

GENERAL AVIATION

# Statistical Databook 2003



**General Aviation Manufacturers Association**

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[www.GAMA.aero](http://www.GAMA.aero)

## FOREWORD

**GENERAL AVIATION** is defined as all aviation other than commercial and military aviation. It is also one of our nation's most important and dynamic industries, flying over 29 million hours (nearly two times the airline flight hours) and carrying some 166 million passengers annually. General aviation is relied on exclusively by more than 5,000 communities for their air transportation needs, while scheduled airlines serve less than 500. Nearly 70 percent of the hours flown by general aviation are for business and commercial purposes.

The General Aviation Manufacturers Association (GAMA) is a national trade association proudly representing over 50 manufacturers of fixed-wing general aviation airplanes, engines, avionics and component parts in the U.S. and internationally. GAMA member companies also operate aircraft fleets, airport fixed-based operations, pilot and maintenance technician training facilities across the nation.

Headquartered in Washington, DC, GAMA represents the interests of its members before the United States Congress, the Department of Transportation, the Federal Aviation Administration, NASA, TSA and other federal and state government agencies. It also maintains close working relationships with associations representing various segments of the aviation community. Through its public information and education programs, GAMA promotes better understanding of aviation and the important role general aviation plays in the national transportation system.

The *General Aviation Statistical Databook* is a useful tool for those examining our industry. We hope you will keep your *Databook* handy as a quick reference for all your questions about general aviation. However, GAMA continuously updates the data in the *Databook* on the GAMA website at [www.gama.aero/resources/statistics/](http://www.gama.aero/resources/statistics/) so you may want to check to see whether updates have been published since the last edition of the *Databook*.

For more information on general aviation, chartering or buying an airplane, learning to fly, or joining one of the many aviation organizations serving the community, please contact GAMA via phone or E-mail.

Data updated February 11, 2004



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# **GENERAL AVIATION AIRPLANE SHIPMENTS**



## SHIPMENTS AND BILLINGS: MANUFACTURED WORLDWIDE

GAMA expanded its quarterly shipment report in 2002 to include the shipments and billings of non-U.S. manufacturers. Historical data for 2000 and 2001 were collected for comparison purposes. The *Databook* now includes limited statistics on shipments and billings of aircraft manufactured worldwide. GAMA plans to expand on this data in the future.

### Annual Shipments of General Aviation Airplanes Manufactured Worldwide by Units Shipped, Number of Companies Reporting and Factory Net Billings

Year	Units Shipped	Companies Reporting	Factory Net Billings (\$ Millions)
2000	3,140	-	13,497.0
2001R	2,994	21	13,866.6
2002R	2,687	22	11,823.1
2003	2,686	23	9,994.8

Source: GAMA

### Annual General Aviation Airplane Shipments Manufactured Worldwide by Type of Airplane

Year	Grand Total	Single-Engine	Multi-Engine	Total Piston	Turboprop	Turbofan/ Turbojet	Total Turbine
2000	3,140	1,862	103	1,965	415	760	1,175
2001R	2,994	1,644	147	1,791	421	782	1,203
2002R	2,687	1,601	130	1,731	280	676	956
2003	2,686	1,825	71	1,896	272	518	790

Source: GAMA

## SHIPMENTS: MANUFACTURED IN U.S. ONLY

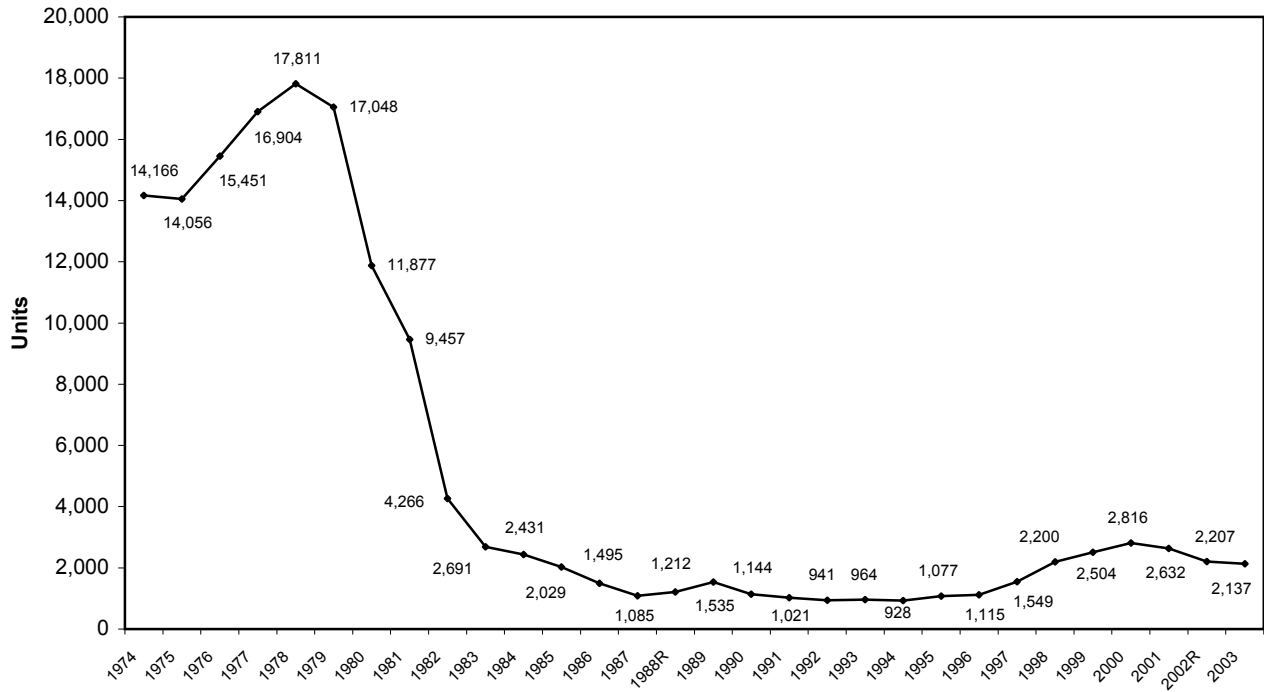
**Annual Shipments of New U.S. Manufactured General Aviation Airplanes by Units Shipped,  
Number of Companies Reporting and Factory Net Billings**

Year	Units Shipped	Companies Reporting	Factory Net Billings (\$Millions)
1946	35,000	-	111.0
1947	15,594	15	57.9
1948	7,037	12	32.4
1949	3,405	11	17.7
1950	3,386	13	19.1
1951	2,302	12	16.8
1952	3,058	8	26.8
1953	3,788	7	34.4
1954	3,071	7	43.4
1955	4,434	7	68.2
1956	6,738	8	103.7
1957	6,118	9	99.6
1958	6,414	10	101.9
1959	7,689	9	129.8
1960	7,588	8	151.2
1961	6,778	8	124.3
1962	6,697	7	136.8
1963	7,569	7	153.4
1964	9,336	8	198.8
1965	11,852	8	318.2
1966	15,768	10	444.9
1967	13,577	14	359.6
1968	13,698	14	425.7
1969	12,457	14	584.5
1970	7,292	13	337.0
1971	7,466	11	321.5
1972	9,774	12	557.6
1973	13,646	12	828.1
1974	14,166	12	909.4
1975	14,056	12	1,032.9
1976	15,451	12	1,225.5
1977	16,904	12	1,488.1
1978	17,811	12	1,781.2
1979	17,048	12	2,165.0
1980	11,877	12	2,486.2
1981	9,457	12	2,919.9
1982	4,266	11	1,999.5
1983	2,691	10	1,469.5
1984	2,431	9	1,680.7
1985	2,029	9	1,430.6
1986	1,495	9	1,261.9
1987	1,085	9	1,363.5
1988R	1,212	11	1,922.9
1989	1,535	11	1,803.9
1990	1,144	14	2,007.5
1991	1,021	14	1,968.3
1992	941	16	1,839.6
1993	964	16	2,143.8
1994	928	13	2,357.1
1995	1,077	13	2,841.9
1996R	1,115	13	3,047.5
1997R	1,549	12	4,592.9
1998	2,200	12	5,761.2
1999	2,504	13	7,843.0
2000	2,816	15	8,558.4
2001	2,632	14	8,641.1
2002R	2,207	12	7,719.2
2003	2,137	13	6,433.9

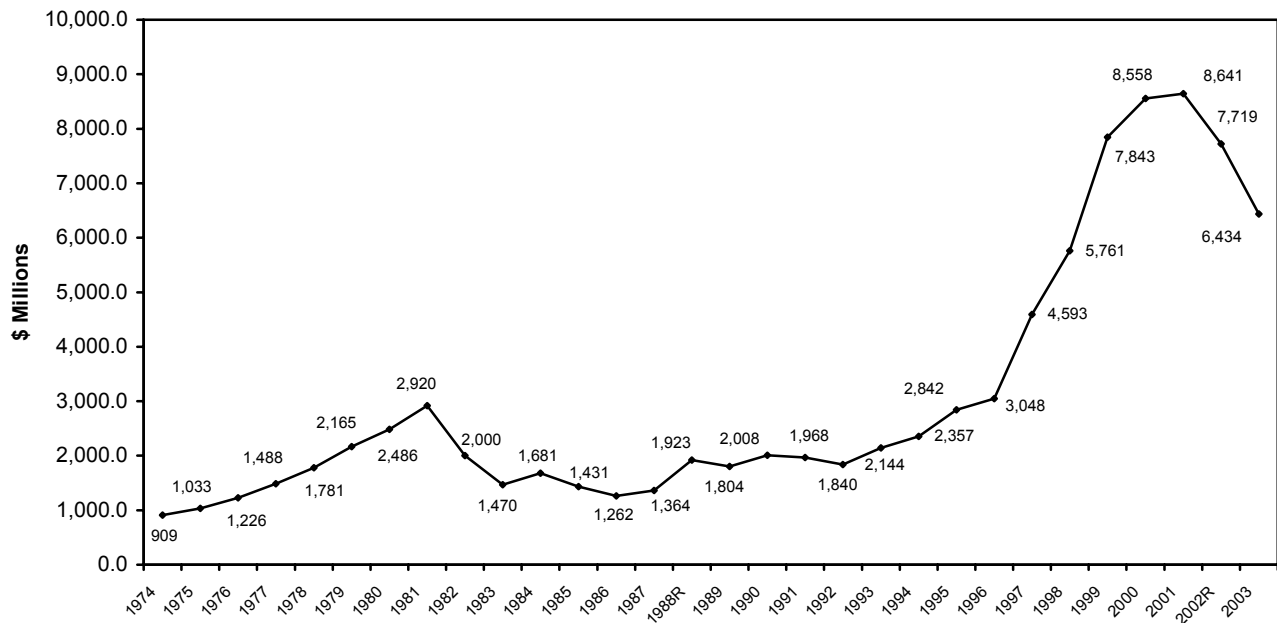
Source: GAMA

# SHIPMENTS: MANUFACTURED IN U.S. ONLY

## Annual New U.S. Manufactured General Aviation Unit Shipments



## Annual New U.S. Manufactured General Aviation Unit Billings



Source: GAMA

## SHIPMENTS BY TYPE: MANUFACTURED IN U.S. ONLY

### Annual New U.S. Manufactured General Aviation Airplane Shipments by Type of Airplane

Year	Grand Total	Single-Engine	Multi-Engine	Total Piston	Turboprop	Turbojet/ Turbofan	Total Turbine
1978	17,811	14,398	2,634	17,032	548	231	779
1979	17,050	13,286	2,843	16,129	639	282	921
1980	11,860	8,640	2,116	10,756	778	326	1,104
1981	9,457	6,608	1,542	8,150	918	389	1,307
1982	4,266	2,871	678	3,549	458	259	717
1983	2,691	1,811	417	2,228	321	142	463
1984	2,431	1,620	371	1,991	271	169	440
1985	2,029	1,370	193	1,563	321	145	466
1986	1,495	985	138	1,123	250	122	372
1987	1,085	613	87	700	263	122	385
1988	1,143	628	67	695	291	157	448
1989	1,535	1,023	87	1,110	268	157	425
1990	1,144	608	87	695	281	168	449
1991	1,021	564	49	613	222	186	408
1992	941	552	41	593	177	171	348
1993	964	516	39	555	211	198	409
1994	928	444	55	499	207	222	429
1995	1,077	515	61	576	255	246	501
1996	1,105	607	42	649	223	233	456
1997	1,549	898	86	984	223	342	565
1998R	2,200	1,434	94	1,528	259	413	672
1999	2,504	1,634	114	1,748	239	517	756
2000	2,816	1,810	103	1,913	315	588	903
2001	2,632	1,581	147	1,728	306	598	904
2002R	2,207	1,366	130	1,496	187	524	711
2003	2,137	1,519	71	1,590	163	384	547

Source: GAMA

### Estimated Value of New U.S. Manufactured General Aviation Airplane Shipments by Type of Airplane (In \$Millions)

Year	Grand Total*	Single-Engine	Multi-Engine	Total Piston	Turboprop	Turbojet/ Turbofan	Total Turbine
1978	1,781	516	493	1,009	394	378	772
1979	2,165	523	555	1,078	548	540	1,088
1980	2,486	391	403	794	875	816	1,691
1981	2,920	327	348	675	1,120	1,125	2,245
1982	2,000	200	220	420	590	990	1,580
1983	1,470	145	115	260	460	750	1,210
1984	1,681	147	133	280	436	966	1,402
1985	1,431	126	68	194	524	713	1,237
1986	1,262	80	43	123	430	709	1,139
1987	1,364	80	18	98	477	789	1,266
1988	1,918	66	12	78	596	1,242	1,838
1989	1,804	104	24	128	524	1,149	1,673
1990	2,008	68	24	92	644	1,272	1,916
1991	1,968	*	*	93	527	1,348	1,875
1992	1,840	*	*	96	460	1,284	1,744
1993	2,144	*	*	76	595	1,473	2,068
1994	2,357	*	*	81	595	1,681	2,276
1995	2,842	*	*	123	653	2,066	2,719
1996	3,048	*	*	142	715	2,191	2,906
1997	4,580	*	*	200	727	3,653	4,380
1998	5,761	*	*	330	763	4,668	5,431
1999	7,843	*	*	385	658	6,800	7,458
2000	8,558	*	*	446	934	7,178	8,112
2001	8,641	*	*	471	742	7,428	8,170
2002R	7,719	*	*	389	487	6,843	7,330
2003	6,434	*	*	440	411	5,583	5,994

\* Some Totals do not add up due to rounding.

