Pilots—Total	<u>91,287</u>	<u>87,186</u>	<u>5</u>
Airline Transport Airplane	89,694	85,714	5
Airline Transport Airplane, Airline Transport Helicopter	1,593	1,472	8
Rotorcraft Pilots—Total	<u>6,017</u>	<u>5,971</u>	<u>1</u>
Commercial Helicopter	5,927	5,873	1
Airline Transport Helicopter	81	89	9
Rotorcraft Other	9	9	0

II. ACTIVE NONPILOT CERTIFICATES HELD

TABLE 13

ESTIMATED INSTRUMENT RATINGS HELD, BY CLASS OF CERTIFICATES, BY FAA REGION: DECEMBER 31, 1987

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western Pacific	Outside U.S. 2/
Total—all groups	<u>266,122</u>	<u>3,489</u>	<u>12,145</u>	<u>34,659</u>	<u>39,753</u>	<u>12,019</u>	<u>23,677</u>	<u>49,879</u>	<u>34,035</u>	<u>46,138</u>	<u>10,328</u>
Private Pilots—Total	<u>47,746</u>	<u>336</u>	<u>2,607</u>	<u>6,710</u>	<u>9,348</u>	<u>2,330</u>	<u>3,599</u>	<u>7,998</u>	<u>5,591</u>	<u>8,929</u>	<u>298</u>
Private Airplane (only)	43,885	279	2,425	6,126	8,876	2,164	3,276	7,109	5,086	8,269	275
Private Airplane, Private Glider	983	6	32	172	159	60	61	153	91	240	9
Private Airplane, Commercial Glider	102	0	3	18	13	14	13	8	10	23	0
Private Airplane, Private Helicopter	332	1	17	43	44	13	30	64	52	67	1
Private Airplane, Private Glider											
Private Helicopter	25	0	0	5	3	2	3	2	3	7	0
Private Airplane, Commercial Helicopter	2,385	49	129	342	250	77	208	652	346	319	13
Private Airplane, Private Gyroplane	3	0	1	0	1	0	0	0	0	1	0
Private Airplane, Private Glider											
Commercial Helicopter	21	0	0	2	1	0	7	6	3	2	0
Private Airplane, Commercial Glider											
Commercial Helicopter	9	1	0	2	0	0	1	4	0	1	0
Private Airplane, Other	1	0	0	0	1	0	0	0	0	0	0
Commercial Pilots—Total	<u>121,072</u>	<u>2,109</u>	<u>6,025</u>	<u>15,829</u>	<u>18,281</u>	<u>5,075</u>	<u>10,947</u>	<u>22,223</u>	<u>15,806</u>	<u>21,081</u>	<u>3,696</u>
Commercial Airplane (only)	102,017	1,813	5,223	13,075	16,204	4,312	9,098	18,039	13,326	17,503	3,424
Commercial Airplane, Private Glider	1,756	19	74	270	234	69	189	288	186	409	18
Commercial Airplane, Commercial Glider	3,098	20	126	472	436	178	367	486	342	645	26
Commercial Airplane, Private Helicopter	234	3	10	33	46	8	20	39	28	39	8
Commercial Airplane, Commercial Helicopter	13,250	243	569	1,868	1,273	474	1,198	3,254	1,854	2,309	208
Commercial Airplane, Private Glider											
Commercial Helicopter	134	0	3	22	21	6	12	28	10	28	4
Commercial Airplane, Commercial Glider, Commercial Helicopter	526	10	19	84	54	26	55	86	55	130	7

TABLE 13 (Continued)

