

# Civil Aircraft and Aircraft Engines

## Summary

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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/](http://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](http://www.census.gov/epcd/www/naics.html).

**SUMMARY OF FINDINGS:** In 1999, the value of complete civil aircraft shipments increased by 2 percent to \$41.7 billion, from the 1998 level of \$41.1 billion. Shipments of complete civil aircraft engines decreased by 1 percent to \$7.6 billion, from the 1998 level of \$7.7 billion.

The backlog of orders for aircraft, missiles, space vehicles, and engines, as of December 31, 1999, was \$190.1 billion. This was a 5-percent decrease from the 1998 backlog of \$200.3 billion.

New orders received during 1999 were \$114.3 billion, a 4-percent increase from the \$110.0 billion received in 1998. Net sales, receipts, and/or billings in 1999 totaled \$123.7 billion, a 4-percent increase from the \$119.3 billion reported in 1998.

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.

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Table 1. Quantity and Value of Shipments of Complete Civil Aircraft: 1999 and 1998  
 [Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1999		1998	
			Quantity	Value	Quantity	Value
33641130	Complete civil aircraft.....	35	4,826	41,707,897	4,448	41,119,927
3364113004	Civil aircraft (fixed wing, powered).....	15	3,305	41,495,909	2,844	40,849,771
3364113007	Unladen weight not exceeding 2,000 kg (4,409 lb).....	12	1,977	560,242	1,766	1,134,881
3364113011	Unladen weight exceeding 2,000 kg (4,409 lb) but not exceeding 15,000 kg (33,069 lb) 1/.....	5	(D)	(D)	(D)	(D)
3364113014	Unladen weight exceeding 15,000 kg (33,069 lb) 1/.....	2	1,328	40,935,667	1,078	39,714,890
3364113017	Helicopters (rotary wing).....	6	486	186,819	456	243,513
3364113021	Unladen weight not exceeding 2,000 kg (4,409 lb) 2/.....	5	(D)	(D)	(D)	(D)
3364113017	Unladen weight exceeding 2,000 kg (4,409 lb) 2/.....	2	486	186,819	456	243,513
3364113021	Other civil aircraft (nonpowered) and kits.....	8	1,035	25,169	1,148	26,643
33641230	Complete civil aircraft engines.....	13	15,573	7,643,723	14,916	7,696,651
3364123001	Spark-ignition reciprocating or rotary internal combustion 3/.....	5	(D)	(D)	(D)	(D)
3364123004	Turbojet and turbofan: Of a thrust not exceeding 25 kN (5,620 lb) 3/.....	1	(D)	(D)	(D)	(D)
3364123007	Of a thrust exceeding 25 kN (5,620 lb) 3/.....	3	(D)	(D)	(D)	(D)
3364123011	Turboshaft (turbo propeller): Of a power not exceeding 1,100 kW (820 hp) 3/.....	3	(D)	(D)	(D)	(D)
3364123014	Of a power exceeding 1,100 kW (820 hp) 3/.....	3	(D)	(D)	(D)	(D)
3364123017	Other, including auxiliary power units excluding missiles and space engines 3/.....	1	15,573	7,643,723	14,916	7,696,651

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

1/Product codes 3364113007 and 3364113011 are combined to avoid disclosing data for individual companies.

2/Product codes 3364113014 and 3364113017 are combined to avoid disclosing data for individual companies.

3/Product codes 3364123001, 3364123004, 3364123007, 3364123011, 3364123014, and 3364123017 are combined to avoid disclosing data for individual companies.