Source: GAMA

## SHIPMENTS BY YEAR AND BY QUARTER: MANUFACTURED IN U.S. ONLY

### U.S. Manufactured General Aviation Airplane Shipments by Year and Quarter

Year	Quarter I	Quarter II	Quarter III	Quarter IV	Year End*
1966	3,855	4,266	3,881	3,585	15,768
1967	3,392	3,480	2,801	3,811	13,577
1968	3,661	3,545	3,282	3,068	13,698
1969	3,297	3,592	2,825	2,693	12,457
1970	1,929	2,099	1,749	1,500	7,292
1971	1,771	1,902	1,903	1,770	7,466
1972	2,157	2,564	2,417	2,636	9,744
1973	3,246	3,555	3,442	3,403	13,646
1974	3,493	3,576	3,488	3,609	14,166
1975	3,777	3,562	3,291	3,426	14,056
1976	3,949	4,159	3,479	3,864	15,451
1977	4,124	4,513	3,985	4,282	16,904
1978	4,176	4,621	4,672	4,342	17,811
1979	4,259	4,602	4,426	3,761	17,048
1980	3,512	2,756	2,796	2,813	11,877
1981	2,389	2,631	2,529	1,908	9,457
1982	1,390	1,126	890	860	4,266
1983	659	709	717	606	2,691
1984	523	563	681	664	2,431
1985	455	519	581	474	2,029
1986	285	364	393	453	1,495
1987	227	330	239	289	1,085
1988	260	291	252	340	1,143
1989	304	361	425	445	1,535
1990	269	294	274	297	1,144
1991	250	262	237	272	1,021
1992	193	200	238	225	941
1993	170	194	246	260	964
1994	181	225	209	266	928
1995	208	248	257	315	1,077
1996	229	284	230	310	1,115
1997	253	337	367	525	1,549
1998	481	486	546	602	2,200
1999	502	611	606	702	2,504
2000	613	704	685	712	2,816
2001	568	711	586	673	2,632
2002	442	576	510	641	2,207
2003	393	526	492	679	2,137

\*Quarterly figures do not add up to annual because some manufacturers reported annual shipments only

Source: GAMA

### U.S. Civil Airplane Imports from Overseas (1998-2002) Units and Dollar Value (In Millions)

	1998		1999		2000		2001		2002	
	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars
Single-Engine	102	\$81.3	162	\$145.5	142	\$134.8	144	\$161.2	223	\$136.5
Multi-Engine-Under 4,400 lbs	4	\$3.6	3	\$0.2	4	\$2.5	0	\$0.0	4	\$1.7
Multi-Engine-4,400-10,000 lbs	3	\$6.4	1	\$4.5	7	\$15.0	14	\$35.8	25	\$70.0
Multi-Engine-Turbojet/Turbofan 10,000-33,000 lbs.	171	\$2,860.8	239	\$3,879.1	286	\$4,647.8	345	\$5,879.4	343	\$6,141.3
Multi-Engine-Other -Including Turboshaft 10,000-33,000 lbs.	60	\$578.3	27	\$249.7	21	\$205.0	16	\$206.4	2	\$34.1
<b>Total</b>	<b>282</b>	<b>\$2,513.7</b>	<b>432</b>	<b>\$4,279.0</b>	<b>460</b>	<b>\$5,005.1</b>	<b>519</b>	<b>\$6,282.8</b>	<b>597</b>	<b>\$6,383.6</b>

Source: Aerospace Industries Association

## U.S. EXPORTS

### Annual New U.S. Manufactured General Aviation Airplane Exports

Year	Units Exported	% of Total Production	Factory Net Billings \$ (in Millions)	% of Total Billings
1978	3,612	20.3%	486.7	27.3%
1979	3,995	23.4%	600.9	27.8%
1980	3,555	29.9%	756.4	30.4%
1981	2,270	24.0%	749.0	25.7%
1982	1,162	27.2%	650.2	32.5%
1983	513	19.1%	316.5	21.5%
1984	334	13.7%	260.7	15.5%
1985	354	17.4%	230.0	16.1%
1986	441	29.5%	343.6	27.2%
1987	439	40.5%	469.3	34.4%
1988	425	37.2%	626.8	32.7%
1989	566	36.9%	587.0	32.5%
1990	458	40.0%	872.2	43.4%
1991	382	37.4%	807.0	41.0%
1992	353	39.0%	608.7	33.0%
1993	349	36.2%	856.8	40.0%
1994	277	29.8%	684.2	29.0%
1995	315	29.3%	815.9	28.7%
1996	345	30.5%	903.0	28.9%
1997	449	28.6%	1,504.6	32.2%
1998R	535	24.1%	1,640.1	27.9%
1999	562	22.3%	2,503.8	31.6%
2000	569	20.2%	1,957.5	22.9%
2001	505	19.2%	2,380.6	27.5%
2002R	372	16.8%	1,980.9	25.4%
2003	336	15.7%	1,218.2	18.9%

Source: GAMA

### Annual New U.S. Manufactured General Aviation Airplane Exports by Type

Year	Single-Engine Piston	Multi-Engine Piston	Turboprop	Turbojet/ Turbofan
1978	2,712	652	166	82
1979	2,942	774	181	98
1980	2,565	635	245	110
1981	1,546	363	259	102
1982	718	227	135	82
1983	298	119	66	30
1984	199	79	25	31
1985	208	69	49	28
1986	272	69	68	32
1987	252	60	78	49
1988	220	52	91	62
1989	385	46	78	57
1990	224	57	86	91
1991	204	25	74	79
1992	196	16	90	51
1993	149	23	109	68
1994	84	42	84	67
1995	130	30	85	70
1996	126	24	135	60
1997	199	25	126	99
1998	268	30	131	106
1999	237	23	42	158
2000	285	24	112	148
2001	175	42	118	170
2002	135	23	79	136
2003	168	22	52	94

Source: GAMA

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# **GENERAL AVIATION FLEET AND FLIGHT ACTIVITY**



## U.S. FLEET BY TYPE AND USE

**Number of Active General Aviation and Air Taxi Aircraft by Type and Primary Use in 2001  
(Excluding Commuters)**

Aircraft Type	Total Active	Personal	Instruc-tional	Bus-ness	Corpo-rate	Air Taxi	Air Tours	Sight See	Aerial Obs	Aerial Apps	Aerial Other	Ext. Load	Medi-cal	Other Work
<b>All Aircraft-Total</b>	<b>211,446</b>	<b>144,031</b>	<b>14,254</b>	<b>25,525</b>	<b>10,544</b>	<b>3,598</b>	<b>406</b>	<b>918</b>	<b>5,039</b>	<b>3,779</b>	<b>633</b>	<b>202</b>	<b>940</b>	<b>1,528</b>
<b>Piston-Total</b>	<b>163,314</b>	<b>117,104</b>	<b>13,011</b>	<b>22,486</b>	<b>2,274</b>	<b>1,329</b>	<b>95</b>	<b>188</b>	<b>3,047</b>	<b>2,583</b>	<b>330</b>	<b>34</b>	<b>217</b>	<b>718</b>
One-Engine	145,034	108,492	11,928	16,690	846	495	74	181	2,712	2,532	217	34	140	693
Two-Engine	18,192	8,591	1,084	5,785	1,427	825	21	6	334	35	88	0	77	19
Other Piston	89	21	0	11	1	9	0	0	0	16	25	0	0	6
<b>Turboprop-Total</b>	<b>6,596</b>	<b>1,001</b>	<b>34</b>	<b>1,634</b>	<b>2,564</b>	<b>720</b>	<b>20</b>	<b>0</b>	<b>85</b>	<b>371</b>	<b>38</b>	<b>0</b>	<b>138</b>	<b>91</b>
One-Engine	915	129	22	170	91	95	0	0	22	367	4	0	0	14
Two-Engine	5,643	868	8	1,463	2,473	625	20	0	47	3	26	0	138	72
Other Turboprop	38	4	4	0	0	0	0	0	15	0	8	0	0	6
<b>Turbojet/fan-Total</b>	<b>7,787</b>	<b>702</b>	<b>17</b>	<b>1,042</b>	<b>5,167</b>	<b>716</b>	<b>0</b>	<b>15</b>	<b>17</b>	<b>208</b>	<b>28</b>	<b>0</b>	<b>34</b>	<b>42</b>
Two-Engine	6,956	636	0	948	4,758	713	0	15	0	0	26	0	34	25
Other Turbojet/fan	831	66	17	93	409	3	0	0	17	208	2	0	0	17
<b>Rotorcraft-Total</b>	<b>6,783</b>	<b>1,155</b>	<b>645</b>	<b>444</b>	<b>381</b>	<b>648</b>	<b>171</b>	<b>190</b>	<b>1,687</b>	<b>562</b>	<b>206</b>	<b>161</b>	<b>525</b>	<b>107</b>
Piston	2,292	892	470	229	19	12	22	29	222	269	37	26	18	47
Turbine	4,491	263	175	114	362	636	149	161	1,465	293	170	135	507	60
One-Engine	3,607	247	135	88	220	486	126	161	1,346	293	150	42	256	55
Two-Engine	884	16	40	26	142	150	23	0	118	0	20	93	251	4
<b>Gliders-Total</b>	<b>1,904</b>	<b>1,657</b>	<b>183</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Lighter-Than-Air-Total</b>	<b>4,641</b>	<b>3,839</b>	<b>149</b>	<b>10</b>	<b>0</b>	<b>5</b>	<b>47</b>	<b>462</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>120</b>
<b>Experimental-Total</b>	<b>20,421</b>	<b>18,573</b>	<b>215</b>	<b>410</b>	<b>157</b>	<b>180</b>	<b>73</b>	<b>0</b>	<b>198</b>	<b>56</b>	<b>30</b>	<b>8</b>	<b>21</b>	<b>450</b>
Amateur	16,736	15,910	60	246	9	0	123	0	105	0	0	0	5	276
Exhibition	2,052	1,847	66	57	0	0	0	0	18	29	0	0	0	35
Other	1,633	816	89	106	148	180	0	0	75	27	30	8	16	139

Source: FAA

**Number of Active General Aviation and Air Taxi Aircraft by Type and Primary Use in 2002  
(Excluding Commuters)**

Aircraft Type	Total Active	Personal	Instruc-tional	Bus-ness	Corpo-rate	Air Taxi	Air Tours	Sight See	Aerial Obs	Aerial Apps	Aerial Other	Ext. Load	Medi-cal	Other Work
<b>All Aircraft Total</b>	<b>211,244</b>	<b>145,996</b>	<b>13,203</b>	<b>24,153</b>	<b>10,810</b>	<b>3,898</b>	<b>259</b>	<b>841</b>	<b>4,535</b>	<b>3,971</b>	<b>899</b>	<b>151</b>	<b>996</b>	<b>1,733</b>
<b>Piston Total</b>	<b>161,087</b>	<b>117,365</b>	<b>11,775</b>	<b>20,619</b>	<b>1,947</b>	<b>2,212</b>	<b>110</b>	<b>130</b>	<b>2,632</b>	<b>2,759</b>	<b>431</b>	<b>0</b>	<b>190</b>	<b>918</b>
One Engine	143,503	109,361	10,827	15,630	667	691	97	130	2,276	2,719	234	0	91	780
Two Engine	17,483	7,997	948	4,969	1,279	1521	13	0	355	37	169	0	99	75
Piston Other	101	7	0	0	1	0	0	0	0	3	28	0	0	63
<b>Turboprop Total</b>	<b>6,841</b>	<b>1,066</b>	<b>42</b>	<b>1,366</b>	<b>2,417</b>	<b>779</b>	<b>0</b>	<b>0</b>	<b>113</b>	<b>510</b>	<b>174</b>	<b>0</b>	<b>224</b>	<b>110</b>
One Engine	1,108	164	4	145	31	169	0	0	4	510	6	0	0	57
Two Engine	5,703	902	33	1,241	2,386	610	0	0	109	0	143	0	224	53
Other Turboprop	30	0	5	0	0	0	0	0	0	0	25	0	0	0
<b>Turobojet/fan Total</b>	<b>8,355</b>	<b>618</b>	<b>95</b>	<b>1,119</b>	<b>5,691</b>	<b>685</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>117</b>
Two Engine	7,655	469	64	948	5,366	662	0	0	0	0	0	0	26	117
Other Turbojet/fan	701	148	31	170	323	23	0	0	0	5	0	0	0	0
<b>Rotorcraft-Total</b>	<b>6,648</b>	<b>1,373</b>	<b>538</b>	<b>463</b>	<b>551</b>	<b>216</b>	<b>99</b>	<b>65</b>	<b>1748</b>	<b>581</b>	<b>260</b>	<b>145</b>	<b>532</b>	<b>80</b>
Piston	2,351	1006	425	247	38	6	0	47	277	272	0	18	0	14
Turbine	4,297	367	111	215	513	210	99	18	1470	309	260	126	532	67
One Engine	3,611	332	106	204	305	205	99	18	1421	305	231	77	241	67
Two Engine	686	350	4	11	208	4	0	0	50	4	26	49	291	0
<b>Gliders-Total</b>	<b>1,951</b>	<b>1,704</b>	<b>201</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>
<b>Lighter-Than-Air-Total</b>	<b>4,426</b>	<b>3,679</b>	<b>45</b>	<b>21</b>	<b>5</b>	<b>0</b>	<b>50</b>	<b>407</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>214</b>
<b>Experimental-Total</b>	<b>21,936</b>	<b>20,172</b>	<b>509</b>	<b>540</b>	<b>196</b>	<b>6</b>	<b>0</b>	<b>5</b>	<b>43</b>	<b>116</b>	<b>30</b>	<b>7</b>	<b>23</b>	<b>287</b>
Amateur	18,168	17,103	480	425	0	0	0	5	5	48	5	0	0	96
Exhibition	2,190	2,065	6	20	11	0	0	0	0	0	8	0	0	80
Other	1,578	1003	23	95	187	6	0	0	36	68	17	7	23	110

Source: FAA

## U.S. FLEET FLIGHT HOURS BY TYPE AND USE

### General Aviation and Air Taxi Total Hours Flown by Actual Use By Aircraft Type "Includes Air Taxi Aircraft; Excludes Commuter Aircraft in 2001

