

# aviation intelligence

## CF-105 Program

Press time word on the Avro CF-105 test program had high speed taxi trials, the ground test stage leading to first flight, scheduled to get under way at least by early this month. Aircraft has been off the flight line for minute inspection since successfully completing low speed taxi runs as the year ended.

## Argus Trainer

An Operational Flight Trainer on Canadair's CL-28 Argus Maritime Reconnaissance aircraft is to be designed, developed and manufactured by Canadian Aviation Electronics Ltd. of Montreal. The Royal Canadian Air Force will use the equipment to familiarize its Maritime Air Command crews with operation and characteristics of the aircraft and its engines in simulated flight. At the same time, the CL-28's complex radar and weapons system will be the subject of a design study by CAE to determine the feasibility of turning out a Tactical Procedure Trainer. The new CAE contracts followed hard on the company's production of flight simulators for RCAF CF-100 interceptors and the first commercial flight simulator to be built in Canada, equipment delivered recently to Canadian Pacific Airlines for training of its DC-6B crews.

## V-Bomber Rocket Power

Rocket power to provide take-off assistance for Britain's entire family of V-bombers is to be supplied by liquid propellant units developed and produced by de Havilland Engine Co. Ltd. A constant-thrust version of the Spectre rocket engine is now in production for use as an assisted-take-off unit for the Handley Page Victor and Avro Vulcan bombers. Super Sprites were ordered some time ago for use in this capacity on the Vickers Valiant. The Spectre installation on the Vulcan and Victor, one under each wing, will be similar to that already being employed on the Super Sprite equipped Valiants.

## Orpheus for JetStar

Lockheed will use Bristol Aero Engines Orpheus engines to power the second of its JetStar utility jet transports. Initial planning on the JetStar development program called for the second aircraft to be fitted with U. S. power plants. The two Orpheus turbojets were used on the first prototype to bring forward the date of first flight following a record 30 weeks from drawing board to prototype program launched by Lockheed. The aircraft first flew on Sept. 4, 1957. In October, Lockheed announced that a twin-Orpheus version of the JetStar would be offered as an alternative to the four-engine version using American engines which was the original specification on the aircraft. Meanwhile, Lockheed continues to report solid performance from the first prototype which has been taken off from a standstill and flown to altitudes of 20,000 feet on one engine.

## Tynes for CL-44

Contracts which would put Rolls-Royce Tyne turboprop engines in military and civil versions of Canadair's CL-44 transport are understood to be just short of the signing stage. Change in power plants for the four-engined giant, a development of Canadair's CL-28 Argos Maritime Reconnaissance project, was necessitated when development on Bristol Aero-Engines Ltd. Orion turboprop was halted following withdrawal of support by the British Ministry of Supply. Canadair and the RCAF moved swiftly to negotiate a replacement power plant in an effort to prevent any let-up in the military and proposed commercial production schedule on the aircraft which is scheduled for military delivery in 1959 and commercial availability by early 1960. Value of any contract covering the firmed up military transport production is estimated at \$2,000,000. The Rolls-Royce Tyne is also the power plant for the 20 Vickers Vikings on which Trans-Canada Air Lines will be taking delivery in 1960. The switch from Orions to Tynes on the transport aircraft does not effect the CL-28 Argus which is powered by Curtiss-Wright turbo-compound engines and is now coming off the production line at Canadair.

## New York Decca

A Bendix-Decca Navigator chain is being set up in the New York area for evaluation by the U. S. Airways Modernization Board. The evaluation operations on the New York chain, which will start in the spring, will place the emphasis on use of the system by helicopters. New York Airways helicopters will carry Bendix-Decca air-borne equipment on scheduled flights. Bendix-Pacific, U. S. licensee of the Decca Navigator Company, has received the contract for installation and operation of the New York chain. The New York evaluations will be watched closely by engineers of Computing Devices of Canada Ltd., the firm responsible for Bendix-Decca in Canada. CDC, Decca and Bendix are joint participants in the evaluations which are continuing on the most extensive Decca system in North America, covering over a million square miles in Eastern Canada. The Canadian project is testing out the system in both its marine and air applications.

## Fairchild Turbojet Chosen

Fairchild Engine Division's J-83 lightweight turbojet engine has been selected by Canadair Ltd. as the initial power plant for its new CL-41 ab-initio jet trainer. There were no immediate details on size of the contract signed by the two firms. Canadair is building two prototypes of the CL-41, with first assemblies reported already in jigs. The J-83 was developed originally as an expendable power plant for use in pilotless aircraft and missiles, with follow-on versions aimed at the light jet plane field.