

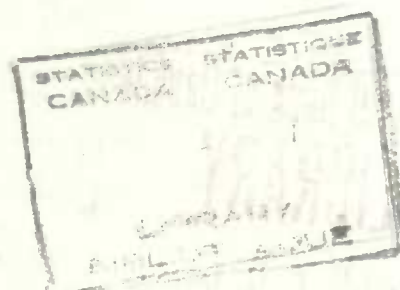
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CANADA



# AIRCRAFT AND PARTS MANUFACTURERS 1960

Formerly The Aircraft and Parts Industry

## ANNUAL CENSUS OF MANUFACTURES

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#### SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:

... figures not appropriate or not applicable.

— nil or zero.

## EXPLANATORY NOTES

This report is one in a series of about 140 publications which present the results of the 1960 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and for major industry groups. Adoption of the revised Standard Industrial Classification for 1960 compilations has necessitated changes in titles of many reports in this annual series. The content of many industries has also been affected (see following note on Industrial Classification).

Industry statistics given in these reports refer to number of establishments, employees, salaries and wages, cost of materials, supplies, fuel and electricity, gross value of shipments, inventories and value added by manufacturing. Details of materials used and products shipped are also given. Descriptions of the principal industry statistics, with special reference to 1960 are as follows:

### Period Covered

Firms are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods differing from the calendar year are accepted in instances where the firms find it impossible to supply calendar year data from accounting records. However the data on employees, salaries and wages are requested on a calendar year basis in all cases.

### Establishment

Data for the annual census is collected on an establishment basis. A firm with more than one plant is required to file a report for each plant. In most cases an establishment is a complete factory; sometimes, however, a plant is divided into two or more establishments when it carries out operations classifiable to different industries and when separate accounting records are available. Usually the statistics for an establishment relate only to the manufacturing activities. Other activities such as construction at the plant by its own employees, wholesale or retail activities carried on at the plant location, etc., are not included. Plants engaged solely in repair work (except in the case of furniture, shipbuilding, boat building, aircraft and railway rolling stock industries) are not included but plants occupied in assembling parts into complete units are included.

### Employees

Administrative and office employees include all executives and supervisory officials such as presidents, vice-presidents, secretaries, treasurers, etc., together with managers, professional and technical employees, superintendents and factory supervisors above the working foremen level, and clerical employees. Working owners and partners are also included in this category.

Production and related workers include all other factory workmen whether paid on a monthly, weekly, hourly or piece-work basis. Working foremen doing work similar to that of the employees they supervise are included, as are maintenance, ware-

housing and delivery staffs. Employees on new construction work, in retail or wholesale operations, on outside piece work etc. are not included.

Production workers are reported by months, an average for the year being obtained by summing the monthly figures and dividing by twelve. This procedure is followed even though the plant did not operate in all months. Figures on employment refer to calendar years whether or not some establishments reported other data on a financial year basis.

### Salaries and Wages

Salaries and wages refer to gross earnings of the employees described above, including salaries, wages, commissions, bonuses, the value of room and board where provided, deductions for income tax and social services such as sickness and unemployment insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. Payments for overtime are included.

Salaries refer to amounts paid to administrative and office employees. Withdrawals by working owners or partners for normal living expenses for self and family are included but not their withdrawals for income tax. Wages refer to the amounts paid to production and related workers as defined above. Data on earnings refer to the calendar year whether or not some establishments reported other data on a financial year basis.

### Cost of Fuel and Electricity

Figures for fuel refer to amounts actually used, (including fuel used in cars and trucks), not to purchases unless the quantities are the same. Values refer to the laid-down cost at the works, including freight, duty, etc.

### Materials and Supplies Used

Figures represent quantities and laid-down cost values, at the works, of materials and supplies actually used during the year whether purchased from others or received as transfers from other plants of the reporting company. Amounts paid to other manufacturers for work done on materials owned by the reporting company are included. Returnable containers or any other items charged to capital account are not included. Fuels are not included. Goods bought from others or received as transfers from other plants or reporting companies for resale without further processing are not included. Maintenance and repair supplies not chargeable to capital account are included.

### Factory Shipments

Factory shipments refer to shipments of goods made from own materials either in the reporting plant or by other manufacturers on the basis of a charge to the reporting plant for work done. All products and by-products shipped from the establishment are included whether for domestic use, export, or for government departments. Transfer shipments to sales outlets, distributing warehouses or to other manufacturing units of the reporting firm are included. Goods bought or received as transfers



and resold without further processing are not included. Values are computed on f.o.b. plant or plant warehouse basis, and do not include sales tax or excise duties. Values of containers not returnable are included. Amounts received in payment for work done on materials owned by others are included.

