

Corporation  
File

# TRANS - CANADA Air Lines



*The "North Star" over Ottawa*

## Annual Report

1946



# Annual Report

of the

## *TRANS-CANADA AIR LINES*



FOR THE YEAR ENDED DECEMBER 31, 1946

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*The sturdy Douglas 21-passenger aircraft—27 of which are now in T.C.A. service.*



## BOARD OF DIRECTORS

### *Elected by Shareholders:*

H. J. SYMINGTON, C.M.G., K.C. ... Director, Canadian National Railways.....	Montreal
WILFRID GAGNON, C.B.E. .... Director, Canadian National Railways.....	Montreal
J. A. NORTHEY..... Director, Canadian National Railways.....	Toronto
R. C. VAUGHAN, C.M.G. .... President, Canadian National Railways.....	Montreal

### *Appointed by Governor-in-Council:*

C. P. EDWARDS, C.M.G., O.B.E. ... Deputy Minister of Transport.....	Ottawa
J. A. WILSON, C.B.E. ....	Ottawa
GEORGE HERRING ..... Chief Superintendent of Air and Land Mail Services, Post Office Department.....	Ottawa

## OFFICERS

President.....	H. J. SYMINGTON, C.M.G., K.C., Montreal
Vice-President.....	W. F. ENGLISH, Winnipeg
General Manager, Operations.....	J. H. TUDHOPE, Winnipeg
General Traffic Manager.....	G. R. MCGREGOR, Winnipeg
Operations Manager, Central Region.....	F. I. YOUNG, Toronto
Traffic Manager, Central Region.....	W. R. CAMPBELL, Toronto
Operations Manager, Western Region.....	E. W. STULL, Lethbridge
Traffic Manager, Western Region.....	W. J. DALBY, Vancouver
Operations Manager, Eastern Region.....	T. F. K. EDMISON, Moncton
Traffic Manager, Eastern Region.....	J. G. MAXWELL, Montreal
Operations Manager, Canadian Government Trans-Atlantic Air Service .....	F. M. MCGREGOR, Montreal
Director of Research and Economic Control.....	H. C. COTTERELL, Winnipeg
Director of Facilities and Supply Control.....	F. T. WOOD, Winnipeg
Director of Personnel and Organization Control.....	E. H. MONCRIEFF, Winnipeg
Director of Maintenance and Engineering.....	J. T. BAIN, Winnipeg
Director of Maintenance and Overhaul.....	A. M. SUTHERLAND, Winnipeg
Director of Engineering.....	J. T. DYMENT, Winnipeg
Director of Flight Development.....	B. A. RAWSON, Winnipeg
Director of Flight Operations.....	H. W. SEAGRIM, Winnipeg
Director of Passenger Service.....	D. R. MACLAREN, Winnipeg
Director of Communications and Electronic Development.....	S. S. STEVENS, Winnipeg
Director of Training.....	J. H. SANDGATHE, Winnipeg
Director of Cargo Service.....	E. T. HOWE, Winnipeg
Secretary.....	W. H. HOBBS, Montreal
General Counsel.....	N. J. MACMILLAN, Montreal
Comptroller.....	T. H. COOPER, Montreal
General Auditor.....	P. W. BALDWIN, Winnipeg
Treasurer.....	C. D. COWIE, Montreal
Director of Public Relations.....	W. S. THOMPSON, C.B.E., Montreal
Chief Architect.....	J. SCHOFIELD, O.B.E., Montreal
General Manager, Express Services.....	G. E. BELLEROSE, Montreal
Chief Medical Officer.....	Dr. K. E. DOWD, Montreal



*Trans-Canada Air Lines links the Dominion with New York, Boston, Chicago, Cleveland, Detroit, Duluth and Seattle.*

*Above: Part of the New York skyline. Right: Cleveland.*



*Below: The Chicago lake front as seen from T.C.A. aircraft.*

*Above: Seattle from the air.*





## TRANS-CANADA AIR LINES

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Montreal, March 15, 1947.

To the Right Honourable the Minister of Reconstruction and Supply, Ottawa.

Sir:

The Board of Directors submit the Annual Report of Trans-Canada Air Lines for the calendar year 1946.

In spite of the uncertainties and difficulties of the post-war period, air transport made great strides in Canada. As equipment and skilled manpower again became available, Trans-Canada mainline service moved forward on a new scale. Many desirable services had to wait upon the coming of peace and the recovery of this lost time is a paramount concern of the Air Line today.

Although T.C.A. is about to complete its first decade of service and has achieved a great degree of maturity in that period, it is now more than ever in the process of intensive development common to all growing transport enterprises. This calls for unusually heavy expenditures and, as forecast in the last Annual Report, 1946 proved to be a difficult year from a financial standpoint. Costs were high. Training requirements were extensive. Throughout the year additional offices were opened and field facilities were expanded, in the expectation of spring deliveries of twenty-four DC-3 aircraft of 21-passenger capacity each. Industrial conditions were such that these deliveries were delayed so that these aircraft were not available for the peak traffic of summer and early fall. Later in the year low load factors were general on all air lines throughout the world. This occasioned the Company real financial loss, especially as extensive preparations had been made in anticipation of earlier usage.

Routes and services were increased generally. The fleet was enlarged and improved. Preparations were made for the Air Line's assumption of the Atlantic operation on a full commercial status. Training of specialized personnel, particularly pilots, was advanced to a point where adequate staff has for some time been available for the carrying out of the expanded programme.

Co-operative effort with the Department of Transport pointed the way to a general improvement in Canadian airports and airways and to better scheduled performance for aircraft. Through a continuous participation in the councils of the world air authorities, the Company played an important part in the standardization and rationalization of international air practices.

Passengers carried increased by 67%. Air express poundage rose by 10%, but air mail pounds fell by 32%.

Daily scheduled miles totalled 45,021 at December 31, 1946, an increase of 12,667 miles per day or 39%. Route miles had risen from 5,299 to 6,511. During the year, 15,864,670 miles were flown, as compared with 11,546,227 miles in 1945, an increase of 4,318,443.



A fourth daily transcontinental service was inaugurated between Montreal and Vancouver on April 1. Schedules were arranged to give improved service to Calgary and Edmonton, including a direct flight from Calgary to Vancouver.

Air transportation knit Canada and the United States even more closely together as four new routes were opened across the border. Two-and-a-half hour flights began between Toronto and Chicago on July 1, one-and-a-half hour flights between Toronto and Cleveland on August 1, one hour flights between the Canadian Lakehead and Duluth on September 16 and fifty-minute flights between Victoria and Seattle on November 1. Stops are made at London on the Chicago and Cleveland routes.

Other service extensions were a fourth Toronto-New York schedule on April 15 and an increase in Vancouver-Victoria flight frequency from two to eight daily in November.

A general development of the Air Line's traffic organization took place during 1946. More ticket offices were provided and staffs were increased. Telephone answering service was placed on a twenty-four hour basis and reservation procedures adjusted to the heavier passenger flow.

#### RESULT OF OPERATIONS

	1946	1945
Operating Revenues.....	\$12,810,805	\$10,512,588
Operating Expenses.....	13,943,939	10,250,272
	<u>\$ 1,133,134</u>	<u>\$ 262,316</u>
Miscellaneous Income Net.....	\$ 17,878	\$ 456
Interest on Capital Invested.....	—	\$ 230,000
	<u>\$ 1,115,256</u>	<u>\$ 32,772</u>
<i>Deficit 1946 - Surplus 1945</i>		

Operating revenues totalled \$12,810,805, an increase of \$2,298,217 or 22% over the preceding year. Passenger revenues increased \$2,602,537 or 48%; mail revenues decreased \$470,430 or 11%; express revenues decreased \$2,148 or 1%; revenue from sales and service increased \$77,841 or 26%; other revenue increased \$90,417. Passenger revenue contributed 63% of total revenue and mail revenue 30%.

The lifting of wartime priority restriction, the scheduling of additional flights and the use of larger aircraft brought air transport to more Canadians. The deterioration in the volume of air mail traffic was serious for T.C.A. because of a new mail contract with the Post Office Department. This agreement, which became effective on April 1, established pound-mileage as the basis for mail pay and thereby left the Air Line vulnerable to any decline in mail volume. Air mail poundage fell off by 32% and air mail revenue by \$470,430. Receipts were \$2,000,000 less than they would have been had the Company been paid under the old agreement on a basis of mileage operated.

