

MAY

CANADIAN AVIATION

1951

Jet Trainers from U. S. In \$300 Million Plan

A number of two-seat jet trainers may be part of a \$300 millions 1951-52 Canadian defense purchasing program in the United States, according to reports from Ottawa. Speaking in New York, Hon. Brooke Claxton, defense minister, said firm orders placed in the U. S. by Canada for the last nine months of 1950 amounted to \$159 millions.

Aircraft and accessory purchases in the U. S. over the coming year will be in the neighborhood of \$100 millions. It is considered probable that a trainer version of an Amer-

ican jet fighter might be purchased in sufficient quantity to fill the gap until quantity production of the CF-100 has been achieved. Presumably a dual-control CF-100 will be produced at a later date.

North American Aviation and Lockheed have been mentioned as suppliers of a jet trainer to Canada. Lockheed has a trainer development of the F-80. Known as the T-33 (TO-2), it is powered with a J33-A-23 jet of 5,200 lb. ST. Maximum speed is over 600 mph.

RCAF Orders Beeches For Training Plan

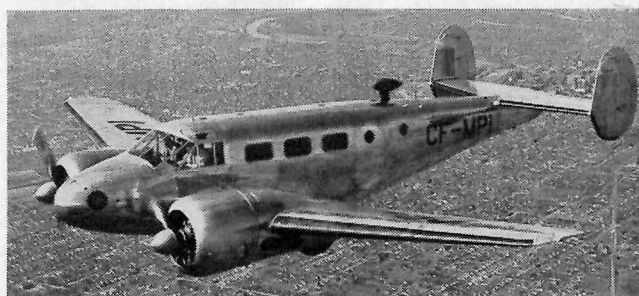
The Royal Canadian Air Force has signed a contract with the Beech Aircraft Corporation, Wichita, Kansas, which will provide Beechcraft twin-engine airplanes (D18S) for pilot training, navigation training and short-range communications work of the RCAF.

While the exact numbers of aircraft and total dollar amount of the contract have not been revealed, a "substantial number" of the planes have been purchased. First deliveries of the twin-engine Beechcrafts to the RCAF are scheduled to begin in May.

The planes are for navigation training, completely fitted with astrodomes, plotting tables, and other navigational aids and instruments; for the pilot training; and for transport. For navigation purposes the new Beechcrafts will supplement Dakotas now used in this RCAF program.

The Beechcraft Model D18S is powered by two 450-horsepower Pratt and Whitney engines, carries seven-to-nine persons, has a top speed in excess of 230 mph and a maximum range of 1420 miles.

During World War II, Beechcraft production lines turned out a total of 7,000 military versions of this twin-engine Beechcraft. Military and commercial versions of this plane are now in operation in 17 countries of the world serving in varied training and transport capacities.



BEECH FOR RCAF—A quantity of Beechcraft 18S trainers and transports, as shown above, have been ordered by the RCAF.

Defense Contracts To Be Dispersed

The distribution of defense contracts to small enterprises across the country will concern a special advisory council to operate with the recently created Dept. of Defense Production at Ottawa, according to a Government announcement. Its purpose will be to help small plants to get into the picture by showing sub-contractors where to farm out their work.

Absolve Curtiss-Reid In "Pilgrim" Crash

The French board of inquiry investigating the crash of the Canadian Pilgrim, DC 4 airliner operated by Curtiss-Reid Flying Service, has issued a preliminary report that it had discovered no evidence that the company or the aircraft were responsible for the disaster. The airliner crashed in the French Alps on Nov. 13.

Canadian Car Tools For Harvard Output

Tooling for Harvard manufacture is in progress at Montreal, pending transfer to the Fort William plant of Canadian Car & Foundry Co. Ltd., according to a statement

by J. T. Asquith, vice-pres. and general manager of the company. It was indicated that production rate would reach 25 trainers a month, with at least 1,000 planes on the order.

Burnelli Loadmaster Gets U. S. Evaluation

Prospect that the Canadian-built Burnelli Loadmaster might be purchased by the U. S. military services was seen in reports that the aircraft is in the United States on a demonstration tour.

