

Iroquois Preparations

Twelve Orenda flight test personnel have returned to Toronto from the Boeing Airplane Co. plant and McConnell Air Force base in Wichita, Kansas, all genmed-up on the B-47. This is the aircraft which will carry the Iroquois turbojet into the air for flight testing. The group was in Wichita taking ten weeks of technical courses in connection with the B-47.

The same flight test people will be going to Montreal to start working on the B-47 which has been loaned by the USAF to the RCAF for flight testing the Iroquois. It is at the Canadair plant in Montreal, having a special pod installed to carry the Iroquois and the instrumentation necessary for recording its performance.

Electronic Brain

Adalia Computations Ltd., Montreal, recently installed an Alwac electronic digital computer. This computer, which is manufactured by Logistics Research, of Redondo Beach, California, will be used by Canadian universities, business and industrial firms for solving complex problems and scientific research.

CL-28 Soundproofing

One of the most difficult tasks in modern aircraft design is the soundproofing of airplane cabins, and the project now underway at Canadair Ltd., in connection with the CL-28 MR Britannia, is the first time such a project has been undertaken in Canada.

Canadair engineers felt that a major modification of the soundproofing system of the Bristol Britannia, from which family the CL-28 was re-designed, was necessary because of the replacement of the turbine engines by piston, and the necessity of maintaining high crew efficiency during the long radar watches of the anti-submarine mission.

A sound cabin section has been constructed to check out the final performance of the soundproofing in reducing the cabin noise. It is a structural shell which is similar to the fuselage skins, frames and stringers of the fuselage in line with the propeller. Soundproofing is attached to the structure identical with that specified for the airplane in this region. The cabin is 10 feet long and 12 feet in diameter, and is

used in conjunction with the ground powerplant test rig described in earlier issues of *Aircraft*. The cabin itself is instrumented with sound measuring and analyzing equipment.

The sound cabin is positioned at the required location beside the powerplant test rig which includes a CL-28 engine (Wright Turbo-Compound) and propeller. The engine is run at the required speeds and powers, while external and internal levels of noise are measured for the cabin. The investigation includes determination of the reduction of noise level in the plane of the props, the exhaust noise spectrum, evaluation of the propeller ice guard as a noise reducer and the evaluation of various substitute soundproofing materials.

The difficulty of combating the noise in a modern high power aircraft like the CL-28 is not often realized. In this case two piston engines developing a total of over 7,000 hp are located in close proximity to the fuselage, and the propeller tips—a major source of aircraft noise—swing by within inches of the fuselage skin. The high sound levels developed by these sources, which are well above the threshold of pain and permanent ear damage, must be reduced to acceptable levels by the passage through relatively thin fuselage

walls. Again a balance must be maintained in regard to adding weight since every pound added to the aircraft must be paid for by reduced range and aircraft performance.

White Alice

The Federal Electric Corp., a subsidiary of International Telephone & Telegraph Corp., has been selected by the U.S. Air Force to operate and maintain "White Alice", the Alaska Integrated Communications Exchange.

White Alice is a vital network of over-the-horizon and line-of-sight microwave links connecting isolated communities and defence installations across Alaska, as well as existing telephone and telegraph services. It is a part of the Dew Line network. Federal Electric is also charged with the operation and maintenance of the Dew Line.

Training Engineers

The de Havilland Aircraft of Canada Ltd. has embarked on an educational program aimed at contributing to the pool of engineering and scientific personnel available to the Canadian aircraft industry.

This program, under the direction of Professor T. R. Loudon, is designed primarily to encourage technologists to seek professional status. But in addition, graduate engineers are offered the opportunity to do postgraduate work



1,000th BEAVER: de Havilland Canada's Beaver No. 1,000 is shown being taxied out to take off on its initial acceptance flight, with DHC Managing Dir. P. C. Garratt at the controls. The airplane has been turned over to Mr. Garratt for his personal use. In the background is a part of the crowd of more than 5,000 DHC employees who attended the "At Home" ceremonies held Nov. 10 to mark the completion of the 1,000th DHC-2. Picture at right shows Mr. Garratt (L) receiving the logbooks for Beaver No. 1,000 "CF-PCG" from DHC Sec.-Treas. George Mickleborough. In the background is de Havilland Canada Director of Sales C. H. (Punch) Dickins.