In a few industries such as shipbuilding, aircraft, etc., where work on principal products extend over a relatively long period, the value of production is recorded rather than the value of shipments. For those industries production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done in previous years on finished units delivered in the year under review.

### Inventories

Values represent the book values of manufacturing inventories owned and held at the reporting plant. Figures include inventories held in warehouses or selling outlets which have been included with plant operations for purposes of reporting shipments.

### Value added by Manufacturing

Figures are computed from value of shipments plus or minus changes in inventories of finished goods and goods in process less cost of materials, fuel and electricity. This figure is sometimes referred to as net production.<sup>1</sup>

### Standard Industrial Classification

The revised Standard Industrial Classification which has been introduced with the 1960 Census of Manufactures provides for a breakdown of the universe into 140 industries arranged in 20 major groups compared with 135 industries in 17 major groups in the old classification which was used in the compilations for the years 1949 to 1959 inclusive. It incorporates changes considered desirable on the basis of experience in using the earlier classification as well as those which take account of changes in the structure of Canadian industries associated with the rapid developments of the past decade. Full details are contained in the Standard Industrial Classification Manual, Catalogue No. 12-501, which is available from either the Queen's Printer or the Dominion Bureau of Statistics. Reporting establishments are classified or allotted to specific industries on the basis of the value of principal products made or shipped.

Many industries remain unchanged in the new classification but in many instances there have been substantial changes in content because of the shifting of establishments from one industry to another or in re-grouping of establishments. Where

changes have occurred the principal statistics for 1957, 1958 and 1959 have been re-compiled to provide data on a basis comparable with those for 1960.

### Short Forms

Between 1949 and 1957, in an effort to ease the reporting burden for smaller firms, a short form was used asking for the total value of shipments only or, in a few cases where losses of detail were significant, for quantities and values of principal products. For purposes of publication, missing data were estimated on the basis of appropriate ratios. In general the cut-off point for these short forms was set at \$50,000 value of shipments. About 40% of the total number of establishments reported on the short form and accounted for less than 3 per cent of the total value of shipments.

In 1958, in order to establish a new base year, the small firms were asked to report all items of principal statistics together with some detail on materials and products.

For the 1959 Census, the short form was used again, but further steps were taken to ease the respondents' burden. First, the general limit for short forms was raised to \$100,000 value of shipments. In addition, a new intermediate form was developed. This form is a shortened version of the long form in that most of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between \$100,000-\$500,000 value of shipments, but in the case of both the short and intermediate forms there were lower cut-offs for a number of industries in which the smaller firms accounted for a larger share of total shipments. On the other hand, limits were raised where this could be done without a significant loss of coverage. On most of the short forms for 1959, in addition to total value of shipments, data on principal products were requested. In a few industries, where loss of employment and earnings data were considered too large because of higher cut-offs, a question on total payroll was placed on the short form. This practice was followed again in 1960.

The intermediate and long forms provide complete data for the compilation of all elements of principal industry statistics and the details of materials and products. The one-page short form, although containing data on principal products and total value of shipments, does not request information on other elements of principal statistics such as value of inventories, materials, fuel and electricity and, in most cases, employment and salaries and wages, nor does it contain detailed data on volume and value of materials used. For purposes of compiling aggregates of principal statistics by industry and by geographic location, the missing data for each establishment were estimated for 1959 by using, in general, ratios based on the change in the value of shipments between 1958 and 1959. The proportion of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

<sup>1</sup> To arrive at the National Accounts concept of "gross domestic product at factor cost", it would be necessary to subtract also the cost of office supplies used, advertising, insurance and other goods and services obtained from other businesses. Data on these inputs are not collected on the annual Census of Manufactures. Value added figures for "The primary industries and construction" are published in D.B.S. publication 61-202, *Survey of Production*.

