

51-202

63

Published by Authority of the Hon. James A. MacKINNON, M.P.
Minister of Trade and Commerce.

DOMINION BUREAU OF STATISTICS

TRANSPORTATION & PUBLIC UTILITIES BRANCH

OTTAWA



Dominion Statistician, S. A. CUDMORE, M.A. (Oxon.), F.S.S., F.R.S.C.

Chief, Transportation and Public Utilities Branch, G.S. Wrong, B.Sc.

CIVIL AVIATION IN CANADA

1942

The statistics in this report are collected from the operators of aircraft with commercial operators' licenses and from light aeroplane clubs with the exception of data on licenses and accidents which are supplied by the Civil Aviation Division of the Department of Transport. That division has jurisdiction over the licensing of all airports, aircraft pilots and engineers and, consequently the licensed aircraft and pilots also include private aircraft and pilots.

The commercial companies are divided into two classes, those engaged principally in international flying between Canada and the United States and those engaged exclusively, or almost exclusively, in flying between Canadian stations. The Canadian operators are divided between licensed and non licensed. The former are licensed by the Transport Board to operate between stated points and have more or less exclusive rights over the routes covered by their respective licenses. The annual reports contain some small revision in the data reported monthly by these operators.

Light aeroplane clubs are subsidized by the Dominion Government and their chief operation in previous years was the training of pilots. For flights around the club field and in instruction and practice no statistics were collected of miles flown but for flights from port to port the mileage was collected for aircraft and passengers. Due to war conditions the activities of these clubs were greatly affected and most of them ceased to operate and statistics for these clubs were omitted. The provincial aircraft are engaged almost solely in forest protection, aerial surveying and similar work.

Another division includes schools and sightseeing. The latter term is applied to operators whose main activity is taking passengers up for short flights and landing at point of take off. Such operators also perform from time to time, as also do the schools, what might be considered as transportation service, that is, transporting passengers and goods from place to place. Because the inclusion of the statistics of these operators with those of the transportation companies causes some confusion the Bureau has attempted to segregate them. Consequently the data for commercial companies as shown in this report will not be strictly comparable with data in reports prior to 1939.

Passengers and freight in table 1 include only traffic between stations and do not include estimates for sightseeing, prospecting, surveying, forestry patrol, etc; in previous reports mileages were included for forestry patrol and fire fighting by Provincial Government aircraft.

The Trans-Canada Air Lines flying between urban centers from the Atlantic to the Pacific are performing a service that existed in only a small way before 1939 and the major part of the increase in passenger traffic is due to its operation.

Operators in the northern districts of Canada are engaged mainly in serving mines, trappers, prospectors, etc., the mines supplying the greater part of their traffic. Their aircraft are equipped with floats in the summer and skis in the winter and lakes serve as landing surfaces. Consequently there are periods each spring and fall when ice conditions make operation impossible. All flying under these conditions is daylight flying. These aircraft have carried all kinds of freight, including shipments of gold, horses and cattle, canoes, mining machinery, bundles of furs, dynamite, etc. They furnish the most economical transportation service to many northern mines and it is this traffic which accounts for the heavy freight traffic by air as compared with freight carried by aircraft in other countries.

(Continued on page 6)