AIRCRAFT TYPE	Total	Personal	Instructional	Business	Corporate	Air Taxi	Air Tours	Sight See	Aerial Obs	Aerial Apps	Aerial Other	External	Medical	Other Work
<b>All-Aircraft-Total</b>	<b>29,133</b>	<b>11,314</b>	<b>5,074</b>	<b>3,583</b>	<b>3,411</b>	<b>1,491</b>	<b>190</b>	<b>201</b>	<b>1,596</b>	<b>1,093</b>	<b>189</b>	<b>177</b>	<b>456</b>	<b>359</b>
<b>Piston-Total</b>	<b>20,883</b>	<b>10,078</b>	<b>4,738</b>	<b>2,982</b>	<b>508</b>	<b>524</b>	<b>63</b>	<b>113</b>	<b>797</b>	<b>650</b>	<b>93</b>	<b>19</b>	<b>80</b>	<b>238</b>
One-Engine	17,898	9,110	4,250	2,264	107	286	54	102	727	642	68	17	39	234
Two-Engine	2,924	867	485	717	401	292	9	12	70	7	20	2	41	2
Piston-Other	61	1	3	0	1	47	0	0	0	2	6	0	0	2
<b>Turboprop-Total</b>	<b>1,913</b>	<b>87</b>	<b>18</b>	<b>286</b>	<b>740</b>	<b>407</b>	<b>20</b>	<b>2</b>	<b>91</b>	<b>164</b>	<b>8</b>	<b>8</b>	<b>67</b>	<b>17</b>
One-Engine	299	19	4	27	24	51	0	0	7	160	5	1	0	1
Two-Engine	1,597	68	11	259	717	356	19	2	72	4	2	7	67	15
Other-Turboprop	17	0	2	0	0	0	0	0	12	0	2	0	0	1
<b>Turbojet/fan-Total</b>	<b>2,658</b>	<b>153</b>	<b>5</b>	<b>200</b>	<b>1,920</b>	<b>254</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>87</b>	<b>4</b>	<b>0</b>	<b>16</b>	<b>1</b>
Two-Engine	2,356	131	2	181	1,758	251	0	3	0	0	3	0	15	1
Turbojet/fan-Other	302	22	3	19	162	2	0	0	5	86	1	0	0	1
<b>Rotorcraft-Total</b>	<b>2,141</b>	<b>63</b>	<b>247</b>	<b>63</b>	<b>159</b>	<b>130</b>	<b>101</b>	<b>43</b>	<b>657</b>	<b>175</b>	<b>74</b>	<b>138</b>	<b>250</b>	<b>51</b>
Piston	583	56	200	36	25	6	7	21	88	76	11	24	7	24
Turbine	1,559	7	47	27	134	123	93	12	569	98	64	114	244	26
One-Engine	1,203	4	39	20	59	102	91	10	526	96	50	58	122	25
Two-Engine	355	3	7	7	76	22	2	2	42	2	13	56	122	2
<b>Gliders-Total</b>	<b>141</b>	<b>87</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Lighter-Than-Air-Total</b>	<b>183</b>	<b>130</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>
<b>Experimental-Total</b>	<b>1,214</b>	<b>876</b>	<b>24</b>	<b>51</b>	<b>83</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>47</b>	<b>17</b>	<b>10</b>	<b>12</b>	<b>42</b>	<b>40</b>
Amateur	799	720	8	27	3	0	4	0	3	0	0	3	5	24
Exhibition	102	84	3	3	0	0	0	0	1	7	0	0	0	2
Other	313	72	13	20	80	5	1	0	43	10	10	9	37	14

Source: FAA

### General Aviation and Air Taxi Total Hours Flown by Actual Use By Aircraft Type "Includes Air Taxi Aircraft; Excludes Commuter Aircraft in 2002

AIRCRAFT TYPE	Total	Personal	Instructional	Business	Corporate	Air Taxi	Air Tours	Sight See	Aerial Obs	Aerial Apps	Aerial Other	External	Medical	Other Work
<b>All-Aircraft-Total</b>	<b>27,040</b>	<b>11,025</b>	<b>4,182</b>	<b>3,287</b>	<b>3,275</b>	<b>1,346</b>	<b>149</b>	<b>134</b>	<b>1,366</b>	<b>1,182</b>	<b>187</b>	<b>97</b>	<b>441</b>	<b>369</b>
<b>Piston-Total</b>	<b>18,891</b>	<b>9,269</b>	<b>3,891</b>	<b>2,698</b>	<b>376</b>	<b>728</b>	<b>58</b>	<b>14</b>	<b>684</b>	<b>782</b>	<b>72</b>	<b>7</b>	<b>52</b>	<b>201</b>
One-Engine	16,325	8,482	3,583	2,036	150	347	50	70	567	776	42	7	24	182
Two-Engine	9,548	786	308	662	215	382	7	4	117	5	24	0	28	10
Other	18	1	1	0	1	0	0	0	0	1	8	0	0	9
<b>Turboprop-Total</b>	<b>1,850</b>	<b>170</b>	<b>16</b>	<b>246</b>	<b>678</b>	<b>302</b>	<b>1</b>	<b>1</b>	<b>30</b>	<b>220</b>	<b>36</b>	<b>0</b>	<b>108</b>	<b>42</b>
One-Engine	419	24	3	25	20	110	1	0	1	220	1	0	0	14
Two-Engine	1,427	146	13	221	658	191	0	1	29	0	32	0	108	28
Turboprop-Other	4	0	0	0	0	0	0	0	0	0	3	0	0	0
<b>Turbojet/fan-Total</b>	<b>2,745</b>	<b>210</b>	<b>22</b>	<b>215</b>	<b>2,006</b>	<b>242</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>32</b>
Two-Engine	2,551	173	17	201	1,876	234	0	0	4	1	0	0	12	32
Turbojet/fan-Other	194	37	5	14	130	8	0	0	0	0	0	0	0	0
<b>Rotorcraft-Total</b>	<b>1,876</b>	<b>114</b>	<b>173</b>	<b>55</b>	<b>132</b>	<b>67</b>	<b>87</b>	<b>26</b>	<b>631</b>	<b>135</b>	<b>70</b>	<b>89</b>	<b>261</b>	<b>35</b>
Piston	454	76	133	31	11	5	0	16	104	58	1	4	0	14
Turbine	1,422	38	40	24	121	62	86	10	527	77	70	85	261	21
One-Engine	1,113	35	35	19	41	57	86	10	515	74	53	39	131	16
Two-Engine	310	3	5	5	80	5	0	0	12	3	17	46	130	4
<b>Gliders-Total</b>	<b>158</b>	<b>113</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Lighter-Than-Air-Total</b>	<b>175</b>	<b>93</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>39</b>
<b>Experimental-Total</b>	<b>1,345</b>	<b>1,057</b>	<b>35</b>	<b>73</b>	<b>82</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>16</b>	<b>44</b>	<b>5</b>	<b>1</b>	<b>8</b>	<b>19</b>
Amateur	976	868	29	60	0	2	0	1	1	10	1	0	0	5
Exhibition	127	108	1	3	10	0	0	0	0	0	0	0	0	5
Other	242	81	5	10	72	4	0	0	16	34	4	0	8	8

Note: The FAA discontinued gathering data on Public Use aircraft in calendar year 2000.

Source: FAA

Row and column summations may differ from printed totals due to rounding error.

# EXPERIMENTAL AIRCRAFT FLEET

## U.S. Experimental Aircraft Fleet Estimated Active Aircraft and Hours Flown (1997-2002)

	1997		1998		1999		2000		2001		2002	
	Number Active	Est. Hours Flown (000)	Number Active	Est. Hours Flown (000)	Number Active	Est. Hours Flown (000)	Number Active	Est. Hours Flown (000)	Number Active	Est. Hours Flown (000)	Number Active	Est. Hours Flown (000)
Amateur Built	10,261	698	13,189	729	16,858	879	16,739	906	16,736	799	18,168	976
Exhibition	1,798	246	1,630	73	1,999	121	1,973	114	2,052	102	2,190	127
Other	442	2,620	382	1,684	1,671	246	1,694	287	1,633	313	1,578	242
<b>Total Experimental</b>	<b>14,679</b>	<b>1,326</b>	<b>16,502</b>	<b>1,071</b>	<b>20,528</b>	<b>1,247</b>	<b>20,407</b>	<b>1,307</b>	<b>20,421</b>	<b>1,214</b>	<b>21,936</b>	<b>1,345</b>
% of G.A. Fleet	7.6%	4.8%	8.1%	3.8%	9.4%	3.9%	9.4%	4.2%	9.7%	4.2%	10.4%	5.0%

Source: FAA

Note: Prior to 1994, Experimental aircraft included those built without a production certificate. Beginning in 1994, Experimental includes aircraft with an experimental airworthiness certificate. These include research and development, amateur built, exhibition, racing, crew training and market survey aircraft and aircraft used to show compliance with Federal Aviation Regulations.

## U.S. FLIGHT HOURS BY TYPE AND AIRCRAFT

### Estimated Hours Flown in General Aviation and Air Taxi by Type of Aircraft (In Thousands of Hours)

Calendar Year	Total	Piston	Turboprop	Turbojet	Piston	Turbine	Balloons Dirigibles Gliders	Experi- mental
1980	41,016	34,747	2,240	1,332	736	1,603	359	*
1981	40,704	34,086	2,155	1,387	930	1,754	391	*
1982	36,457	29,950	2,168	1,611	579	1,771	379	*
1983	35,249	28,911	2,173	1,473	572	1,700	420	*
1984	36,119	29,194	2,506	1,566	592	1,903	358	*
1985	31,456	25,666	1,921	1,498	521	1,468	382	*
1986	31,782	24,805	2,661	1,527	742	1,682	364	*
1987	30,883	24,969	2,010	1,411	602	1,506	384	*
1988	31,114	24,291	2,195	1,554	533	1,974	568	*
1989	32,332	24,907	2,892	1,527	692	1,918	396	*
1990	32,096	25,832	2,319	1,396	716	1,493	341	*
1991	29,862	23,919	1,628	1,071	549	2,214	483	*
1992	26,747	21,417	1,582	1,076	423	1,842	407	*
1993	24,455	19,321	1,192	1,212	391	1,308	338	785
1994	24,092	18,823	1,142	1,238	369	1,408	388	724
1995	26,612	20,251	1,490	1,455	337	1,624	261	1,194
1996	26,909	20,091	1,768	1,543	591	1,531	227	1,158
1997	27,713	20,744	1,655	1,713	344	1,740	192	1,327
1998	28,100	20,402	1,765	2,226	430	1,912	295	1,071
1999	31,756	2,289	1,811	2,738	556	2,188	317	1,247
2000	30,975	22,199	2,031	2,755	531	1,777	374	1,307
2001	29,133	20,882	1,913	2,658	583	1,559	324	1,214
2002	29,455	20,900	2,010	2,890	490	1,620	345	1,200

Notes: Columns may not add due to estimation procedures.

Source: FAA

Starting in 1993, commuters were excluded.

### Active U.S. General Aviation and Air Taxi Aircraft and Average Hours Flown Annually per Aircraft, by Type

Aircraft Type	Estimated Active Aircraft					Estimated Average Hours / Aircraft / Year				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
<b>All Aircraft-Total</b>	<b>204,710</b>	<b>219,464</b>	<b>217,533</b>	<b>211,446</b>	<b>211,244</b>	<b>137</b>	<b>145</b>	<b>142</b>	<b>138</b>	<b>128</b>
<b>Piston-Total</b>	<b>162,963</b>	<b>171,923</b>	<b>170,513</b>	<b>163,314</b>	<b>161,087</b>	<b>125</b>	<b>133</b>	<b>130</b>	<b>128</b>	<b>117</b>
One Engine	144,234	150,886	149,422	145,034	143,503	116	128	126	123	114
1-3 seats	41,753	42,578	42,147	39,691	39,158	119	122	126	118	102
4 + seats	102,480	108,307	107,275	105,343	104,345	115	131	126	125	118
Two Engine	18,659	20,930	20,951	18,192	17,483	191	170	160	161	146
1-6 seats	12,822	14,244	14,079	13,212	12,640	168	144	141	145	135
7 + seats	5,837	6,685	6,873	4,980	4,843	243	224	203	202	175
Other Piston	70	108	140	89	101	164	170	204	686	177
<b>Turboprop-Total</b>	<b>6,174</b>	<b>5,679</b>	<b>5,762</b>	<b>6,596</b>	<b>6,841</b>	<b>286</b>	<b>319</b>	<b>353</b>	<b>290</b>	<b>270</b>
One Engine	1,033	1,018	678	915	1,108	280	351	411	327	379
Two Engine	5,076	4,641	5,040	5,643	5,703	288	313	343	283	250
1-12 seats	4,071	3,658	3,862	4,684	4,857	275	283	271	249	235
13 + seats	1,005	983	1,178	959	846	339	423	579	448	338
Other Turboprop	65	21	45	38	30	259	204	575	441	123
<b>Turbojet/fan-Total</b>	<b>6,066</b>	<b>7,120</b>	<b>7,001</b>	<b>7,787</b>	<b>8,355</b>	<b>367</b>	<b>385</b>	<b>393</b>	<b>341</b>	<b>329</b>
Two Engine	5,513	6,387	6,215	6,956	7,655	362	381	376	339	333
Other Turbojet/fan	552	733	786	831	701	419	414	531	363	277
<b>Rotorcraft-Total</b>	<b>7,425</b>	<b>7,448</b>	<b>7,150</b>	<b>6,783</b>	<b>6,648</b>	<b>315</b>	<b>369</b>	<b>323</b>	<b>316</b>	<b>282</b>
Piston	2,545	2,564	2,680	2,292	2,351	169	217	198	254	193
Turbine	4,881	4,884	4,470	4,491	4,297	392	448	398	347	331
One Engine	4,038	4,045	3,776	3,607	3,611	351	431	377	334	308
Two Engine	843	839	694	884	686	590	528	509	402	452
<b>Gliders-Total</b>	<b>2,105</b>	<b>2,041</b>	<b>2,041</b>	<b>1,904</b>	<b>1,951</b>	<b>60</b>	<b>76</b>	<b>77</b>	<b>74</b>	<b>81</b>
<b>Lighter-Than-Air-Total</b>	<b>3,475</b>	<b>4,725</b>	<b>4,660</b>	<b>4,641</b>	<b>4,426</b>	<b>49</b>	<b>35</b>	<b>47</b>	<b>40</b>	<b>40</b>
<b>Experimental-Total</b>	<b>16,502</b>	<b>20,528</b>	<b>20,407</b>	<b>20,421</b>	<b>21,936</b>	<b>65</b>	<b>61</b>	<b>64</b>	<b>59</b>	<b>61</b>
Amateur	13,189	16,858	16,739	16,736	18,168	55	52	54	48	54
Exhibition	1,630	1,999	1,973	2,052	2,190	45	61	58	50	58
Other	1,684	1,671	1,697	1,633	1,578	160	148	169	192	154