The Burnelli freighter features an airfoil-shaped fuselage, unusually large loading doors on either side, and a spacious interior. Based on the design by Vincent Burnelli, long an exponent of the airfoil-fuselage principle, the aircraft was engineered and built by Canadian Car & Foundry Co. Ltd.

It is being flown on its current demonstration tour by Clyde Pangborn, famous pioneer pilot. It is being evaluated by the USAF and the Airborne Division of the U. S. Army.

TCA to Look at Jets In Four Years

It will be "at least four years" before Trans-Canada Air Lines will acquire jet or turboprop airliners, according to a statement of President Gordon McGregor, speaking at Calgary. There is still four years' depreciation life in the North Stars, but after that time, "we should be able to form a reasonable decision on turboprop or jet aircraft," he said.

Stuart Graham, formerly supt. of air regulations in the Dept. of Transport, will head a four-man technical assistance mission being sent to Ethiopia by the International Civil Aviation Organization.

RCAF Squadron Visits D-H Plant in U. K.

Odiham, England—Twenty-four officers from the RCAF's 421 Red Indian Squadron visited units of the de Havilland aircraft company near London last week to see how Vampire jet-fighters are made.

The tour through the de Havilland plants included inspection of engine overhaul methods for both jet and reciprocating engines, jet engine manufacture, assembly and testing.

No Malfunction Shown In Mountain Crackup

Ottawa — Hon. Lionel Chevrier, Minister of Transport, has announced the findings of a board of enquiry, appointed to investigate the accident to a Canadian Pacific Airline DC-3 aircraft, registered CF-CUF, which crashed into the side of Okanagan Mountain near Penticton, B.C. on Dec 22, 1950. The pilot and co-pilot were killed but the stewardess and the 15 passengers escaped uninjured.

Aircraft CF-CUF was on a commercial scheduled flight from Vancouver to Penticton, cruising at 15,000 feet. The investigation showed that, in accordance with normal procedure, a let-down through the overcast was planned for Penticton. During the approach to land at this airport, the aircraft struck Okanagan Mountain.

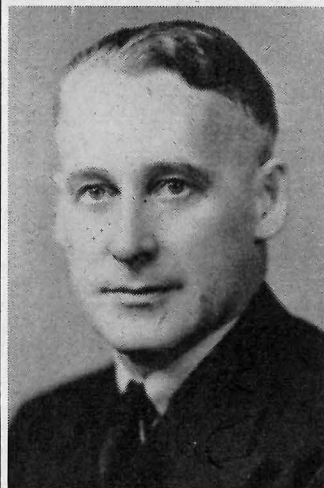
The Minister said the report of the board indicated there was no evidence of mal-

functioning of the aircraft or of any of its parts. There is a radio fan marker located at the approach to Penticton airport as a navigation aid to mark the position of the mountain. However, as both pilots were killed in the accident, the board of enquiry was not able to determine why the aircraft was at such a low altitude over Okanagan Mountain on its approach to Penticton.

Turboprop "Britannia" To Fly Next Year

Britain's newest turboprop airliner, the Proteus-powered Bristol 175 Britannia, will carry up to 92 passengers when it goes into service on British Overseas Airway Corporation's Empire routes. Improvements in the design of the prototype — due to fly early next year — have brought about increased all-up weight, payload, range and speed.

BOAC has ordered a fleet of 25 of the four-engined medium-range Britannias which they intend to use on high-density overseas services. The 175 will carry from 50 to 92 passengers over ranges of 2,700 miles at cruising speeds of between 330 and 375 mph.



R. W. RYAN who has been promoted to the position of vice-president and general manager of Canadian Pacific Airlines.

Five-Year Air Survey Completed in Ontario

Toronto — Completion of a five-year aerial survey assignment of 127,472 square miles of Northern Ontario was marked at a brief ceremony recently, at the Photographic Survey Corporation's plant here. The survey includes 125,000 photographs and 1,329 map sheets, and the work cost \$1,567,553.



