

Civil Aircraft and Aircraft Engines

Summary

1998

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Information about the scope of the survey, methodology, explanation of terms and historical notes for this survey may be found in the introduction of the 1997 Manufacturing Profiles, issued August 1999.

Current data are released electronically on Internet for all individual surveys as they become available. Use: <http://www.census.gov/econ/www/manumenu.html>. Individual reports can be accessed by choosing "Current Industrial Reports (CIR's)," clicking on "Report Number Index;" from the "Industrial Products by Numeric Index," choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (WK format) to your personal computer.

These data are also available through the U.S. Department of Commerce and STAT-USA Electronic Bulletin Board by subscription. To access, dial 202-482-3870 and follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information. The Internet address is: www.stat-usa.gov/.

NOTE: Data are now published on the new North American Industry Classification System (NAICS) basis and therefore are not always comparable to the old Standard Industrial Classification (SIC) code. For further information on NAICS, see www.census.gov/epcd/www/naics.html.

SUMMARY OF FINDINGS: In 1998, the value of complete civil aircraft shipments increased by 32 percent to \$40.1 billion, from the 1997 level of \$30.4 billion. Shipments of complete civil aircraft engines increased by 46 percent to \$7.9 billion, from the 1997 level of \$5.4 billion.

The backlog of orders for aircraft, missiles, space vehicles, and engines, as of December 31, 1998, was \$206.6 billion. This was a 6-percent decrease from the 1997 backlog of \$218.9 billion.

New orders received during 1998 were \$111.2 billion, a 7-percent decrease from the \$118.9 billion received in 1997. Net sales, receipts, and/or billings in 1998 totaled \$120.7 billion, a 5-percent increase from the \$114.9 billion received in 1997.

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Chris Savage, 301-457-1307.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-457-4673.

U S C E N S U S B U R E A U

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Table 1. Quantity and Value of Shipments of Complete Civil Aircraft: 1998 and 1997
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1998		1997	
			Quantity	Value	Quantity	Value
37215--	Complete civil aircraft.....	34	4,605	40,124,817	3,846	30,395,909
	Civil aircraft (fixed wing, powered).....	13	2,752	39,851,297	2,037	30,156,990
37215 04	Unladen weight not exceeding 2,000 kg (4,409 lb).....	12	1,785	996,696	1,220	926,394
37215 05	Unladen weight exceeding 2,000 kg (4,409 lb) but not exceeding 15,000 kg (33,069 lb) 1/.....	5	(D)	(D)	(D)	(D)
37215 07	Unladen weight exceeding 15,000 kg (33,069 lb) 1/.....	2	967	38,854,601	817	29,230,596
	Helicopters (rotary wing).....	6	456	243,513	412	208,326
37215 32	Unladen weight not exceeding 2,000 kg (4,409 lb) 2/.....	5	(D)	(D)	(D)	(D)
37215 34	Unladen weight exceeding 2,000 kg (4,409 lb) 2/.....	2	456	243,513	412	208,326
37215 30	Other civil aircraft (non powered) and kits.....	8	1,397	30,007	1,397	30,593
37242 --	Complete civil aircraft engines....	15	16,482	7,986,520	13,680	5,444,742
37242 01	Spark-ignition reciprocating or rotary internal combustion 3/.....	7	(D)	(D)	(D)	(D)
37242 03	Turbojet and turbofan: Of a thrust not exceeding 25 kN (5,620 lb) 3/.....	3	(D)	(D)	(D)	(D)
37242 05	Of a thrust exceeding 25 kN (5,620 lb) 3/.....	5	(D)	(D)	(D)	(D)
37242 07	Turboshaft (turbo propeller): Of a power not exceeding 1,100 kW (820 hp) 3/.....	5	(D)	(D)	(D)	(D)
37242 09	Of a power exceeding 1,100 kW (820 hp) 3/.....	4	(D)	(D)	(D)	(D)
37242 14	Other, including auxiliary power units excluding missiles and space engines 3/.....	1	16,482	7,986,520	13,680	5,444,742

D Withheld to avoid disclosing data for individual companies. kN Kilonewtons. kW Kilowatts.

1/Product codes 37215 05 and 37215 07 are combined to avoid disclosing data for individual companies.

2/Product codes 37215 32 and 37215 34 are combined to avoid disclosing data for individual companies.