Notes: Columns may not add due to rounding and estimation procedures

Source: FAA

## FLEET BY GEOGRAPHIC AREA

### U.S. Active General Aviation Aircraft by Region and State (1996-2001)

	1996	1997	1998	1999	2000	2001
<b>Alaskan - Total</b>	<b>5,373</b>	<b>6,576</b>	<b>6,607</b>	<b>6,122</b>	<b>5,925</b>	<b>5,714</b>
<b>Central - Total</b>	<b>11,230</b>	<b>11,152</b>	<b>11,764</b>	<b>12,808</b>	<b>12,173</b>	<b>11,939</b>
Iowa	2,540	2,488	2,274	2,675	2,772	3,156
Kansas	2,989	3,217	3,778	3,821	3,611	3,361
Missouri	3,903	3,900	3,903	4,144	3,777	3,503
Nebraska	1,800	1,562	1,810	2,167	2,013	1,919
<b>Eastern - Total</b>	<b>22,407</b>	<b>21,969</b>	<b>26,276</b>	<b>26,360</b>	<b>25,606</b>	<b>25,595</b>
Delaware	1,775	1,941	5,232	1,485	2,068	1,938
District of Columbia	26	76	7	10	152	39
Maryland	2,522	2,300	2,408	3,342	3,436	2,784
New Jersey	3,510	4,468	3,295	3,871	3,791	3,917
New York	5,439	5,218	5,745	6,349	6,082	5,570
Pennsylvania	5,348	5,024	5,341	6,455	5,648	5,825
Virginia	2,748	2,939	3,401	3,649	3,354	4,451
West Virginia	1,040	976	845	901	1,075	1,071
<b>Great Lakes - Total</b>	<b>33,232</b>	<b>35,668</b>	<b>35,719</b>	<b>39,705</b>	<b>37,915</b>	<b>36,743</b>
Illinois	5,897	6,603	6,908	7,469	7,478	6,041
Indiana	3,827	3,619	3,939	4,611	3,964	4,143
Michigan	6,478	6,559	6,902	7,379	7,236	6,234
Minnesota	3,912	4,753	4,508	4,994	5,141	5,928
North Dakota	1,361	1,462	1,419	933	1,585	1,434
Ohio	6,377	6,777	6,434	7,451	6,486	7,325
South Dakota	1,075	1,131	1,294	1,344	1,376	971
Wisconsin	4,306	4,782	4,315	5,524	6,449	4,667
<b>New England - Total</b>	<b>6,913</b>	<b>7,474</b>	<b>7,758</b>	<b>8,375</b>	<b>8,074</b>	<b>7,910</b>
Connecticut	1,498	1,309	1,830	1,798	1,793	1,573
Maine	886	1,337	1,155	1,378	1,086	1,207
Massachusetts	2,526	2,558	2,654	2,635	2,717	2,600
New Hampshire	1,231	1,091	1,309	1,519	1,485	1,753
Rhode Island	330	434	306	347	393	232
Vermont	442	743	505	698	600	546
<b>N.W. Mountain - Total</b>	<b>21,190</b>	<b>21,083</b>	<b>23,296</b>	<b>24,747</b>	<b>24,252</b>	<b>24,092</b>
Colorado	4,310	4,074	4,279	6,004	5,246	5,104
Idaho	2,019	1,842	2,006	1,721	2,328	2,504
Montana	1,993	2,105	2,414	2,398	2,374	2,180
Oregon	4,349	4,940	5,317	5,084	4,687	4,955
Utah	1,468	1,240	1,936	1,561	1,673	1,653
Washington	6,379	5,670	6,348	6,834	7,166	6,666
Wyoming	672	1,206	998	1,144	778	1,030
<b>Southern - Total</b>	<b>32,074</b>	<b>31,867</b>	<b>35,958</b>	<b>39,030</b>	<b>39,271</b>	<b>38,623</b>
Alabama	2,784	3,058	3,712	3,227	3,480	3,012
Florida	11,398	12,030	12,758	15,301	14,096	14,773
Georgia	4,666	4,501	4,826	4,756	4,809	5,324
Kentucky	1,270	1,398	1,491	1,868	2,033	2,191
Mississippi	2,008	1,752	1,785	1,850	2,038	1,893
North Carolina	4,634	4,257	5,090	5,621	5,620	5,272
Puerto Rico	142	329	384	341	278	373
South Carolina	1,738	1,703	2,004	2,237	2,689	2,152
Tennessee	3,330	2,794	3,677	3,731	4,228	3,610
<b>Southwest - Total</b>	<b>24,359</b>	<b>26,131</b>	<b>27,214</b>	<b>29,321</b>	<b>31,611</b>	<b>28,557</b>
Arkansas	2,597	3,001	2,302	3,146	2,660	2,730
Louisiana	2,574	3,002	2,968	3,761	3,012	2,355
New Mexico	1,997	1,756	2,062	2,254	2,990	2,486
Oklahoma	3,411	3,385	3,795	4,479	4,080	3,421
Texas	13,780	14,988	16,087	15,681	18,869	17,564
<b>Western-Pacific - Total</b>	<b>30,531</b>	<b>30,489</b>	<b>30,118</b>	<b>32,995</b>	<b>32,666</b>	<b>32,274</b>
Arizona	4,598	5,021	5,121	5,432	6,062	6,707
California	23,093	22,384	21,852	24,760	23,454	22,708
Hawaii	364	496	497	378	435	282
Nevada	2,416	2,458	2,648	2,405	2,715	2,563
<b>Other U.S. Territories</b>	<b>164</b>	<b>123</b>	<b>204</b>	<b>118</b>	<b>N/A</b>	<b>42</b>
<b>Grand Total</b>	<b>187,312</b>	<b>192,414</b>	<b>204,710</b>	<b>219,464</b>	<b>217,533</b>	<b>211,446</b>

Source: FAA

## GENERAL AVIATION OPERATIONS & ACTIVITY DOMESTIC

### Summary of U.S. General Aviation Operations Statistics (1992-2001)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
G.A. Aircraft Handled at ARTCCs	7,393	7,433	7,685	7,824	7,857	8,239	8,745	8,769	8,634	8,024
G.A. Instrument Operations at FAA Facilities	18,335	17,894	18,049	18,092	17,889	19,093	20,087	21,019	20,731	19,427
<b>Total Aircraft Contacts at FSS</b>	<b>4,130</b>	<b>3,703</b>	<b>3,509</b>	<b>3,206</b>	<b>2,971</b>	<b>2,803</b>	<b>3,443</b>	<b>3,283</b>	<b>3,143</b>	<b>2,199</b>
G.A. Airport Operations at FAA Control Towers	36,945	35,228	34,092	32,265	29,250	28,232	28,522	28,897	27,013	24,777
Itinerant Operations at FAA Control Towers	21,281	20,377	20,208	1,886	17,575	17,097	17,157	17,310	16,294	14,948
Local Operations at FAA Control Towers	15,664	14,851	14,484	13,379	11,675	11,135	11,365	11,586	10,721	9,829

Facilities includes Control Towers, TRACONS, CERAPs and RAPCONS

Source: FAA

## INTERNATIONAL

### Number of General Aviation Aircraft

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Europe	30,800	31,200	31,500	32,000	33,100	33,200	31,300	31,100	36,200	36,100	N/A	N/A	N/A
Africa	4,600	4,650	4,600	4,500	4,970	4,950	6,200	5,500	6,200	6,050	N/A	N/A	N/A
Middle East	520	540	550	600	690	670	610	580	590	580	N/A	N/A	N/A
Asia & Pacific	8,400	8,500	9,200	9,800	10,300	10,200	10,240	10,250	11,100	11,500	N/A	N/A	N/A
North America	236,000	224,300	224,150	229,320	223,030	232,080	224,750	219,000	188,300	185,890	N/A	N/A	N/A
Latin America & Caribbean	13,700	13,900	13,800	13,500	15,200	15,200	18,900	18,600	18,800	18,600	N/A	N/A	N/A
<b>Total-ICAO States</b>	<b>294,020</b>	<b>283,090</b>	<b>283,800</b>	<b>289,720</b>	<b>287,290</b>	<b>296,300</b>	<b>292,000</b>	<b>285,030</b>	<b>261,190</b>	<b>258,720</b>	<b>268,000</b>	<b>269,000</b>	<b>273,500</b>

Source: ICAO

### General Aviation Hours Flown (in Thousands)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Europe	6,080	6,400	6,500	6,600	6,720	6,870	6,730	6,700	7,260	7,240	6,880	6,270	6,000
Africa	790	820	800	800	820	820	700	700	800	770	800	780	700
Middle East	260	240	260	260	270	310	300	180	300	290	300	300	290
Asia & Pacific	2,420	2,740	3,060	3,250	3,380	3,470	3,500	3,770	4,180	4,250	4,260	4,680	4,880
North America	33,920	32,100	31,070	31,110	31,610	31,950	32,100	26,200	24,220	23,120	25,520	25,550	26,820
Latin America & Caribbean	3,850	3,380	3,550	3,570	3,400	3,300	3,150	3,150	3,340	3,280	3,110	3,150	3,300
<b>Total-ICAO States</b>	<b>47,320</b>	<b>45,680</b>	<b>45,240</b>	<b>45,590</b>	<b>46,200</b>	<b>46,720</b>	<b>46,480</b>	<b>40,700</b>	<b>40,100</b>	<b>38,950</b>	<b>40,870</b>	<b>40,730</b>	<b>41,990</b>

Excludes the Russian Federation

Source: ICAO

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## U.S. Pilots



## PILOTS BY CERTIFICATE AND RATING

### Active U.S. Pilots and Non-Pilot Certificates Held (1982-2003)

Category	2003 <sup>10</sup>	2002 <sup>10</sup>	2001	2000	1999	1998	1997	1996	1995 <sup>8</sup>	1994 <sup>9</sup>	1993
<b>Pilot--Total</b>	<b>625,011</b>	<b>631,762</b>	<b>612,274</b>	<b>625,581</b>	<b>635,472</b>	<b>618,298</b>	<b>616,342</b>	<b>622,261</b>	<b>639,184</b>	<b>654,088</b>	<b>665,069</b>
Student	87,296	85,991	86,731	93,064	97,359	97,736	96,101	94,947	101,279	96,254	103,583
Recreational	*	317	316	340	343	305	284	265	232	241	206
Airplane <sup>1</sup>											
Private	*	245,230	243,823	251,561	258,749	247,226	247,604	254,002	261,399	284,236	283,700
Commercial	*	125,920	120,502	121,858	124,261	122,053	125,300	129,187	133,980	138,728	143,014
Airline Transport	143,504	144,708	144,702	141,596	137,642	134,612	130,858	127,486	123,877	117,434	117,070
Rotorcraft (only) <sup>2</sup>	*	7,770	7,727	7,775	7,728	6,964	6,801	6,961	7,183	8,719	9,168
Glider (only) <sup>2</sup>	*	21,826	8,473	9,387	9,390	9,402	9,394	9,413	11,234	8,476	8,328
Lighter-than-air <sup>2,3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
<b>Flight Instructor Certificates<sup>4</sup></b>	<b>*</b>	<b>86,089</b>	<b>82,875</b>	<b>80,931</b>	<b>79,694</b>	<b>79,171</b>	<b>78,102</b>	<b>78,551</b>	<b>77,613</b>	<b>76,171</b>	<b>75,021</b>
<b>Instrument Ratings<sup>4,5</sup></b>	<b>*</b>	<b>*</b>	<b>315,276</b>	<b>311,944</b>	<b>308,951</b>	<b>300,183</b>	<b>297,409</b>	<b>297,895</b>	<b>298,798</b>	<b>302,300</b>	<b>305,517</b>
<b>Nonpilot--Total<sup>7</sup></b>	<b>*</b>	<b>*</b>	<b>513,100</b>	<b>547,453</b>	<b>538,264</b>	<b>549,588</b>	<b>540,892</b>	<b>534,427</b>	<b>651,341</b>	<b>571,358</b>	<b>559,726</b>
Mechanic <sup>7</sup>	*	*	310,850	344,434	340,402	336,670	332,254	329,239	405,294	411,071	401,060
Repairmen <sup>7</sup>	*	*	40,085	38,208	35,989	52,909	51,643	50,768	61,233	N/A	N/A
Parachute Rigger <sup>7</sup>	*	*	7,927	10,477	10,447	10,459	10,336	10,269	11,824	8,631	8,417
Ground Instructor <sup>7</sup>	*	*	72,261	72,326	71,238	70,334	69,366	68,573	96,165	77,789	76,050
Dispatcher <sup>7</sup>	*	*	16,070	16,340	15,655	14,804	13,967	13,272	15,642	13,410	12,883
Flight Navigator	*	*	509	570	642	712	782	847	916	990	1,039
Flight Engineer	*	*	65,398	65,098	63,891	63,700	62,544	61,459	60,267	59,467	60,277

Category	1992	1991	1990	1989	1,988	1987	1,986	1985	1984	1983	1982
<b>Pilot--Total</b>	<b>682,959</b>	<b>692,095</b>	<b>702,659</b>	<b>700,010</b>	<b>694,016</b>	<b>699,653</b>	<b>709,118</b>	<b>709,540</b>	<b>722,376</b>	<b>718,004</b>	<b>733,255</b>
Student	114,597	120,203	128,663	142,544	136,913	146,016	150,273	146,652	150,081	147,197	156,361
Recreational	187	161	87	*	*	*	*	*	*	*	*
Airplane <sup>1</sup>											
Private	288,078	293,306	299,111	293,179	299,786	300,949	305,736	311,086	320,086	318,643	322,094
Commercial	146,385	148,385	149,666	144,540	143,030	143,645	147,798	151,632	155,929	159,495	165,093
Airline Transport	115,855	112,167	107,732	102,087	96,968	91,287	87,186	82,740	79,192	75,938	73,471
Rotorcraft (only) <sup>2</sup>	9,652	9,860	9,567	8,863	8,608	8,702	8,122	8,123	7,532	7,237	7,034
Glider (only) <sup>2</sup>	8,205	8,033	7,833	7,708	7,600	7,901	8,411	8,168	8,390	8,157	7,842
Lighter-than-air <sup>2,3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	1,089	1,111	1,153	1,133	1,139	1,166	1,337	1,360
<b>Flight Instructor Certificates<sup>4</sup></b>	<b>72,148</b>	<b>69,209</b>	<b>63,775</b>	<b>61,472</b>	<b>61,798</b>	<b>60,316</b>	<b>57,355</b>	<b>58,940</b>	<b>61,173</b>	<b>62,201</b>	<b>62,492</b>
<b>Instrument Ratings<sup>4,5</sup></b>	<b>306,169</b>	<b>303,193</b>	<b>297,073</b>	<b>282,804</b>	<b>273,804</b>	<b>266,122</b>	<b>262,388</b>	<b>258,559</b>	<b>256,584</b>	<b>254,271</b>	<b>255,073</b>
<b>Nonpilot--Total<sup>7</sup></b>	<b>540,548</b>	<b>517,462</b>	<b>492,237</b>	<b>468,405</b>	<b>448,710</b>	<b>427,962</b>	<b>410,079</b>	<b>395,139</b>	<b>426,802</b>	<b>413,199</b>	<b>399,661</b>
Mechanic <sup>7</sup>	384,669	366,392	344,282	326,243	312,419	297,178	284,241	274,100	298,028	288,335	277,436
Repairmen <sup>7</sup>	N/A										
Parachute Rigger <sup>7</sup>	8,163	7,616	10,094	9,879	9,770	9,659	9,535	9,395	10,194	10,074	9,893
Ground Instructor <sup>7</sup>	73,276	70,086	66,882	64,503	62,582	60,861	59,443	58,214	67,463	66,385	65,004
Dispatcher <sup>7</sup>	12,264	11,607	11,002	10,455	10,020	9,491	9,025	8,511	8,980	8,223	7,580
Flight Navigator	1,154	1,225	1,290	1,357	1,400	1,445	1,512	1,542	1,603	1,636	1,695
Flight Engineer	61,022	60,236	58,687	55,968	52,519	49,328	46,323	43,377	40,534	38,546	38,053

Note: The term airmen includes men and women certified as pilots, mechanics or other aviation technicians.