ESTIMATED INSTRUMENT RATINGS HELD, BY CLASS OF CERTIFICATES, BY FAA REGION: DECEMBER 31, 1987

Class of Certificate	Total ^{1/}	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western Pacific	Outside U.S. ^{2/}
Commercial Airplane, Commercial Gyroplane	15	0	0	1	2	1	4	1	2	4	0
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	15	1	1	0	5	0	3	1	1	3	0
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1	0	0	0	0	0	0	0	0	1	0
Commercial Airplane, Commercial Glider, Private Helicopter	16	0	0	3	4	1	0	0	1	6	1
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter, Commercial Glider	10	0	0	1	2	0	1	1	1	4	0
Airline Transport Pilots—Total	<u>91,287</u>	<u>962</u>	<u>3,226</u>	<u>11,165</u>	<u>11,560</u>	<u>4,402</u>	<u>8,698</u>	<u>17,764</u>	<u>11,800</u>	<u>15,445</u>	<u>6,265</u>
Airline Transport Airplane	89,694	927	3,192	10,890	11,421	4,297	8,569	17,461	11,526	15,192	6,219
Airline Transport Airplane, Airline Transport Helicopter	1,593	35	34	275	139	105	129	303	274	253	46
Rotorcraft Pilots—Total	<u>6,017</u>	<u>82</u>	<u>287</u>	<u>955</u>	<u>564</u>	<u>212</u>	<u>433</u>	<u>1,894</u>	<u>838</u>	<u>683</u>	<u>69</u>
Commercial Helicopter	5,927	80	284	945	552	207	429	1,877	816	674	63
Airline Transport Helicopter	81	2	1	9	12	4	4	15	21	7	6
Other	9	0	2	1	0	1	0	2	1	2	0

^{1/} Includes Outside U.S. total.^{2/} Outside U.S. includes airmen certificated by FAA who live outside the 50 states or foreign countries.