W. S. HAGGETT



R. J. REYNOLDS

Directing operations of the recently-established Canadian branch of Bristol Aeroplane Company are W. S. Haggett, sales manager, and R. J. Reynolds, secretary-treasurer.



J. C. Floyd, who has been awarded the Wright Brothers Medal by the Institute of Aeronautical Sciences.

Floyd of Avro Winner of Wright Medal

James C. Floyd, chief design engineer for Avro Canada transport aircraft, has been awarded the Wright Brothers Medal of the Society of Automotive Engineers. This is the first time the award has been given to a non-American. It was given specifically for a paper on the Avro Canada Jetliner, America's only jet transport, which Mr. Floyd delivered to the SAE at a meeting in Detroit in January of 1950.

Mr. Floyd has been engaged on the design of many notable aircraft types, apart from the Jetliner. These include the Anson, and the Lancaster. He also took part in the design of the York transport in which he made numerous test flights. At Avro Manchester, where he received his early training, he was in charge of the stressing of the York and was engaged on liaison work between Avro

Manchester and the Royal Aircraft Establishment test centre at Farnborough.

From 1935 to 1936, he was loaned to the Hawker Aircraft Company to work on the design of the experimental Hawker Hotspur. His last position in England, before coming to Avro Canada in 1946 was that of chief project engineer, at the Yeoman Plant of Avro Manchester. He is now a Canadian citizen.

He is an Associate Fellow of the Royal Aeronautical Society and a member of the Institute of the Aeronautical Sciences. He has served as a member of the National Research Council structures sub-committee on aeronautical research for some years, and is a past chairman of the Toronto section of the Institute of Aeronautical Sciences.

High-Speed Problems At Institute Meet

Special problems associated with high-speed high-altitude flight were discussed by William I. Stieglitz, design safety engineer of Republic Aviation Corporation, addressing a meeting of the Institute of Aeronautical Sciences in Montreal. His subject was, "Cockpits Designed for Safety." Chairman of the meeting was John W. R. Drummond.

● Laurentide Overseas Airways Limited has applied to the Air Transport Board for a license to operate a Class 9-4 International non-scheduled Charter commercial air service to transport persons and/or goods from a base at Montreal, P.Q.



REPRESENTING CANADIAN SPERRY: B. D. "Dal" Russel, formerly with Canadair, who has been appointed director of contracts of the Sperry Gyroscope Company of Canada Ltd, with headquarters in Montreal. He will also serve in the same capacity for Ontario Hughes Owens Co. Ltd., recently purchased by Sperry.

WESTERN SKYLINES

By E. F. CLENDENAN

West Coast Correspondent

Seaplane Harbor Expansion

—In 1950 Associated Air Taxi, had 8,400 aircraft movements and 17,000 passengers in and out of the seaplane harbor at Vancouver Airport, as against 2,000 movements, and 4,980 passengers in 1949.

QCA, the other principal operator, had (aside from their contract and charter work) a total of 13,956 passengers in 1950 as against a total water-borne effort of 9,830 in 1949. This traffic-increase ratio of over 100% is being further accelerated this year.

Although progress in building landing fields may eventually curtail the use of seaplanes, authorities here feel that in B.C. their use will continue to expand and will be a most important factor for many years to come. Keen interest is therefore being centred on the seaplane harbor development. Money has been passed and it is understood that tenders will soon be called for the installation of a new wharf head 40 by 100 ft., a floating dock 300 by 20 ft., and a new land approach.

Great as this improvement will be, it is not the whole answer. The harbor now suffers from silting, and from drifting logs, as well as from inadequate dockage. Expert opinion here favors a causeway across the Fraser River's middle arm, to replace the present bridge, and to convert the harbor from a tidal-river basin into an arm of the sea. It is hoped the fairly near future may see a start made on this permanent solution to the problem of sand-bar formation, and drift wood in this important air traffic centre.