TABLE 1

STATISTICAL SUMMARY OF CIVIL AVIATION IN CANADA, 1942

	1942	1941	1940	1939	1938	1937
Aircraft hours flown	117,876	132,823	151,828	145,638	133,168	126,896
Aircraft miles flown	13,329,143	12,508,390	11,012,587	10,541,099	11,231,027	10,055,747
Passengers carried - Revenue	215,702	193,011	(x) 137,619	133,776	104,117	110,864
" " - Company Employees	(1) 8,961	-	-	-	-	-
" " - Non Revenue	4,384	15,048	11,406	21,168	26,990	22,284
" " - Total	229,047	208,059	149,025	154,944	131,107	134,148
Passenger Miles - Revenue	70,554,377	53,891,516	38,438,439	21,831,368	10,913,409	12,658,264
" " - Company Employees	(1) 1,601,277	-	-	-	-	-
" " - Non Revenue	1,050,947	2,832,198	2,727,363	2,873,889	2,617,337	1,398,169
" " - Total	73,206,601	56,723,714	41,165,802	24,705,257	13,530,746	14,056,433
Freight carried (lb.)	12,651,939	16,559,611	14,436,571	19,379,700	19,623,133	24,317,610
Mail carried	5,470,209	3,411,971	2,710,995	1,900,347	1,901,711	1,450,473
Total	18,122,148	19,971,582	17,147,566	21,280,047	21,524,844	25,768,083
Ton Miles - Freight	1,273,950	1,125,537	946,195	967,113	960,836	1,874,723
" " - Mail	1,464,314	894,578	610,053	433,549	281,667	112,558
" " - Total	2,738,264	2,020,115	1,556,248	1,400,462	1,242,503	1,987,281
Gasoline consumed (gallons)	4,653,555	4,389,648	3,959,798	3,297,410	2,857,847	2,222,733
Lubricating oil consumed	104,441	104,758	92,719	68,756	63,256	64,371
Licensed aircraft	437	440	473	488	471	604
" commercial pilots	129	77	128	166	226	320
" limited commercial pilots	366	322	249	191	165	129
" transport pilots	172	158	152	147	130	73
" private "	888	760	825	795	734	635
" air engineers	862	832	822	722	643	595
<u>Flying Accidents</u>						
Passengers killed	2	14	9	8	7	3
" injured	6	10	5	6	8	4
Pilots killed	5	8	4	6	10	4
" injured	4	5	3	3	5	3
Other crew killed	-	2	-	-	-	-
" " injured	-	-	-	-	-	-
Other persons killed	-	-	-	-	-	-
" " injured	-	-	-	-	-	1
Total persons killed	7	24	13	14	17	8
" " injured	10	15	9	9	13	7
Number of accidents resulting in death or injury to persons	9	(x) 17	(x) 9	(x) 7	15	8
Damage to property only	25	(x) 42	(x) 67	(x) 102	74	76
Total	34	(x) 59	(x) 76	(x) 109	89	84

(x) Revised.

(1) Previously included with non revenue passengers and passenger mileage.

TABLE 2

AIRCRAFT MILES, PASSENGERS, FREIGHT, MAIL, REVENUES AND EXPENSES, 1942

	Provincial Govern- ments	Schools Sight- Seeing	Commercial Companies			Total (8)
			International (8)	Licensed (8)	Non-licensed	
	A	B	C	D	E	F
Aircraft miles flown - Revenue transportation	-	-	796,650	11,851,289	199,714	12,781,867
" " " - Non revenue "	-	-	1,928	277,985	267,435	547,276
" " " - Total "	-	-	798,578	12,129,274	467,149	13,329,143
Passengers carried - Revenue	-	-	66,728	168,886	4,793	215,702
" " " - Company employees	-	-	3,030	2,885	3,109	8,961
" " " - Non revenue	-	-	746	2,174	1,523	4,384
" " " - Total	-	-	(5) 70,504	173,945	9,425	229,047
Freight carried - Revenue	-	-	566,619	10,353,775	640,559	11,408,001
" " " - Non revenue	-	-	79,074	502,783	665,022	1,243,938
" " " - Total	-	-	(6) 645,693	10,856,558	1,305,581	12,651,939
Mail carried	-	-	(7) 1,121,511	4,348,698	-	5,470,209
Passenger miles - Revenue	-	-	5,775,267	65,066,939	173,385	70,554,377
" " " - Company employees	-	-	289,228	997,433	317,028	1,601,277
" " " - Non revenue	-	-	62,648	871,722	119,360	1,050,947
" " " - Total	-	-	6,127,143	66,936,094	609,773	73,206,601
Freight Ton Miles - Revenue	-	-	37,520	1,077,625	12,210	1,125,912
" " " - Non revenue	-	-	7,437	109,710	30,922	148,038
" " " - Total	-	-	44,957	1,187,335	43,132	1,273,950
Mail Ton Miles	-	-	88,599	1,398,921	-	1,484,314
Aircraft hours flown - Revenue transportation	-	-	5,339	85,026	2,317	92,314
" " " - Non revenue "	-	-	13	2,488	2,726	5,227
" " " - Forestry patrol	4,476	-	-	70	49	4,595
" " " - Fishery "	76	-	-	-	44	120
" " " - Photography - Survey	35	-	-	285	239	559
" " " - Advertising	-	-	-	2	1	3
" " " - School - Instruction	43	11,396	-	1,963	288	15,690
" " " - Exhibition - Miscellaneous	220	439	32	647	43	1,368
" " " - Total	4,850	11,835	5,384	90,481	5,707	117,876
Hours flown by Crew	5,326	11,663	16,130	197,655	5,726	235,573
" " " Passengers - Revenue - Non revenue	-	-	41,536	436,053	5,875	480,534
Horse Power Hours Flown (Rating of Engines) (000)	1,863	917	9,410	114,325	1,489	127,246
Gasoline consumed (Gallons)	81,875	45,091	(1) 527,987	4,442,190	84,399	(2) 4,653,555
Lubricating oil consumed "	1,645	862	(1) 4,049	99,721	2,213	(2) 104,441
OPERATING REVENUES						
Passenger	-	-	(4) -	4,981,336	39,356	5,020,692
Mail	-	-	-	4,047,373	-	4,047,373
Freight	-	-	-	1,399,528	51,981	1,451,509
Other transportation revenues	-	-	-	307,515	-	307,515
Incidental revenues	-	-	-	1,154,229	151,666	1,305,895
Total	-	(3) 116,065	-	11,889,981	243,003	12,249,049
OPERATING EXPENSES						
Aircraft operation and maintenance	-	-	(4) -	7,053,258	91,968	7,145,226
Ground " " "	-	-	-	2,321,489	11,573	2,333,062
Incidental services	-	-	-	723,650	128,907	852,557
Traffic	-	-	-	465,855	112	463,967
General administration	-	-	-	683,757	13,529	697,286
General taxes	-	-	-	46,906	257	47,163
Total	-	(3) 108,492	-	11,292,915	246,346	11,647,753