TABLE 14

ESTIMATED ACTIVE NONPILOT AIRMEN CERTIFICATES HELD, BY FAA REGION AND STATE:
DECEMBER 31, 1967 ^{1/}

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Total ^{2/}	<u>427,962</u>	<u>297,178</u>	<u>9,659</u>	<u>60,861</u>	<u>9,491</u>	<u>1,445</u>	<u>49,328</u>
United States—Total	<u>408,079</u>	<u>283,755</u>	<u>9,498</u>	<u>59,371</u>	<u>7,583</u>	<u>1,344</u>	<u>46,528</u>
Alaskan Region—Total	<u>4,427</u>	<u>3,107</u>	<u>149</u>	<u>717</u>	<u>142</u>	<u>4</u>	<u>308</u>
Central—Total	<u>21,403</u>	<u>16,607</u>	<u>420</u>	<u>3,067</u>	<u>145</u>	<u>11</u>	<u>1,173</u>
Iowa	<u>2,684</u>	<u>1,981</u>	<u>85</u>	<u>517</u>	<u>9</u>	<u>0</u>	<u>92</u>
Kansas	<u>5,993</u>	<u>4,630</u>	<u>108</u>	<u>907</u>	<u>38</u>	<u>3</u>	<u>307</u>
Missouri	<u>10,937</u>	<u>8,697</u>	<u>160</u>	<u>1,288</u>	<u>95</u>	<u>3</u>	<u>694</u>
Nebraska	<u>1,789</u>	<u>1,299</u>	<u>67</u>	<u>335</u>	<u>3</u>	<u>5</u>	<u>80</u>
Eastern—Total	<u>61,836</u>	<u>44,337</u>	<u>1,638</u>	<u>6,426</u>	<u>1,931</u>	<u>232</u>	<u>5,272</u>
Delaware	<u>1,029</u>	<u>739</u>	<u>26</u>	<u>146</u>	<u>12</u>	<u>5</u>	<u>101</u>
District of Columbia	<u>338</u>	<u>201</u>	<u>19</u>	<u>82</u>	<u>17</u>	<u>0</u>	<u>19</u>
Maryland	<u>3,959</u>	<u>2,449</u>	<u>138</u>	<u>779</u>	<u>51</u>	<u>14</u>	<u>528</u>
New Jersey	<u>11,015</u>	<u>7,554</u>	<u>236</u>	<u>1,352</u>	<u>394</u>	<u>66</u>	<u>1,413</u>
New York	<u>24,099</u>	<u>18,923</u>	<u>388</u>	<u>2,598</u>	<u>1,077</u>	<u>70</u>	<u>1,043</u>
Pennsylvania	<u>14,096</u>	<u>10,425</u>	<u>362</u>	<u>1,991</u>	<u>236</u>	<u>45</u>	<u>1,037</u>
Virginia	<u>6,370</u>	<u>3,423</u>	<u>422</u>	<u>1,267</u>	<u>140</u>	<u>32</u>	<u>1,086</u>
West Virginia	<u>930</u>	<u>623</u>	<u>47</u>	<u>211</u>	<u>4</u>	<u>0</u>	<u>45</u>
Great Lakes—Total	<u>55,820</u>	<u>38,060</u>	<u>1,219</u>	<u>9,635</u>	<u>879</u>	<u>41</u>	<u>5,986</u>
Illinois	<u>15,558</u>	<u>10,099</u>	<u>281</u>	<u>2,491</u>	<u>304</u>	<u>13</u>	<u>2,370</u>
Indiana	<u>5,451</u>	<u>3,887</u>	<u>188</u>	<u>941</u>	<u>56</u>	<u>5</u>	<u>374</u>
Michigan	<u>9,046</u>	<u>6,339</u>	<u>181</u>	<u>1,818</u>	<u>92</u>	<u>7</u>	<u>609</u>
Minnesota	<u>9,585</u>	<u>6,401</u>	<u>137</u>	<u>1,224</u>	<u>278</u>	<u>4</u>	<u>1,541</u>
North Dakota	<u>852</u>	<u>650</u>	<u>25</u>	<u>142</u>	<u>2</u>	<u>0</u>	<u>33</u>
Ohio	<u>10,268</u>	<u>7,309</u>	<u>258</u>	<u>1,967</u>	<u>97</u>	<u>5</u>	<u>632</u>
South Dakota	<u>886</u>	<u>617</u>	<u>21</u>	<u>196</u>	<u>3</u>	<u>1</u>	<u>48</u>
Wisconsin	<u>4,174</u>	<u>2,758</u>	<u>128</u>	<u>856</u>	<u>47</u>	<u>6</u>	<u>379</u>
New England—Total	<u>18,652</u>	<u>12,782</u>	<u>344</u>	<u>2,680</u>	<u>244</u>	<u>163</u>	<u>2,439</u>
Connecticut	<u>5,645</u>	<u>3,604</u>	<u>81</u>	<u>759</u>	<u>76</u>	<u>109</u>	<u>1,016</u>
Maine	<u>1,328</u>	<u>869</u>	<u>41</u>	<u>242</u>	<u>28</u>	<u>8</u>	<u>140</u>
Massachusetts	<u>8,296</u>	<u>6,464</u>	<u>163</u>	<u>1,046</u>	<u>87</u>	<u>14</u>	<u>522</u>
New Hampshire	<u>1,970</u>	<u>918</u>	<u>31</u>	<u>353</u>	<u>29</u>	<u>24</u>	<u>615</u>
Rhode Island	<u>799</u>	<u>567</u>	<u>18</u>	<u>151</u>	<u>9</u>	<u>2</u>	<u>72</u>
Vermont	<u>614</u>	<u>380</u>	<u>10</u>	<u>129</u>	<u>15</u>	<u>6</u>	<u>74</u>
Northwest-Mountain—Total	<u>35,786</u>	<u>22,802</u>	<u>1,299</u>	<u>5,490</u>	<u>471</u>	<u>167</u>	<u>5,577</u>
Colorado	<u>10,956</u>	<u>6,578</u>	<u>168</u>	<u>1,748</u>	<u>186</u>	<u>29</u>	<u>2,247</u>
Idaho	<u>1,594</u>	<u>1,042</u>	<u>157</u>	<u>294</u>	<u>6</u>	<u>4</u>	<u>91</u>
Montana	<u>1,915</u>	<u>1,175</u>	<u>276</u>	<u>364</u>	<u>3</u>	<u>4</u>	<u>93</u>
Oregon	<u>3,936</u>	<u>2,772</u>	<u>233</u>	<u>644</u>	<u>36</u>	<u>27</u>	<u>224</u>
Utah	<u>2,632</u>	<u>1,694</u>	<u>78</u>	<u>396</u>	<u>13</u>	<u>4</u>	<u>447</u>
Washington	<u>13,822</u>	<u>8,863</u>	<u>355</u>	<u>1,888</u>	<u>216</u>	<u>76</u>	<u>2,424</u>
Wyoming	<u>931</u>	<u>678</u>	<u>32</u>	<u>156</u>	<u>11</u>	<u>3</u>	<u>51</u>