Paris - Vancouver — Highlighting the air-map proximity of these cities, now the termini of the TCA system, a large Vancouver store recently received air cargo from Paris, including Parisian hats, French pastries, and cheeses. Such merchandise can now be given its finishing touches in Paris on a Monday and go on sale in Vancouver on Wednesday.

British Columbia Air Traffic — Queen Charlotte Airlines fly all their miles within B.C.'s borders. Thus the growth of their operation is a good index to the remark-

able air expansion in the province. For the first quarter of 1951, scheduled passenger traffic figures just announced showed an increase of 187% in dollar volume.

To facilitate charter work for the Aluminum Company, QCA recently put into service a Canso, CF-FOQ, recently purchased from the Hudson's Bay Company. It was ferried from Winnipeg to Vancouver non-stop with over two tons of cargo. Doug McQueen was captain, Duncan McLaren, co-pilot. Len Fraser, QCA chief pilot, made the flight for familiarization. Chief Inspector Dick Lake acted as flight-engineer.

The 20-passenger craft is fully equipped for instrument flying and thus could make two round trips a day, Vancouver to Kemano Bay, should the work of the Aluminum Company require that frequency.

Another register of the company's activity is the coastal radio network, said to be one of the busiest on the continent, with 45 ground stations owned, or licensed on the chain. With the recent opening of their station at Stewart, on the B.C.-Alaska border, every regular QCA point of call is now radio-equipped, with additional stations used only for weather reports.

Nanaimo Airport Development — The D.O.T. has approved an item for this year's estimates to cover the cost of installation of a radio range station, and field lighting at Nanaimo. It now seems likely that the work will be completed this summer. With the airport's first-quarter traffic up 68% over last year, this is a needed improvement that will be very welcome.

New Service—Central B.C. Airlines have received approval from the ATB on their application for a general license for a non-scheduled service from Prince George to Prince Rupert, and have inaugurated the service, using an Anson V. Calls are made at Vanderhoof and Smithers en route to Terrace. At present the 70 miles to Prince Rupert is completed by road but as traffic builds up, this link may be handled by seaplane.

TCA Traffic — The biggest

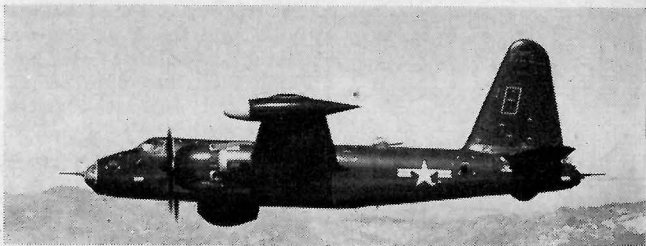
year in TCA history was forecast by President G. R. McGregor, who addressed a meeting of traffic and sales executives from the entire system, who met in Victoria recently.

Overhaul Accelerated—The

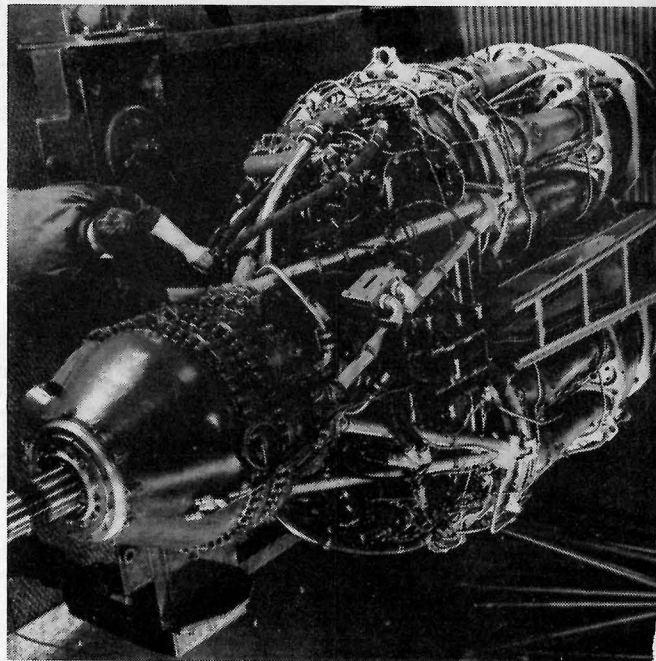
big overhaul plant of British Aeroplane Engines at the airport has seen a steady increase of activity since it was acquired by Bristol a year ago. The labor force now is about double the total 12 months ago.



