



No Ice Today

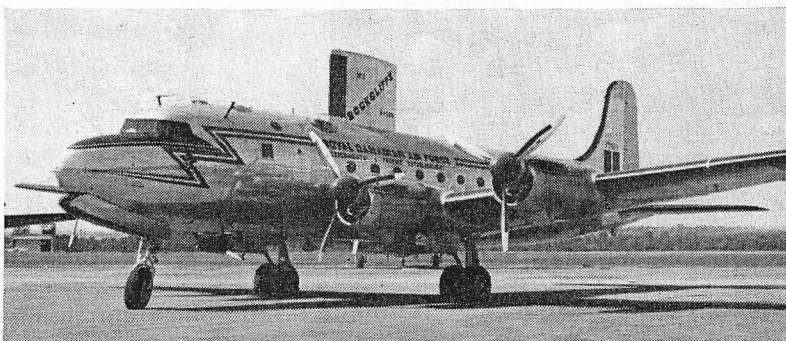
First civil installation of electrically heated anti-icing equipment has been made on the Avro Canada Jetliner, according to The Goodyear Tire & Rubber Company, producers of the new equipment. The electrothermal Iceguards, as they have been dubbed, were installed at Avro Canada under the supervision of Goodyear engineers. This new development is credited to the National Research Council, as well as to Goodyear, and is being tested by the NACA for the benefit of the CAA and the DoT. The NRC has also been testing the equipment for some time on the "Rockcliffe Ice Wagon" (shown below), and it is as a result of these tests that the decision was made to go ahead with the production of Iceguards for the Jetliner. Avro Canada is also carrying on its own test program.

Though the equipment is described as "anti-icing" by Goodyear, it also has some de-icing features. The centre lines of each wing and tail leading edges are heated continuously to keep these particular areas free from ice at all times, while the adjacent areas are heated intermittently to break ice loose after allowing it to form a slight build-up. The intermittent method is known as cycle heating,

and is said to prevent water run-back and resultant ice formation off of the protected surfaces, as well as effecting considerable economy in power required.

According to Fred C. Gilbert, manager of Goodyear of Canada's Aviation Products Division, New Toronto, Ontario, electrothermal anti-icing equipment consists of resistance wire elements molded into an erosion-resistant synthetic rubber compound. It has been installed on leading edges of wings, cabin air intakes, horizontal, and vertical stabilizers. The Goodyear Iceguards are about 10 inches in thickness and extend about 30 inches around the leading edge of each surface. Each wing is protected for a length of approximately 34 feet, and each horizontal stabilizer for 17½ feet. The vertical stabilizer is protected for about 8 feet. Mr. Gilbert says that the horizontal stabilizer installations are the largest single electrothermal units ever made.

The picture at the top of the page shows the Jetliner with Iceguards installed. At left is Avro Canada Project Engineer, G. Hake; centre is Fred Wagner of Goodyear, New Toronto; and at right R. W. Brown, of Goodyear, Akron.



necessity and convenience of airports was touched on briefly before the panel members went into the problems of operating and maintaining the landing fields.

Panel chairman A. J. Spilsbury summarized the discussion by stating that it had been made evident that there was some need for a concrete plan of assistance to aid in the development of more secondary airports in Canada.

(*AIRCRAFT* hopes to publish a condensation of the complete discussion in an early issue).

The final business session on the morning of April 24 was taken up with committee reports and by the presentation of two papers, the first by Vancouver U-Fly's Al Michaud and entitled "Commercial Schools and Their Place in Aviation," and the second by Carl Agar, of Okanagan Air Services. The latter bore the heading: "The Helicopter's Contribution to Modern Industry." Summaries of both papers appear in the "Operator's Notes" section of this issue of *AIRCRAFT*.

CIVIL DEFENSE: Guest speaker at the semi-annual banquet was Major General F. F. Worthington, who spoke on "Air Service in Civilian Defense." General Worthington asked the operators to let the civil defense authorities know what they could do in the case of a national emergency. He wanted to know what sort of equipment was available and what it was capable of doing; he also wanted to know the numbers and type of personnel who would be able to take part in civil defense work in the event of an attack.

He said that TCA and CPA had already been fitted into civil defense plans, but that not enough was then known about the smaller operators to be able to fit them in where they would do the most good.

The formation of a Civil Air Patrol similar to that existing in the U.S. had been considered, General Worthington said, but it had been decided that such an organization would be impractical in Canada, where conditions were somewhat different from those found below the border. However, civil defense authorities were drafting plans which would enable them to make use of individually owned small and medium aircraft in the event of an emergency.

He asked for an immediate decision from the operators as to what role they were prepared to play in Canadian civil defense.