Operating expenses totalled \$13,943,939, an increase of \$3,693,667 or 36% over the previous year. There was an increase of \$2,346,000 or 23% because of expansion and intensification of services and higher material costs. Payrolls increased by \$400,000, due to higher wage rates. There was an increase of \$948,000 covering training of personnel, depreciation and insurance on the new equipment acquired for the development of new routes and services.

After the income credit of \$17,878, there was a deficit of \$1,115,256.



The Company's reserve covering self-insurance of aircraft and other equipment, and liability to passengers and public, increased by \$404,696 during the year. Accrued depreciation on aircraft and other property increased by \$1,595,811.

Resulting from the 1945 amendments to The Trans-Canada Air Lines Act, 1937, the practice of charging operating expenses with 5% interest per annum on invested capital, paid to the Canadian National Railways, was discontinued in 1946. For the year 1946 the return to the Railway is in the form of a dividend of 3% per annum (\$154,368) on invested capital, paid out of T.C.A. surplus.

### PROPERTY AND EQUIPMENT

T.C.A. flight equipment as of December 31, 1946, consisted of:

27 Douglas DC-3 aircraft, 24 of which are equipped with two Pratt and Whitney Twin-row Wasp engines, each of 1200 horsepower, and three equipped with two Wright Cyclone engines, each of 1200 horsepower.

14 Lockheed Lodestar aircraft, equipped with two Pratt and Whitney Twin-row Wasp engines, each of 1200 horsepower.

9 Lockheed 14-08 aircraft, equipped with two Pratt and Whitney Twin-row Wasp engines, each of 1200 horsepower.

Three additional DC-3's were on order at the close of 1946. Two of them are passenger aircraft, while the third is for cargo use.

With the acquisition of the DC-3's, the Company began to retire the Lockheed aircraft, which are being offered for sale as they are released from service.

One of the year's pressing problems was that of finding sufficient accommodation at the airports for T.C.A.'s developing organization and passenger requirements. Appreciating the necessity of avoiding, as far as possible, any new construction at the present time, the Air Line took steps to use buildings previously devoted to military purposes.

At Winnipeg, the Air Line's operations headquarters and site of the main repair base, additional office space was taken in nearby R.C.A.F. buildings and a former Air Force hangar was used as a stores depot.

In Edmonton and Toronto, arrangements were made to rent Air Force hangars.

At Montreal, T.C.A. acquired two large hangars previously used by the R.A.F. Transport Command.

At Vancouver, the Company acquired the large Boeing overhaul hangar which can serve domestic operations now and the proposed Pacific service later.

New and intensified schedules called for a system-wide improvement in ticketing facilities. Accordingly, traffic offices were opened in Chicago, Cleveland, Port Arthur and Seattle, while established offices were expanded at other points.

### ROUTES AND SERVICES

At December 31, 1946, Trans-Canada Air Lines was providing service—passenger, air mail and express—over domestic routes totalling 6,511 miles between the Atlantic and





Pacific. This was an increase of 1,212 miles or 23% over 1945. The routes operated are as follows:

	Miles
Halifax—Victoria (via Moncton and Toronto).....	3,307
Moncton—St. John's, Newfoundland.....	751
Halifax—Sydney.....	201
Halifax—Blissville.....	177
Toronto—New York.....	365
Toronto—London.....	97
Toronto—Cleveland.....	211
London—Cleveland.....	171
London—Chicago (via Windsor).....	368
Fort William—Duluth.....	178
Regina—Vancouver (via Calgary).....	281
Lethbridge—Edmonton.....	301
Victoria—Seattle.....	103
	6,511

### Passenger Service

Revenue passengers numbered 305,442 in 1946, as compared with 183,121 in 1945, an increase of 122,321 or 67%. The average passenger journey was 510 miles, as compared with 579 miles in 1945. Revenue passenger miles increased 47%. Passenger revenue per revenue passenger was \$26.41 and per revenue passenger mile 5.18 cents, as compared with \$29.83 and 5.15 cents respectively in 1945.

In April, the Department of Transport authorized the abolition of the wartime passenger priority system and a return was made to normal reservation practices.

Improvements in passenger service included the provision of hot meals on the DC-3 aircraft. Reservation procedures were revised to provide faster service and to meet the much heavier flow of traffic.

### Air Mail Service

The shrinkage of air mail volume which began in 1944 was greater in 1946. Mail amounted to 2,325,977 pounds, as compared with 3,429,232 pounds in the previous year (a decrease of 32%) and 3,739,105 pounds in 1944.

### Air Express Service

Air express increased 10%, from 950,323 pounds in 1945 to 1,043,713 pounds in 1946. The average haul, however, was shorter and pound miles decreased 5%.

### Airway Facilities

Close co-ordination was maintained with the Department of Transport in the improvement of runways, field facilities, airport and navigational aids.

Construction of the Great Lakes airway progressed. When completed, this will permit flight between Toronto, Sault Ste. Marie, Port Arthur-Fort William and Winnipeg, cutting many miles and minutes from the transcontinental route north of the Lakes.

Work began at Winnipeg, Lethbridge and Toronto on the runway extensions needed for the scheduled operation of four-engined aircraft.

Although equipment was scarce, the first steps were taken towards the provision of instrument landing systems at Canadian airports. These electronic devices will facilitate scheduled performance of aircraft when visibility is limited.



T.C.A. continued to expand its network of very high frequency radio stations throughout the Maritimes and Central Canada. These provide static-free communication with the aircraft in flight. At the end of the year fourteen such installations had been completed and work was proceeding along the Montreal to Windsor airway.

### PERSONNEL

The staff of Trans-Canada Air Lines at December 31, 1946, was 3,641, as compared with 2,388 at the end of 1945. In addition, 796 employees were engaged in the Canadian Government Trans-Atlantic Air Service.

The Company had in its employ 2,371 men and women formerly in the Armed Forces. They are performing efficiently as pilots, mechanics, traffic and clerical employees and, indeed, in all areas of T.C.A. activity.

Staff training was required not only for newcomers to the Air Line but also to acquaint employees in general with the new aircraft and the changed techniques brought about by the development of traffic.

It became necessary to train many additional pilots for the increasing operations and larger fleet. Carefully selected former R.C.A.F. personnel were assembled at Winnipeg for intensive flight and ground instruction. New First Officers to the number of 147 qualified for T.C.A. service.

Approximately 1,700 maintenance employees were trained in the servicing of the DC-3 aircraft, different in many respects from the Lockheed equipment with which they had been familiar.

### SPECIAL ACTIVITIES

#### Canadian Government Trans-Atlantic Air Service

T.C.A., as the operator of the Canadian Government Trans-Atlantic Air Service, made its one thousandth crossing of the Atlantic in December. Under the Company's direction, schedules grew from twice weekly to a daily round-flight on the 3,000 mile route between Montreal and the United Kingdom. By the end of the year, the Canadian Atlantic service had come to rank in performance with any of the other international air lines. Almost 600 crossings were made without incident in 1946 and there were no scheduled flights cancelled.

On September 15, the trans-Atlantic route was extended to London. Prestwick airport, near Glasgow, remained the United Kingdom maintenance base. T.C.A. took complete control of all passenger reservations both east and west-bound, trans-Atlantic passage being obtainable in all domestic offices.

The trans-Atlantic service, conceived in wartime to meet emergency transportation needs, will be operated by a T.C.A. subsidiary company, wholly owned and controlled by the Air Line. T.C.A. will soon introduce its own four-engined aircraft, larger and more suitable for passenger carriage than those first used in the service.

T.C.A.'s trans-Atlantic flight crews, maintenance personnel and technicians are experienced and are fully qualified to assume tomorrow's larger responsibilities. The trans-Atlantic service is Canada's first venture in the international air and T.C.A. will seek to develop it with the same regard for quality that has attended the growth of the domestic system.



### **Service to Other Air Lines**

The interdependence of world air transport was seen in T.C.A.'s growing service to other lines. In 1946, the Company handled the many flights of the various trans-Atlantic operators that stopped en route at Sydney and Moncton. At Goose Bay, in Labrador, T.C.A. agreed to organize and operate in 1947 an international hotel for the use of all trans-Atlantic travellers. Following the departure of the R.A.F. Transport Command from Dorval Airport, the Air Line accepted responsibility for a wide variety of airport functions. At Vancouver, T.C.A. serviced the trans-Pacific flights of Australian National Airlines and in Western Canada provided radio communications for Northwest Airline's operations to Alaska and the Orient.