SOMEWHERE IN KOREA—Members of the first RCAF aircrew to go into Korea on a familiarization flight met a fellow-countryman at an advanced air base in Korea. He is F/L Omer Levesque, second from left, of Montreal, who has been flying with the 4th Fighter-Interceptor Wing of the USAF in combat against communist forces in Korea. Left to right: F/O C. G. Jessup; F/L Levesque; F/L J. A. Watt.



LOCKHEED P2V-5, USN anti-submarine "killer" version recently unveiled by Lockheed Aircraft Corporation. Earlier models are flying in Korea. The UK and Australia plan to order this type while Canada has shown considerable interest in it, according to Lockheed.



PROTEUS FOR A PRINCESS—The first Bristol Coupled Proteus propeller-turbine unit for installation in the 140-ton Saunders-Roe Princess flying boat was dispatched to Southampton recently. The unit will be installed in the first of three flying boats under construction. Photo shows the Coupled Proteus in the shop for cocooning before shipping to Saunders-Roe.

Plane Program Spearheads Big U. K. Defense Effort

London — Air power has been given top priority in Britain's \$3,750 millions 1951 defense program, according to a statement by Defense Minister Shinwell. About one third of the \$1,530 millions appropriated for defense production, research and development will be applied to the aircraft industry. This will double the corresponding appropriation for last year.

When the three-year plan comes to its peak, the annual output of combat aircraft will have been quadrupled. But this program can only be achieved if machine tools and raw materials come in, especially from the United States.

Tactical bombers, four-jet high-altitude bombers, and more Coastal Command and Transport Command planes will be produced. The interceptor force will be expanded and increased attention will be given to the production of machines for combating submarines.

The D-H Venom, most advanced British fighter in production, will go into squadron service this year. More advanced types of jet fighters have been ordered in large numbers. These will go into production "straight off the drawing board" and will have an improved performance on the high speed prototype fighters now flying. The night fighter force will be increased with the introduction of the new Gloster Meteor NF11.

The four-engined Avro Shackleton long-range search aircraft is already being delivered to Coastal Command. The run-down in the strength of Transport Command has been stopped and new Auxiliary Transport Squadrons organized. More squadrons have been formed in the Middle East and advanced types of aircraft sent both there and to the Far East.

The English Electric Canberra tactical bomber will soon be delivered to Royal Air Force squadrons, and several allied nations are expected to adopt it. A new four-jet high-altitude bomber has been ordered off the drawing board and the pro-

totype will be flying shortly.

New jet aircraft are being built for the Royal Navy — the Vickers Supermarine Attacker and Hawker Sea Hawk, the Venom all-weather and night fighter. Two carrier-borne turboprop aircraft are in production — the Westland Wyvern strike-fighter and the Fairey 17. The Royal Navy strike squadrons will begin re-equipment with gas-turbine-powered aircraft this year.

Jet engines will be built in increasing numbers. Special tools have been designed for speeding up the manufacture of the hundreds of blades which go into the compressor units of the gas-turbine engine.

A new production line of the Boulton Paul Balliol, will



FIRST CANADIAN JET PILOT TO FLY ATLANTIC—S/L Cal Bricker, DFC, 29, first Canadian pilot to fly the Atlantic in a jet plane. He made the flight while on exchange duties with the U. S. Air Force, in an American Thunderjet. Born in Regina, S/L Bricker joined the RCAF in January, 1940, went overseas three years later, and won the DFC while flying a tour of operations on Spitfires. He was back in Canada, recently, discussing jet-fighter operations with officials at Air Force Headquarters in Ottawa.

be set up by Blackburn & General Aircraft Ltd., at Brough.