(1) Purchased in Canada.

(2) Canadian companies only.

(3) Not distributed.

(4) Not recorded.

(5) Overhead 17,497 included.

(6) Overhead 352,859 included.

(7) Overhead 585,657 included.

(8) Statistics of Canadian portion of international routes of Trans-Canada Air Lines are included in both columns C & D. Duplications are excluded in F.

TABLE 3

INVESTMENTS - EMPLOYEES - SURVEYS - ACCIDENTS, 1942

	Provincial Governments		Schools and Sightseeing		Commercial Companies						Total	
					International		Canadian					
							Licensed		Non-licensed			
	\$		\$		\$		\$		\$		\$	
INVESTMENT												
Lands and buildings	Not Compiled		19,904	-		1,537,656	81,373		1,638,933			
Aircraft - engines - parts			81,745	-		7,380,198	281,995		7,743,938			
Tools and equipment			11,459	-		903,398	5,070		919,927			
Furniture and office appliances			3,551	-		302,706	27,456		335,713			
Miscellaneous expenditures			-	-		-	15,456		15,456			
Total			116,659	-		10,123,956	411,350		10,651,967			
	No.	Wages	No.	Wages	No.	Wages	No.	Wages	No.	Wages		
EMPLOYEES												
General officers	5	17,252	2	4,518	-	-	88	277,463	1	2,000	96	301,233
Clerks	4	7,024	3	2,915	-	-	361	503,021	3	2,609	371	515,569
Licensed pilots and co-pilots	22	65,580	8	13,939	-	-	208	998,764	16	47,358	254	1,125,641
Licensed engineers	28	66,821	6	6,933	-	-	163	396,324	8	14,361	205	484,439
Mechanics and other aircraft employees	9	19,664	6	5,745	-	-	950	1,358,290	4	3,276	969	1,886,975
Other employees	10	8,417	4	3,205	-	-	522	774,986	1	929	537	787,537
Total	78	184,758	29	37,255	-	-	2,292	4,308,848	33	70,533	2,432	4,601,394
Survey - Sq.miles sketched from aircraft	250		-		-		8,000		-		8,250	
" " " photographed - vertical	-		-		-		8,648		-		8,648	
" " " " - oblique	-		-		-		700		-		700	
Forest fires detected from air & reported	99		-		-		-		1		100	
Pupils given instruction	1		437		-		-		-		438	
" qualifying for pilots' certificates	-		74		-		-		-		74	
FLIGHT ACCIDENTS												Private air-craft
Killed - crew	-		3		-		1		1		5	1
" - passengers	-		-		-		2		-		2	-
Total	-		3		-		3		1		7	1
Injured - crew	-		-		-		1		3		4	1
" - passengers	-		-		-		3		3		6	1
Total	-		-		-		4		6		10	2
Killed in revenue transportation	-		-		-		3		1		4	1/
" " school and instruction	-		3		-		-		-		3	
Injured in revenue transportation	-		-		-		4		6		10	
" " exhibition & misc. flying	-		-		-		-		-		-	
" " school and instruction	-		-		-		-		-		-	

1/ - Not recorded.