### **Goose Bay, Labrador, Service**

At the request of the Department of Transport, T.C.A. completed arrangements for the operation of a fortnightly service between Montreal and Goose Bay. These flights are primarily for the convenience of the Department's own personnel and the contractors at work at the Labrador air base. However, other passengers and cargo are carried as offered.

### **Work for British Overseas Airways Corporation**

A wartime servicing agreement was terminated on November 30, when T.C.A. ceased its maintenance and overhaul of British Overseas Airway's Liberator aircraft at Montreal. The contract was designed to assist the British Company in its movement of ferry pilots.

### **FOUR-ENGINE AIRCRAFT**

It had been hoped that the first of the four-engined North Star aircraft being built by Canadair Ltd. at Montreal would go into T.C.A. service in 1946. But here again, the difficulty of procuring materials delayed manufacture. These 40-passenger aircraft will be introduced on the Atlantic route where their high speed and comfortable interior arrangements will improve the quality of trans-oceanic travel. Soon afterwards they will be seen in Canada and on a new service to Bermuda. Powered by liquid-cooled Rolls-Royce engines of British manufacture and based on Douglas airframe design, the North Star is a blend of the world's foremost aeronautical skills.

### **PROPOSED SERVICES**

The pace of T.C.A. growth will be determined by public response to air transportation. Certain specific extensions and betterments are planned for domestic air transport in 1947. With the completion of the Great Lakes airway, it is anticipated that flights between Toronto and Winnipeg via Sault Ste. Marie and the Lakehead will be possible this summer. Inauguration of the postponed Winnipeg-Saskatoon-Edmonton flights is similarly dependent upon completion of airport construction at Saskatoon. This operation will also begin in 1947. Service between Halifax, Saint John and Boston will begin in April, with a stop at Yarmouth. Windsor, Ontario, will be added as a traffic stop to the Toronto-Chicago service. The frequency of flights will be increased on eastern inter-city routes and between Vancouver, Victoria and Seattle during the summer months. A wider use will be made of the larger DC-3 aircraft and a transcontinental schedule with four-engined North Stars is planned.



T.C.A. will open a service to Bermuda with large aircraft and West Indian, South American and trans-Pacific operations are being studied.

#### FINANCIAL CONSIDERATIONS

The great service which aviation can render to the public interest, including commerce and industry, is widely recognized. Nevertheless, current conditions render immediate financial prospects very difficult to estimate. Material and labour costs are still rising and everywhere the major air lines are hard-pressed.

T.C.A. will strive for stability during the period of economic adjustment in the air line industry. Promotional activity to stimulate public understanding and acceptance of aviation will be intensified. New revenue sources will be developed, including possible carriage of first class mail by air and an air freight service. The Air Line will relate its scheduling closely to seasonal traffic trends. Expenses will be carefully controlled.

#### THE STAFF

It has been customary to regard T.C.A. employees as "young" men and women. In actual age, they are. But with the Air Line now in its tenth year, there are many who fully qualify as veterans in experience and who have helped build Canadian aviation from its inception.

To the members of the staff, the Directors extend their appreciation of service loyally given and valuable work well done.

For the Directors,

President.



**BALANCE SHEET AT**

**ASSETS**

<b>CURRENT ASSETS:</b>		
Cash .....	\$ 674,454.88	
Working Fund Advances .....	26,456.76	
Special Deposits .....	1,647.55	
Accounts Receivable .....	1,528,760.35	
Traffic Balances Receivable .....	369,174.78	
Balances Receivable from Agents .....	73,685.54	
Material and Supplies .....	1,551,403.21	
Other Current Assets .....	140,041.54	\$ 4,365,624.61
<b>DEFERRED CHARGES:</b>		
Prepaid Charges .....	\$ 18,089.21	
Prepaid Group Life Insurance .....	13,961.69	
Research and Development Expense .....	413,067.43	
Other Deferred Charges .....	58,409.42	503,527.75
<b>INSURANCE FUND</b> .....		1,514,273.38
<b>INVESTMENTS IN AFFILIATED COMPANIES</b> .....		6,287.00
<b>CAPITAL ASSETS:</b>		
Property and Equipment .....	\$12,981,186.01	
Less Accrued Depreciation .....	5,444,077.20	7,537,108.81
		<u>\$13,926,821.55</u>

**CERTIFICATE**

We have examined the books and records of the Trans-Canada Air Lines for we certify that, in our opinion, the above Balance Sheet is properly drawn up so 31st. December, 1946, and that the relative Income and Surplus Accounts for

15th. March, 1947.



31st. DECEMBER, 1946.

		LIABILITIES	
CURRENT LIABILITIES:			
Audited Accounts Payable .....		\$1,509,826.60	
Accrued Accounts Payable .....		2,352,435.21	
Traffic Balances Payable .....		51,701.92	
Air Travel Plan Deposits .....		652,375.00	
Salaries and Wages .....		325,798.51	
Other Current Liabilities .....		565,349.70	\$ 5,457,486.94
RESERVES:			
Insurance .....		\$1,514,273.38	
Inventory .....		100,000.00	1,614,273.38
CAPITAL STOCK:			
Common Stock Authorized—Par Value \$25,000,000			
Common Stock Subscribed—Par Value .....		\$8,000,000.00	
Less Uncalled Subscriptions to Common Stock .....		1,400,000.00	6,600,000.00
SURPLUS .....			255,061.23
			\$13,926,821.55

T. H. COOPER,  
Comptroller.

**OF AUDITORS**

the year ended the 31st. December, 1946, and subject to our report to Parliament, as to exhibit a true and correct view of the affairs of the Air Lines as at the the year ended the 31st. December, 1946, are correctly stated.

GEORGE A. TOUCHE & CO.,  
Chartered Accountants.



## INCOME ACCOUNT

	1946	1945
<b>OPERATING REVENUES:</b>		
Passenger .....	\$ 8,065,477.04	\$ 5,462,939.77
Mail .....	3,780,508.72	4,250,939.06
Express .....	305,238.69	307,386.62
Excess Baggage .....	72,946.77	53,790.04
Incidental Services—Net .....	586,633.88	437,532.49
Total .....	\$12,810,805.10	\$10,512,587.98
<b>OPERATING EXPENSES:</b>		
Flight Operations .....	\$ 3,500,618.71	\$ 2,589,201.53
Flight Equipment Maintenance .....	1,445,757.05	1,459,572.02
Flight Equipment Depreciation .....	1,388,635.49	785,660.34
Ground Operations .....	3,638,415.45	2,851,379.15
Ground Facilities Maintenance .....	215,906.47	212,139.38
Ground Facilities Depreciation .....	125,776.33	118,995.41
Indirect Maintenance .....	843,058.45	553,032.04
Passenger Service .....	954,570.75	620,105.89
Traffic and Sales .....	921,238.31	511,576.29
Advertising and Publicity .....	220,758.29	64,197.83
General and Administrative .....	689,203.79	484,411.70
Total .....	\$13,943,939.09	\$10,250,271.58
Interest Income .....	8,899.87	29,620.64
Miscellaneous Income—Net .....	8,978.21	29,164.55
Interest on Capital Invested .....	—	230,000.00
Total .....	\$13,926,061.01	\$10,479,815.49
<i>Deficit 1946—Surplus 1945</i> .....	\$ 1,115,255.91	\$ 32,772.49

## SURPLUS ACCOUNT at 31st. December, 1946

Balance at 1st. January, 1946 .....		\$ 1,524,685.62
Net Loss in Operations, year 1946 .....	\$ 1,115,255.91	
Dividend Appropriation of Surplus .....	154,368.48	
Balance at 31st. December, 1946 .....	255,061.23	
Total .....	\$ 1,524,685.62	\$ 1,524,685.62

## STATISTICAL DATA

	1946	1945
Route Mileage Operated .....	6,511	5,299
Plane Miles Flown—Revenue .....	14,162,377	10,506,075
Plane Miles Flown—Non-Revenue .....	1,702,293	1,040,152
Revenue Passengers Carried .....	305,442	183,121
Average Passenger Journey—Miles .....	510	579
Percentage of Passenger Occupancy .....	76	84
Mail Ton Miles .....	1,210,716	1,571,180
Express Ton Miles .....	380,557	400,577
Excess Baggage Ton Miles .....	132,935	100,110