Source: FAA

- Includes pilots with an airplane only certificate. Also includes those with an airplane and a helicopter and/or glider certificate. Prior to 1995, these pilots were categorized as private, commercial, or airline transport, based on their airplane certificate. In 1995 and after, they are categorized based on their highest certificate. For example, if a pilot holds a private airplane certificate and a commercial helicopter certificate, prior 1995, the pilot would be categorized as private; 1995 and after as commercial.
  - 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.
  - Lighter-than-air type ratings are no longer being issued.
  - Not included in total.
  - Special ratings shown on pilot certificates, do not indicate additional certificates
  - Data for 1996 and 1997 are not comparable to earlier years
  - Numbers represent all certificates on record. No medical examination required. Data for 1996 and 1997 are limited to certificates held by those under 70 years of age
  - Beginning in 1995, includes nonpilots who were excluded in prior years because of incomplete addresses and/or a request to be excluded from any mailing list.
  - 1994 counts based on medical certificates issued 27 or less months ago. All other years based on medical certificates issued 25 or less months ago.
  - Data for 2002 and 2003 not fully available from the FAA at time of publication
- N/A Not available. Prior to 1995 repairmen were included in the mechanic category. Recreational certificate first issued in 1990

# PILOTS BY GEOGRAPHIC AREA

## Estimated Active Pilots and Flight Instructors by FAA Region and State in 2001

FAA REGION AND STATE	Total Pilots	Students	Airplane <sup>1</sup>			Misc. <sup>2</sup>	Flight Instructor <sup>3</sup>
			Private	Commercial	Airline Transport		
<b>Total 4/</b>	<b>612,274</b>	<b>86,731</b>	<b>243,823</b>	<b>120,502</b>	<b>144,702</b>	<b>16,516</b>	<b>82,910</b>
<b>United States--Total</b>	<b>584,249</b>	<b>81,552</b>	<b>238,121</b>	<b>112,202</b>	<b>137,695</b>	<b>14,679</b>	<b>80,952</b>
<b>Alaskan Region--Total</b>	<b>8,415</b>	<b>791</b>	<b>3,526</b>	<b>2,120</b>	<b>1,901</b>	<b>77</b>	<b>1,117</b>
<b>Central Region--Total</b>	<b>28,940</b>	<b>4,010</b>	<b>14,049</b>	<b>5,738</b>	<b>4,810</b>	<b>333</b>	<b>3,982</b>
Iowa	5,919	845	3,222	1,120	679	53	768
Kansas	8,398	1,175	4,079	1,744	1,299	101	1,231
Missouri	10,592	1,381	4,753	2,006	2,299	153	1,560
Nebraska	4,031	609	1,995	868	533	26	423
<b>Eastern Region--Total</b>	<b>73,239</b>	<b>11,086</b>	<b>29,853</b>	<b>13,320</b>	<b>16,554</b>	<b>2,426</b>	<b>10,485</b>
Delaware	1,503	259	539	245	422	38	225
District of Columbia	457	80	192	97	63	25	52
Maryland	8,274	1,207	3,354	1,561	1,901	251	1,224
New Jersey	10,967	1,638	4,673	1,830	2,438	388	1,524
New York	17,902	3,292	7,702	3,266	2,870	772	2,525
Pennsylvania	17,812	2,526	7,465	3,102	4,196	523	2,594
Virginia	14,412	1,795	5,024	2,833	4,363	397	2,061
West Virginia	1,912	289	904	386	301	32	280
<b>Great Lakes Region--Total</b>	<b>99,217</b>	<b>14,601</b>	<b>45,363</b>	<b>18,175</b>	<b>19,485</b>	<b>1,593</b>	<b>14,062</b>
Illinois	20,709	3,029	8,764	3,836	4,688	392	3,117
Indiana	11,453	1,694	5,588	2,052	1,974	145	1,537
Michigan	16,967	2,621	8,202	2,906	2,891	347	2,358
Minnesota	15,376	2,148	6,631	2,926	3,489	182	2,080
North Dakota	2,472	437	1,122	701	198	14	294
Ohio	18,959	2,702	8,486	3,349	4,022	400	2,914
South Dakota	2,226	349	1,029	532	297	19	263
Wisconsin	11,055	1,621	5,541	1,873	1,926	94	1,499
<b>New England Region--Total</b>	<b>25,300</b>	<b>3,487</b>	<b>11,102</b>	<b>4,380</b>	<b>5,579</b>	<b>752</b>	<b>3,382</b>
Connecticut	6,204	832	2,562	972	1,630	208	869
Maine	3,055	418	1,445	619	543	30	380
Massachusetts	9,266	1,422	4,397	1,643	1,473	331	1,203
New Hampshire	4,207	451	1,518	682	1,452	104	633
Rhode Island	1,133	161	512	212	227	21	136
Vermont	1,435	203	668	252	254	58	161
<b>Northwest Mountain Region--Total</b>	<b>64,431</b>	<b>9,039</b>	<b>26,261</b>	<b>12,373</b>	<b>15,030</b>	<b>1,728</b>	<b>8,717</b>
Colorado	17,406	2,279	6,185	3,139	5,193	610	2,667
Idaho	4,330	508	2,053	948	727	94	558
Montana	3,571	463	1,672	893	476	67	451
Oregon	9,668	1,457	4,808	1,923	1,211	269	1,178
Utah	6,953	1,312	2,738	1,235	1,554	114	863
Washington	20,730	2,786	7,932	3,883	5,584	545	2,789
Wyoming	1,773	234	873	352	285	29	211
<b>Southern Region--Total</b>	<b>118,093</b>	<b>15,872</b>	<b>42,476</b>	<b>23,262</b>	<b>34,168</b>	<b>2,315</b>	<b>16,386</b>
Alabama	7,148	1,087	3,004	1,677	1,099	281	955
Florida	47,420	6,301	16,009	10,170	14,048	892	7,324
Georgia	18,611	2,434	6,166	2,960	6,745	306	2,277
Kentucky	6,596	942	2,291	1,098	2,187	78	935
Mississippi	3,951	513	1,568	1,030	757	83	495
North Carolina	14,480	1,921	5,975	2,611	3,720	253	1,762
Puerto Rico	1,472	353	427	322	319	51	208
South Carolina	6,150	788	2,655	1,276	1,301	130	745
Tennessee	12,071	1,501	4,315	2,087	3,931	237	1,662
Virgin Islands	194	32	66	31	61	4	23
<b>Southwest Region--Total</b>	<b>70,856</b>	<b>9,608</b>	<b>26,065</b>	<b>14,348</b>	<b>19,281</b>	<b>1,554</b>	<b>9,631</b>
Arkansas	4,794	707	2,044	1,168	814	61	648
Louisiana	5,756	799	2,207	1,433	1,068	249	687
New Mexico	4,421	708	1,805	978	784	146	542
Oklahoma	8,352	1,319	3,684	1,868	1,401	80	1,164
Texas	47,533	6,075	16,325	8,901	15,214	1,018	6,590
<b>Western-Pacific Region--Total</b>	<b>94,933</b>	<b>12,856</b>	<b>39,201</b>	<b>18,274</b>	<b>20,753</b>	<b>3,849</b>	<b>13,114</b>
American Samoa	5	0	0	2	3	0	0
Arizona	16,974	2,123	6,139	3,338	4,783	591	2,758
California	68,442	9,477	30,284	13,186	12,678	2,817	9,016
Guam	156	16	11	26	97	6	16
Hawaii	3,046	529	670	594	1,052	201	437
Nevada	6,310	711	2,097	1,128	2,140	234	887
<b>Armed Forces Personnel 6/</b>	<b>825</b>	<b>202</b>	<b>225</b>	<b>212</b>	<b>134</b>	<b>52</b>	<b>76</b>
<b>Outside United States</b>	<b>27,982</b>	<b>5,172</b>	<b>5,698</b>	<b>8,285</b>	<b>6,992</b>	<b>1,835</b>	<b>1,950</b>
<b>U.S. Affiliates 5/</b>	<b>40</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>8</b>
<b>Unknown</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>

1. Includes pilots with an airplane only certificate. Also includes those with an airplane and a helicopter and/or glider certificate

2. Includes helicopter, glider, and recreational.

3. Not included in total.

4. Includes pilots outside the United States

5. Includes Federated States of Micronesia, Marshall Islands, North Mariana Islands and Palau

6. Military personnel holding civilian certificate stationed in foreign country

Source: FAA-APO

## ACTIVE PILOT CERTIFICATES

### Estimated FAA Active Pilot Certificates Held by Category and Age Group of Holder in 2001

Age Group	Total	Student	Recre- ational	Airplane <sup>1</sup>			Rotorcraft (Only)	Glider (Only) <sup>c</sup>	Flight Instructor <sup>d</sup>
				Private	Commercial	Airline Transport			
<b>Total</b>	<b>612,274</b>	<b>86,731</b>	<b>316</b>	<b>243,823</b>	<b>120,502</b>	<b>144,702</b>	<b>7,727</b>	<b>8,473</b>	<b>82,875</b>
14-15	320	320	0	0	0	0	0	0	0
16-19	17,470	12,927	7	4,130	289	0	14	103	93
20-24	39,838	14,700	12	15,462	8,956	216	276	216	4,800
25-29	45,798	11,369	9	14,352	14,112	4,881	825	250	8,912
30-34	60,064	10,623	13	18,533	13,927	15,412	1,206	350	11,001
35-39	73,063	9,768	25	25,512	12,413	23,244	1,422	679	9,703
40-44	81,817	9,198	49	32,787	11,829	25,500	1,318	1,136	9,268
45-49	79,057	7,309	39	35,368	11,463	22,136	989	1,753	9,249
50-54	72,237	4,798	34	31,700	12,294	20,846	962	1,603	9,365
55-59	58,566	2,784	35	24,737	12,204	17,129	495	1,182	8,151
60-64	35,758	1,449	25	16,257	8,432	8,746	149	700	5,257
65-69	23,020	807	24	11,242	6,626	3,797	36	488	3,508
70-74	14,975	449	26	8,626	4,163	1,680	25	6	1,931
75-79	7,474	167	15	3,942	2,598	741	8	3	1,063
80 and over	2,815	63	3	1,174	1,195	374	2	4	574
Undetermined	2	0	0	1	1	0	0	0	0

1. Includes pilots with an airplane only certificate. Also includes those with an airplane and a helicopter and/or glider certificate.
2. Glider pilots are not required to have a medical examination; however, totals above represent pilots who received a medical examination
3. Not included in total active pilots.

### Average Age of Active Pilots by Category

Calendar Year	Total	Student	Recre- ational	Airplane		
				Private	Commercial	Airline Transport
1991	40.5	32.6	43.5	42.0	41.8	43.7
1992	40.8	32.9	44.4	42.2	41.7	43.8
1993	41.3	33.7	45.5	42.7	41.9	44.1
1994	41.9	34.3	46.5	43.2	42.4	44.4
1995	42.9	34.5	48.3	44.6	43.7	44.9
1996	43.2	34.6	49.3	45.1	44.1	45.1
1997	43.6	34.6	49.5	45.6	44.6	45.6
1998	43.8	34.7	49.8	45.9	45.0	45.4
1999	43.6	34.6	49.5	45.6	44.6	45.3
2000	43.7	34.1	49.8	45.6	44.9	45.8
2001	44.0	33.3	50.8	46.0	45.0	46.0

### Estimated Active Women Pilot Certificates (1992-2001)

Category	2001	2000	1999	1998	1997	1996	1995 <sup>7</sup>	1994 <sup>8</sup>	1993	1992
<b>Pilot--Total</b>	<b>35,776</b>	<b>36,757</b>	<b>37,373</b>	<b>35,762</b>	<b>35,531</b>	<b>36,433</b>	<b>38,032</b>	<b>39,157</b>	<b>39,460</b>	<b>40,620</b>
Student	10,230	10,809	11,191	11,289	11,217	11,632	12,710	12,061	12,788	13,921
Recreational	20	26	25	24	22	20	16	21	17	10
Airplane <sup>1</sup>										
Private	13,894	14,554	15,171	14,152	14,257	14,868	15,398	17,196	16,997	17,276
Commercial	5,932	5,807	5,720	5,366	5,392	5,495	5,694	6,000	5,981	5,918
Airline Transport	4,630	4,411	4,126	3,848	3,572	3,346	3,134	2,924	2,738	2,530
Rotor & Glider (only)	1,070	1,150	1,140	1,083	1,071	1,072	1,080	955	939	965
Lighter-than-air <sup>2,3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
<b>Flight Instructor Certificates <sup>4</sup></b>	<b>5,386</b>	<b>5,193</b>	<b>5,028</b>	<b>4,926</b>	<b>4,763</b>	<b>4,667</b>	<b>4,556</b>	<b>4,481</b>	<b>4,338</b>	<b>3,964</b>
<b>Nonpilot--Total <sup>5</sup></b>	<b>17,114</b>	<b>16,552</b>	<b>15,662</b>	<b>15,380</b>	<b>14,562</b>	<b>13,909</b>	<b>15,120</b>	<b>13,026</b>	<b>12,363</b>	<b>11,514</b>
Mechanic <sup>6</sup>	5,295	5,047	4,722	4,483	4,197	4,019	3,914	5,175	4,839	4,398
Repairmen <sup>6</sup>	1,789	1,704	1,582	1,940	1,861	1,752	1,710	N/A	N/A	N/A
Parachute Rigger <sup>6</sup>	475	509	494	483	464	441	672	442	413	390
Ground Instructor <sup>6</sup>	5,169	5,154	5,016	4,904	4,758	4,652	6,019	4,804	4,615	4,338
Dispatcher <sup>6</sup>	2,262	2,062	1,895	1,729	1,557	1,411	1,270	1,159	1,083	1,004
Flight Navigator	0	0	0	0	0	0	0	0	0	0
Flight Engineer	2,124	2,076	1,953	1,841	1,725	1,634	1,535	1,446	1,413	1,384

- Source: FAA
1. Includes pilots with an airplane only certificate. Also includes those with an airplane and a helicopter and/or glider certificate. Prior to 1995, these pilots were categorized as private, commercial, or airline transport, based on their airplane certificate. In 1995 and after, they are categorized based on their highest certificate. For example, if a pilot holds a private certificate and a commercial helicopter certificate, prior 1995, the pilot would be categorized as private; 1995 and after as commercial.
  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. Lighter-than-air type ratings are no longer being issued.
  4. Not included in total.
  5. Data for 1996 and 1997 are not comparable to earlier years.
  6. Numbers represent all certificates on record. No medical examination required. Data for 1996 and 1997 are limited to certificates held by those under 70 years of age.
  7. Beginning in 1995, includes nonpilots who were excluded in prior years because of incomplete addresses and/or a request to be excluded from any mailing list.
  8. 1994 counts based on medical certificates issued 27 or less months ago. All other years based on medical certificates issued 25 or less months ago.
- N/A Not available. Separate counts from rotorcraft only and glider only pilots no longer available by gender. Number of Repair men not available prior to 1995. Recreational certificate first issued in 1990.