TABLE 4

AIRCRAFT TRAFFIC BY PROVINCE OF ORIGIN, 1942

Origin of Traffic	Schools and Sightseeing (A)	Commercial Companies			Total (E)
		International (B) (7)	Canadian		
			Licensed (C)	Non-licensed (D)	
PASSENGERS - REVENUE AND NON REVENUE					
Prince Edward Island	-	-	4,552	-	4,552
Nova Scotia	-	-	9,169	-	9,169
New Brunswick	-	-	9,695	-	9,695
Quebec	600	5,471	22,835	1,907	30,813
Ontario	-	3,197	56,749	3,647	63,593
Manitoba	882	1,673	9,150	1,100	12,805
Saskatchewan	-	-	8,315	1,672	9,987
Alberta	-	714	18,688	400	19,802
British Columbia	-	4,566	20,966	239	25,571
Yukon and North-West Territories	-	653	8,274	460	9,387
Foreign Countries	-	15,395	8,521	-	23,916
Total	(1) 1,482	(3) (8) 54,349	(2) 176,914	9,425	242,170
FREIGHT - REVENUE AND NON REVENUE					
Prince Edward Island	-	-	1,365	-	1,365
Nova Scotia	-	-	69,308	-	69,308
New Brunswick	-	-	35,709	-	35,709
Quebec	-	24,548	1,798,453	90,461	1,913,462
Ontario	-	12,645	4,124,721	555,773	4,693,139
Manitoba	-	593	1,592,287	258,416	1,851,296
Saskatchewan	-	-	151,818	247,175	378,993
Alberta	-	33	558,149	56,328	614,510
British Columbia	-	95	1,417,948	17,560	1,435,603
Yukon and North-West Territories	-	1,553	1,119,259	79,868	1,200,680
Foreign Countries	-	114,841	44,687	-	159,528
Total	-	(4) (8) 525,019	(6) 10,893,704	1,305,581	12,724,304
MAIL (lbs.)					
Prince Edward Island	-	-	98,222	-	98,222
Nova Scotia	-	-	145,443	-	145,443
New Brunswick	-	-	272,146	-	272,146
Quebec	-	16,796	456,203	-	474,999
Ontario	-	15,782	997,183	-	1,012,965
Manitoba	-	31,853	343,201	-	375,054
Saskatchewan	-	-	178,494	-	178,494
Alberta	-	5,917	919,038	-	924,955
British Columbia	-	27,211	439,992	-	467,203
Yukon and North-West Territories	-	20,471	368,329	-	388,800
Foreign Countries	-	138,649	128,447	-	267,096
Total	-	(5) (8) 897,330	4,348,698	-	5,245,978

(1) Sightseers - not included in table 2.

(2) Includes 2,969 passengers received from other carriers not included in table 2.

(3) Includes 17,497 passengers from U.S. to U.S. points.

(4) " 352,859 lbs. of freight from U.S. to U.S. points.

(5) Includes 585,657 lbs. of mail from U.S. to U.S. points.

(6) " 37,146 lbs. received from another carrier not included in table 2.

(7) International traffic of Trans-Canada Air Lines included in Column C only.

(8) Includes 5,383 passengers, 17,852 lbs. of freight and 54,994 lbs. of mail not distributed between New Brunswick, Quebec & foreign countries.

(Continued from page 1)

Time and miles for "International" operators are only over Canadian territory. The time must necessarily be estimated but any error should be small. These companies report the gasoline and oil purchased in Canada which, with that used by the Canadian operators is the total consumption by civil aircraft except private and Dominion Government aircraft. Also it does not include gasoline and oil consumed by military aircraft. Excess baggage is included with freight. International mail includes both incoming and outgoing mail. Also passengers carried by International operators include passengers in both directions, and for companies flying between United States points they include through passengers on board while flying over Canadian territory.

These International operators had no accidents during 1942 in which persons were killed or injured. Canadian licensed operators had accidents in which 3 persons were killed and 4 persons were injured and for non-licensed operators 1 person was killed and 6 were injured. These were exclusive of private aircraft accidents in which 1 person was killed and 2 were injured, and exclusive of all military flying accidents in Canada.

TABLE 5

AIRPORTS IN CANADA, 1942

Kind	Landing Surfaces			
	Land only	Water only	Land & Water	Total
	No.	No.	No.	No.
Public	7	27	1	35
Dominion Government	43	-	1	44
Intermediate	40	-	-	40
Provincial	-	10	-	10
Private	5	24	1	30
Municipal Airports	12	4	2	18
Total	107	65	5	177

TABLE 6

LICENSED CIVIL AIRCRAFT IN CANADA, DECEMBER 31, 1942

Aircraft	Dominion and Provincial	Private	Light Aero-plane Clubs	Commercial ^{2/} Canadian	Total
<u>Gross Weight</u> ^{3/}					
Up to 2,000 lb.	18	19	20	75	132
2,001 to 4,000 lb.	14	4	-	46	64
4,001 to 10,000 lb.	27	1	-	61	89
Over 10,000 lb.	1	-	-	32	33
Total	60	24	20	214	318
<u>Type</u>					
Sea planes	19	1	-	-	20
Amphibians	1	-	-	-	1
Land planes	16	16	11	92	135
Convertible ^{4/}	25	6	9	122	162
Total	60	24	20	214	318

^{2/} Includes Canadian licensed aircraft of international companies.

^{3/} Total weight of aircraft with supplies and full load.

^{4/} May be equipped with wheels, floats or skis as conditions demand.