# AIRCRAFT AND PARTS MANUFACTURERS

## 1960

Data presented in this report under the heading of Aircraft and Parts Manufacturers reflect implementation of the revised Standard Industrial Classification (SIC) which is being used by the Dominion Bureau of Statistics in its compilation of 1960 industry statistics—see item "Standard Industrial Classification" in the Explanatory Notes section of this report. For statistical purposes the Industry titled Aircraft and Parts Manufacturers in the revised Standard Industrial Classification covers establishments primarily engaged in manufacturing aeroplanes, gliders, balloons and aircraft parts, such as engines, propellers and pontoons. The repair and overhaul of aircraft are included in this industry. The manufacture of aeronautical instruments is classified in Industry No. 381—Scientific and Professional Equipment Manufacturers.

In many instances adoption of the revised Standard Industrial Classification effected a radical shifting of manufacturing establishments as between industry groupings. However, in the case of establishments engaged in manufacturing aircraft and parts, changes brought about by the implementation of the revised Standard Industrial Classification were minimal as evidenced in the comparative series of statistics presented in Tables 1A and 1B. Table 1A shows data for these establishments according to the "Old" concept while Table 1B carries figures re-compiled on the "new" or revised Standard Industrial Classification basis.

There were 83 establishments classified as Aircraft and Parts Manufacturers in 1960; there being 2 in Nova Scotia, 26 in Quebec, 36 in Ontario, 3 in Manitoba, 9 in Alberta and 7 in British Columbia. Employees in this industry numbered 27,056; salaries and wages totalled \$131,542,701; materials used in manufacturing processes cost \$114,521,392; fuel and electricity cost \$3,281,494; and gross value of production was \$308,190,203.

**Note 1:** Prior to 1957 this industry included only the plants which were principally engaged in assembling aircraft or in making aircraft parts but including any servicing or overhauling of aircraft done by these plants as a minor part of their operations. In 1957, due to a change in statistical concept this industry was expanded to include the plants which were primarily engaged in the servicing and overhaul of aircraft. It does not include overhaul and servicing depots maintained by the major airlines and operated by them as part of their transportation system.

**Note 2:** Figures for value added by manufacture prior to 1960 were obtained by subtracting the cost of materials used, including fuel and electricity, from the value of production. In 1960 the "value added" calculation takes into account the change in finished goods inventory to accommodate products such as aircraft parts reported in terms of factory shipments rather than production.

**TABLE 1A. Principal Statistics of the Aircraft and Parts Industry, Significant Years, 1929-59**  
Basis: Standard Industrial Classification in use prior to 1960

Year and province	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost of materials at plant	Value added by manufacture	Gross selling value of products
	number				dollars		
1929.....	4	217	401,666	7,303	727,832	305,710	1,040,845
1933.....	5	147	169,053	7,934	97,677	239,606	345,217
1937.....	8	606	691,934	23,762	879,654	827,308	1,730,724
1939.....	13	3,596	4,651,615	100,668	1,428,168	11,109,634	12,638,470
1944.....	45	79,572	161,055,010	2,593,792	137,734,065	286,653,701	426,981,558
1946.....	16	11,405	24,459,085	787,180	6,708,468	28,715,258	36,210,906
1949.....	14	10,725	27,443,498	1,070,016	24,315,084	35,713,975	61,099,075
1955.....	52	33,036	130,269,009	4,683,562	140,831,164	208,800,111	354,314,837
1956.....	52	35,563	146,428,014	4,084,546	138,155,854	212,269,685	354,510,085
1957 <sup>1</sup> .....	70	41,616	179,699,179	4,831,700	148,546,515	271,064,498	424,442,713
1958 <sup>1</sup> .....	75	39,932	182,276,877	4,660,674	176,538,577	281,131,994	462,331,245
1959 <sup>1</sup> .....	78	28,516	142,484,904	3,684,751	127,937,264	195,911,616	327,533,631

<sup>1</sup> See note 1 to text.

**Note:** Profits or losses cannot be calculated from above figures as data are not available for general expense items, such as interest, rent, depreciation, taxes, insurance, advertising, etc.