Avro Jetliner Testing New Goodyear De-Icing

The Avro Jetliner is on a continent-wide search for bad weather. Fitted with a new type of Goodyear de-icers designed in co-operation with the National Research Council, the aircraft will test this equipment in all types of icing conditions at different speeds. The equipment has been produced by the Goodyear Tire and Rubber Company.

The first stop of the aircraft will be Cleveland, Ohio, but during the next few weeks flights may be made on 24-hour notice to other bad-weather areas on the continent.

The new electro-thermal de-icing pads on the leading edges of the wings and empennage of the Jetliner have been previously tested out in the NRC's icing wind tunnel in their low temperature laboratory and in the RCAF's specially equipped North Star, called the "Rockcliffe Ice Wagon."

The new equipment is a de-icing rather than anti-icing system. Its basic principle is that the ice is allowed to form on the wing and then is shed at intervals by heating

the pads. This results in a large saving of heating requirements since only a small proportion of the ice has to be melted.

Order Martin 404 Military Transport

Baltimore, Md. — First military sale of Martin 4-0-4 twin-engine airliners was announced recently when it was revealed that two transport aircraft had been ordered by the U. S. Coast Guard, from The Glenn L. Martin Company. The airplanes will generally conform to the specifications of the 101 commercial airliners now under construction at Martin for Eastern Air Lines and Trans-World Airlines.

Power for the Coast Guard 4-0-4 will be furnished by two Pratt & Whitney R-2800-34-W engines each developing 2,400 Hp. Normal takeoff weight will be 43,000 lb. Top speed for the airplane will be over 300 mph, with a maximum range of 10,000 feet of more than 2,500 miles. Normal cruising speed will be 260 mph.



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FLY IN RAIN?

If you do much flying in rain, you are well aware that a high proportion of the reduction of visibility in rain is due to accumulation of an irregular mass of water on the windshield. This causes both reduced visibility and refraction errors in vision.

This condition can be almost entirely eliminated by the use of FC-10 Rain Repellent as you can see from the photograph below.



Dr. D. F. Stedman of National Research Council, Ottawa, Ont., is shown here spraying water on observation nose of a B-25. The right half is treated with FC-10 repellent and the left half is untreated.

This marvelous safety device is available for use on large or small aircraft in kit form at low cost. Kits contain sufficient material to treat at least ten average sized windows. Dry flight or dormant periods do not injure the repellent and dirty windows may be repolished a number of times before a new application is necessary. FC-10 may be applied to all types and shapes of glass or plastics, rain or shine, at all temperatures from -40° F. to 135° F. Normal de-icing by heat or alcohol does not affect repellent properties.

An FC-10 Kit, priced at \$12.50, may save your life! We'll ship this life-saver to you right away. Full information on request.

LEAVENS BROS
Air Services Ltd.

Barker Airport

Toronto

Commercial Jet Operation Chief Topic of Meeting

Design and operational problems of turbine-driven commercial aircraft both jet and turbo-prop will be the subject for discussion June 13 in Toronto at the semi-annual meeting of the Aviation Division of the American Society of Mechanical Engineers.

Five papers, by leading technicians of British and Canadian aircraft manufacturers and airline operators, will be presented.

Three of the five authors will come from England to deliver their papers, while the other two will represent the Canadian aircraft and airline industry. The program, to be held in the Royal York Hotel, will be co-sponsored, by the Institute of the Aeronautical Sciences, the Society of Automotive Engineers, and the Gas Turbine Power Division of ASME.

The papers are as follows:

1. "Turbo Jet Aircraft with

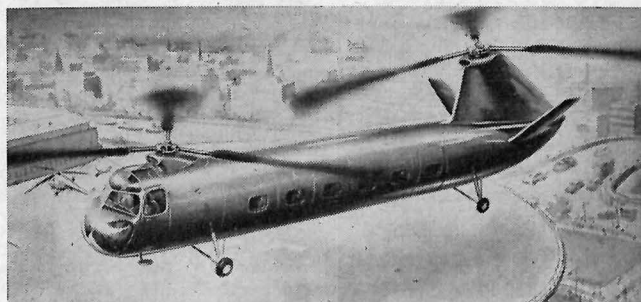
Special Reference to the 'Jetliner,'" by E. H. Atkin, chief engineer, A. V. Roe Canada Ltd., Toronto.

