The NEWS

DECEMBER CANADIAN AVIATION 1949

Australia Pondering Jets Interested in Jetliner

A decision on selection of a jet airliner for the government-owned Trans-Australia Airlines is expected soon, according to reports from Sydney. The choice will be between the Canadian Avro C-102 Jetliner and the Vickers Viscount turbo-prop airliner.

This summer, A. W. Coles, TAA chief, accompanied by J. L. Watkins, the airline's superintendent of technical services, visited Canada and Great Britain to study these aircraft.

Mr. Hudson Fysh, managing director of Qantas, also visited England to study the new aircraft.

Technical representatives of Australian National Airways, chief rival of the government-owned airline, studied the Viscount. As a result, ANA has announced it will spend $3,200,000 for 10 Viscounts, the first to be delivered late in 1951 or early in 1952. The airline's general manager has announced that this order will be placed when the manufacturers have met certain operational specifications.

Planning Production Line For Apollo Prop Turbine

Plans for a production line to manufacture 50 Apollo prop-turbine airliners, subject to receipt of an expected order for 25 of this type, have been announced in England by Armstrong-Whitworth, the manufacturers. (See front cover).

The Apollo was Britain's second turbine-propeller airliner to fly, the first being the Vickers Viscount. (The Viscount recently was granted its Certificate of Airworthiness).

The Apollo is powered by four Armstrong Siddeley Mamba prop-turbine engines each developing 1,140 equivalent horsepower. The pressurized cabin can be arranged to carry from 26-40 passengers. The Apollo has a top speed of almost 350 mph. and is intended for operation over stage lengths of up to 900 miles, flying at 276 mph. at 20,000 ft.

With an all-up weight of 43,000 lb., the Apollo takes off and climbs to 50 ft. in 1,060 yards; on four engines it climbs away at 1,730 ft. a minute and on three engines the initial rate of climb is still more than 1,000 ft. a minute.

Service ceiling on three engines of 23,500 ft. is well above the normal operating height of 20,000 ft. The Apollo can carry its normal payload of 7,500 lb. over a stage length of 860 miles at 305 mph. at 20,000 ft. or for 920 miles when flying at 250 mph. at the same height.

The maximum payload of 10,000 lb. can be carried for stage lengths of up to 480 miles.

The Mamba engines give a mileage per gallon of between 1.42 at an all-up weight of 42,000 lb., and 1.74 at an all-up weight of 32,000 lb. Fuel consumption when stacking at 150 miles-an-hour at low altitude is 150 gallons an hour. The same consumption at 20,000 ft. on only 40 per cent. of maximum power increases the cruising speed by 104 miles-an-hour to 254 miles-an-hour.

Britain has flown four prop-turbine airliners in the past year. These are: the Viscount, Hermes 5, Apollo and Marathon 2.

Canadian Air Industry Showed Increase in '48

During 1948, the Canadian industry manufactured 65 aircraft with a value of $11,816,000. In 1947, 199 planes were manufactured with a value of $30,305,000. Total production, however, including parts, was $45,600,000 in 1948 compared with $44,304,000 in the previous year.

Assembly plants accounted for $40,778,000 of the total, practically the same as in 1947, while the value of parts was $4,822,000 compared with $3,548,000 a year earlier.

The production of aircraft compared with the peak of 4,095 built in Canada in 1944.

There were 139 aircraft imported, valued at $652,000, while 406, valued at $2,193,000 were imported the previous year.

The industry comprised 11 plants, employing 8,049 persons with a payroll of $19,829,987 compared with 12 plants, employing 9,374 persons with a payroll of $21,422,060 in 1947.

Former McKee Winner Archibald Passes

First private aircraft owner in British Columbia, winner of the McKee Trophy in 1935, and retired mining executive, W. M. Archibald died in Toronto in November at the age of 73. Mr. Archibald had retired in 1939 as vice-president of Consolidated Mining and Smelting Co. He also was a director of The de Havilland Aircraft of Canada Ltd.

Waterton Comes to Canada Will Test Fly Avro C-100

S/L W. A. Waterton, Canadian-born chief test pilot of Gloster Aircraft in England, who is on his way to Canada where, it is presumed, he will assist Avro Canada in the test flying program of the C-100 jet fighter nearing completion for the RCAF. A graduate of Royal Military College, Kingston, Waterton had a distinguished record in the RAF. He is author of an article on high altitude flight in this issue.

Lord Tedder, chief of the Imperial Air Staff, took time out during his recent visit to Canada to inspect the aircraft manufacturing facilities at Canadair's Cartierville plant. He is shown here, with Air Marshal Curtis, H. Oliver West and T. J. Emmert, examining a model layout of the interior of the new $2 millions extension to the plant, now under construction.

Jetliner Performance Up C-100 to Fly Soon

Latest indications are that the secret RCAF jet fighter, the C-100, under construction at the Avro Canada plant, Malton, Ont. will fly at the end of the year or early in 1950. No further information on this fighter, which was designed specifically for northern defense operations, has been released at this writing.