TABLE 1B. Principal Statistics, Aircraft and Parts Manufacturers, by Provinces, 1957 - 60

Basis: Standard Industrial Classification Revised 1960

Year and province	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost of materials at plant	Value added by manufacture <sup>1</sup>	Gross value of production
	number		dollars				
<b>1957</b>							
Nova Scotia and Manitoba ..	4	2,726	9,456,513	241,125	5,924,718	13,451,803	19,617,646
Quebec .....	22	15,776	67,906,499	1,506,546	55,664,889	104,226,339	161,397,774
Ontario .....	34	21,275	95,178,728	2,966,431	84,901,966	144,601,327	232,469,724
Alberta .....	5	1,574	6,065,865	65,146	1,533,040	7,532,229	9,130,415
British Columbia .....	4	225	885,765	46,662	448,722	1,056,350	1,551,734
<b>Canada .....</b>	<b>69</b>	<b>41,576</b>	<b>179,493,370</b>	<b>4,825,910</b>	<b>148,473,335</b>	<b>270,868,048</b>	<b>424,167,293</b>
<b>1958</b>							
Nova Scotia and Manitoba ..	4	2,499	8,913,419	285,662	5,068,196	14,424,749	19,778,607
Quebec .....	25	14,449	66,292,029	1,495,714	70,349,998	113,100,033	184,945,745
Ontario .....	36	21,415	100,433,598	2,792,877	98,778,008	145,645,596	247,216,481
Alberta .....	5	1,329	5,628,902	57,917	1,347,428	7,038,975	8,444,320
British Columbia .....	5	240	1,008,929	28,504	994,947	922,641	1,946,092
<b>Canada .....</b>	<b>75</b>	<b>39,932</b>	<b>182,276,877</b>	<b>4,660,674</b>	<b>176,538,577</b>	<b>281,131,994</b>	<b>462,331,245</b>
<b>1959</b>							
Nova Scotia and Manitoba ..	5	2,329	8,981,578	265,498	4,991,000	13,257,354	18,513,852
Quebec .....	26	14,137	69,058,615	1,488,262	48,778,056	92,479,810	142,746,128
Ontario .....	34	10,302	56,857,199	1,785,894	70,974,771	79,249,307	152,009,972
Alberta .....	6	1,277	5,474,367	57,579	1,248,286	6,796,976	8,102,841
British Columbia .....	7	471	2,113,145	87,518	1,945,151	4,128,169	6,160,838
<b>Canada .....</b>	<b>78</b>	<b>28,516</b>	<b>142,484,904</b>	<b>3,684,751</b>	<b>127,937,264</b>	<b>195,911,616</b>	<b>327,933,831</b>
<b>1960</b>							
Nova Scotia and Manitoba ..	5	2,241	8,882,491	251,690	5,331,854	11,542,596	17,132,316
Quebec .....	26	14,830	75,264,488	1,487,076	56,398,812	109,421,209	167,979,483
Ontario .....	36	8,396	40,204,903	1,395,964	49,330,049	58,552,937	110,138,374
Alberta .....	9	1,239	5,540,791	72,916	1,191,838	6,818,141	8,081,450
British Columbia .....	7	350	1,650,028	73,848	2,268,839	2,515,893	4,858,580
<b>Canada .....</b>	<b>83</b>	<b>27,056</b>	<b>131,542,701</b>	<b>3,281,494</b>	<b>114,521,392</b>	<b>188,850,776</b>	<b>308,190,203</b>

<sup>1</sup> Value added — See note 2 in text.TABLE 2. Inventories<sup>1</sup>: Aircraft and Parts Manufacturers, 1960

	Raw materials and supplies	Goods in process <sup>2</sup>	Finished goods of own manufacture	Total
	dollars			
<b>Opening:</b>				
Nova Scotia and Manitoba ..	876,223	844,649	6,176	1,727,048
Quebec .....	5,014,391	9,056,862	4,102,523	18,173,776
Ontario .....	16,623,265	7,345,906	2,736,048	26,705,219
Alberta .....	333,918	10,671	1,822	346,411
British Columbia .....	1,407,628	581,024	—	1,988,652
<b>Canada .....</b>	<b>24,255,425</b>	<b>17,839,112</b>	<b>6,846,569</b>	<b>48,941,106</b>
<b>Closing:</b>				
Nova Scotia and Manitoba ..	581,270	1,198,562	—	1,779,832
Quebec .....	8,992,996	6,333,925	3,430,137	18,757,058
Ontario .....	17,270,387	9,103,372	1,876,624	28,250,383
Alberta .....	414,556	16,363	3,267	434,186
British Columbia .....	1,334,676	596,430	—	1,931,106
<b>Canada .....</b>	<b>28,593,885</b>	<b>17,248,652</b>	<b>5,310,028</b>	<b>51,152,565</b>

<sup>1</sup> Book value of all manufacturing inventories owned and held at plant and plant warehouses.<sup>2</sup> Adjusted to allow for progress payments.