**FLIGHT OPERATIONS**

	1946	1945
601 Salaries and Wages .....	\$ 1,277,739.42	\$ 898,064.16
602 Supplies and Expenses .....	189,369.03	133,959.90
603 Aircraft Engine Fuels .....	1,669,901.90	1,303,157.34
604 Aircraft Engine Oils .....	64,643.02	47,905.10
605 Customs and Immigration .....	39,872.99	15,995.16
606 Flight Equipment Insurance .....	191,871.73	147,292.64
607 Liability and Compensation Insurance .....	30,884.59	22,705.57
608 Other Flight Expenses .....	36,336.03	20,121.66
	<u>\$ 3,500,618.71</u>	<u>\$ 2,589,201.53</u>

**FLIGHT EQUIPMENT MAINTENANCE**

611 Aircraft Repairs .....	\$ 762,930.77	\$ 708,941.02
612 Aircraft Propeller Repairs .....	18,480.59	30,866.34
613 Aircraft Instrument Repairs .....	58,163.66	58,292.99
614 Aircraft Engine Repairs .....	520,253.73	597,935.15
615 Aircraft Communications Equipment Repairs .....	60,835.02	42,519.55
616 Miscellaneous Flight Equipment Repairs .....	25,093.28	21,016.97
	<u>\$ 1,445,757.05</u>	<u>\$ 1,459,572.02</u>

**FLIGHT EQUIPMENT DEPRECIATION**

621 Aircraft Depreciation .....	\$ 856,986.76	\$ 449,651.14
622 Aircraft Engine Depreciation .....	326,014.30	276,295.22
623 Aircraft Propeller Depreciation .....	85,116.05	36,931.70
624 Aircraft Communication Equipment Depreciation .....	44,911.24	22,782.28
626 Spare Parts Depreciation .....	75,607.14	—
	<u>\$ 1,388,635.49</u>	<u>\$ 785,660.34</u>

**GROUND OPERATIONS**

631 Salaries and Wages—Supervision .....	\$ 392,819.16	\$ 289,523.27
632 Salaries and Wages—Flight Control .....	113,258.50	81,888.72
633 Salaries and Wages—Communications .....	301,590.43	279,152.24
634 Salaries and Wages—Station Managers .....	133,897.66	106,332.66
635 Salaries and Wages—Passenger Agents .....	233,019.53	151,179.67
635 Salaries and Wages—Reservation Agents .....	168,026.04	143,009.91
636 Salaries and Wages—Service Employees .....	1,079,448.14	849,513.21
637 Travelling and Incidental Expenses .....	184,916.15	107,013.45
638 Office Supplies and Expenses .....	115,403.93	92,141.39
639 Telephone, Telegraph and Teletype .....	260,916.86	219,635.88
640 Light, Heat, Power and Water .....	81,736.34	67,986.91
641 Rents of Fields, Buildings and Offices .....	191,545.38	132,126.87
642 Motor Vehicle Operation .....	37,848.80	27,861.74
643 Buildings and Ground Equipment Insurance .....	8,915.02	7,906.06
644 Liability and Compensation Insurance .....	7,281.60	15,907.66
645 Servicing Supplies and Expenses .....	80,490.61	68,891.10
646 Other Expenses .....	134,082.97	95,709.51
647 Express Expenses .....	113,218.33	115,598.90
	<u>\$ 3,638,415.45</u>	<u>\$ 2,851,379.15</u>

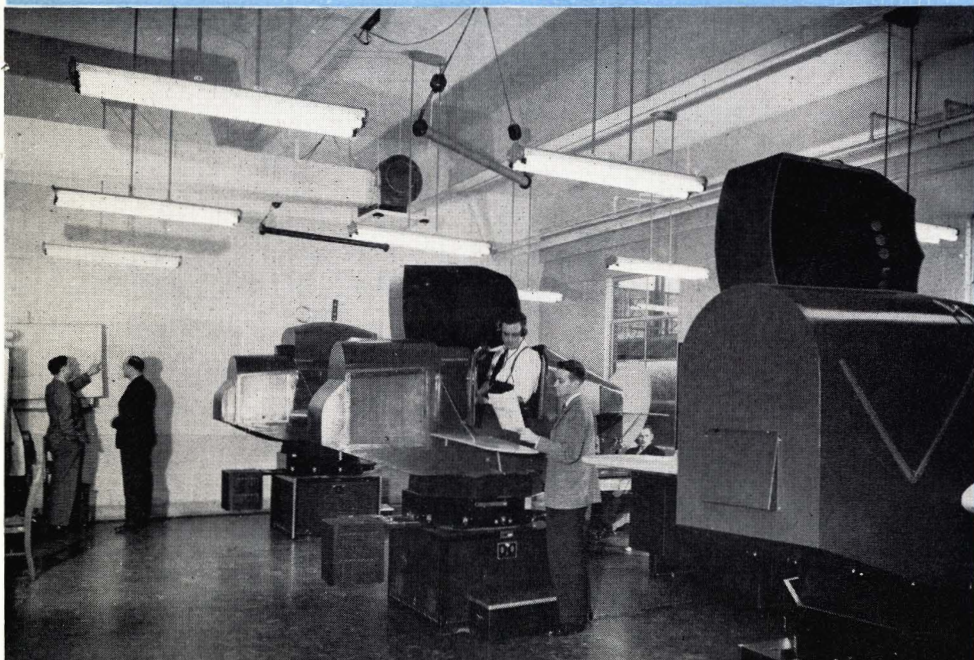
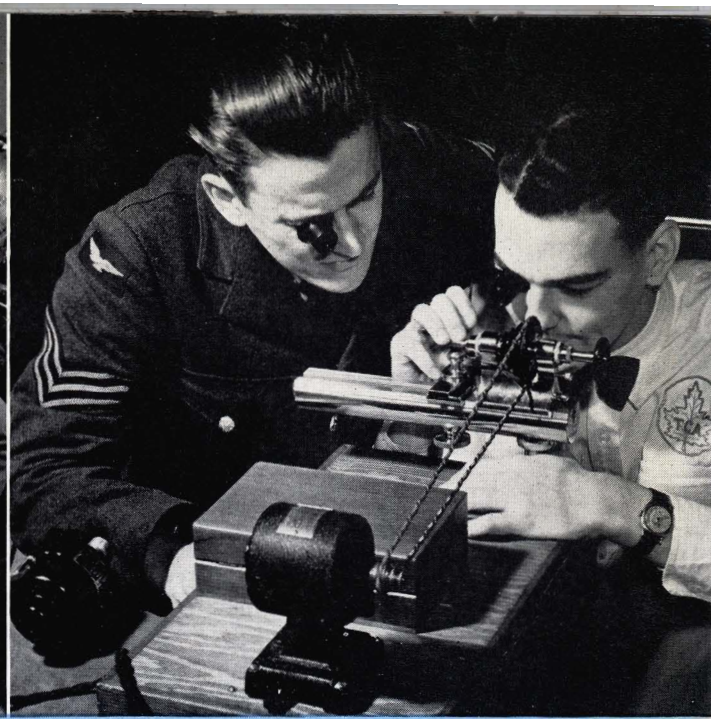
**GROUND FACILITIES MAINTENANCE**

651 Communication Equipment Repairs .....	\$ 30,021.29	\$ 51,879.44
652 Shop and Hangar Equipment Repairs .....	48,902.40	43,607.61
653 Motor Vehicle Repairs .....	41,633.83	32,466.48
654 Buildings and Improvements Repairs .....	72,162.59	67,998.53
655 Miscellaneous Ground Equipment Repairs .....	23,186.36	16,187.32
	<u>\$ 215,906.47</u>	<u>\$ 212,139.38</u>