Meantime, the prolonged test flying program of the C-102 Jetliner is well under way, at the hands of its pilot, Don Rogers. At the end of November the 400-mph-plus transport had logged between 25 and 30 hours. According to Avro officials, actual performance, particularly top speed, seems to be better than design estimates. It was indicated that certain modifications might be made to increase the Jetliner's range.

Transport Development Said to be in Danger

Los Angeles — A warning that the development of future large transport airplanes in the U. S. may be brought to a standstill unless there is a major revision in the present civil certification system has been sounded by Wellwood E. Beall, vice-pres., engineering, Boeing Airplane Company.

Beall made a strong plea for "one standard" as the basis for certification of new airplanes. At the present time, he said, aircraft manufacturers often must spend more than a million dollars to commercially-certify airplanes similar to ones already built for, accepted and proved by the National Military Establishment.

Private enterprise can no longer support such a double standard, he declared.

Beall's solution would be the mutual acceptance of transport type airplanes by military and civil agencies under the same principles that were applied to civil conversion and certification of surplus military aircraft after World War II. This was accomplished, Beall said, under a new section of Civil Air Regulations which acknowledged that airplanes built to military standards could be considered acceptable for civil use with only minor modifications.

Patriarche Promoted

Appointment of Group Capt. V. H. Patriarche, OBE, AFC, of Winnipeg as Director of Service Requirements for the RCAF, has been announced at Ottawa. G/C Patriarche replaces G/C D. S. Blaine, of Ottawa who will be attached to the Canadian Joint Staff in the United States.

G/C Patriarche, 41, was born in Winnipeg and received a Bachelor of Science degree in civil engineering at the University of Manitoba. While at University he was a member of both the Army and RCAF reserve training programs, and received commissioned rank in each service. After graduation G/C Patriarche began a career of bush flying with private firms, eventually becoming General Traffic Manager of Canadian Airways. When war broke out he was recalled to the RCAF.

Successor to Roper Civil Air Attache

To succeed George Roper, recently posted to Mexico City, Miss Claire Watson has been appointed U. S. Civil Air Attache at Ottawa. She served in the civil air attache's office at the U. S. embassy in London, England, prior to her current assignment.

Expect Further Delay On Air Agreement

The prospect of further delay in implementation of the Canada-U. S. agreement would allow TCA to fly Montreal-New York was seen despite a court decision against Colonial Airlines' motion questioning the legality of the agreement.

Meantime, Canadian Pacific Air Lines has been granted fifth freedom rights at Honolulu on its Australia service. This was another condition of the agreement.

The international pact involving transborder services was to have gone into effect last September. However, Colonial Airlines, facing loss of revenue on its rich Montreal-New York monopoly run, questioned the validity of the agreement and challenged it in the courts.

Now that a U. S. court has rejected Colonial's motion, it is expected that the Civil Aeronautics Board in the U. S. will seek to remove a temporary restraining order which has prevented it from recommending to President Truman that TCA be allowed to fly the route.

However, it is anticipated that Colonial will appeal the court decision and at the same time will seek another injunction to keep TCA off the route pending a decision on the appeal.

Meantime, the Canadian Air Transport Board has been granting U. S. airlines 30-day extensions on their rights to use the airport facilities in Newfoundland on trans-Atlantic operations. These also are covered by the Canada-U. S. agreement.

Special Shell Aircraft Studies Fuels for Jets

A program to study performance of jet fuels and lubricants in actual flight operation has been announced by J. H. Doolittle, vice-president of Shell Oil Company. A special plane, recently acquired from the Air Force by Shell is now in Oakland, California, being fitted with analytical and recording instruments. It is a B-26 type bomber equipped both with twin reciprocating engines and with a jet engine. It is officially designated an XP-26F because of its experimental nature.

To permit normal operation of the General Electric 1-16 (J-31) jet engine, which is installed in the plane's fuselage, a scoop is located on top of the fuselage to funnel air into the jet and the tail pipe is led through the end of the fuselage, as in fighters.

In addition to its role in jet research, the auxiliary engine may be used to increase the speed of the plane during tests of the reciprocating engines mounted on the wings.

The plane's instrumentation is such that a minimum of visual readings need be recorded while the plane is in the air. A camera mounted in front of the instrument panel photographs gauges and dials at regular intervals, and a recording potentionmeter puts other readings on a tape. The crew concentrates on the operation of the plane during test flights.

● The claim that an airport at Prince Rupert, on the west coast north of Vancouver, is vital to defense was advanced by the local chamber of commerce. It was contended that such an airport would be commercially useful in addition to its defense value.

To Avro Canada

J. H. BERRY

Appointment of J. H. Berry, C.M.G., O.B.E., to the newly created position of Director of Manufacturing at A. V. Roe Canada Ltd., has been announced by Walter N. Deisher. With a 16-year background in General Motors, Mr. Berry served with the Dept. of Munitions & Supply under Rt. Hon. C. D. Howe during the war, then was president of War Assets Corporation.