Orenda Afterburner

The development and adaption of the Bristol simplified re-heat system (afterburner) for use on Avro Canada Orendas, as installed in the CF-100, are said to be the subject of recent negotiations between the RCAF and The Bristol Aeroplane Company in England. News of these negotiations appeared in the most recent issue of Bristol's house magazine, "Bristol Review".

This news is of more than usual interest because it brings to three the number of commercial organizations which have been publicly associated with projects to develop an afterburner for the Orenda.

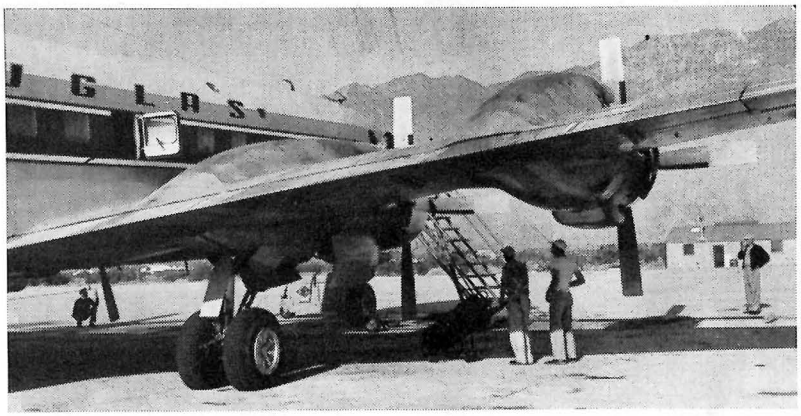
Late in 1951, Avro Canada announced the awarding of a substantial contract to Solar Aircraft Company, of California and Iowa, for the development of an afterburner for the Orenda. The announcement at that time said . . . "it is expected that it will be considerable time before it will be ready for use." That was the first and last official mention of the Solar afterburner, and occasional enquiries as to the progress of the development of the device have elicited no further specific information.

The Marquardt Aircraft Company, Van Nuys, California, has recently hinted that it is also working on an afterburner for the Orenda. In a news release dated April 26, Marquardt stated that it was . . . "developing and manufacturing variable area turbojet nozzles of advanced design for nearly all of the major engine companies in the U.S. *and Canada.*" Though Marquardt does not specify the name of the Canadian company involved, only Avro Canada and Rolls-Royce of Canada produce jet engines in this country, and it seems improbable that the RCAF would have a requirement for a Nene afterburner.

F-100 for the RCAF

A final decision on the choice of a day fighter as a replacement for the F-86 Sabre, is soon to be made by the RCAF, and it is expected that the nod of approval will be in the direction of the North American F-100 Super Sabre. The F-100, powered by Pratt & Whitney's big 10,000-lb. thrust J-57, has recently gone into large-scale production at North American's Los Angeles plant.

However, the aircraft will in all probability be built in Canada by Canadair Limited, under an arrangement similar to that evolved for the F-86 (North American would license the Canadian Government to produce the airplane in Canada, and the Government would then designate Canadair as its manufacturing agent). It is expected also that the J-57 would eventually be replaced by an Avro Canada-built turbojet, either a developed Orenda, or an entirely new engine now being built.



BULGING AT THE SEAMS: The intercontinental version of the Douglas DC-7, the "B" is recognizable by the bulges over its engine nacelles (above), which contain extra fuel tanks. Fuel capacity of the DC-7B has been boosted from 5,512 to 6,400 gallons by the addition of "saddle" tanks. Other improvements include a new flap linkage system for better take-off performance. Gross weight of new model has been raised to 125,000 pounds.

The decision on a replacement for the F-86 cannot come too soon for Canadair, which is nearing the end of its production contracts for Sabres and T-33's, and does not expect to get into full swing on the Brittania M/R aircraft for at least 18 months. Recently the company confirmed reports that it would be laying off between one and two thousand production employees over the coming six-month period. Employment is now about 10,000, down some 3,000 from the peak reached early in 1953, just prior to the cancellation by the USAF of the T-36 contract.

Amphenol Canada

The formation of Amphenol Canada Limited, with manufacturing plant and offices at Toronto, has been announced by American Phenolic Corporation of Chicago, a leading manufacturer in the field of electrical/electronic components for aircraft use.

According to the announcement, the new undertaking is to be a Canadian operation, with its manpower, management, and engineering to be reinforced and aided by the U.S. company to whatever extent may be necessary at the outset and then only as long as conditions demand.

Amphenol Canada is headed by J. R. Longstaffe of Toronto as president. The directorate consists of: Mr. Longstaffe, W. J. Bushnell, J. T. Band, A. J. Schmitt, and A. Trevor Jones. The latter two represent U.S. interests. J. R. Longstaffe has been the Canadian representative for American Phenolic since 1936. He is also a director of International Resistance Co. Limited, Renfrew Electric & Refrigerator Co. Limited, and Copper Wire Products Limited.

To house Amphenol Canada, 30,000 sq. ft. of modern manufacturing and office facilities have been acquired at 300 Campbell Avenue, Toronto. Sales offices will be located in principal Canadian cities.