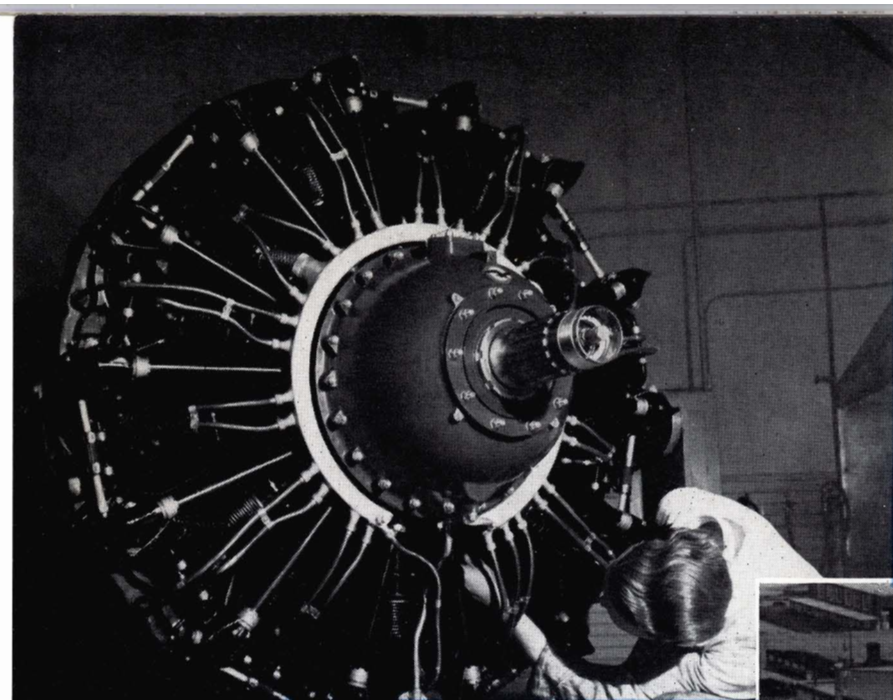
<b>GROUND FACILITIES DEPRECIATION</b>		1946	1945
658	Ground Facilities Depreciation .....	\$ 125,776.33	\$ 118,995.41
<b>INDIRECT MAINTENANCE</b>			
661	Salaries and Wages—Supervision .....	\$ 299,799.13	\$ 224,040.77
662	Travelling and Incidental Expenses .....	35,308.81	5,042.45
663	Office Supplies and Expenses .....	31,449.90	11,577.04
664	Light, Heat, Power and Water .....	32,921.65	27,824.13
665	Rents of Buildings and Offices .....	2,365.02	1,380.00
666	Shop Supplies and Expenses .....	224,509.96	180,735.34
667	Stores Expense .....	163,117.32	111,794.82
668	Stores Inventory Adjustment .....	39,501.99	29,776.71
669	Buildings, Material and Ground Equipment Insurance .....	5,437.16	4,916.62
670	Liability and Compensation Insurance .....	6,503.44	12,195.30
671	Other Expenses .....	2,144.07	3,302.28
		<u>\$ 843,058.45</u>	<u>\$ 553,032.04</u>
<b>PASSENGER SERVICE</b>			
681	Salaries and Wages—Supervision .....	\$ 29,461.44	\$ 21,000.44
682	Salaries and Wages—Stewardesses .....	207,107.51	145,229.21
683	Travelling and Incidental Expenses .....	80,989.30	60,513.63
684	Office Supplies and Expenses .....	628.94	512.70
685	Passenger—Food Service .....	356,029.87	199,224.18
686	Passenger—Supplies and Expenses .....	60,694.27	36,100.29
687	Passenger—Interrupted Flight Expenses .....	52,783.53	53,710.78
688	Liability and Compensation Insurance .....	166,875.89	103,814.66
		<u>\$ 954,570.75</u>	<u>\$ 620,105.89</u>
<b>TRAFFIC AND SALES</b>			
691	Salaries and Wages—Supervision .....	\$ 74,962.53	\$ 31,798.46
692	Salaries and Wages—Representatives .....	87,742.52	65,053.46
693	Salaries and Wages—Other Employees .....	392,504.01	207,350.61
694	Travelling and Incidental Expenses .....	77,799.01	26,070.10
695	Office Supplies and Expenses .....	63,858.73	33,598.35
696	Telephone, Telegraph and Teletype .....	102,759.30	77,915.67
697	Rents of Offices .....	64,452.36	37,922.00
698	Agency Commissions .....	51,053.48	27,376.64
699	Liability and Compensation Insurance .....	734.80	787.18
700	Other Expenses .....	5,371.57	3,703.82
		<u>\$ 921,238.31</u>	<u>\$ 511,576.29</u>
<b>ADVERTISING AND PUBLICITY</b>			
706	Advertising and Publicity .....	\$ 220,758.29	\$ 64,197.83
<b>GENERAL AND ADMINISTRATIVE</b>			
711	Salaries and Wages—Supervision .....	\$ 291,622.99	\$ 197,142.40
712	Travelling and Incidental Expenses .....	25,364.47	17,427.28
713	Office Supplies and Expenses .....	32,526.95	22,301.09
714	Telephone and Telegraph .....	4,595.28	4,429.40
716	Administration Charges from Affiliated Companies .....	50,000.00	50,000.00
717	Pensions .....	199,920.00	125,781.92
718	Liability and Compensation Insurance .....	1,347.05	1,033.42
719	Other Expenses .....	25,504.00	20,999.77
720	General Taxes .....	58,323.05	45,296.42
		<u>\$ 689,203.79</u>	<u>\$ 484,411.70</u>



Trans-Canada Air Lines has welcomed the opportunity to bring former members of the Armed Forces into its organization. It was natural that RCAF personnel in particular should come to the air line in large numbers.

The need for them was immediate, as T.C.A. broadened its scope of public service after the war years. Through extended training programmes, they were acquainted with the procedures of civil air transport. Specialized instructors gave courses ranging from four to eight weeks. At T.C.A.'s Winnipeg headquarters a dozen classrooms were in use.

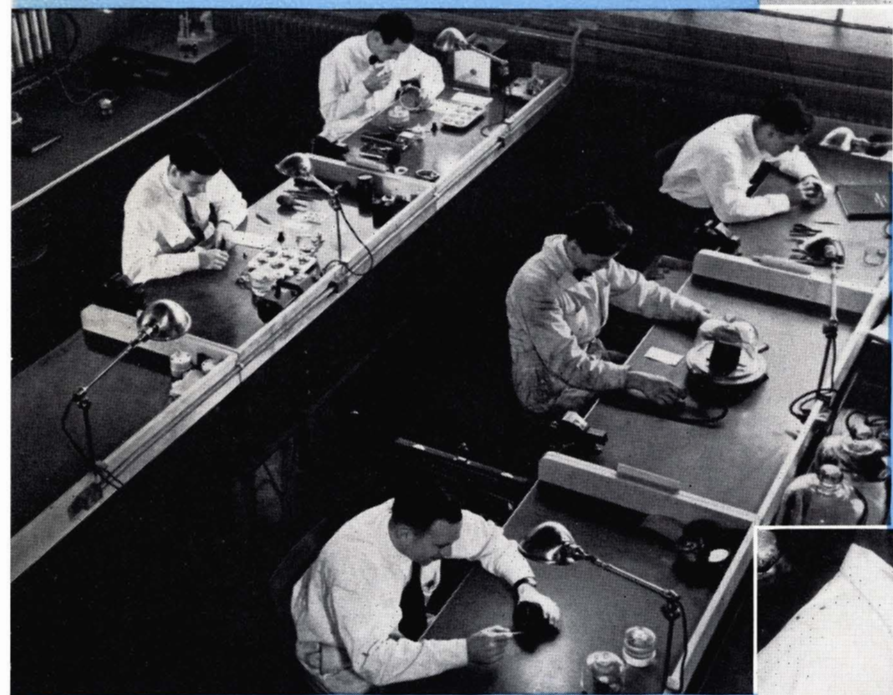
Although the training was exacting the percentage of failures was extremely small. Today these men and women are serving with T.C.A. from London, England, to Victoria, B.C. They comprise more than half the air line's strength of 4,500. Indeed some of the most important official positions in the air line are filled by former RCAF officers. In large measure, the future of Canadian commercial aviation is in their hands.