## U.S. CIVIL AIRMEN

### Estimated Total Active and Instrument Rated Pilots (1980-2001)

Calendar Year	Total Active Pilots <sup>1</sup>	Instrument Rated	Percent of Total
1980	627,238	260,461	41.5%
1981	584,270	252,535	43.2%
1982	576,894	255,073	44.2%
1983	570,807	254,271	44.5%
1984	572,295	256,584	44.8%
1985	562,888	258,559	45.9%
1986	558,845	262,388	47.0%
1987	553,637	266,122	48.1%
1988	557,103	273,804	49.1%
1989	557,466	282,804	50.7%
1990	573,909	297,073	51.8%
1991	571,731	306,193	53.6%
1992	568,175	306,169	53.9%
1993	561,280	305,517	54.4%
1994	557,593	302,300	54.2%
1995	537,673	298,798	55.6%
1996	527,049	297,895	56.5%
1997	520,241	297,409	57.2%
1998	520,257	300,183	57.7%
1999	537,770	308,951	57.5%
2000	532,177	311,944	58.6%
2001	525,227	315,276	60.0%
2002	545,454	*	*

1. Excludes student pilots and recreational pilots.

Source: FAA

### Pilot Certificates Issued by Category (1969-2002)

Year	Student		Private		Commercial		Airline Transport		Helicopter (only)		Glider (only)	
	Original	Additional	Original	Additional	Original	Additional	Original	Additional	Original	Additional	Original	Additional
1969	132,926	*	54,597	8,096	21,399	25,706	3,469	4,616	2,326	148	521	N/A
1970	126,871	*	53,026	8,374	21,130	25,746	3,745	3,917	4,250	187	652	N/A
1971	128,004	*	49,579	775	16,356	22,695	2,439	2,567	3,448	172	611	10
1972	121,543	*	50,523	8,371	16,043	22,236	2,604	3,410	2,421	263	713	14
1973	131,384	*	53,140	9,797	16,769	24,823	3,224	4,391	1,719	507	892	131
1974	113,997	*	48,501	9,866	17,693	24,638	3,219	3,557	1,298	387	832	244
1975	127,424	*	49,733	9,734	12,620	21,860	2,765	3,370	866	251	230	158
1976	129,280	*	55,583	12,618	13,577	22,059	3,869	3,910	1,064	276	848	238
1977	138,816	*	54,657	15,104	11,121	22,806	5,697	6,229	944	328	792	220
1978	137,032	*	58,064	16,048	11,789	17,501	6,912	5,921	1,122	287	759	188
1979	135,956	*	54,466	16,466	12,627	17,793	8,981	6,603	1,300	283	642	157
1980	102,301	*	50,458	16,035	12,452	16,015	7,116	6,289	1,721	272	583	151
1981	111,531	*	45,713	14,897	10,657	12,146	4,763	5,991	1,985	302	629	164
1982	90,816	*	52,144	16,276	11,048	11,910	5,037	7,956	2,256	330	793	184
1983	92,239	*	41,210	12,721	8,789	9,513	5,643	8,187	1,932	315	606	162
1984	90,167	*	36,545	11,784	7,702	8,895	5,099	9,335	1,808	319	524	139
1985	86,060	*	35,402	11,636	8,404	7,197	6,081	9,192	2,105	207	537	138
1986	88,699	*	34,816	12,672	8,889	9,241	6,498	10,372	2,209	234	514	109
1987	85,611	*	42,287	16,302	11,314	11,635	7,678	11,956	2,217	293	542	74
1988	86,193	*	39,900	15,800	12,042	10,597	7,461	11,209	1,947	287	475	28
1989	87,698	*	35,360	22,240	13,759	11,778	7,829	12,698	2,240	252	336	22
1990	88,586	*	41,749	19,299	15,500	12,584	8,013	13,540	2,700	266	378	41
1991	82,205	*	49,580	23,630	16,869	13,506	8,437	13,979	3,344	291	487	29
1992	78,377	*	39,968	19,419	14,354	11,630	7,699	13,391	2,684	291	376	32
1993	69,178	*	39,060	18,801	12,645	10,466	6,129	12,995	2,310	30	341	28
1994	66,501R	*	32,787	14,568	9,237	8,630	5,360	10,963	1,801	267	320	25
1995	60,497R	*	28,333	15,331	9,133	9,042	5,965	13,641	1,724	290	373	83
1996	56,653R	*	24,714	18,199	10,245	10,494	7,444	17,229	1,638	349	633	195
1997	60,941R	*	21,552	13,522	8,988	9,587	7,045	16,266	1,385	296	501	161
1998	63,037R	*	26,297	15,966	10,042	10,269	7,547	19,085	1,530	211	472	105
1999	58,278R	*	24,630	15,222	9,737	9,963	6,721	19,380	1,514	222	423	98
2000	58,042R	*	27,223	17,223	11,813	11,652	7,715	20,558	1,776	234	455	62
2001	61,897E	*	25,372	16,807	11,499	11,115	7,070	21,357	1,698	218	403	77
2002	*	*	28,659	*	12,299	*	4,718	*	2,972	*	335	*

1. An additional rating added to an existing pilot certificate (e.g., instrument rating added to a private certificate.)

Source: FAA

## U.S. CIVIL AIRMEN

Statistics pertaining to airmen, both pilots and nonpilots, were obtained from the official 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 pilots may have, but are not required to have, a medical examination. The inventory data for this category includes 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 airmen certificate. Beginning in 1996, only those under 70 years of age are shown.

### Definitions

**Active Pilot** - A pilot who holds a pilot certificate and a valid medical certificate--one that was issued within the last 25 months.

**Air Carrier** - An aircraft with a seating capacity of more than 30 seats or a maximum payload capacity of more than 7,500 pounds carrying passengers or cargo for hire or compensation.

**Airman** - A pilot, mechanic, or other licensed aviation technician. The term refers to men and women.

**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.

### Pilot Categories

**Student Pilot** - A student pilot must be 16 years old, medically certificated by an FAA medical examiner and may only fly solo or with an instructor. Each solo flight must be approved as to destination and duration. A student pilot may not operate an aircraft that is carrying passengers or that is carrying property for compensation or hire.

**Recreational Pilot** - A recreational pilot may fly no more than one passenger in a light, single engine aircraft with no more than four seats, during good weather and daylight hours, and unless otherwise authorized, no more than 50 miles from the home airport. A recreational pilot may not operate an aircraft that is carrying passengers or that is carrying property for compensation or hire.

**Private Pilot** - A private pilot may, with appropriate training, ratings and endorsements, carry passengers in any aircraft, day or night, good weather or bad. The private pilot may not act as pilot-in-command of an aircraft that is carrying passengers for compensation or hire nor act as pilot-in-command of 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 that is carrying passengers for compensation or hire, but not an aircraft in air carrier service, or act as pilot-in-command of 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 pilot-in-command of an aircraft in air carrier service

Source: FAA

# **AIRPORT AND AERONAUTICAL FACILITIES**



## AIRPORTS BY GEOGRAPHIC AREA

### U.S. Civil and Joint Use Airports, Heliports, Stolports, and Seaplane Bases on Record by Type of Ownership in December 31, 2003

FAA Region and State	Total Facilities	Total Facilities By Ownership		Airports Open to the Public***				Total Airports
		Public	Private	Paved Airports		Unpaved Airports		
				Lighted	Unlighted	Lighted	Unlighted	
<b>Grand Total</b>	<b>19,576</b>	<b>5,151</b>	<b>14,425</b>	<b>3,638</b>	<b>304</b>	<b>388</b>	<b>960</b>	<b>5,290</b>
<b>United State-Total*</b>	<b>19,512</b>	<b>5,121</b>	<b>14,391</b>	<b>3,621</b>	<b>301</b>	<b>388</b>	<b>959</b>	<b>5,269</b>
<b>Alaskan-Total</b>	<b>648</b>	<b>387</b>	<b>261</b>	<b>51</b>	<b>6</b>	<b>106</b>	<b>245</b>	<b>408</b>
Alaska	648	387	261	51	6	106	245	408
<b>Central-Total</b>	<b>1,578</b>	<b>498</b>	<b>1,080</b>	<b>381</b>	<b>13</b>	<b>39</b>	<b>57</b>	<b>490</b>
Iowa	322	135	187	97	1	12	14	124
Kansas	411	135	276	101	6	17	20	144
Missouri	541	134	407	108	3	6	14	131
Nebraska	304	94	210	75	3	4	9	91
<b>Eastern-Total</b>	<b>2,593</b>	<b>368</b>	<b>2,225</b>	<b>336</b>	<b>34</b>	<b>49</b>	<b>91</b>	<b>510</b>
Delaware	48	5	43	7	0	3	1	11
District of Columbia	16	7	9	2	1	0	0	3
Maryland	231	25	206	28	0	3	7	38
New Jersey	381	53	328	35	5	7	6	53
New York	581	97	484	89	14	18	42	163
Pennsylvania	798	74	724	86	9	16	27	138
Virginia	419	75	344	62	3	1	1	67
West Virginia	119	32	87	27	2	1	7	37
<b>Great Lakes-Total</b>	<b>4,256</b>	<b>907</b>	<b>3,349</b>	<b>750</b>	<b>35</b>	<b>123</b>	<b>183</b>	<b>1,091</b>
Illinois	872	122	750	92	2	19	5	118
Indiana	631	88	543	78	5	6	22	111
Michigan	476	138	338	127	6	29	70	232
Minnesota	512	151	361	113	1	18	26	158
North Dakota	308	93	215	64	7	11	8	90
Ohio	718	133	585	121	11	12	31	175
South Dakota	184	80	104	55	1	15	5	76
Wisconsin	555	102	453	100	2	13	16	131
<b>New England-Total</b>	<b>767</b>	<b>141</b>	<b>626</b>	<b>115</b>	<b>19</b>	<b>5</b>	<b>48</b>	<b>187</b>
Connecticut	153	16	137	19	1	0	5	25
Maine	146	47	99	31	7	2	26	66
Massachusetts	235	34	201	33	5	1	5	44
New Hampshire	121	16	105	15	3	2	6	26
Rhode Island	27	8	19	7	1	0	0	8
Vermont	85	20	65	10	2	0	6	18
<b>N.W. Mountain-Total</b>	<b>2,144</b>	<b>691</b>	<b>1,453</b>	<b>418</b>	<b>44</b>	<b>20</b>	<b>165</b>	<b>647</b>
Colorado	426	91	335	65	6	3	5	79
Idaho	250	136	114	46	6	3	66	121
Montana	269	124	145	72	9	8	33	122
Oregon	450	103	347	64	10	1	23	98
Utah	142	59	83	42	4	0	1	47
Washington	488	128	360	94	8	4	32	138
Wyoming	119	50	69	35	1	1	5	42
<b>Southern-Total</b>	<b>2,877</b>	<b>841</b>	<b>2,036</b>	<b>639</b>	<b>42</b>	<b>28</b>	<b>51</b>	<b>760</b>
Alabama	271	104	167	85	3	5	4	97
Florida	811	164	647	108	3	8	14	133
Georgia	442	136	306	97	8	2	2	109
Kentucky	204	71	133	50	9	0	4	63
Mississippi	239	90	149	72	6	1	4	83
North Carolina	371	93	278	83	7	8	16	114
Puerto Rico	45	20	25	10	1	0	0	11
South Carolina	190	70	120	57	1	4	5	67
Tennessee	296	88	208	75	4	0	2	81
Virgin Islands	8	5	3	2	0	0	0	2
<b>Southwest-Total</b>	<b>3,272</b>	<b>817</b>	<b>2,455</b>	<b>632</b>	<b>56</b>	<b>14</b>	<b>76</b>	<b>778</b>
Arkansas	308	115	193	92	4	0	3	99
Louisiana	493	110	383	70	4	1	6	81
New Mexico	175	70	105	47	6	1	8	62
Oklahoma	439	161	278	112	16	4	17	149
Texas	1,857	361	1,496	311	26	8	42	387
<b>Western-Total</b>	<b>1,422</b>	<b>491</b>	<b>931</b>	<b>309</b>	<b>53</b>	<b>4</b>	<b>43</b>	<b>409</b>
Arizona	307	95	212	58	10	0	12	80
California	939	318	621	209	36	2	16	263
Hawaii	48	19	29	12	1	0	0	13
Nevada	128	59	69	30	6	2	15	53
<b>South Pacific**</b>	<b>19</b>	<b>10</b>	<b>9</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>10</b>

\* Excludes Puerto Rico, Virgin Islands and South Pacific.

\*\* American Samoa, Guam, Midway Atoll and Northern Mariana Islands.

\*\*\* Includes all airports open to the public, both publicly and privately owned.

Source: FAA-APP

# AERONAUTICAL FACILITIES

## FAA Air Route Facilities and Services (1972-2001)

Calendar Year	VOR VORTAC	Non- Directional Beacons	Air Route Traffic Control Centers	Air Traffic Cont. Towers	Flight Service Stations	Int'l Flight Service Stations	Instrument Landing Systems	Airport Surveillance Radar
1972	991	706	27	355	324	7	403	125
1973	995	739	27	403	315	7	467	142
1974	1,000	793	26	417	320	7	490	156
1975	1,011	848	25	487	321	7	580	177
1976	1,020	920	25	488	321	7	640	175
1977	1,021	959	25	495	319	7	678	182
1978	1,020	988	25	494	319	6	698	185
1979	1,028	1,015	25	499	318	6	753	192
1980	1,037	1,055	25	502	317	6	796	192
1981	1,033	1,123	25	501	316	6	840	199
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	1,039	1,212	25	500	302	4	968	312
1988	1,043	1,239	25	686	293	3	977	311
1989	1,046	1,263	25	686	255	3	1,100	312
1990	1,045	1,271	25	686	235	3	1,120	311
1991	1,045	1,295	24	694	192	3	1,114	318
1992	1,044	1,314	24	691	179	3	1,177	312
1993	1,046	1,263	24	686	255	3	1,100	312
1994	1,045	1,271	24	686	235	3	1,120	311
1995	1,045R	1,295	24	694	192	3	1,114	318
1996	1,044R	1,314R	24	691	179	3	177	312
1997	1,041R	1,344R	24	684	135	3	1,231	310
1998	1,039R	1,348R	24	683R	128R	3	1,238	307R
1999	1,041	1,320	24	680	75	3	1,327	295
2000	993	1,199	25	663	69	3	1,370	297
2001	1,116	1,675	24	678	72	3	1,388	292

\* Includes non-federal and military.

\*\* Includes Automated Flight Service Stations.