Table 2. Quantity and Value of Shipments of Complete Civil Aircraft by Month: 1999 and 1998  
 [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
1999						
January.....	r/ 226	r/ 3,054,340	26	r/ 13,189	83	r/ 2,051
February.....	251	r/ 3,103,341	28	r/ 12,398	84	r/ 2,053
March.....	294	r/ 4,239,249	42	r/ 18,251	88	r/ 2,085
April.....	263	3,834,079	34	r/ 13,486	88	r/ 2,199
May.....	264	r/ 3,680,804	r/ 34	r/ 13,263	89	r/ 2,167
June.....	318	r/ 3,403,397	43	r/ 17,835	88	r/ 2,120
July.....	r/ 237	2,398,302	42	r/ 14,614	85	r/ 2,013
August.....	r/ 260	3,980,947	35	r/ 13,889	88	r/ 2,294
September.....	r/ 315	r/ 3,258,744	33	r/ 17,217	86	r/ 2,151
October.....	r/ 300	r/ 3,200,976	42	r/ 18,210	85	r/ 1,996
November.....	r/ 262	r/ 2,714,067	52	r/ 14,398	85	r/ 2,021
December.....	r/ 315	4,627,663	75	r/ 20,069	86	r/ 2,019
1998						
January.....	r/ 175	2,256,930	38	24,146	r/ 93	r/ 2,186
February.....	r/ 193	2,599,703	40	r/ 17,498	r/ 94	r/ 2,246
March.....	r/ 248	3,822,442	36	19,914	r/ 96	r/ 2,256
April.....	r/ 204	2,572,498	48	25,801	r/ 101	r/ 2,373
May.....	214	2,711,911	38	16,882	r/ 98	r/ 2,233
June.....	r/ 292	3,809,358	33	19,403	r/ 96	r/ 2,140
July.....	200	r/ 3,704,592	43	25,507	r/ 94	r/ 2,120
August.....	r/ 210	2,511,038	24	14,842	r/ 94	r/ 2,079
September.....	r/ 257	3,912,079	37	20,149	r/ 93	r/ 2,163
October.....	r/ 228	3,272,776	36	r/ 27,314	r/ 96	r/ 2,109
November.....	r/ 254	3,874,109	35	16,229	r/ 94	r/ 2,608
December.....	r/ 369	5,802,335	48	r/ 15,828	r/ 99	r/ 2,130

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

1/"Unladen weight not exceeding 2,000 kg" and "Unladen weight exceeding 2,000 kg but not exceeding 15,000 kg" are combined with "Unladen weight exceeding 15,000 kg" to avoid disclosing data for individual companies.

**Table 3. Quantity and Value of Shipments of Complete Civil Aircraft Engines: 1999 and 1998**  
 [Quantity in number of units. Value in thousands of dollars]

Year and month	Complete civil aircraft engines 1/	
	Quantity	Value
1999		
January.....	r/ 1,107	r/ 557,241
February.....	r/ 1,234	r/ 693,785
March.....	r/ 1,414	r/ 793,545
April.....	r/ 1,197	r/ 564,672
May.....	r/ 1,250	r/ 700,485
June.....	r/ 1,277	r/ 800,136
July.....	r/ 1,234	r/ 516,267
August.....	r/ 1,413	r/ 604,574
September.....	r/ 1,407	743,424
October.....	r/ 1,297	r/ 496,608
November.....	r/ 1,380	r/ 560,628
December.....	r/ 1,336	r/ 636,752
1998		
January.....	r/ 958	410,394
February.....	r/ 1,070	567,054
March.....	r/ 1,304	940,594
April.....	r/ 1,123	524,824
May.....	r/ 1,250	720,969
June.....	1,374	773,052
July.....	r/ 1,261	565,304
August.....	1,326	742,334
September.....	r/ 1,357	r/ 761,743
October.....	r/ 1,273	738,369
November.....	1,231	553,103
December.....	1,389	r/ 580,071

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

1/"Spark-ignition reciprocating or rotary internal combustion," "Turbojet and turbofan" and "Turboshaft (turbo propeller)" are combined to avoid disclosing data for individual companies.

Table 4. Shipments, Exports, and Imports of Complete Civil Aircraft and Aircraft Engines: 1999  
 [Quantity in number of 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
3364113004	Civil aircraft (fixed wing, powered): Unladen weight not exceeding 2,000 kg (4,409 lb).....	1,977	560,242	315	81,104	402	25,000
3364113011	Unladen weight exceeding 15,000 kg (33,069 lb) 4/.....	1,328	40,935,667	577	26,927,157	424	7,685,655
3364113017	Helicopters (rotary wing) 5/.....	486	186,819	155	123,642	221	412,539
33641230	Complete civil aircraft engines 6/.....	15,573	7,643,723	5,784	3,628,589	4,725	4,484,805

1/For comparison of North American Industry Classification System-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 code 3364113007 is included with 3364113011 to avoid disclosing data for individual companies.