TABLE 14 (Continued)

ESTIMATED ACTIVE NONPILOT AIRMEN CERTIFICATES HELD, BY FAA REGION AND STATE:
DECEMBER 31, 1967 ^{1/}

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Southern—Total	<u>72,847</u>	<u>48,420</u>	<u>1,849</u>	<u>10,290</u>	<u>1,688</u>	<u>241</u>	<u>10,359</u>
Alabama	5,507	4,336	133	853	10	7	168
Georgia	14,965	9,485	281	1,483	291	13	3,412
Florida	34,036	23,437	542	4,611	1,027	188	4,231
Kentucky	2,430	1,518	159	438	45	0	270
Mississippi	1,624	1,125	42	346	7	3	101
North Carolina	6,334	3,812	431	1,090	138	17	846
South Carolina	2,365	1,456	94	489	17	5	304
Tennessee	5,586	3,251	167	980	153	8	1,027
Southwest—Total	<u>55,489</u>	<u>39,362</u>	<u>978</u>	<u>8,130</u>	<u>662</u>	<u>87</u>	<u>6,270</u>
Arkansas	2,242	1,570	71	438	15	2	146
Louisiana	4,539	3,365	92	679	37	5	361
New Mexico	2,008	1,342	65	461	21	3	116
Oklahoma	12,415	10,558	163	1,334	29	9	322
Texas	34,285	22,527	587	5,218	560	68	5,325
Western-Pacific—Total	<u>81,819</u>	<u>58,278</u>	<u>1,602</u>	<u>10,956</u>	<u>1,421</u>	<u>418</u>	<u>9,144</u>
Arizona	8,283	5,832	188	1,371	211	22	659
California	68,133	48,974	1,304	8,729	1,043	331	7,752
Hawaii	2,778	1,999	56	340	126	11	246
Nevada	2,625	1,473	54	516	41	54	487
Outside U.S.—Total ^{3/}	<u>19,883</u>	<u>13,423</u>	<u>161</u>	<u>1,490</u>	<u>1,908</u>	<u>101</u>	<u>2,800</u>
Other U.S. Areas—Total	<u>1,516</u>	<u>1,141</u>	<u>34</u>	<u>192</u>	<u>59</u>	<u>0</u>	<u>90</u>
American Samoa	9	5	0	3	0	0	1
Canal Zone	39	16	18	3	2	0	0
Guam	147	79	3	22	7	0	36
Puerto Rico	1,169	929	11	139	47	0	43
Wake Island	9	9	0	0	0	0	0
Virgin Island	143	103	2	25	3	0	10

^{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/} Outside U.S. includes Other U.S. Areas outside the 50 states and foreign countries.