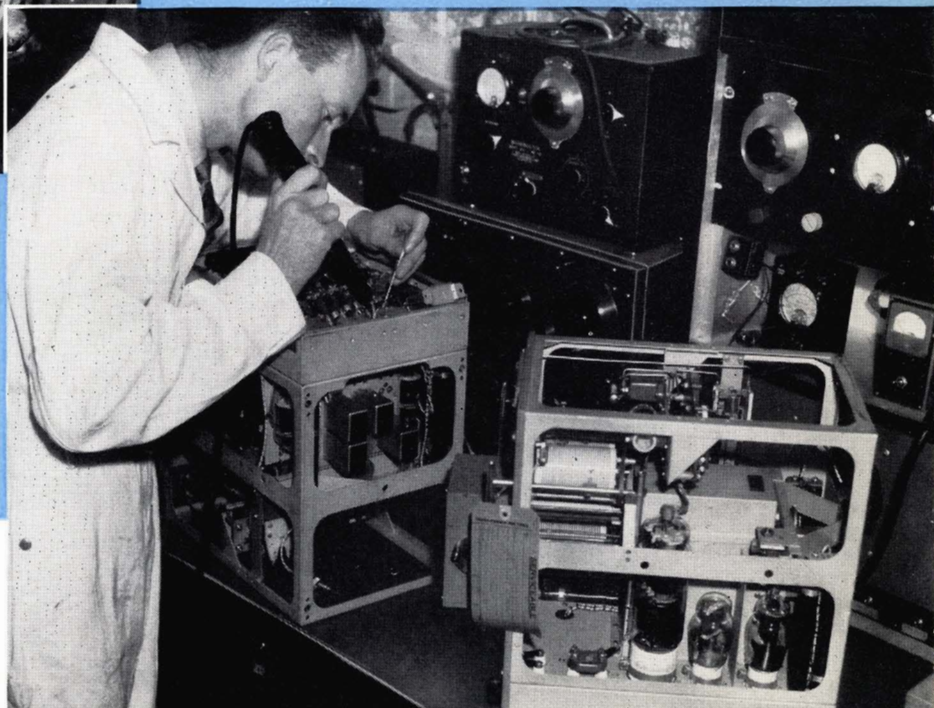
*The engines on T.C.A.'s aircraft are kept in top condition by skilled mechanics.*



*A view of T.C.A.'s main engineering and maintenance base at Winnipeg.*



*In a specialized shop, T.C.A. technicians check all aircraft instruments.*



*Aircraft radio transmitters are continuously inspected.*



## TRANS-CANADA AIR LINES: TEN YEARS OF DEVELOPMENT

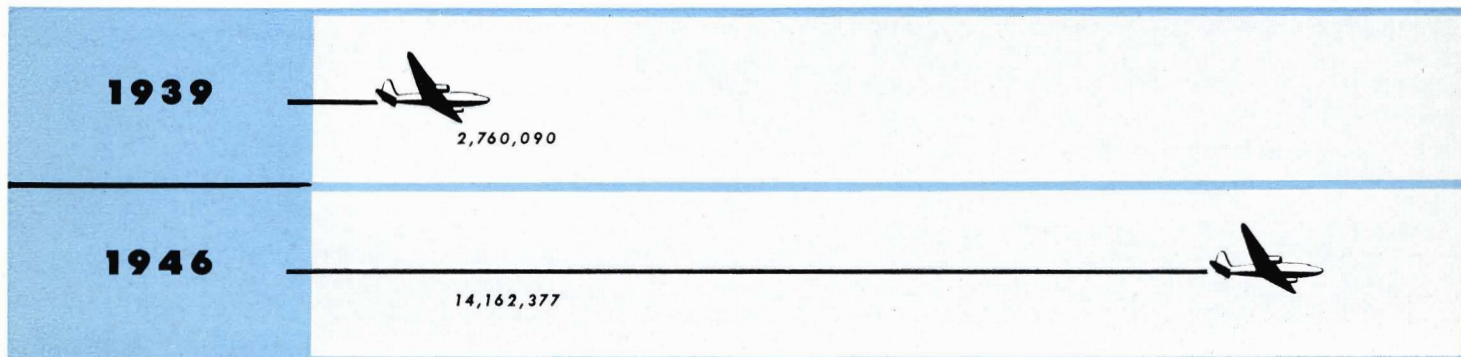
The Air Age is less than half a century old. The birth of modern aviation at Kitty Hawk in 1903, its rapid growth to maturity, and the profound changes it has wrought in the life of mankind, make up a spectacular phenomenon in a century of marvels. One of the most striking chapters in this history of man's endeavour, and one that, in a sense, sums up the whole, is the history of Trans-Canada Air Lines.

In the spring of 1947 T.C.A. observes the Tenth Anniversary of its birth. In the ten short years since it was incorporated, it has grown from a need and an idea to a modern air line spanning the North American continent from Newfoundland to Vancouver Island, crossing the Atlantic every day between Montreal and London, connecting Canada with six important United States centres, flying 18 million miles a year. In the short period of its service, it has carried more than 1,120,000 passengers, 19,300,000 pounds of mail and 4,632,000 pounds of express. It has a fleet of 50 aircraft and employs a staff of 4,437.

If ever a country needed a transcontinental air line it is Canada. In this wide domain, sprawling across the hemisphere more than 4,000 miles between the two oceans, the geographical regions—the Maritimes, Quebec and Ontario, the Prairies, and the Pacific Coast on the other side of the barrier of the Rocky Mountains—are almost little countries in themselves. They are not isolated the one from the other; they are united in one nation; yet they have their differences, in character, in outlooks and interests, in problems; and they do not always find it easy to understand each other. More rapid communication ties the widely separated communities together more closely; they are no longer separated by time and space but joined by the speed that annihilates time and space. Assisting in their mutual understanding and development, T.C.A. assists in the development of the whole of Canada. By the same token, since no country can live alone and prosper, T.C.A. plays a vital part in building Canada through its external relations, strengthening the bonds with both Great Britain and the United States.

Trans-Canada Air Lines was incorporated by Act of Parliament on April 10, 1937. The first directors' meeting was held on May 11 and the first few months were devoted to organization and assembling staff, to exploring facilities and making survey and training flights. T.C.A. service actually began on September 1, with the carriage of passengers and mails over the 122 miles between Vancouver and Seattle. At the end of 1937, T.C.A. had a staff of 71 and a fleet of five Lockheed Electras, each carrying ten passengers. At the end of 1946 the fleet had been multiplied by ten and, since larger aircraft are now being used, the passenger seating capacity was almost twenty times greater; routes were more than eighty times longer.

