

Civil Aircraft and Aircraft Engines; and Aerospace Industry: 2003

Issued June 2005

Summary

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Current Industrial Reports

Current data are released electronically on Internet for all individual surveys as they become available. Use: <http://www.census.gov/mcd/>. Individual reports can be accessed by choosing "Current Industrial Reports (CIR)," clicking on "CIRs by Subsector;" then choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (XLS format) to your personal computer.

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

SUMMARY OF FINDINGS. In 2005, the value of complete civil aircraft shipments decreased by less than 1 percent to \$27.0 billion, from the 2004 value of \$27.1 billion. Shipments of complete civil aircraft engines increased by 8 percent to \$5.6 billion, from the 2004 value of \$5.2 billion.

The backlog of orders for aircraft, missiles, space vehicles, and engines, as of December 31, 2005, was \$293.6 billion. This was a 25-percent increase from the 2004 backlog of \$234.3 billion.

Net new orders received during 2005 were \$181.5 billion, a 38-percent increase from the \$131.7 billion received in 2004. Net sales, receipts, and/or billings in 2005 totaled \$122.1 billion, a 2-percent decrease from the \$124.3 billion reported in 2004.

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division, (MCD), Washington, DC 20233-6900, or call Jazmin Rose, 301-763-6210.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-763-4673.

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

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U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU

Table 1. Quantity and Value of Shipments of Complete Civil Aircraft: 2003 and 2002
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	2003		2002	
			Quantity	Value	Quantity	Value
33641130	Complete civil aircraft.....	31	3,557	25,879,644	3,757	33,547,912
	Civil aircraft (fixed wing, powered).....	18	1,946	25,486,365	2,279	32,911,926
3364113004	Unladen weight not exceeding 2,000 kg (4,409 lb).....	11	1,075	674,690	1,172	664,690
3364113007	Unladen weight exceeding 2,000 kg (4,409 lb) but not exceeding 15,000 kg (33,069 lb)	5	(D)	(D)	(D)	(D)
3364113011	Unladen weight exceeding 15,000 kg (33,069 lb) 1/.....	2	871	24,811,675	1,107	32,247,229
	Helicopters (rotary wing).....	5	557	365,948	421	610,467
3364113014	Unladen weight not exceeding 2,000 kg (4,409 lb) 2/.....	3	(D)	(D)	(D)	(D)
3364113017	Unladen weight exceeding 2,000 kg (4,409 lb) 2/.....	2	557	365,948	421	610,467
3364113021	Other civil aircraft (nonpowered) and kits.....	9	1,054	27,331	1,057	25,526
33641230	Complete civil aircraft engines.....	8	10,893	5,762,019	11,609	6,068,818
3364123001	Spark-ignition reciprocating or rotary internal combustion 3/.....	4	(D)	(D)	(D)	(D)
3364123004	Turbojet and turbofan: Of a thrust not exceeding 25 (5,620 lb) kN 3/.....	1	(D)	(D)	(D)	(D)
3364123007	Of a thrust exceeding 25 (5,620 lbs) kN 3/.....	3	(D)	(D)	(D)	(D)
3364123011	Turboshaft (turbo propeller): Of a power not exceeding 1,100 kW (820 hp) 3/.....	1	(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	10,893	5,762,019	11,609	6,068,818

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: 2003 and 2002
 [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
2003						
January.....	r/ 133	1,266,387 r/	27 r/	26,078 r/	103	2,164
February.....	r/ 140	2,090,371 r/	30 r/	28,034 r/	103	2,168
March.....	r/ 161	2,401,887 r/	38 r/	29,058	86 r/	2,213
April.....	r/ 157	1,685,525 r/	39 r/	29,680	89 r/	2,305
May.....	157	2,028,150 r/	42 r/	30,505	92 r/	2,370
June.....	197	3,142,953 r/	38 r/	29,520	89 r/	2,352
July.....	r/ 137	2,023,353 r/	47 r/	32,722	89 r/	2,266
August.....	r/ 185	1,723,490 r/	36 r/	29,735	90 r/	2,378
September.....	r/ 154	1,951,644 r/	45 r/	32,327	86 r/	2,294
October.....	r/ 144	1,898,370 r/	53 r/	34,372	85 r/	2,275
November.....	164	2,659,677 r/	40 r/	30,359	85 r/	2,260
December.....	240	2,614,558 r/	49 r/	33,558	89 r/	2,286
2002						
January.....	145	2,378,128 r/	51 r/	49,685	87	2,062
February.....	171	2,764,428 r/	55 r/	50,766	86	2,039
March.....	232	4,171,366 r/	47 r/	49,453	90	2,143
April.....	189	3,260,581 r/	58 r/	50,922	90	2,080
May.....	182	2,709,331 r/	40 r/	49,386	89	2,178
June.....	238	3,037,271 r/	87 r/	52,568	89	2,159
July.....	146	2,581,974 r/	81 r/	52,234	89	2,166
August.....	168	2,005,562 r/	55 r/	50,162	91	2,176
September.....	199	2,486,925 r/	50 r/	49,601	86	2,218
October.....	154	2,384,412 r/	49 r/	49,193	88 r/	2,193
November.....	187	2,340,857 r/	64 r/	53,009	85	2,041
December.....	268	2,791,084 r/	71 r/	53,488	87	2,071