III. PILOT CERTIFICATES ISSUED

TABLE 15

ESTIMATED ACTIVE WOMEN NONPILOT CERTIFICATES HELD, BY FAA REGION AND STATE:
DECEMBER 31, 1987 ^{1/}

FAA Region and State	Total Nonpilot Women	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Engineer
Total ^{2/}	<u>7,101</u>	<u>2,237</u>	<u>428</u>	<u>3,232</u>	<u>524</u>	<u>680</u>
United States—Total	<u>7,007</u>	<u>2,224</u>	<u>423</u>	<u>3,182</u>	<u>504</u>	<u>674</u>
Alaskan Region—Total	<u>120</u>	<u>26</u>	<u>11</u>	<u>47</u>	<u>28</u>	<u>8</u>
Central—Total	<u>301</u>	<u>132</u>	<u>17</u>	<u>141</u>	<u>6</u>	<u>5</u>
Iowa	<u>70</u>	<u>36</u>	<u>1</u>	<u>31</u>	<u>2</u>	<u>0</u>
Kansas	96	46	6	43	0	1
Missouri	110	46	7	49	4	4
Nebraska	25	4	3	18	0	0
Eastern—Total	<u>911</u>	<u>205</u>	<u>82</u>	<u>417</u>	<u>130</u>	<u>77</u>
Delaware	20	9	1	8	1	1
District of Columbia	10	0	1	6	1	2
Maryland	92	15	4	49	6	18
New Jersey	125	30	7	47	26	15
New York	318	81	14	137	69	17
Pennsylvania	191	39	23	97	20	12
West Virginia	20	15	0	4	1	0
Virginia	135	16	32	69	6	12
Great Lakes—Total	<u>1,173</u>	<u>386</u>	<u>59</u>	<u>550</u>	<u>71</u>	<u>107</u>
Illinois	331	104	14	150	21	42
Indiana	116	20	19	52	8	17
Michigan	203	56	6	115	9	17
Minnesota	144	52	5	46	21	20
North Dakota	10	2	0	6	1	1
Ohio	269	131	11	115	6	6
South Dakota	15	2	0	13	0	0
Wisconsin	85	19	4	53	5	4
New England—Total	<u>317</u>	<u>101</u>	<u>12</u>	<u>156</u>	<u>15</u>	<u>33</u>
Connecticut	114	42	4	42	8	18
Maine	24	4	1	16	2	1
Massachusetts	116	36	5	62	4	9
New Hampshire	41	15	1	20	1	4
Rhode Island	11	2	0	8	0	1
Vermont	11	2	1	8	0	0
Northwest-Mountain—Total	<u>680</u>	<u>230</u>	<u>28</u>	<u>300</u>	<u>28</u>	<u>94</u>
Colorado	226	73	1	92	12	48
Idaho	28	8	2	17	1	0
Montana	30	5	4	20	0	1
Oregon	72	15	9	46	0	2
Utah	48	13	6	21	1	7
Washington	258	111	4	95	12	36
Wyoming	18	5	2	9	2	0

TABLE 15 (Continued)

ESTIMATED ACTIVE WOMEN NONPILOT CERTIFICATES HELD, BY FAA REGION AND STATE:
DECEMBER 31, 1987 ^{1/}

FAA Region and State	Total Nonpilot Women	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Engineer
Southern—Total	<u>1,235</u>	<u>306</u>	<u>117</u>	<u>558</u>	<u>104</u>	<u>150</u>
Alabama	126	30	6	86	1	3
Georgia	141	40	7	55	12	27
Florida	505	149	14	222	66	54
Kentucky	76	21	10	30	6	9
Mississippi	23	5	1	17	0	0
North Carolina	159	30	41	67	7	14
South Carolina	52	8	4	30	2	8
Tennessee	153	23	34	51	10	35
Southwest—Total	<u>889</u>	<u>320</u>	<u>47</u>	<u>414</u>	<u>43</u>	<u>65</u>
Arkansas	28	6	0	20	0	2
Louisiana	85	36	2	38	5	4
New Mexico	57	13	3	35	2	4
Oklahoma	169	80	8	73	1	7
Texas	550	185	34	248	35	48
Western-Pacific—Total	<u>1,381</u>	<u>518</u>	<u>50</u>	<u>599</u>	<u>79</u>	<u>135</u>
Arizona	152	45	6	82	9	10
California	1,137	458	42	471	57	104
Hawaii	38	8	2	20	3	4
Nevada	34	7	0	26	0	11
Outside U.S.—Total ^{4/}	<u>94</u>	<u>13</u>	<u>5</u>	<u>50</u>	<u>20</u>	<u>6</u>
Other U.S. Areas—Total	<u>9</u>	<u>5</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>0</u>
Guam	1	1	0	0	0	0
Puerto Rico	5	3	0	2	0	1
Virgin Island	3	1	0	2	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/} Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 16