Source: FAA

## Airports by Type and Equipment 1995-2002

Year*	1995	1996	1997	1998	1999	2000	2001	2002
<b>Total Airports</b>	<b>18,224</b>	<b>18,292</b>	<b>18,345</b>	<b>18,770</b>	<b>19,098</b>	<b>19,281</b>	<b>19,356</b>	<b>19,572</b>
<b>Public Use Airports</b>	<b>5,415</b>	<b>5,389</b>	<b>5,357</b>	<b>5,352</b>	<b>5,324</b>	<b>5,317</b>	<b>5,294</b>	<b>5,286</b>
# w/ Paved Runways	3,970	3,972	3,963	3,970	3,949	3,953	3,947	3,940
# w/ Unpaved Runways	1,445	1,417	1,394	1,382	1,375	1,364	1,347	1,346
# w/ Lighted Runways	4,023	4,017	3,999	4,005	4,051	4,035	4,034	4,024
# w/ Unlighted Runways	1,392	1,372	1,358	1,347	1,273	1,282	1,260	1,262
<b>Private Use Airports</b>	<b>12,809</b>	<b>12,903</b>	<b>12,988</b>	<b>13,418</b>	<b>13,774</b>	<b>13,964</b>	<b>14,062</b>	<b>14,286</b>
# w/ Paved Runways	4,225	4,246	4,285	4,451	4,384	4,463	4,555	4,632
# w/ Unpaved Runways	8,584	8,657	8,703	8,967	9,390	9,501	9,507	9,654
# w/ Lighted Runways	815	830	833	840	918	1,010	1,118	1,183
# w/ Unlighted Runways	11,994	12,073	12,155	12,578	12,856	12,954	12,944	13,103
Public Use Abandoned	51	26	25	24	17	13	26	16
Private Use Abandoned	186	63	83	92	109	156	220	121
Certificated Airports	667	671	660	660	655	651	635	633
Civil	572	577	566	566	565	563	560	558
Military	95	94	94	94	90	88	75	75

\* As of December 31 of Listed Year Unless Listed

Source: FAA

## GENERAL AVIATION AIRPORT STATISTICS

### U.S. General Aviation Airport's Ranked by Number of Operations, 1-50

Rank	Facility	Name	Itinerant Operations	Local Operations	Total Operations
1	VNY	Van Nuys, CA	299,438	146,778	446,216
2	DVT	Phoenix Deer Valley, AZ	152,934	232,155	385,089
3	SFB	Sanford-Orlando, CA	153,774	193,395	347,169
4	DAB	Daytona Beach, FL	249,106	60,542	309,648
5	RVS	Richard Lloyd Jones, OK	136,790	154,386	291,176
6	APA	Centennial Airport, CO	127,381	163,008	290,389
7	LGB	Long Beach, CA	132,264	147,615	279,879
8	PRC	Ernes A. Love Field, AZ	88,018	187,871	275,889
9	GFK	Grand Forks Int'l, ND	97,038	174,445	271,483
10	SNA	John Wayne-Orange County, CA	137,538	112,013	249,551
11	PTK	Oakland County Int'l Airport, MI	103,414	141,784	245,198
12	FFZ	Falcon Field, AZ	118,561	124,544	243,105
13	BFI	Boeing Field, King County Airport, WA	141,591	89,184	230,775
14	CHD	Chandler Municipal Airport	64,780	152,929	217,709
15	DWH	David Wayne Hooks Mem. Airport	80,515	129,754	210,269
16	POC	Brackett Field Airport, CA	114,914	90,898	205,812
17	PAO	Palo Alto Airport, CA	79,186	121,117	200,303
18	HIO	Portland-Hillsboro Airpor, OR	75,297	124,917	200,214
19	RHV	Reid-Hillview Airport, CA	75,241	124,634	199,875
20	FXE	Fort Lauderdale Executive Airport, FL	152,654	46,146	198,800
21	MYF	Montgomery Field Airport, CA	117,905	77,254	195,159
22	MMU	Morristown Municipal Airport, NJ	128,777	66,210	194,987
23	MRI	Merril Field Airport, AK	81,132	108,092	189,224
24	PDK	Dekalb-Peachtree Airport, GA	134,954	53,024	187,978
25	LVK	Livermore Municipal Airport, CA	75,271	101,798	177,069
26	DPA	Dupage Airport, IL	99,547	76,351	175,898
27	FRG	Republic Airport, NY	91,263	84,318	175,581
28	BED	Laurence G Hanscom Field, MA	100,541	71,688	172,229
29	CMA	Camarillo Airport, CA	95,769	75,934	171,703
30	PNE	Northeast Philadelphia Airport, PA	99,433	71,913	171,346
31	SQL	San Carlos Airport, CA	80,292	89,850	170,142
32	FPR	Frederick Municipal Airport, OK	96,141	73,226	169,367
33	SDL	Scottsdale Airport, AZ	103,230	64,954	168,184
34	SEE	Gillespie Field, CA	73,540	93,960	167,500
35	TMB	Kendall-Tamiami Executive Airport, FL	78,020	89,002	167,022
36	TOA	Zamperini Field, CA	90,687	74,553	165,240
37	CRQ	McClellan-Palomar Airport, CA	111,477	52,819	164,296
38	PMP	Pompano Beach Airpark, FL	50,835	113,128	163,963
39	VGT	North Las Vegas Airport, NV	64,743	97,969	162,712
40	CPS	St. Louis Downtown Airport, IL	57,649	103,225	160,874
41	PIE	St. Petersburg-Clearwater Int'l Airport, FL	85,652	74,336	159,988
42	MLB	Melbourne International Airport, FL	80,747	78,637	159,384
43	PAE	Snohomish County Airport (Paine Fld.), WA	80,949	75,670	156,619
44	VRB	Vero Beach Municipal Airport, FL	78,462	75,530	153,992
45	PWK	Palwaukee Municipal Airport, IL	111,005	40,684	151,689
46	FCM	Flying Cloud Airport, MN	81,235	70,395	151,630
47	TIX	Space Coast Regional Airport, FL	48,551	100,944	149,495
48	EMT	El Monte Airport, CA	77,959	71,262	149,221
49	IWA	Williams Gateway Airport, AZ	62,498	85,765	148,263
50	BJC	Jeffco Airport, CO	72,516	73,164	145,680

Source: FAA

# **FORECASTS AND OTHER INFORMATION**



# FEDERAL AVIATION ADMINISTRATION FORECAST INFORMATION

## U.S. Active General Aviation and Air Taxi Aircraft (in Thousands)

As of December 31	Fixed Wing				Rotorcraft		Experi- Mental	Sport Aircraft	Other	Total
	Piston		Turbine		Piston	Turbine				
	Single Engine	Multi Engine	Turbo Prop	Turbo- Jet/Fan						
<u>Historical*</u>										
1997 1/	140,038	16,017	5,619	5,178	2,259	4,526	14,680	NA	4,092	192,414
1998	144,234	18,729	6,174	6,066	2,545	4,881	16,502	NA	5,580	204,710
1999	150,886	21,038	5,679	7,120	2,564	4,884	20,528	NA	6,765	219,464
2000	149,422	21,091	5,762	7,001	2,680	4,470	20,407	NA	6,700	217,533
2001	145,034	18,281	6,596	7,787	2,292	4,491	20,421	NA	6,545	211,447
2002E	144,500	18,240	6,600	8,000	2,450	4,350	20,400	NA	6,500	211,040
<u>Forecast</u>										
2003	144,550	18,210	6,690	8,200	2,470	4,350	20,400	NA	6,500	211,370
2004	144,900	18,170	6,810	8,400	2,500	4,370	20,450	1,000	6,520	213,120
2005	145,400	18,140	6,940	8,700	2,530	4,390	20,550	2,300	6,540	215,490
2006	146,000	18,100	7,070	9,100	2,560	4,415	20,650	2,600	6,560	217,055
2007	146,600	18,060	7,200	9,500	2,590	4,440	20,750	3,100	6,580	218,820
2008	147,200	18,030	7,330	9,900	2,620	4,465	20,850	3,600	6,600	220,595
2009	147,600	17,990	7,450	10,300	2,650	4,490	20,950	4,100	6,620	222,150
2010	148,000	17,960	7,580	10,700	2,680	4,510	21,050	4,600	6,640	223,720
2011	148,400	17,920	7,700	11,100	2,710	4,530	21,150	5,000	6,660	225,170
2012	148,800	17,880	7,810	11,500	2,740	4,550	21,250	5,400	6,680	226,610
2013	149,200	17,850	7,920	11,900	2,770	4,570	21,350	5,800	6,700	228,060
2014	149,600	17,810	8,020	12,300	2,800	4,590	21,450	6,200	6,720	229,490

Source: FAA-APO

\* Source: 1997-2001, FAA General Aviation and Air Taxi Activity (and Avionics) Surveys

1/ Estimates have been revised to reflect changes in edit and estimation procedures, and may not be comparable to estimates prior to 1995

Note: An active aircraft is one that has a current registration and was flown at least one hour during the calendar year.

## U.S. Active General Aviation and Air Taxi Hours Flown (in Thousands)

Calendar Year	Fixed Wing				Rotorcraft		Experi- Mental	Sport Aircraft	Other	Total
	Piston		Turbine		Piston	Turbine				
	Single Engine	Multi Engine	Turbo Prop	Turbo- Jet/Fan						
<u>Historical*</u>										
1997 1/	18,345	2,399	1,655	1,713	344	1,740	1,327	NA	192	27,715
1998	16,823	3,578	1,765	2,226	430	1,912	1,071	NA	295	28,100
1999	19,325	3,569	1,811	2,738	556	2,188	1,247	NA	318	31,752
2000	18,798	3,400	2,031	2,755	531	1,777	1,307	NA	374	30,973
2001	17,898	2,984	1,913	2,658	583	1,559	1,214	NA	324	29,132
2002E	17,920	2,980	2,010	2,890	490	1,620	1,200	NA	345	29,455
<u>Forecast</u>										
2003	18,000	2,980	2,110	3,035	500	1,625	1,200	NA	345	29,795
2004	18,110	2,975	2,130	3,185	510	1,640	1,210	90	350	30,200
2005	18,250	2,970	2,150	3,385	520	1,655	1,220	205	355	30,710
2006	18,400	2,970	2,170	3,625	530	1,675	1,230	235	360	31,195
2007	18,545	2,965	2,190	3,880	540	1,695	1,240	280	360	31,695
2008	18,695	2,965	2,210	4,145	550	1,715	1,250	325	365	32,220
2009	18,800	2,960	2,225	4,420	560	1,735	1,260	370	370	32,700
2010	18,915	2,955	2,240	4,710	570	1,755	1,270	415	375	33,205
2011	19,025	2,955	2,255	5,010	580	1,775	1,280	450	380	33,710
2012	19,135	2,950	2,270	5,315	590	1,795	1,290	485	385	34,215
2013	19,250	2,950	2,285	5,640	600	1,815	1,300	520	390	34,750
2014	19,360	2,945	2,300	5,975	610	1,835	1,310	560	395	35,290

Source: FAA-APO

\* Source: 1997-2001, FAA General Aviation and Air Taxi Surveys.

1/ Estimates have been revised to reflect changes in edit and estimation procedures, and may not be comparable to estimates prior to 1995

Note: An active aircraft is one that has a current registration and was flown at least one hour during the previous calendar year.

# FEDERAL AVIATION ADMINISTRATION FORECAST INFORMATION

## U.S. Active General Aviation Fuel Consumption (in Millions of Gallons)

Calendar Year	Fixed Wing				Rotorcraft		Experimetal/ Sport/ Other	Total Fuel Consumption		
	Piston		Turbine					Avgas	Jet Fuel	Total
	Single Engine	Multi Engine	Turbo Prop	Turbo-Jet/Fan	Piston	Turbine				
<u>Historical</u>										
1997	196.3	73.2	135.7	456.9	5.2	49.4	17.5	292.2	642.0	934.2
1998	181.8	109.6	149.1	608.8	6.5	56.8	13.4	311.3	814.7	1,126.0
1999	209.9	111.6	153.3	750.8	8.4	63.2	15.5	345.4	967.3	1,312.7
2000	208.7	108.3	180.5	766.4	8.0	51.2	11.8	336.8	998.1	1,334.9
2001E	194.6	100.8	163.6	729.5	8.8	45.6	14.9	319.1	938.7	1,257.8
2002	195.3	101.3	172.9	794.8	7.4	47.0	14.8	318.8	1,014.7	1,333.5
<u>Forecast</u>										
2003	198.0	101.9	181.5	834.6	7.6	47.3	14.8	322.3	1,063.4	1,385.7
2004	201.0	102.3	183.6	875.9	7.7	47.9	16.0	327.0	1,107.4	1,434.4
2005	204.4	102.8	185.8	927.5	7.9	48.5	17.5	332.6	1,161.8	1,494.4
2006	207.9	103.4	187.7	989.6	8.0	49.2	18.0	337.3	1,226.5	1,563.8
2007	211.4	103.8	189.7	1,055.4	8.2	49.8	18.7	342.1	1,294.9	1,637.0
2008	215.0	104.4	191.6	1,123.3	8.3	50.4	19.4	347.1	1,365.3	1,712.4
2009	218.1	104.8	193.1	1,193.4	8.5	51.0	20.0	351.4	1,437.5	1,788.9
2010	221.3	105.2	194.7	1,267.0	8.6	51.8	20.7	355.8	1,513.5	1,869.3
2011	224.5	105.8	196.2	1,342.7	8.8	52.4	21.3	360.4	1,591.3	1,951.7
2012	227.7	106.2	197.7	1,419.1	8.9	53.0	21.8	364.6	1,669.8	2,034.4
2013	231.0	106.8	199.3	1,500.2	9.1	53.5	22.4	369.3	1,753.0	2,122.3
2014	234.3	107.2	200.8	1,583.4	9.2	54.1	23.0	373.7	1,838.3	2,212.0

Source: FAA-APO

Source: FAA APO Estimates.

Note: Detail may not add to total because of independent rounding

## U.S. Active Pilots by Type of Certificate

As of December 31	Students	Recreational	Private	Commercial	Airline Transport	Rotorcraft Only	Glider Only	Total Pilots	Total Less AT Pilots	Instrument Rated <sup>1</sup>
<u>Historical*</u>										
1997	96,101	284	247,604	125,300	130,858	6,801	9,394	616,342	485,484	297,409
1998	97,736	305	247,226	122,053	134,612	6,964	9,402	618,298	483,686	300,183
1999	99,184	343	258,749	124,261	137,642	7,728	9,390	637,297	499,655	308,951
2000	99,110	340	251,561	121,858	141,598	7,775	9,387	631,629	490,031	315,100
2001	94,420	318	261,927	137,636	146,989	7,727	8,473	657,490	510,501	321,000
2002E	85,991	318	260,845	137,504	147,104	7,770	21826 <sup>2</sup>	661,358	514,254	317,389
<u>Forecast</u>										
2003	86,850	320	262,150	138,200	147,850	7,600	21,830	664,800	516,950	319,610
2004	88,590	320	264,150	139,700	148,600	7,650	21,870	670,880	522,280	323,450
2005	91,700	325	266,150	141,700	150,600	7,700	21,920	680,095	529,495	329,270
2006	94,220	325	268,650	144,200	153,600	7,800	21,980	690,775	537,175	335,850
2007	96,130	330	271,650	146,900	157,100	7,900	22,050	702,060	544,960	342,570
2008	98,080	330	274,650	149,700	161,100	8,000	22,110	713,970	552,870	349,420
2009	100,070	335	277,450	152,200	165,100	8,100	22,160	725,415	560,315	356,060
2010	102,110	335	280,250	154,500	168,600	8,200	22,200	736,195	567,595	362,470
2011	104,180	335	282,950	156,600	172,100	8,300	22,250	746,715	574,615	368,630
2012	106,290	340	285,550	158,600	175,600	8,400	22,290	757,070	581,470	374,530
2013	108,450	340	288,050	160,600	179,100	8,500	22,340	767,380	588,280	380,150
2014	110,660	340	290,550	162,600	182,600	8,600	22,380	777,730	595,130	385,850

Source: FAA-APO

\* Source: FAA U.S. Civil Airmen Statistics.

1/ Instrument rated pilots should not be added to other categories in deriving total

2/ In March 2001, the FAA Registry changed the definition of this pilot category. It added approximately 13,000 to this pilot category

E: Estimate

Note: An active pilot is a person with a pilot certificate and a valid medical certificate.