3/Product codes 37242 01, 37242 03, 37242 05, 37242 07, 37242 09 and 37242 14 are combined to avoid disclosing data for individual companies.

Table 2. Quantity and Value of Shipments of Complete Civil Aircraft by Month: 1998 and 1997
 [Quantity in number of units. Value in thousands of dollars]

Year and month	Civil aircraft, unladen weight greater than 15,000 kg 1/			Helicopters (rotary wing)			Other civil aircraft (nonpowered)					
	Quantity	Value		Quantity	Value		Quantity	Value				
1998												
January.....	r/	151	r/	2,242,817		39	r/	24,146	r/	113	r/	2,459
February.....	r/	176	r/	2,587,733	r/	37	r/	24,914	r/	111	r/	2,522
March.....	r/	267		3,806,957		36	r/	19,914	r/	115	r/	2,527
April.....	r/	193	r/	2,558,399		48	r/	25,801	r/	120	r/	2,653
May.....	r/	204	r/	2,697,809	r/	38	r/	16,882	r/	117	r/	2,518
June.....	r/	318	r/	3,795,258	r/	33	r/	19,402	r/	113	r/	2,420
July.....	r/	195	r/	2,884,077	r/	44	r/	25,507	r/	114	r/	2,400
August.....	r/	224	r/	2,496,938	r/	24	r/	14,842	r/	112	r/	2,359
September.....	r/	304		3,897,980		38	r/	20,149	r/	114	r/	2,443
October.....	r/	211		3,258,106	r/	35	r/	23,431	r/	134	r/	2,431
November.....	r/	233	r/	3,860,095	r/	36	r/	16,358	r/	113	r/	2,873
December.....	r/	276		5,765,128	r/	48	r/	19,583	r/	121	r/	2,402
1997												
January.....	r/	85	r/	1,453,681		26	r/	11,890	r/	118	r/	2,566
February.....	r/	97	r/	1,909,601	r/	25	r/	11,817	r/	115	r/	2,565
March.....	r/	162	r/	3,298,750		32	r/	13,330	r/	116	r/	2,562
April.....	r/	133	r/	3,058,683		40	r/	14,610	r/	117	r/	2,564
May.....	r/	159	r/	3,090,642		34	r/	13,902	r/	115	r/	2,565
June.....	r/	228	r/	3,253,336		36	r/	13,857	r/	115	r/	2,564
July.....	r/	139	r/	3,173,727		38	r/	13,998	r/	118	r/	2,565
August.....	r/	146	r/	2,018,752		25	r/	12,658	r/	116	r/	2,563
September.....	r/	221		2,740,138		34	r/	14,235	r/	116	r/	2,565
October.....	r/	149		1,492,937	r/	38	r/	27,367	r/	116	r/	2,564
November.....	r/	188	r/	1,582,915	r/	43	r/	29,171	r/	116	r/	2,564
December.....	r/	349	r/	3,903,516		40	r/	31,485	r/	119	r/	2,386

r/Revised by 5 percent or more from previously published data.

1/"Unladen weight under 2,000 kg" and "Unladen weight between 2,000 and 15,000 kg" are combined with "Unladen weight greater than 15,000 kg" to avoid disclosing data for individual companies.

Table 3. Quantity and Value of Shipments of Complete Civil Aircraft Engines: 1998 and 1997
[Quantity in number of units. Value in thousands of dollars]

Year and month	Complete civil aircraft engines 1/		
		Quantity	Value
1998			
January.....	r/	1,319	r/ 432,476
February.....	r/	1,358	r/ 574,034
March.....	r/	1,492	922,599
April.....		1,452	538,010
May.....	r/	1,321	r/ 693,552
June.....	r/	1,360	r/ 767,019
July.....	r/	1,328	r/ 573,613
August.....	r/	1,370	r/ 752,345
September.....	r/	1,451	r/ 812,400
October.....	r/	1,350	r/ 747,018
November.....	r/	1,284	r/ 555,203
December.....	r/	1,397	r/ 617,755
1997			
January.....	r/	1,045	r/ 319,682
February.....	r/	1,045	r/ 473,162
March.....	r/	1,094	r/ 485,558
April.....	r/	1,115	r/ 411,324
May.....	r/	1,091	r/ 360,650
June.....	r/	1,017	r/ 431,083
July.....	r/	1,160	r/ 399,328
August.....	r/	1,094	r/ 434,910
September.....	r/	1,195	r/ 524,877
October.....	r/	1,350	r/ 558,544
November.....	r/	1,178	r/ 453,022
December.....	r/	1,296	r/ 759,051

r/Revised by 5 percent or more from previously published data.