5/Product code 3364113014 is included with 3364113017 to avoid disclosing data for individual companies.

6/Product codes 3364123001, 3364123004, 3364123011, 3364123014, and 3364123017 are included with product code 33641230 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: 1991 to 1999

[Millions of dollars]

Year	Net new orders during year 1/	Net sales during year	Backlog, end of year
1999.....	114,284	123,678	190,094
1998.....	109,993	119,258	200,288
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

1/These totals represent 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: 1995 to 1999

[Millions of dollars]

Year	Net new orders 1/ (prime contracts and subcontracts)			Net sales, receipts, or billings			Backlog, end of year		
	Total	United States Government 2/	Other customers	Total	United States Government 2/	Other customers	Total	United States Government 2/	Other customers
1999.....	114,284	49,239	65,045	123,678	45,662	78,016	190,094	63,910	126,184
1998.....	109,993	36,555	73,438	119,258	39,951	79,307	200,288	59,496	140,791
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

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

2/These data represent 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: 1995 to 1999

[Millions of dollars]

Year	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
1999.....	114,284	50,730	63,553	123,678	49,737	73,942	190,094	70,082	120,012
1998.....	109,993	38,679	71,314	119,258	45,110	74,148	200,288	69,962	130,326
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

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: 1999 and 1998**  
[Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract	Sub-contract		
1999						
Total.....	48	114,284	113,663	620	123,678	190,094
Military.....	(NA)	50,730	50,730	(NA)	49,737	70,082
U.S. Government.....	39	41,901	41,901	(NA)	40,364	55,248
Other governments.....	24	8,829	8,829	(NA)	9,372	14,834
Nonmilitary.....	(NA)	63,553	62,933	620	73,942	120,012
U.S. Government.....	17	7,338	7,338	(NA)	5,298	8,662
Other customers.....	45	56,215	55,595	620	68,644	111,350
Complete aircraft and parts.....	(NA)	56,076	55,973	103	68,340	116,801
Military.....	(NA)	21,554	21,554	(NA)	23,124	33,364
Nonmilitary.....	(NA)	34,523	34,420	103	45,217	83,437
Aircraft engines and parts.....	(NA)	15,121	14,822	299	14,498	15,412
Military.....	(NA)	3,330	3,330	(NA)	3,154	2,850
Nonmilitary.....	(NA)	11,791	11,492	299	11,344	12,563
Missile systems and parts, excluding propulsion units.....	(NA)	4,204	4,204	(NA)	4,521	5,792
Military.....	(NA)	4,204	4,204	(NA)	4,521	5,792
U.S. Government.....	8	2,473	2,473	(NA)	3,662	3,260
Other governments.....	4	1,730	1,730	(NA)	859	2,533
Space vehicle systems and parts, excluding propulsion units.....	(NA)	9,340	9,340	(NA)	9,022	21,026
Military.....	(NA)	7,283	7,283	(NA)	5,107	10,036
Nonmilitary.....	(NA)	2,057	2,057	(NA)	3,915	10,989
U.S. Government.....	9	1,027	1,027	(NA)	1,272	2,074
Other customers.....	7	1,030	1,030	(NA)	2,644	8,915
Engines and/or propulsion units for missile systems and space vehicles, including parts 1/.....	(NA)	4,891	4,888	3	2,118	6,179
Military.....	(NA)	672	672	(NA)	516	1,008
Nonmilitary.....	(NA)	4,219	4,216	3	1,602	5,171
Other aircraft, space vehicle, and missile activities 2/.....	(NA)	9,108	8,995	113	7,997	9,284
Military.....	(NA)	7,172	7,172	(NA)	5,319	7,014
U.S. Government.....	(NA)	4,604	4,604	(NA)	4,322	4,496
Other governments.....	(NA)	2,568	2,568	(NA)	997	2,517
Nonmilitary.....	(NA)	1,936	1,823	113	2,678	2,271
Research and development (under contract).....	(NA)	3,236	3,215	21	4,217	3,860
Military.....	(NA)	2,687	2,687	(NA)	3,524	3,409
U.S. Government.....	22	2,436	2,436	(NA)	3,279	3,265
Other governments.....	7	251	251	(NA)	245	145
Nonmilitary.....	11	549	528	21	693	450
All other products and services.....	(NA)	12,308	12,227	81	12,965	11,740
Military.....	(NA)	3,828	3,828	(NA)	4,471	6,609
U.S. Government.....	19	2,739	2,739	(NA)	3,774	5,236
Other governments.....	10	1,090	1,090	(NA)	697	1,374
Nonmilitary.....	(NA)	8,479	8,398	81	8,493	5,131
U.S. Government.....	8	2,269	2,269	(NA)	1,854	2,495
Other customers.....	26	6,210	6,129	81	6,639	2,636
1998						
Total.....	54	109,993	109,403	590	119,258	200,288
Military.....	(NA)	38,679	38,679	(NA)	45,110	69,962
U.S. Government.....	40	32,504	32,504	(NA)	34,543	53,677
Other governments.....	24	6,174	6,174	(NA)	10,567	16,285