TABLE 3. Products Made: Aircraft and Parts Manufacturers, 1960

Products	Selling value at work
	\$
Aircraft and engines being built but not completed at year-end (value of work done on same during 1960) .....	117,315,748
Modifications, conversions, servicing, overhaul and repairs to aircraft during 1960 (value of work done) .....	70,808,271
Aircraft parts manufactured during 1960 .....	76,964,539
All other products made in this works in 1960 <sup>1</sup> .....	112,280,375
<b>Total of above items</b> .....	<b>377,368,933</b>
Less value of work done in 1959 on aircraft and engines completed in 1960 .....	69,178,730
<b>Total net production</b> .....	<b>308,190,203</b>

<sup>1</sup> Includes completed aircraft. Only 2 firms reporting, therefore, separate details cannot be shown.

TABLE 4. Production of Aircraft in Canada, 1951 - 60

Year	Selling value at works	Year	Selling value at works
	\$		\$
1951 .....	34,701,964	1956 .....	94,625,746
1952 .....	104,188,368	1957 .....	129,257,269
1953 .....	174,847,321	1958 .....	189,947,132
1954 .....	186,934,184	1959 .....	114,574,066
1955 .....	108,408,292	1960 .....	<sup>1</sup>

<sup>1</sup> Only 2 firms reporting, therefore, details cannot be shown.

TABLE 5. Principal Statistics classified according to Type of Ownership:  
Aircraft and Parts Manufacturers, 1957 and 1960

Type	Estab-lish-ments	Em-ployees	Salaries and wages	Cost of fuel and electricity	Cost at plant of materials used	Gross value of production
1957	number		dollars			
Incorporated companies .....	66	41,533	179,326,936	4,823,261	148,363,791	423,720,485
Other ownership .....	3	43	166,434	2,649	109,544	446,808
<b>Totals</b> .....	<b>69</b>	<b>41,576</b>	<b>179,493,370</b>	<b>4,825,910</b>	<b>148,473,335</b>	<b>424,167,293</b>
1960	number		dollars			
Incorporated companies .....	78	26,995	131,367,461	3,274,735	114,472,554	307,822,716
Other ownership .....	5	61	175,240	6,759	48,838	367,487
<b>Totals</b> .....	<b>83</b>	<b>27,056</b>	<b>131,542,701</b>	<b>3,281,494</b>	<b>114,521,392</b>	<b>308,190,203</b>

**TABLE 6. Principal Statistics grouped according to Value of Production:  
Aircraft and Parts Manufacturers, 1957 and 1960**

Establishments reporting value of production	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity	Cost at plant of materials used	Gross value of production
	number		dollars			
1957						
Under \$10,000 .....	1	9	22,217	705	1,080	8,763
\$ 25,000 to \$ 49,999 .....	2	10	42,110	4,086	16,401	80,897
50,000 " 99,999 .....	7	69	246,488	7,257	106,041	484,896
100,000 " 199,999 .....	12	231	912,689	43,294	395,510	1,644,391
200,000 " 499,999 .....	16	623	2,482,372	75,668	1,492,353	4,712,215
500,000 " 999,999 .....	6	507	2,173,107	74,684	1,365,213	4,087,680
1,000,000 " 4,999,999 .....	14	5,009	19,528,271	582,621	13,580,485	38,877,491
5,000,000 and over .....	11	35,118	154,086,116	4,037,595	131,516,252	374,270,960
Totals .....	69	41,576	179,493,370	4,825,910	148,473,335	424,167,293
1960						
Under \$10,000 .....	3	5	14,500	1,170	3,703	22,877
\$ 10,000 to \$ 24,999 .....	5	22	63,225	2,726	27,021	95,766
25,000 " 49,999 .....	8	38	103,902	7,711	65,865	271,530
50,000 " 99,999 .....	8	82	299,856	16,877	130,025	621,295
100,000 " 199,999 .....	12	211	867,357	33,136	540,482	1,875,139
200,000 " 499,999 .....	12	530	2,324,252	80,300	1,099,027	4,091,806
500,000 " 999,999 .....	7	537	2,442,036	75,111	1,429,534	5,115,948
1,000,000 " 4,999,999 .....	20	5,730	25,552,973	747,831	15,107,112	52,667,206
5,000,000 and over .....	8	19,901	99,874,600	2,316,632	96,118,623	243,428,636
Totals .....	83	27,056	131,542,701	3,281,494	114,521,392	308,190,203