1/"Spark-ignition reciprocating or rotary internal combustion," "Turbojet and turbofan" and "Turbo propellers" are combined to avoid disclosing data for individual companies.

Table 4. Shipments, Exports, and Imports of Complete Civil Aircraft and Aircraft Engines: 1998
 [Quantity in units. Value in thousands of dollars]

Product code 1/	Product description	Manufacturers' shipments		Exports of domestic merchandise 1/ 2/		Imports for consumption 1/ 3/	
		Quantity	Value (f.o.b. plant)	Quantity	Value at port	Quantity	Value
	Civil aircraft (fixed wing, powered):						
37215 02	Unladen weight not exceeding 2,000 kg (4,409 lb).....	1,785	996,696	312	67,351	220	15,143
37215 05	Unladen weight exceeding 2,000 kg (4,409 lb) but not exceeding 15,000 kg (33,069 lb) 4/.....	(D)	(D)	(D)	(D)	(D)	(D)
37215 07	Unladen weight exceeding 15,000 kg (33,069 lb) 4/.....	967	38,854,601	557	29,922,525	334	5,630,030
37215 31	Helicopters (rotary wing).....	456	243,513	238	148,117	274	537,294
37242 00	Complete civil aircraft engines.....	16,482	7,986,520	5,323	3,096,335	3,555	4,030,876

D Withheld to avoid disclosing data for individual companies.

1/For comparison of SIC-based codes with Schedule B export numbers and HTSUSA import numbers, see contact at the beginning of this report.

2/Source: Census Bureau report EM 545, U.S. Exports.

3/Source: Census Bureau report IM 145, U.S. Imports for Consumption.

4/Product codes 37215 05 and 37215 07 are combined to avoid disclosing data for individual companies.

Table 5. Value of Backlog of Orders, and Net Sales Reported by Manufacturers of Complete Aircraft, Space Vehicles, Missiles, and Selected Parts: 1990 to 1998

[Millions of dollars]

Year	Net new orders during year 1/	Net sales during year	Backlog, end of year
1998.....	111,183	120,682	206,571
1997.....	118,993	114,946	218,951
1996.....	126,267	103,115	229,871
1995.....	109,109	102,797	202,638
1994.....	88,706	104,296	192,561
1993.....	79,770	109,926	211,814
1992.....	100,306	118,736	236,076
1991.....	122,485	123,862	245,241
1990.....	145,965	136,646	250,079

1/These totals represents new orders received during the year, less terminations during the year.

Table 6. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicles, Missiles and Selected Parts by United States Government and Other Customers: 1994 to 1998

[Millions of dollars]

Year 1/	Net new orders 1/ (prime contracts and subcontracts)			Net sales, receipts, or billings			Backlog, end of year		
	Total	United States		Total	United States		Total	United States	
		Government 2/	Other customers		Government 2/	Other customers		Government 2/	Other customers
1998.....	111,183	40,118	71,065	120,682	44,553	76,129	206,571	62,637	143,934
1997.....	118,993	48,194	70,799	114,946	51,374	63,572	218,951	67,662	151,290
1996.....	126,267	57,245	69,022	103,115	51,390	51,725	229,891	81,399	148,472
1995.....	109,109	46,546	62,562	106,829	51,909	50,888	202,638	67,936	134,702
1994.....	88,706	50,444	38,262	104,296	57,141	47,155	192,561	68,660	123,901

1/These data represent new orders received during the year, less terminations during the year.

2/Represents prime contracts only. All subcontracts, including those where it is known that the prime contract was let by the U.S. Government, are reported as subcontracts from "Other customers."