### REVENUE MILES FLOWN



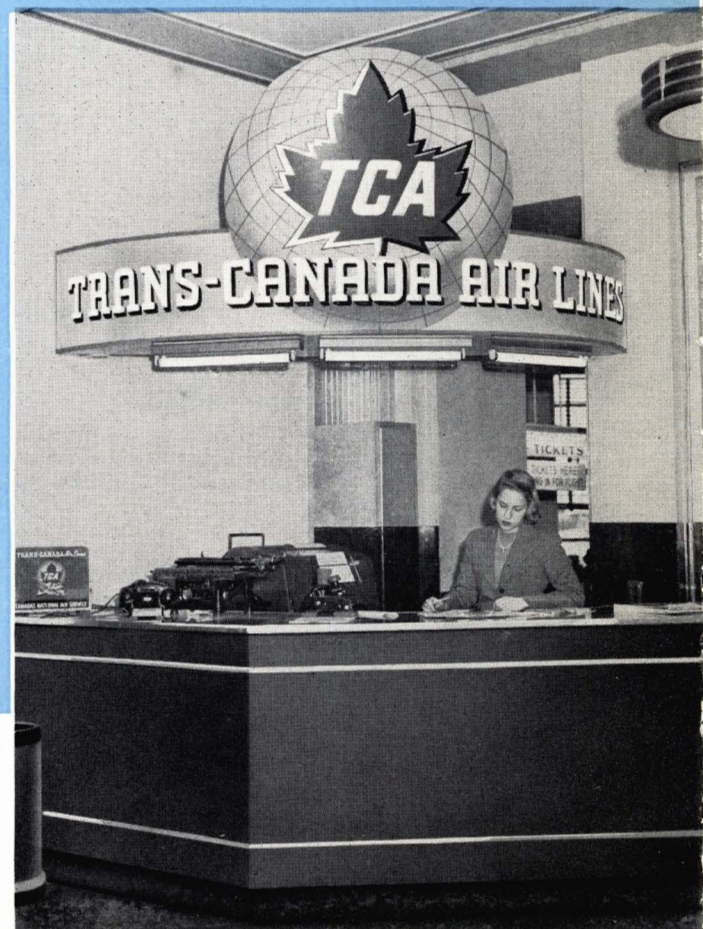


*Below: T.C.A.'s one millionth passenger is congratulated.*



*Above: Operations and stewardess personnel.*

*Right: Modern facilities for ticketing T.C.A. passengers*



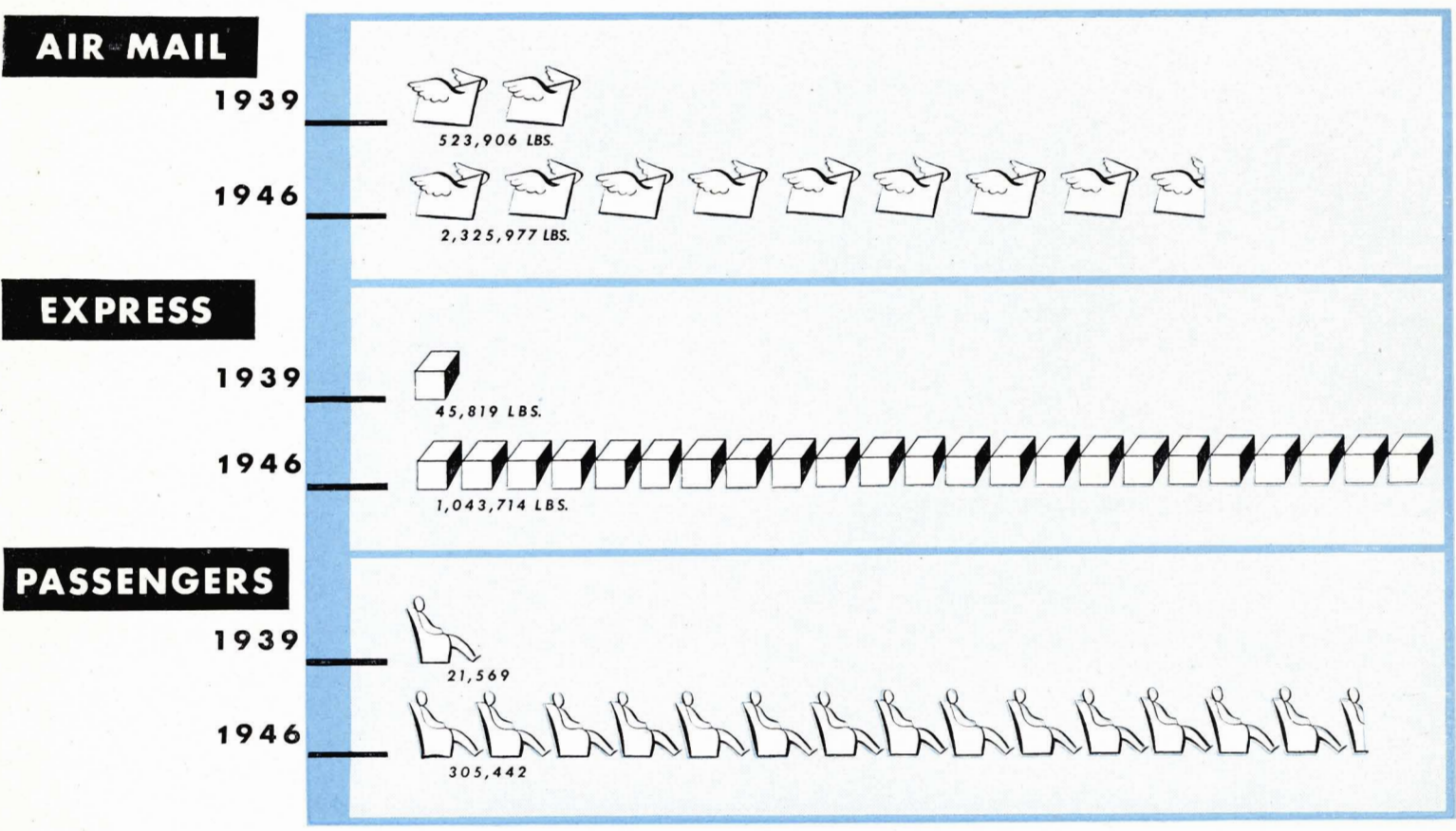


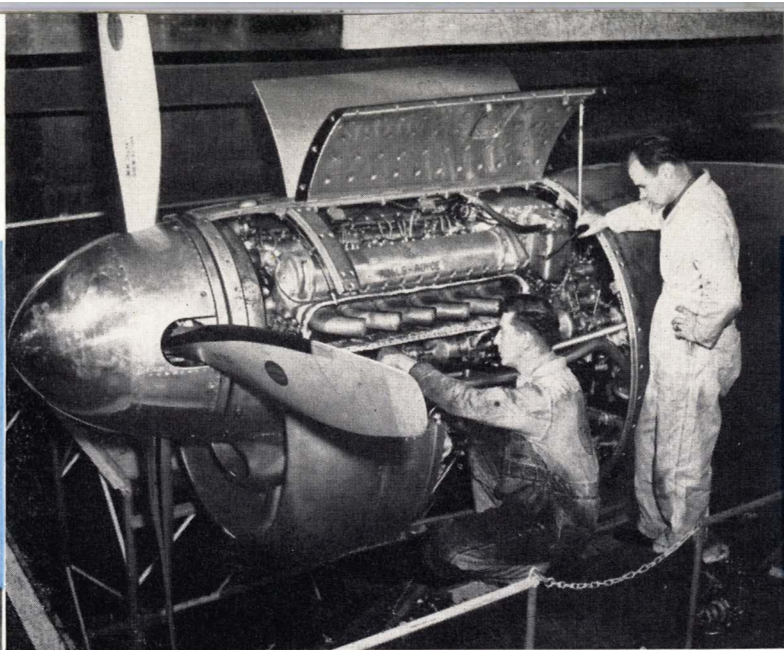
Although mail and express were being carried in 1938, it was not until the spring of 1939, two years after incorporation, that Trans-Canada began a transcontinental operation. The new air line had scarcely struck its stride when Canada went to war and T.C.A. immediately showed itself to be an instrument of the first strategic importance. The war not only brought heavy responsibility but manifold problems.

In view of the importance of its work for the nation, Trans-Canada was allowed a moderate expansion program during the war years. This included new services, routes and frequencies, larger fleet and better ground facilities, training of personnel and carrying on of aeronautical research. The T.C.A. executive also took a prominent part in international negotiations, leading to the formation of world air government and world air line associations. Not only has it made itself an indispensable part of Canadian life, maintaining such high standards of service as to win the confidence of the people it was created to serve, but it has earned the respect of the world at large.

In 1940 T.C.A. was operating two daily flights in each direction between Moncton and Vancouver, was flying between Lethbridge, Calgary and Edmonton, and between Toronto, London and Windsor, and had increased its service between Montreal, Ottawa and Toronto. It was overhauling military aircraft at its engineering and maintenance base, established in Winnipeg in 1938 and since greatly extended. It had hangars at Winnipeg, Montreal (St. Hubert), Toronto, Lethbridge and Moncton.

Ground facilities were further enlarged in 1941 and maintenance and overhaul of aircraft in the Atlantic return ferry service was undertaken at a hangar erected at the new Montreal Airport, Dorval. A line linking New York and Toronto was established. Service, which reached Halifax in 1941, was extended to Sydney, N.S. and St. John's, Newfoundland, in 1942.





*New North Star aircraft will accommodate 40 passengers in domestic service.*



*A section of the North Star is devoted to lounge and refreshment facilities, where cabin attendants cater to passenger comforts, with electric galley for hot meals.*





The outstanding event in the next three years came in 1943, when Trans-Canada began operating a wartime trans-Atlantic service between Montreal and Great Britain for the Canadian government. In the same year, the transcontinental line went as far west as Victoria. Services were increased and improved; new ticket offices were opened; a major aircraft maintenance base was established at Moncton; an experimental radar station was operated at Winnipeg; T.C.A. purchased the first of its 21-passenger DC-3 aircraft.

In 1946, transcontinental flights were increased to four daily in each direction; new services began between Toronto and Chicago and Toronto and Cleveland, linking with Montreal and other Canadian centres, between the Canadian Lakehead and Duluth and between Victoria and Seattle. Trans-Atlantic service was increased to a daily schedule and extended from Prestwick (Glasgow) to London. The North Star, to be used on this and other trans-ocean routes and in transcontinental service, made its first test flight. Static-free radio installations were made in Eastern Canada. The fleet grew and additional ground facilities were acquired.

This, in brief, is the story of the first ten years. In its eleventh year, Canada's national air service will continue to expand, inaugurating schedules between Halifax and Saint John and Boston, linking Canada with Bermuda, shortening routes across the continent, making plans for a future based on a solid foundation of achievement.