Defence Spending

Government spending for RCAF aircraft will eventually hit a peak of $460,000,000, and then level off at about $450,000,000 a year, Defence Minister Brooke Claxton told Commons, May 20, during the course of the debate on the defence estimates. The implication was that spending would continue at this rate indefinitely.

Said Mr. Claxton: "In . . . the

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financial year just concluded, we spent on aircraft for the RCAF alone a total of about $410,000,000. For the year 1954-55 . . . the amount we will spend to meet our requirements on aircraft . . . ordered . . . will be over $425,000,000.

"The figure will increase, not decrease, year by year, until it reaches a total of between $455,000,000 and $460,000,000, then level off at about $450,000,000.

"Those figures are not to provide us with a complete new suit of aircraft; they are not to provide us with any additional aircraft of new types and for purposes not at present envisaged in our commitments; but expenditures . . . of about that magnitude are necessary if we are to keep our Air Force at about its present strength in terms of quantity and quality, as judged by what is required from year to year . . .

"It involves, of course, replacement at the appropriate time of the F-86 Sabre fighter with a supersonic fighter, and . . . replacing the CF-100 at a suitable time with a supersonic long-range all-weather fighter, an aircraft that does not exist today."

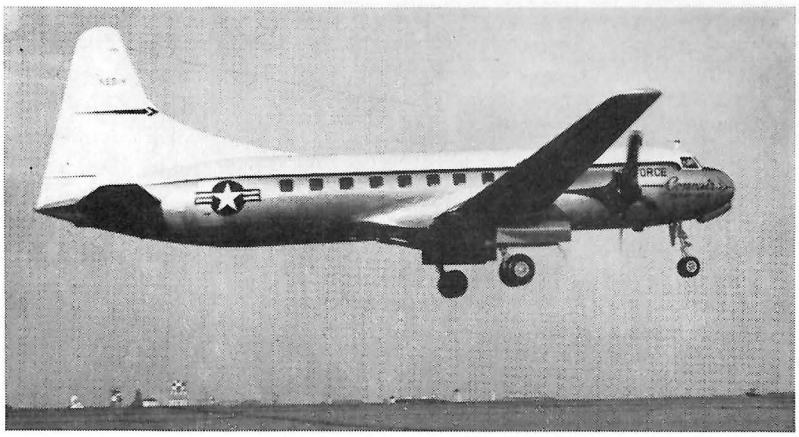
And later on, Mr. Claxton gave a hint of the trend of RCAF thinking when he said that . . . "We may also be coming close to the time when the pilot of a fighter aircraft will not have much more to do than get the aircraft off and back onto the ground, so that by the time we have our supersonic fighters to replace the F-86E and the CF-100, it is at least possible that these will be the last aircraft to depend extensively on human beings, and we will then be in or very close to the age of the pushbutton. It has been a long time coming and it is still some distance off."

White Paper: A government white paper titled "Canada's Defence Program 1954-55", was tabled in Commons on May 17 by Defence Minister Claxton. Some choice items:

•The CF-100 may be fitted with a new type heavier calibre gun for use in conjunction with air-to-air rockets, if certain tests now being conducted are successful.

•A successor to the Sabre V, the Sabre VI, is on the way and will be powered by a more powerful Orenda.

•Sabres and Otters from new production are among the list of military equipment and supplies which Canada will send to eleven NATO nations this year.



TWO TURBINE TYPES: Above is the Convair YC-131C, taking off on its first flight recently. The YC-131C is the first U.S. military twin-engine turboprop transport and is powered by Allison YT-56 engines, each developing 3,750 hp. Below, the prototype Super Constellation is being used as a flying test bed to test turboprop engine installation to be used on forthcoming Lockheed C-130 military transport. C-130 will also be powered by the T-56, of which it will have four.

Inaerco to Move

Inaerco Limited is to move from Toronto to Perth, near Ottawa, it has been announced. A new 17,000 sq. ft. plant is being constructed at Perth and when it is completed the move from Toronto will be made in stages.

For the aircraft industry, Inaerco is best known for its high pressure hose assemblies and fittings, as well as a wide variety of other precision aircraft parts.

President of Inaerco is Ian Filshie of Toronto, who will move to Perth. Vice president & general manager is Colonel S. C. Cook, formerly president of Triangle Valve Canada Limited.

New Cannon Plant

Work is underway on the construction of new offices and factory building for Cannon Electric Canada Limited, well-known manufacturers of all types of electrical connectors.

The new plant is located at 160 Bartley Dr., Toronto, and is a one-storey building enclosing some 20,000 sq. ft. of work space.

New AEL Plant

Aviation Electric Limited recently announced construction of a new plant at Vancouver's International Airport.

Aviation Electric has maintained a sales & service office at Vancouver for the past year, but the new 8,000 sq. ft. plant is for the repair & overhaul, as well as service, of aircraft instruments and accessories. It is now unnecessary for AEL customers to have their equipment sent back to the company's Montreal plant for overhaul, as has been done in the past.

The new plant is under the direction of Harold Ollis, who has been in charge of the AEL Vancouver office since it was opened last year. It is expected that the initial staff of 20 employees will eventually increase to 60 and the premises are designed for a staff of that size.