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

Table 7. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicles, Missiles, and Selected Parts by Military and Nonmilitary: 1994 to 1998

[Millions of dollars]

Year 1/	Net new orders 1/ (prime contracts and subcontracts)			Net sales, receipts, or billings			Backlog, end of year		
	Total	Military	Nonmilitary	Total	Military	Nonmilitary	Total	Military	Nonmilitary
1998.....	111,183	38,356	72,828	120,682	44,918	75,764	206,571	70,039	136,532
1997.....	118,993	47,802	71,192	114,946	50,648	64,298	218,951	78,870	140,082
1996.....	126,267	62,127	64,140	103,115	53,153	49,962	229,871	89,500	140,371
1995.....	109,109	49,350	59,759	106,829	49,350	50,321	202,638	82,309	120,329
1994.....	88,706	53,268	35,438	104,296	58,012	46,284	192,561	84,445	108,116

1/These data represent new orders received during the year, less terminations during the year.

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

Table 8. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicle, Missiles, and Selected Parts: 1998 and 1997
[Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract 1/	Sub-contract 1/		
1998						
Total.....	56	111,183	111,002	182	120,682	206,571
Military.....	(NA)	38,356	38,356	(NA)	44,918	70,039
U.S. Government.....	41	33,064	33,064	(NA)	34,809	54,492
Other governments.....	26	5,292	5,292	(NA)	10,109	15,547
Nonmilitary.....	(NA)	72,828	72,646	182	75,764	136,532
U.S. Government.....	17	7,054	7,054	(NA)	9,744	8,145
Other customers.....	45	65,773	65,591	182	66,020	128,387
Complete aircraft and parts.....	(NA)	50,925	50,791	134	62,864	127,816
Military.....	(NA)	14,086	14,086	(NA)	20,395	33,854
Nonmilitary.....	(NA)	36,839	36,705	134	42,470	93,962
Aircraft engines and parts.....	(NA)	13,041	13,041	(NA)	12,825	15,087
Military.....	(NA)	2,922	2,922	(NA)	2,789	3,174
Nonmilitary.....	(NA)	10,119	10,119	(D)	10,035	11,913
Missile systems and parts, excluding propulsion units.....	(NA)	4,724	4,724	(NA)	4,043	6,259
Military.....	(NA)	4,724	4,724	(NA)	4,043	6,259
U.S. Government.....	10	3,153	3,153	(NA)	3,126	3,983
Other governments.....	5	1,571	1,571	(NA)	917	2,277
Space vehicle systems and parts, excluding propulsion units.....	(NA)	16,976	16,976	(NA)	14,008	24,920
Military.....	(NA)	4,003	4,003	(NA)	4,360	8,143
Nonmilitary.....	(NA)	12,973	12,973	(NA)	9,648	16,777
U.S. Government.....	8	3,753	3,753	(NA)	5,624	2,976
Other customers.....	7	9,220	9,220	(NA)	4,023	13,801
Engines and/or propulsion units for missile systems and space vehicles, including parts 2/.....	(NA)	2,568	2,568	(D)	2,651	5,619
Military.....	(NA)	655	655	(NA)	496	1,102
Nonmilitary.....	(NA)	1,913	1,913	(D)	2,155	4,516
Other aircraft, space vehicle, and missile activities 3/.....	(NA)	7,617	7,570	47	9,051	10,319
Military.....	(NA)	4,245	4,245	(NA)	5,010	7,296
U.S. Government.....	(NA)	3,035	3,035	(NA)	3,681	5,819
Other governments.....	(NA)	1,210	1,210	(NA)	1,329	1,477
Nonmilitary.....	(NA)	3,371	3,324	47	4,042	3,023
Research and development (under contract)....	(NA)	5,843	5,841	2	4,995	5,053
Military.....	(NA)	4,733	4,733	(NA)	4,014	4,155
U.S. Government.....	23	4,645	4,645	(NA)	3,899	4,107
Other governments.....	6	88	88	(NA)	114	48
Nonmilitary.....	11	1,110	1,108	2	981	898
All other products and services.....	(NA)	9,491	9,491	(NA)	10,244	11,499
Military.....	(NA)	2,988	2,988	(NA)	3,811	6,056
U.S. Government.....	20	2,868	2,868	(NA)	3,510	5,556
Other governments.....	12	120	120	(NA)	300	501