*North Star aircraft in production at the Canadair plant near Montreal.*

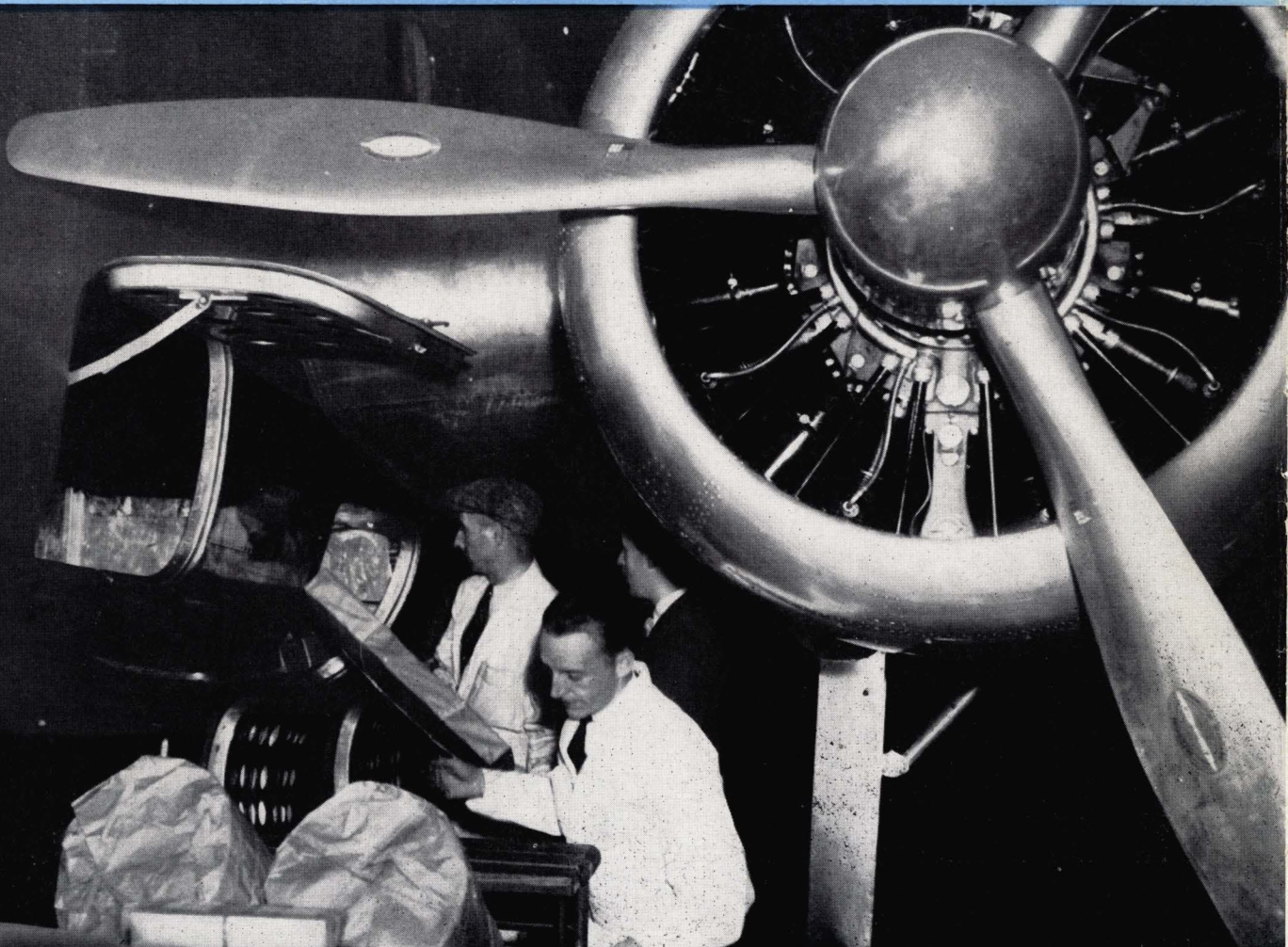






*To speed the nation's mail service, T.C.A. carries mail on all scheduled flights.*

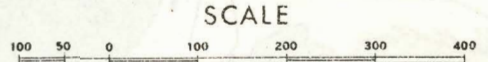
*Air express service to Canadian and United States cities and to the United Kingdom is provided by T.C.A., which handles a wide variety of commodities when speed in delivery is essential.*





**TRANS-CANADA AIR LINES**  
*Canada's National Air Service*

T.C.A. existing routes ————  
 T.C.A. projected extensions - - - - -



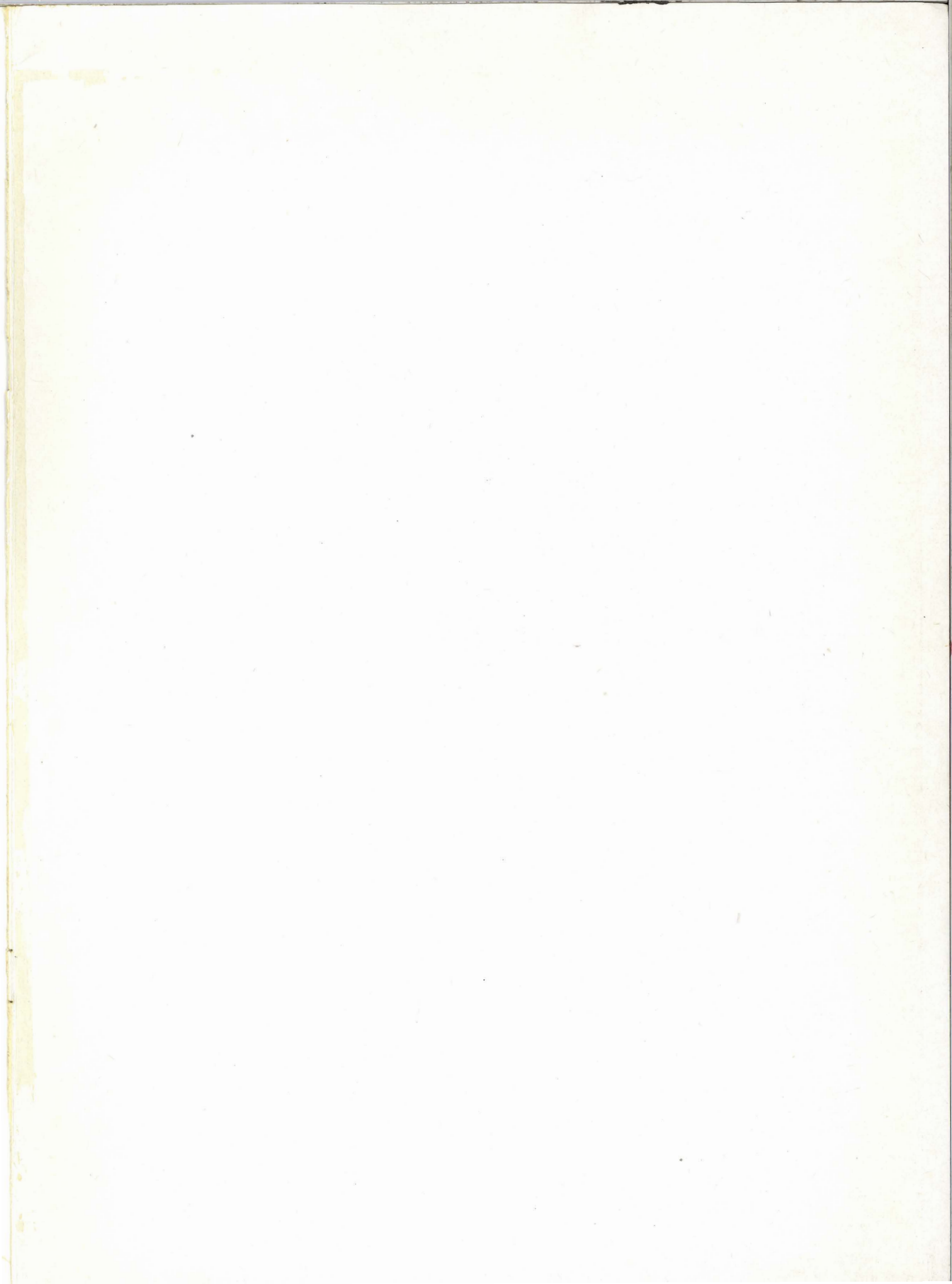
To Hawaii and Australasia

To Europe

To Bermuda, West Indies, etc.



*Serves all the Provinces of Canada and many Sections of the United States*





CANADA'S NATIONAL AIR SERVICE