**TABLE 7. Employees and Their Earnings: Aircraft and Parts Manufacturers, 1959 and 1960**

Province	Employees					Earnings		
	Supervisory and office		Production and related workers		Total employees	Supervisory and office	Production and related workers	Total earnings
	Male	Female	Male	Female				
1959	number					dollars		
Nova Scotia and Manitoba .....	475	248	1,588	18	2,329	3,089,000	5,892,578	8,981,578
Quebec .....	4,103	989	8,774	271	14,137	29,288,612	39,770,003	69,058,615
Ontario .....	3,200	921	6,017	164	10,302	26,068,403	30,788,796	56,857,199
Alberta .....	169	120	959	29	1,277	1,294,163	4,180,204	5,474,367
British Columbia .....	66	46	357	2	471	516,601	1,596,544	2,113,145
Canada .....	8,013	2,324	17,695	484	28,516	60,256,779	82,228,125	142,484,904
1960								
Nova Scotia and Manitoba .....	437	227	1,568	9	2,241	2,841,486	6,041,005	8,882,491
Quebec .....	4,090	981	9,497	262	14,830	30,493,858	44,770,630	75,264,488
Ontario .....	2,605	762	4,893	136	8,396	18,589,060	21,615,843	40,204,903
Alberta .....	174	113	931	21	1,239	1,349,460	4,191,331	5,540,791
British Columbia .....	70	36	243	1	350	514,047	1,135,981	1,650,028
Canada .....	7,376	2,119	17,132	429	27,056	53,787,911	77,754,790	131,542,701



TABLE 8. Production Workers, By Months: Aircraft and Parts Manufacturers, 1960

Month	Establishments reporting monthly detail <sup>1</sup>	
	Male	Female
January .....	16,017	402
February .....	15,853	397
March .....	15,988	403
April .....	15,986	391
May .....	16,375	396
June .....	16,191	390
July .....	15,807	392
August .....	16,461	399
September .....	16,819	400
October .....	17,011	394
November .....	17,490	381
December .....	17,774	390
Average for establishments reporting monthly detail .....	16,479	395
Average estimated for small establishments <sup>2</sup> .....	653	34
Average for all establishments .....	17,132	429

<sup>1</sup> The number of production workers, by months, was collected only for larger establishments.<sup>2</sup> Small establishments were not asked to report details of employment.

TABLE 9. Fuel and Electricity Used: Aircraft and Parts Manufacturers, 1960

Kind	Quantity	Cost at plant
		\$
1. Establishments reporting commodity detail: <sup>1</sup>		
Bituminous coal:		
(a) From Canadian mines .....	ton 3,522	43,542
(b) Imported .....	" 13,263	146,291
Lignite coal .....	" 215	1,670
Gasoline (including gasoline used in cars and trucks) .....	Imp. gal. 910,365	301,056
Fuel oil including kerosene or coal oil .....	" 9,459,146	809,731
Gas:		
(a) Liquefied petroleum gases .....	" " 56,777	15,812
(b) Other manufactured gas .....	M. cu. ft. 25,172	16,217
(c) Natural gas .....	" 192,503	94,532
Other fuel .....	... 406,613	
Electricity purchased .....	kwh. 138,971,650	1,268,386
Steam purchased .....	... 26,295	
2. Estimate for establishments for which no data were collected: <sup>2</sup>		
Cost of fuel and electricity .....		151,709
3. All establishments:		
Total cost of fuel and electricity .....		3,281,854

<sup>1</sup> Establishments reporting commodity detail.<sup>2</sup> Establishments not reporting commodity detail.

TABLE 10. Imports of Aircraft and Complete Parts Thereof, Not Including Engines, 1959 and 1960

Item	1959		1960	
	Number	Value	Number	Value
		\$		\$
Aircraft not over 1,500 lb. wt. ....	414	2,277,586	424	2,095,533
Aircraft 1,501 to 3,000 lb. wt. ....	149	1,863,174	149	2,181,852
Aircraft 3,001 to 7,500 lb. wt. ....	30	1,487,189	21	940,977
Aircraft over 7,500 lb. wt. ....	25	13,470,566	28	34,613,607
<b>Total aircraft</b> .....	<b>618</b>	<b>19,098,515</b>	<b>622</b>	<b>39,831,969</b>
Aircraft parts excluding engine parts .....	...	57,646,110	...	76,661,815