Continued

Table 8. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicle, Missiles, and Selected Parts: 1998 and 1997
[Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract 1/	Sub-contract 1/		
Nonmilitary.....	(NA)	6,503	6,503	(D)	6,433	5,442
U.S. Government.....	11	1,630	1,630	(NA)	1,948	3,022
Other customers.....	28	4,872	4,872	(D)	4,485	2,420
1997						
Total.....	54	118,993	118,788	206	114,946	218,951
Military.....	(NA)	47,802	47,802	(NA)	50,648	78,870
U.S. Government.....	44	39,218	39,218	(NA)	40,302	57,388
Other governments.....	26	8,584	8,584	(NA)	10,346	21,482
Nonmilitary.....	(NA)	71,192	70,986	206	64,298	140,082
U.S. Government.....	19	8,977	8,977	(NA)	11,072	10,273
Other customers.....	42	62,215	62,009	206	53,227	129,808
Complete aircraft and parts.....	(NA)	60,541	60,432	109	54,503	140,584
Military.....	(NA)	19,102	19,102	(NA)	21,297	40,562
Nonmilitary.....	(NA)	41,439	41,330	109	33,206	100,022
Aircraft engines and parts.....	(NA)	10,560	10,560	(NA)	12,054	14,963
Military.....	(NA)	2,322	2,322	(NA)	2,647	3,053
Nonmilitary.....	(NA)	8,237	8,237	(D)	9,408	11,909
Missile systems and parts, excluding propulsion units.....	(NA)	4,239	4,239	(NA)	4,024	5,828
Military.....	(NA)	4,239	4,239	(NA)	4,024	5,828
U.S. Government.....	12	2,626	2,626	(NA)	3,099	3,621
Other governments.....	6	1,613	1,613	(NA)	924	2,207
Space vehicle systems and parts, excluding propulsion units.....	(NA)	15,078	15,078	(D)	14,644	23,189
Military.....	(NA)	4,584	4,584	(NA)	4,919	8,848
Nonmilitary.....	(NA)	10,494	10,494	(D)	9,724	14,341
U.S. Government.....	10	5,147	5,147	(NA)	6,281	4,534
Other customers.....	9	5,348	5,348	(D)	3,444	9,807
Engines and/or propulsion units for missile systems and space vehicles, including parts 2/.....	(NA)	2,009	2,009	(D)	2,687	5,568
Military.....	(NA)	477	477	(NA)	558	1,023
Nonmilitary.....	(NA)	1,532	1,532	(D)	2,129	4,545
Other aircraft, space vehicle, and missile activities 3/.....	(NA)	9,700	9,635	65	9,404	12,231
Military.....	(NA)	6,606	6,606	(NA)	6,535	8,258
U.S. Government.....	(NA)	5,049	5,049	(NA)	5,176	6,280
Other governments.....	(NA)	1,557	1,557	(NA)	1,359	1,978
Nonmilitary.....	(NA)	3,095	3,030	65	2,868	3,973
Research and development (under contract)....	(NA)	6,772	6,740	32	6,839	4,648
Military.....	(NA)	5,742	5,742	(NA)	5,785	3,867
U.S. Government.....	26	5,707	5,707	(NA)	5,689	3,661
Other governments.....	8	35	35	(NA)	96	207
Nonmilitary.....	13	1,030	998	32	1,054	781

Continued

Table 8. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicle, Missiles, and Selected Parts: 1998 and 1997
 [Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract 1/	Sub-contract 1/		
All other products and services.....	(NA)	10,096	10,096	(NA)	10,792	11,942
Military.....	(NA)	4,731	4,731	(NA)	4,883	7,431
U.S. Government.....	23	4,616	4,616	(NA)	4,525	6,730
Other governments.....	14	115	115	(NA)	358	702
Nonmilitary.....	(NA)	5,365	5,365	(D)	5,909	4,511
U.S. Government.....	15	2,300	2,300	(NA)	2,524	3,377
Other customers.....	28	3,065	3,065	(D)	3,385	1,134

D Withheld to avoid disclosing data for individual companies. NA Not available.

1/"Net new orders under subcontract" are included with "Prime contract net new orders" to avoid disclosing data for individual companies.

2/Data for "Engines and/or propulsion units for space vehicles, including parts" are included with data for "Engines and/or propulsion units or missile systems, including parts."

3/Data for "Other missile activities" are included with data for "Other aircraft and space vehicles."

Note: Net new orders represent new orders received during the year, less terminations during the year. In some cases current backlog will not equal the backlog for the previous period, plus current net new orders, minus current shipments. This is primarily due to respondents changing their accounting procedures from one year to the next. The data for these respondents was not changed to force a balance. Significant imbalances due to reporting errors were investigated and corrected. Detail items may not add to total because of independent rounding.