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: 2003 and 2002
 [Quantity in number of units. Value in thousands of dollars]

Year and month	Complete civil aircraft engines 1/	
	Quantity	Value
2003		
January.....	857	352,145
February.....	804	428,278
March.....	1,081	566,315
April.....	887	441,343
May.....	862	466,052
June.....	982	550,624
July.....	749	417,973
August.....	790	372,184
September.....	984	671,932
October.....	833	366,943
November.....	1,025	497,174
December.....	1,039	631,056
2002		
January.....	779	484,237
February.....	984	567,672
March.....	1,125	714,452
April.....	944	344,026
May.....	970	480,371
June.....	1,134	623,098
July.....	875	361,088
August.....	867	406,914
September.....	1,047	630,605
October.....	993	557,736
November.....	910	351,144
December.....	981	547,475

1/"Spark-ignition reciprocating or rotary internal combustion," "Turbojet and turbopan" 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: 2003
 [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
3364113004	Civil aircraft (fixed wing, powered): Unladen weight not exceeding 2,000 kg (4,409 lb).....	1,075	674,690	272	75,113	403	109,881
3364113011	Unladen weight exceeding 15,000 kg (33,069 lb) 4/.....	871	24,811,675	371	20,275,586	500	9,999,793
3364113017	Helicopters (rotary wing) 5/.....	460	365,948	399	202,917	174	368,926
33641230	Complete civil aircraft engines 6/.....	10,893	5,762,019	8,442	4,272,902	3,119	2,475,167

1/For comparison of North American Industry Classification System (NAICS)-based codes with Schedule B export codes and HTSUSA import codes, 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: 1994 to 2003
(Millions of dollars)

Year	Net new orders during year 1/	Net sales during year	Backlog, end of year
2003.....	116,693	116,154	222,911
2002.....	114,830	115,202	222,452
2001.....	122,334	117,088	220,148
2000.....	140,086	109,311	214,966
1999.....	115,257	124,181	188,409
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

1/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: 1999 to 2003
(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 Government 2/	Other customers	Total	United States Government 2/	Other customers	Total	United States Government 2/	Other customers
2003.....	116,693	70,160	46,533	116,154	61,450	54,703	222,911	93,029	129,882
2002.....	114,830	63,833	50,997	115,202	53,073	62,129	222,452	84,436	138,017
2001.....	122,334	57,323	65,011	117,088	45,226	71,862	220,148	75,016	145,131
2000.....	140,086	44,523	95,563	109,311	40,957	68,354	214,966	61,581	153,385
1999.....	115,257	48,586	66,671	124,181	45,128	79,052	188,409	63,029	125,380

1/Represents 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 due to 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: 1999 to 2003
(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
2003.....	116,693	73,744	42,949	116,154	65,712	50,442	222,911	107,884	115,027
2002.....	114,830	66,437	48,393	115,202	55,422	59,781	222,452	99,948	122,505
2001.....	122,334	63,619	58,714	117,088	47,232	69,856	220,148	90,968	129,180
2000.....	140,086	54,525	85,561	109,311	43,256	66,055	214,966	73,741	141,225
1999.....	115,257	49,696	65,561	124,181	49,690	74,491	188,409	68,379	120,029

1/Represents new orders received during the year less terminations during the year.