TABLE 11. Imports of Aircraft Engines and Complete Parts, 1959 and 1960

Item	1959		1960	
	Number	Value	Number	Value
		\$		\$
Engines, aircraft up to 200 h.p. ....	469	564,805	525	574,192
Engines, aircraft, 201 to 500 h.p. ....	280	760,979	227	656,562
Engines, aircraft, 501 to 1,000 h.p. ....	41	179,512	38	203,499
Engines, aircraft, over 1,000 h.p. ....	293	12,070,274	271	21,293,355
<b>Total aircraft engines</b> .....	<b>1,083</b>	<b>13,575,570</b>	<b>1,061</b>	<b>22,727,608</b>
Parts of aircraft engines .....	...	23,704,895	...	27,787,849

TABLE 12. Exports<sup>1</sup> and Re-exports of Aircraft and Parts, 1959 and 1960

Exports <sup>2</sup>			Re-exports <sup>3</sup>		
	1959	1960		1959	1960
Aircraft ..... No.	160	86	Aircraft ..... No.	32	28
Aircraft ..... \$	10,788,687	5,426,470	Aircraft ..... \$	2,538,395	457,481
Aircraft parts ..... \$	14,171,380	15,319,012	Aircraft parts ..... \$	3,012,203	3,673,578
<b>Total Exports</b> ..... \$	<b>24,960,067</b>	<b>20,745,482</b>	<b>Total re-exports</b> ..... \$	<b>5,550,598</b>	<b>4,131,059</b>

<sup>1</sup> The above statistics of exports do not include defence equipment or supplies transferred by Canada to North Atlantic Treaty Countries under the Defence Appropriation Act.

<sup>2</sup> Made in Canada

<sup>3</sup> Foreign-made goods re-exported.

## Directory of Firms: Aircraft and Parts Manufacturers, 1960

Name of firm	Location of plant
<b>Nova Scotia:</b>	
Enamel & Heating Products Ltd. ....	Amherst
Falrey Aviation Co. of Canada Ltd. ....	Eastern Passage
<b>Quebec:</b>	
Aircraft Industries of Canada, Ltd. ....	St. John's
Aircraft Maintenance & Service Reg'd. ....	Mont Joli
Aircraft Overhaul & Repairs Ltd. ....	Lac a la Tortue
Aircraft Welding & Sheet Metals Co. Ltd. ....	7980-18th Ave. St. Michel
Allied Enterprises Ltd. ....	655 Montee Liesse, St. Laurent
Bristol Aero Engines Ltd. ....	10210 Pie 1X Blvd. Montreal North 12
Canadian Pratt & Whitney Aircraft Co. Ltd. ....	P.O. Box 10, Longueuil
Canadair Limited .....	Laurentian Blvd. St-Laurent
Curtiss-Reid Mfg. Co. Ltd. ....	2200 Laurentian, St-Laurent
Denomme, Roland .....	R.R. 1, Amos
Ferndale Industries, Reg'd. ....	1540 Henri Bourassa, Montreal
Godfrey Engineering Co. Ltd. ....	480 Metropolitan Blvd., Lachine
Heroux Machine Parts Ltd. ....	340 Thurber, Longueuil
Jarry Hydraulics .....	4384 St. Denis, Montreal
Kurt-Mutual Industries Ltd. ....	476 St. Edouard Granby
Laprairie Aircraft, Inc. ....	536 Brossard, Laprairie
Lasalle Engineering Ltd. ....	1225 Conway St. Montreal 22
Lucas-Rotax Limited .....	5595 Royalmount, Mount Royal
Noorduyn Norseman Aircraft Ltd. ....	2800 Bois Franc Rd. St-Laurent
Patenaude Engineering .....	10830 Lajeunesse, Montreal
R.C. Machine Shop .....	242 St. Jean, Longueuil
Rolls-Royce of Canada Ltd. ....	Cote de Liesse Rd., Montreal
Service Tool & Die Ltd. ....	2130 Bleury, Montreal
Sprague Engineering Ltd. ....	642 De Courcelle, Montreal
Timmins Aviation Ltd. ....	Montreal Airport, Montreal
United Aircraft Technicians Co. Reg'd. ....	Montreal Airport, Montreal
West Hill Industries Ltd. ....	4821-6th Ave. Montreal

See note at end of List.