PILOT CERTIFICATES ISSUED, BY CATEGORY: CALENDAR YEARS 1983-1987

Category of Certificates	1983		1984		1985		1986		1987	
	Original	Additional	Original	Additional	Original	Additional	Original	Additional	Original	Additional
Pilot—Total	150,419	30,898	141,763	30,469	138,589	28,420	141,625	32,628	148,987	39,990
Student	92,239	0	90,085	0	86,060	0	88,699	0	84,958 (P)	0
Private	41,210	12,721	36,545	11,784	35,402	11,686	34,816	12,672	42,278	16,302
Commercial	8,789	9,513	7,702	8,892	8,404	7,197	8,889	9,241	11,314	11,365
Airline Transport	5,643	8,187	5,099	9,335	6,081	9,192	6,498	10,372	7,678	11,956
Helicopter (only)	1,932	315	1,808	319	2,105	207	2,209	234	2,217	293
Glider (only)	606	162	524	139	537	138	514	109	542	74
Nonpilot—Total <u>r/</u>	15,702	5,420	15,438	4,808	16,432	4,713	16,470	5,010	21,878	5,486
Mechanic	11,676	4,470	10,719	4,042	10,559	3,429	10,998	3,289	15,089	4,195
Parachute Rigger	214	13	149	12	157	9	149	11	194	11
Ground Instructor	1,524	371	1,283	293	1,359	343	1,386	323	1,825	366
Dispatcher	632	1	755	3	622	3	516	1	533	3
Flight Navigator	15	2	14	0	1	0	17	0	4	0
Flight Engineer	1,641	563	2,518	458	3,734	929	3,404	1,386	4,233	911
Flight Instructor Certificates <u>2/</u>	4,614	7,698	4,075	6,828	4,298	5,921	4,628	5,421	6,327	6,378
Instrument Ratings <u>3/</u>	0	11,078	0	10,845	0	11,673	0	13,688	0	18,296

(P) Preliminary

r/ Revised.

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 instruction.

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.

Air traffic control tower operator—junior/senior ratings for airport where holder may control air traffic.

1/ Six month total.2/ Not included in total.3/ Special ratings shown on pilot certificates represented above; not included in total.

TABLE 17

PILOT CERTIFICATES ISSUED, BY CATEGORY AND CONDUCTOR: DECEMBER 31, 1967

Category of Certificates	Total Ratings Issued	Original Issuances				Additional Ratings			
		Total	Examiner	Inspector	No Test	Total	Examiner	Inspector	No Test
Total	216,341	170,865	68,501	87,251	15,113	45,476	38,352	2,831	4,293
Pilot--Total	188,977	148,967	52,868	86,586	9,533	39,990	34,153	2,693	3,144
Student	84,958 (P)	84,958(P)	0	84,958 (P)	0	0	0	0	0
Private	58,580	42,278	37,115	447	4,716	16,302	15,518	88	696
Commercial	22,679	11,314	8,144	68	3,102	11,365	9,492	141	1,732
Airline Transport	19,634	7,678	6,208	1,018	452	11,956	8,890	2,443	623
Helicopter (only)	2,510	2,217	893	69	1,255	293	181	20	92
Glider (only)	616	542	508	26	8	74	72	1	1
Nonpilot--Total	27,364	21,878	15,633	665	5,580	5,486	4,199	138	1,149
Mechanic	19,284	15,089	12,018	35	3,036	4,195	3,938	0	257
Parachute Rigger	205	194	82	17	89	11	7	1	3
Ground Instructor	2,191	1,825	121	2	1,702	366	16	3	347
Dispatcher	536	533	333	90	110	3	2	0	1
Flight Navigator	4	4	0	4	0	0	0	0	0
Flight Engineer	5,144	4,233	3,073	517	643	911	236	134	541
Flight Instructor*	12,705	6,327	6,143	148	36	6,378	6,163	200	15