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

Table 8. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicle, Missiles, and Selected Parts: 2003 and 2002
[Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract	Sub-contract		
2003						
Total.....	41	116,693	115,659	1,034	116,154	222,911
Military.....	34	73,744	73,744	(NA)	65,712	107,884
U.S. Government.....	33	65,656	65,656	(NA)	57,331	86,522
Other governments.....	21	8,088	8,088	(NA)	8,380	21,362
Nonmilitary.....	40	42,949	41,915	1,034	50,442	115,027
U.S. Government.....	13	4,504	4,504	(NA)	4,119	6,507
Other customers.....	38	38,445	37,411	1,034	46,323	108,520
Complete aircraft and parts.....	21	49,468	49,432	36	49,021	119,624
Military.....	16	27,878	27,878	(NA)	20,355	45,286
Nonmilitary.....	17	21,590	21,554	36	28,666	74,338
Aircraft engines and parts.....	14	12,344	12,338	6	13,862	17,220
Military.....	11	5,789	5,789	(NA)	5,743	5,097
Nonmilitary.....	12	6,555	6,549	6	8,120	12,122
Missile systems and parts,excluding propulsion units	6	9,855	9,855	-	8,083	12,823
Engines and/or propulsion units for missile systems, including parts	6	473	470	2	535	749
Space vehicle systems, including parts, and engines and/or propulsion units for space vehicle systems, including parts 1/.....	9	(S)	(S)	26	7,392	14,365
Other aircraft, space vehicle, and missile activities 2/.....	16	14,736	14,259	477	11,025	14,154
Military.....	15	9,866	9,866	(NA)	7,186	10,195
U.S. Government.....	15	8,875	8,875	(NA)	6,432	8,389
Other governments.....	9	990	990	(NA)	754	1,806
Nonmilitary.....	13	4,871	4,394	477	3,839	3,959
Research and development (under contract).....	22	8,571	8,552	18	8,031	21,486
Military.....	20	7,824	7,824	(NA)	7,473	20,850
Nonmilitary.....	13	746	728	18	558	636
All other products and services.....	25	21,465	20,996	469	18,204	22,490
Military.....	17	14,067	14,067	(NA)	12,555	11,495
U.S. Government.....	17	13,984	13,984	(NA)	12,372	10,604
Other governments.....	9	83	83	(NA)	183	891
Nonmilitary.....	21	7,397	6,928	469	5,649	10,995
U.S. Government.....	5	510	510	(NA)	718	573
Other customers.....	19	6,887	6,418	469	4,931	10,421
2002						
Total.....	45	114,830	114,071	760	115,202	222,452
Military.....	35	66,437	66,437	(NA)	55,422	99,948
U.S. Government.....	34	59,464	59,464	(NA)	48,345	78,318
Other governments.....	20	6,973	6,973	(NA)	7,076	21,630
Nonmilitary.....	43	48,393	47,633	760	59,781	122,505
U.S. Government.....	13	4,369	4,369	(NA)	4,728	6,117
Other customers.....	42	44,024	43,264	760	55,053	116,387
Complete aircraft and parts.....	23	46,279	46,459	(S)	53,856	119,177
Military.....	17	20,946	20,946	(NA)	19,579	37,761
Nonmilitary.....	20	25,333	25,513	(S)	34,278	81,417

Table 8. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicle, Missiles, and Selected Parts: 2003 and 2002
[Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract	Sub-contract		
Aircraft engines and parts.....	13	13,700	13,670	30	14,827	18,733
Military.....	10	7,552	7,552	(NA)	5,670	5,050
Nonmilitary.....	12	6,149	6,119	30	9,157	13,683
Missile systems and parts,excluding propulsion units	5	8,742	8,742	-	7,218	11,072
Engines and/or propulsion units for missile systems, including parts	6	578	578	-	472	811
Space vehicle systems, including parts, and engines and/or propulsion units for space vehicle systems, including parts 1/	10	7,968	7,935	33	7,946	21,968
Other aircraft, space vehicle, and missile activities 2/.....	16	10,472	10,268	204	10,118	10,399
Military.....	15	6,164	6,164	(NA)	5,448	7,471
U.S. Government.....	15	5,586	5,586	(NA)	4,758	5,923
Other governments.....	10	579	579	(NA)	690	1,548
Nonmilitary.....	13	4,307	4,103	204	4,670	2,928
Research and development (under contract).....	22	5,670	5,653	17	6,164	21,095
Military.....	20	4,992	4,992	(NA)	5,582	20,647
Nonmilitary.....	13	678	661	17	581	448
All other products and services.....	25	21,420	20,765	655	14,601	19,198
Military.....	17	12,287	12,287	(NA)	7,629	9,958
U.S. Government.....	17	11,826	11,826	(NA)	7,247	8,967
Other governments.....	9	462	462	(NA)	382	991
Nonmilitary.....	21	9,133	8,479	655	6,974	9,240
U.S. Government.....	5	812	812	(NA)	1,006	783
Other customers.....	19	8,321	7,667	655	5,968	8,457

- Represents zero. NA Not available. S Does not meet publication standards.

1/Data for "Space vehicle systems and parts, excluding propulsion units" are included with data for "Engines and/or propulsion units for space vehicles, 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. 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.

Appendix.

General CIR Survey Information, Explanation of General Terms and Historical Note

GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

EXPLANATION OF GENERAL TERMS

Capacity. The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

Consumption. Materials used in producing or processing a product or otherwise removing the product from the inventory.

Exports. Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

Gross shipments. The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

Interplant transfers. Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

Inventories. The quantity or value of finished goods, work in progress, and materials on hand.

Machinery in place. The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

Net receipts. Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

Production. The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

Quantities produced and consumed. Quantities of each type of product produced by a company for internal consumption within that same company.

Quantity and value of new orders. The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

Quantity and value of shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to a company's own branches are

assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Stocks. Total quantity of ending finished inventory.

Unfilled orders (backlog). Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

HISTORICAL NOTE

Data on civilian aircraft and aircraft engines have been collected by the Census Bureau since 1946. Data on the development and production of aerospace products have been collected by the Census Bureau since 1948. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library.