## U.S. FLEET BY TYPE AND USE

### 2001 General Aviation Total Fuel Consumed and Average Fuel Consumption Rate by Aircraft Type "Includes Air Taxi Aircraft; Excludes Commuter Aircraft"

Aircraft Type	Average Rate GPH	Estimated Fuel Use (mil gal)	Percent Standard Error
<b>Total All Aircraft</b>	<b>25.7</b>	<b>1,257.9</b>	<b>4.4</b>
<b>Piston: Total</b>	<b>13.0</b>	<b>295.5</b>	<b>7.2</b>
1 Engine: Total	10.9	194.6	2.8
1 Eng: 1-3 Seats	9.4	44.2	5.8
1 Eng: 4+ Seats	11.4	150.5	3.5
2 Engine: Total	28.9	86.3	6.0
2 Eng: 1-6 Seats	26.6	51.0	8.9
2 Eng: 7+ Seats	35.1	35.3	7.4
Piston: Other	238.7	14.5	46.6
<b>Turboprop: Total</b>	<b>84.1</b>	<b>163.6</b>	<b>4.9</b>
1 Engine: Total	54.4	16.3	6.6
2 Engine: Total	89.2	146.4	5.6
2 Eng: 1-12 Seats	84.8	99.0	6.1
2 Eng: 13+ Seats	110.4	47.4	9.3
Turboprop: Other	54.4	0.9	34.0
<b>Turbojet: Total</b>	<b>273.8</b>	<b>729.5</b>	<b>3.9</b>
2 Engine Turbojet	263.2	620.1	3.9
Turbojet: Other	362.1	109.4	10.0
<b>Rotorcraft: Total</b>	<b>24.2</b>	<b>54.4</b>	<b>4.6</b>
Piston	15.1	8.8	16.1
One Eng: Turbine	26.0	31.3	4.1
Two Engine: Turbine	40.2	14.3	8.5
<b>Experimental: Total</b>	<b>13.2</b>	<b>14.9</b>	<b>10.8</b>
Amateur:	13.2	10.3	5.8
Exhibition:	13.2	0.8	16.4
Other:	13.2	3.9	19.9

Source: FAA

Row and column summations may differ from printed totals due to rounding error.

# GENERAL AVIATION HISTORICAL SAFETY RECORD

## U.S. General Aviation Accidents, Fatal Accidents, and Fatalities 1938-2003

Year	Accidents		Fatal		Fatalities		Flight Hours	Rate	
	All	Excluded*	Fatal	Excluded*	Total	Aboard		All	Fatal
1938	1,861	N/A	176	N/A	N/A	N/A	N/A	125.9	11.9
1939	2,222	N/A	203	N/A	N/A	N/A	N/A	115.6	10.6
1940	3,471	N/A	232	N/A	N/A	N/A	N/A	108.4	7.3
1941	4,252	N/A	217	N/A	N/A	N/A	N/A	95.3	4.9
1942	3,324	N/A	143	N/A	N/A	N/A	N/A	87.7	3.8
1943	3,871	N/A	167	N/A	N/A	N/A	N/A	N/A	N/A
1944	3,343	N/A	169	N/A	N/A	N/A	N/A	N/A	N/A
1945	4,652	N/A	322	N/A	N/A	N/A	N/A	N/A	N/A
1946	7,618	N/A	690	N/A	N/A	N/A	N/A	77.8	7.0
1947	9,253	N/A	882	N/A	N/A	N/A	N/A	56.6	5.3
1948	7,850	N/A	850	N/A	N/A	N/A	N/A	51.8	5.6
1949	5,459	N/A	562	N/A	N/A	N/A	N/A	49.4	5.0
1950	4,505	N/A	499	N/A	N/A	N/A	N/A	46.6	5.1
1951	3,824	N/A	441	N/A	N/A	N/A	N/A	45.2	5.2
1952	3,657	N/A	401	N/A	N/A	N/A	N/A	44.6	4.8
1953	3,232	N/A	387	N/A	N/A	N/A	N/A	37.9	4.5
1954	3,381	N/A	393	N/A	N/A	N/A	N/A	37.7	4.3
1955	3,343	N/A	384	N/A	N/A	N/A	N/A	35.1	4.0
1956	3,474	N/A	356	N/A	N/A	N/A	N/A	34.0	3.4
1957	4,200	N/A	438	N/A	N/A	N/A	N/A	38.4	4.0
1958	4,584	N/A	384	N/A	N/A	N/A	N/A	36.4	3.1
1959	4,576	N/A	450	N/A	N/A	N/A	N/A	35.5	3.5
1960	4,793	N/A	429	N/A	N/A	N/A	N/A	36.5	3.3
1961	4,625	N/A	426	N/A	N/A	N/A	N/A	34.0	3.1
1962	4,840	N/A	430	N/A	N/A	N/A	N/A	33.4	3.0
1963	4,690	N/A	482	N/A	N/A	N/A	N/A	31.0	3.2
1964	5,069	N/A	526	N/A	N/A	N/A	N/A	32.2	3.3
1965	5,196	N/A	538	N/A	N/A	N/A	N/A	31.1	3.2
1966	5,712	N/A	573	N/A	N/A	N/A	N/A	27.2	2.7
1967	6,115	N/A	603	N/A	N/A	N/A	N/A	27.6	2.7
1968	4,968	N/A	692	N/A	N/A	N/A	N/A	20.6	2.9
1969	4,767	N/A	647	N/A	N/A	N/A	N/A	18.8	2.6
1970	4,712	N/A	641	N/A	N/A	N/A	N/A	18.1	2.5
1971	4,648	N/A	661	N/A	N/A	N/A	N/A	18.2	2.6
1972	4,256	N/A	695	N/A	N/A	N/A	N/A	15.8	2.7
1973	4,255	N/A	723	N/A	N/A	N/A	N/A	14.2	2.5
1974	4,234	N/A	689	N/A	N/A	N/A	N/A	15.2	2.5
1975	4,001	N/A	636	N/A	N/A	N/A	N/A	13.9	2.2
1976	4,023	N/A	662	N/A	N/A	N/A	N/A	13.2	2.2
1977	4,083	N/A	663	N/A	N/A	N/A	N/A	12.9	2.1
1978	4,218	N/A	721	N/A	N/A	N/A	N/A	12.1	2.1
1979	3,625	N/A	636	N/A	N/A	N/A	N/A	9.9	1.6
1980	3,597	N/A	622	N/A	N/A	N/A	N/A	9.9	1.7
1981	3,502	N/A	654	N/A	N/A	N/A	N/A	9.5	1.8
1982	3,233	N/A	591	N/A	1,187	1,170	29,640,000	10.9	2.0
1983R	3,075	15	555	5	1,068	1,061	28,673,000	10.7	1.9
1984	3,017	26	545	11	1,042	1,021	29,099,000	10.3	1.8
1985	2,739	12	498	7	956	945	28,322,000	9.6	1.7
1986R	2,581	11	474	5	967	879	27,073,000	9.5	1.7
1987R	2,494	19	446	8	837	822	26,972,000	9.2	1.6
1988	2,388	13	460	4	797	792	27,446,000	8.7	1.7
1989R	2,243	17	432	8	769	766	27,920,000	8.0	1.5
1990R	2,241	4	443	1	767	762	28,510,000	7.8	1.6
1991R	2,197	8	438	5	799	785	27,678,000	7.9	1.6
1992R	2,111	2	451	1	867	865	24,780,000	8.5	1.8
1993R	2,064	5	401	4	744	740	22,796,000	9.0	1.7
1994R	2,022	3	404	2	730	723	22,235,000	9.1	1.8
1995R	2,056	11	413	7	735	728	24,906,000	8.2	1.6
1996	1,908	4	361	0	636	619	24,881,000	7.7	1.5
1997R	1,845	5	350	2	631	625	25,591,000	7.2	1.4
1998R	1,904	6	364	4	624	618	25,518,000	7.4	1.4
1999	1,906	3	340	1	619	615	29,713,000	6.4	1.1
2000R	1,837	6	344	6	595	584	29,057,000	6.3	1.2
2001R	1,726	2	325	0	562	558	27,451,000	6.3	1.2
2002R	1,712	3	344	3	580	570	26,078,000	6.6	1.3
2003P	1,707	N/A	350	N/A	621	N/A	N/A	N/A	N/A

P = Preliminary

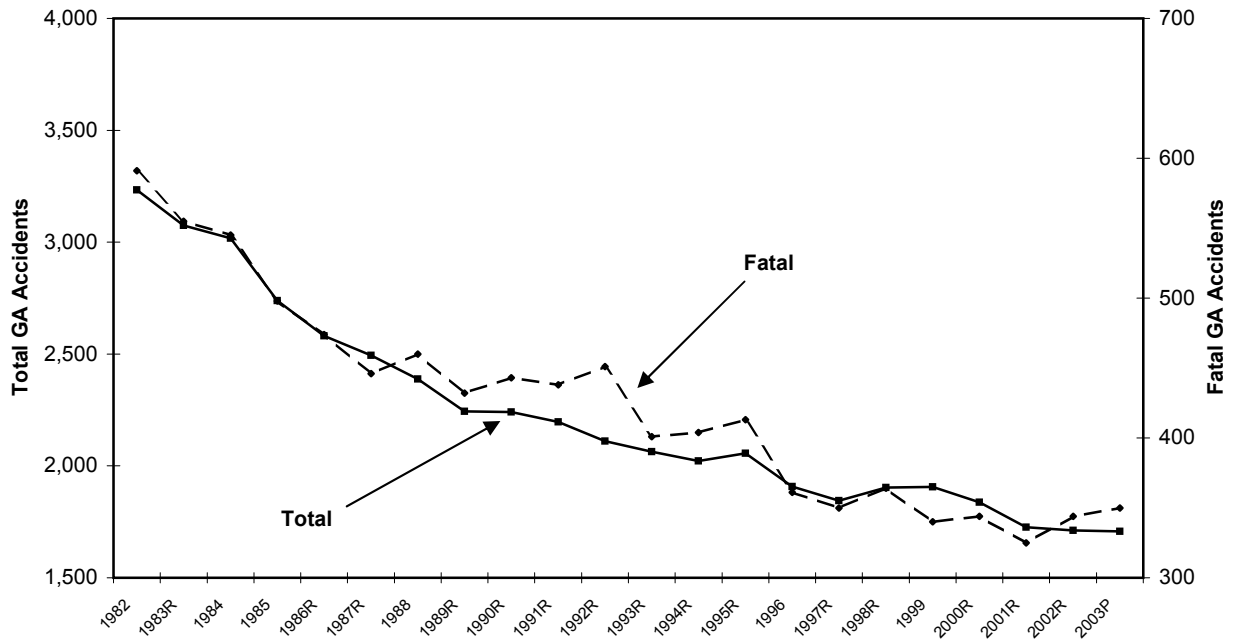
R = Revised

\* Excluded "Accidents" and "Fatalities" are suicide/sabotage and stolen/unauthorized by year.

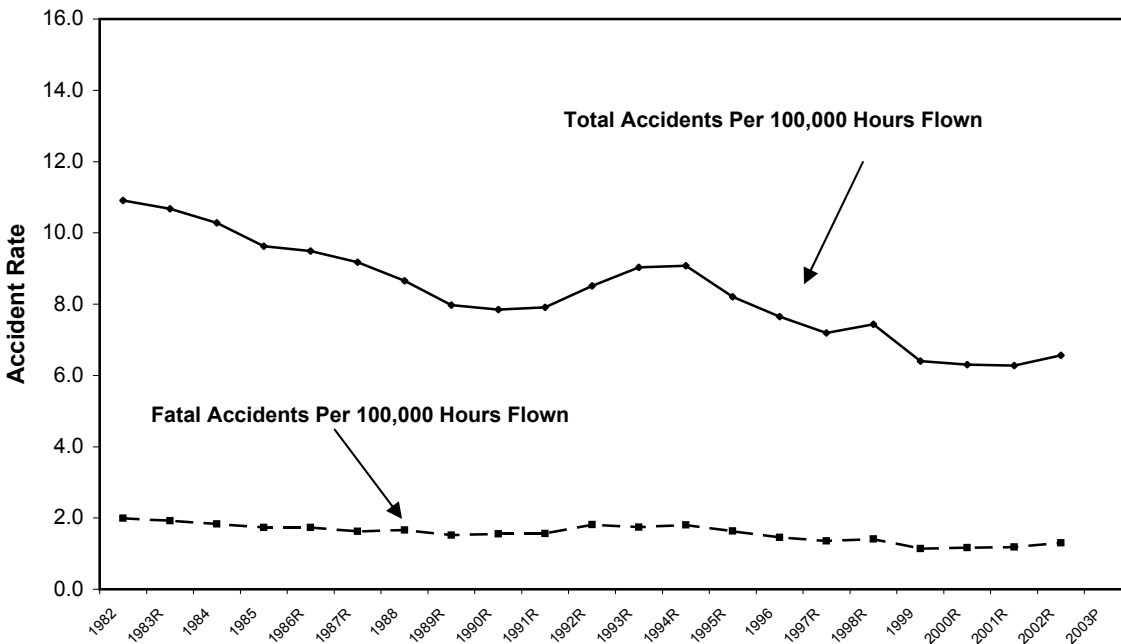
Source: NTSB, FAA, and GAMA

# GENERAL AVIATION HISTORICAL SAFETY RECORD

## Total Accidents and Fatal Accidents in U.S. General Aviation 1982-2003



## Accident Rates in U.S. General Aviation 1982-2003



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## GAMA MEMBER COMPANIES

Aircraft Technical Publishers	Kelly Aerospace, Inc.
Airtechnics, Inc	L-3 Communications Avionics Systems
Argo-Tech Corporation	Lycoming Engines
Avidyne Corporation	Meggitt Avionics/S-TEC
B/E Aerospace, Inc.	Mooney Aerospace Group, Ltd.
Boeing Business Jets	The NORDAM Group
Bombardier Aerospace	Parker Hannifin Corporation
CAE SimuFlite	PerkinElmer Fluid Sciences
Century Flight Systems, Inc.	Piaggio Aero Industries S.p.A.
Cessna Aircraft Company	The New Piper Aircraft, Inc.
Cirrus Design Corporation	PPG Aerospace
Crane Aerospace & Electronics	Pratt & Whitney Canada
Dassault Falcon Jet Corporation	Precision Aerospace Corporation
DeCrane Aircraft Holdings, Inc.	Raytheon Aircraft Company
Diamond Aircraft Industries	Rockwell Collins, Inc.
Dukes Aerospace	Rolls-Royce North America
EADS Socata	Sabreliner Corporation
Embraer Aircraft Holding, Inc.	Safe Flight Instrument Corporation
FlightSafety International, Inc.	Smiths Aerospace Actuation Systems - Yakima
GARMIN International, Inc.	Teledyne Continental Motors
Goodrich Corporation	Teledyne Controls
Gulfstream Aerospace Corporation	Unison Industries
Hamilton Sundstrand Corporation	Universal Avionics Systems Corp.
Hartzell Propeller Inc.	Williams International
Honeywell	Woodward Governor Company
Jeppesen	