2. "Propeller Turbine Aircraft with Special Reference to the 'Apollo,'" by H. R. Watson, chief designer, Sir W. G. Armstrong Whitworth Aircraft Ltd., Coventry England.

3. "The Mamba Engine in the Apollo Aircraft," by B. H. Slatter, head experimental flight engineer, Armstrong Siddeley Motors Ltd., Coventry, England.

4. "Technical Problems of Turbo Jet Transports with Special Reference to the Comet," by W. G. Townley, general manager of operations, Canadian Pacific Airlines, Ltd., Vancouver.

5. "The Flying Boat with Special Reference to the Princess," by Henry Knowler, chief designer, Saunders-Roe Ltd., Isle of Wight, England.



NEW HELICOPTER — Sketch of the Bristol 172 twin-rotor 13-passenger helicopter which is expected to commence flight trials soon. Normal all-up weight is 10,600 lb. Each of the Leonides LE25HVM engines is rated at 550 hp. It is claimed that the helicopter will be able to fly on one rotor in an emergency.

Sask. Govt. Airways Shows 50% Increase

Regina — An operations increase of more than 50% during the past fiscal year report of Saskatchewan Government Airways, tabled in the legislature. The airways fiscal year ended Oct. 31, 1950.

The report showed an increase of 86% in passenger traffic, 29% in volume of cargo, and 89% in pounds of mail carried, as compared with the previous fiscal year. During the period under review, the corporation's planes carried a total of 7,096 pas-

sengers, compared to 3,814 the previous year; 1,877,486 lb of cargo compared to 1,448,453; and 72,999 lb. of mail compared to 38,586.

These increases, the report said, indicated that the Airways was becoming firmly established as a dependable air carrier, and stressed its importance in assisting mineral development in northern Saskatchewan.

The corporation showed a net operating profit of \$23,383 during the fiscal year, despite increased wages, enlarged staff, and no increase in fares

or tariffs. Largest single source of revenue during the year was from charter service — \$160,823.15. This was followed by freight and excess baggage — \$81,006.47 — and passenger service — \$46,004.70.

Plan Reunion No. 13 EFTS

A reunion of former instructors at No. 13 EFTS, St. Eugene, has been planned for Saturday, June 9, in Toronto. Scene of the gathering will be in the King Edward hotel. Those interested may obtain further information from George Walker, 7 Baird Ave., Toronto.

New RCAF Air Schools Planned for West

The new flying schools, to enable boosting of RCAF air crew output to 3,000 a year, will be located in Manitoba, Saskatchewan and Alberta. Hon. Brooke Claxton, defense minister, has announced.

Mr. Claxton gave the following details:

"The new schools to be re-established are flying training schools at Claresholm and Penhold in Alberta and Moose Jaw in Saskatchewan. Advanced flying training schools are to be at Saskatoon in Saskatchewan and Portage la Prairie in Manitoba, with a gunnery school at Macdonald. The flying training school at Gimli will later be converted to an advanced training school. A large air navigation school will be established at Winnipeg in addition to the present school at Summerside, P.E.I.

"Of the existing establishments, Aylmer, Camp Borden and Clinton in Ontario will concentrate on trades training. Selection and manning will be carried on at St. Johns, Quebec.

"With hardly an exception, all the other establishments will be increased in accordance with the expansion of the program. Abbotsford will be used this summer for training some of the auxiliary squadrons, others going to other schools. In all probability Abbotsford will later be used as an operational station.

"We shall also be acquiring from the United States some two-seater jet training aircraft to be used until our own production enables us to meet all our own needs for this type of aircraft."