(P) Preliminary

Note: Excludes Renewals

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 to instruct, and ratings for instrument flying instruction.

Mechanic--Airframe and Powerplant Ratings.

Parachute Rigger--Senior or Master Rigger Ratings.

Ground Instructor--Ratings for each subject in which the holder is qualified to give ground instruction.

Air Traffic Control Tower Operator--Junior/Senior Ratings for airports where holder may control air traffic.

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

TABLE 18

INSTRUMENT RATINGS ISSUED: 1987, 1986, 1983

Class of Certificates	1987	1986	1983	Percent Change 1987-1986
Total—All Groups	<u>18,296</u>	<u>13,657</u>	<u>11,078</u>	<u>34</u>
Private Pilots—Total	<u>11,142</u>	<u>8,354</u>	<u>7,034</u>	<u>33</u>
Private Airplane (only)	10,397	7,840	6,549	33
Private Airplane, Private Glider	135	95	92	42
Private Airplane, Commercial Glider	12	1	5	1100
Private Airplane, Private Helicopter	35	29	20	21
Private Airplane, Commercial Helicopter	234	178	149	31
Private Airplane, Private Glider, Private Helicopter	1	0	1	0
Private Airplane, Other	328	211	218	55
Commercial Pilots—Total	<u>5,996</u>	<u>4,153</u>	<u>2,956</u>	<u>44</u>
Commercial Airplane (only)	5,044	3,437	2,376	47
Commercial Airplane, Private Glider	48	31	23	54
Commercial Airplane, Commercial Glider	61	31	36	97
Commercial Airplane, Private Helicopter	14	5	5	180
Commercial Airplane, Commercial Helicopter	814	666	495	22
Commercial Airplane, Private Glider, Commercial Helicopter	7	3	4	133
Commercial Airplane, Commercial Glider, Commercial Helicopter	7	9	14	22
Commercial Airplane, Other	1	1	3	—
Rotorcraft Pilots—Total	<u>1,158</u>	<u>1,150</u>	<u>1,086</u>	<u>1</u>
Commercial Helicopter	1,135	1,145	1,065	-1
Commercial Helicopter, Airline Transport Helicopter	20	0	0	—
Commercial Helicopter, Commercial Glider	1	1	1	—
Commercial Helicopter, Other	2	4	2	-50

TABLE 19

STUDENT CERTIFICATES ISSUED, BY MONTH: 1983 - 1987

Month	1983	1984	1985	1986	1987
Total	93,239	90,167 <u>r/</u>	86,060	88,706	84,958(P)
January	6,511	7,485	6,414	6,641	6,098
February	6,146	6,338	5,233	5,590	6,543
March	7,724	7,086	6,809	6,472	7,125
April	6,737	6,931	7,492	7,488	7,139
May	7,650	7,784	7,749	7,415	6,164
June	9,344	8,533	8,279	8,211	8,491
July	9,253	9,202	9,249	9,648	8,973
August	10,426	9,559	8,892	8,886	8,389
September	9,971	7,781	7,973	8,961	8,094 (P)
October	8,040	8,129	7,892	8,133	7,537 (P)
November	6,500	6,291	5,579	5,809	5,750 (P)
December	4,937	5,048	4,499	5,452	4,655 (P)

(P) Preliminary

r/ Revised

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