## Directory of Firms: Aircraft and Parts Manufacturers, 1960

Name of firm	Location of plant
<b>Ontario:</b>	
Aeroquip (Canada) Ltd. ....	287 Bridgeland, Toronto
Aircraft Appliances & Equipment Ltd. ....	585 Dixon Rd. Weston
Aro Equipment of Canada Ltd. ....	Kipling Ave. Toronto
Avian Industries Ltd. ....	Georgetown
Avro Aircraft Ltd. ....	Malton
Bradley Aero Engine Service ....	66 Glinn, Ottawa
Canadian Flight Equipment Ltd. ....	Cobourg
Caridon Aviation Ltd. ....	305 Horner Ave. Toronto
Davair Components Ltd. ....	537 Keele, Toronto
De Havilland Aircraft of Canada, Ltd. ....	Sheppard Ave., Downsview
Dowty Equipment of Canada, Ltd. ....	Ajax
E.G.M. Machine Products Ltd. ....	123 Mc Cormick, Toronto
Elliot, W.R. Ltd. ....	134 Sydney St. S. Kitchener
Field Aviation Co. Ltd. ....	Oshawa
Fleet Manufacturing Ltd. ....	Gilmore Rd. Fort Erie
Garrett Mfg. Corp. of Canada, Ltd. ....	Racine Rd., Rexdale
Genaire Limited ....	St. Catharines
Keicher Engineering Ltd. ....	1680 King St. E. Kitchener
L.C.S. Metals Corp. Ltd. ....	147 Mary St. Brantford
Leavens Bros. Ltd. ....	3220 Dufferin Rd. Toronto
Leggart Aircraft, Ltd. ....	Gormley
Lucas-Rotax Limited ....	2200 Eglinton E. Scarborough
Martin Baker Aircraft Co. Ltd. ....	Collingwood
Modern Aircraft Products Ltd. ....	Main St. E. Kingsville
Murray, F.J., Machine Co. Ltd. ....	58 Rosemont Ave. Weston
Orenda Engines Ltd. ....	Malton
Parmatic Engineering Ltd. ....	Owen Sound
Personel Plane Services Ltd. ....	Uplands Airport, Ottawa
Renfrew Aircraft & Engineering Co. Ltd. ....	Renfrew
Rotaire Limited ....	St. Catharines
Thompson H.I. Co. of Canada, Ltd. ....	60 Johnston St. Guelph
Thompson Products Ltd. ....	St. Catharines
Tube Benders & Fabricators Ltd. ....	Streetsville
Canadian Vertol Aircraft Ltd. ....	Armstrong
York Gears Ltd. ....	825 Caledonia Rd. Toronto
<b>Manitoba:</b>	
Aero Trades Western Ltd. ....	Stevenson Airport, Winnipeg
Bristol Aircraft (Western) Ltd. ....	Berry St. St. James
Standard Aero Engine Ltd. ....	Stevenson Airport, Winnipeg
<b>Alberta:</b>	
Associated Helicopter (Repairs) Ltd. ....	No. 10 Hanger, Airport, Edmonton
Canadian Pacific Airlines (Repairs) Ltd. ....	R.C.A.F. Station, Calgary
Custom Air Industries Ltd. ....	Municipal Airport, Edmonton
Edmonton Aviation Ltd. ....	Municipal Airport, Edmonton
Falconair Aircraft Maintenance ....	Municipal Airport, Edmonton
Field Aviation Co. Ltd. ....	Municipal Airport, Calgary
National Serviceair Co. Ltd. ....	No. 16 Hanger, L.C.D. 2, Edmonton
Northwest Industries Ltd. ....	Municipal Airport, Edmonton
Western Propeller Co. Ltd. ....	Municipal Airport, Edmonton
<b>British Columbia:</b>	
Aerovine Services Ltd. ....	Clearbrook
Aviation Electric Pacific Ltd. ....	Vancouver Airport, Richmond
Bristol Aero Engines (Western) Ltd. ....	Vancouver Airport, Richmond
Fairey Aviation Co. Of Canada Ltd., The ....	Sidney
Husky Aircraft Ltd. ....	Vancouver Airport, Vancouver
Kamloops Aircraft, Ltd. ....	Municipal Airport, Kamloops
Lucas-Rotax Limited ....	Vancouver Airport, Richmond

**Note:** This is not intended to be a complete directory of firms which make aircraft and parts. It is merely a list of the concerns which have been classified to this industry for statistical purposes. It includes the main assembly plants and also the firms which were occupied solely or chiefly in making aircraft parts and in servicing and overhauling aircraft.







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