Table 8. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicle, Missiles, and Selected Parts: 1999 and 1998  
[Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract	Sub-contract		
Nonmilitary.....	(NA)	71,314	70,724	590	74,148	130,326
U.S. Government.....	16	4,051	4,051	(NA)	5,408	5,819
Other customers.....	44	67,263	66,673	590	68,740	124,507
Complete aircraft and parts.....	(NA)	51,413	51,279	134	63,694	129,028
Military.....	(NA)	14,051	14,051	(NA)	21,154	34,866
Nonmilitary.....	(NA)	37,362	37,228	134	42,541	94,161
Aircraft engines and parts.....	(NA)	13,070	12,838	232	12,807	14,669
Military.....	(NA)	2,819	2,819	(NA)	2,641	2,664
Nonmilitary.....	(NA)	10,251	10,019	232	10,167	12,005
Missile systems and parts, excluding propulsion units.....	(NA)	4,884	4,884	(NA)	4,356	6,539
Military.....	(NA)	4,884	4,884	(NA)	4,356	6,539
U.S. Government.....	8	3,232	3,232	(NA)	3,295	4,138
Other governments.....	4	1,652	1,652	(NA)	1,061	2,401
Space vehicle systems and parts, excluding propulsion units.....	(NA)	12,420	12,420	(NA)	9,490	20,371
Military.....	(NA)	4,563	4,563	(NA)	4,227	7,970
Nonmilitary.....	(NA)	7,857	7,857	(NA)	5,264	12,402
U.S. Government.....	8	719	719	(NA)	1,591	1,854
Other customers.....	7	7,138	7,138	(NA)	3,673	10,548
Engines and/or propulsion units for missile systems and space vehicles, including parts 1/.....	(NA)	2,395	2,220	175	2,263	4,263
Military.....	(NA)	655	655	(NA)	496	1,102
Nonmilitary.....	(NA)	1,740	1,565	175	1,766	3,161
Other aircraft, space vehicle, and missile activities 2/.....	(NA)	7,288	7,241	47	8,313	8,214
Military.....	(NA)	3,938	3,938	(NA)	4,274	5,463
U.S. Government.....	(NA)	2,792	2,792	(NA)	2,930	4,298
Other governments.....	(NA)	1,147	1,147	(NA)	1,343	1,165
Nonmilitary.....	(NA)	3,350	3,303	47	4,040	2,751
Research and development (under contract).....	(NA)	4,808	4,806	2	4,539	4,939
Military.....	(NA)	3,690	3,690	(NA)	3,544	4,202
U.S. Government.....	22	3,575	3,575	(NA)	3,386	4,063
Other governments.....	6	115	115	(NA)	159	139
Nonmilitary.....	13	1,118	1,116	2	995	737
All other products and services.....	(NA)	13,715	13,715	(NA)	13,796	12,264
Military.....	(NA)	4,079	4,079	(NA)	4,418	7,154
U.S. Government.....	19	3,367	3,367	(NA)	3,786	6,206
Other governments.....	11	712	712	(NA)	632	948
Nonmilitary.....	(NA)	9,636	9,636	(NA)	9,378	5,110
U.S. Government.....	10	1,638	1,638	(NA)	1,939	2,085
Other customers.....	25	7,999	7,999	(NA)	7,439	3,025

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

1/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."

2/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. Data for these respondents were 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.