aviation intelligence

Sparrow Test Firings

Test firings of the Sparrow 2 air-to-air missile are being carried out from two modified Mark 5 Avro CF-100s by a team of Royal Canadian Air Force and Avro Aircraft Ltd. personnel. Aimed at providing background information and experience for a further test firing program to be carried out later at the RCAF's Cold Lake, Alta., weapons range, the present Sparrow firings are being made at the United States Naval Air Missile Test Centre at Point Mugu, Calif. The Point Mugu program is expected to take about six months for completion. Avro test pilots Stan Haswell and Lorne Ursel will be piloting the missile-armed CF-100s during the tests at the U. S. Navy centre. The Sparrow 2 has been designated for production in Canada and is the intended armament for the Avro CF-105 Arrow in its interceptor role. In addition to familiarizing key personnel with the Sparrow 2, the current series of firings are said to be also serving to test fire control and auxiliary equipment, presumably a system similar to that which is contemplated for the Arrow.

CPA's Britannias

Senior Canadian Pacific Airlines pilots, headed by Capt. B. A. Rawson are carrying out acceptance flights on the first of the airlines' six long range Bristol Britannia turboprops. The aircraft made its initial flight after rolling out at Short Brothers and Harland at Belfast, Northern Ireland, about mid-January. The second of CPA's aircraft was scheduled for first flight about the time of publication. CPA expects to have its first Britannia back at the airlines' Vancouver headquarters by the middle of this month.

Doppler Trials

A doppler airborne radar navigation system developed by Canadian Marconi Co. of Montreal has been given extensive air trials by Spartan Air Services Ltd. of Ottawa. In the first installation of the equipment in a civil aircraft in Canada, the doppler sensor was set up in a Spartan DC-3 along with a Position and Homing Indicator computer, the design of Computing Devices of Canada Ltd. The system operates independent of ground stations and is entirely contained in the aircraft. The doppler equipment establishes ground speed and drift angle by bouncing radar beams off the ground and this information, plus a heading reference obtained from a gyro or magnetic compass, is fed into the PHI computer which automatically registers a continuous position indicator. Flight crews can set a flight track and fly along it or deviate and still know the aircraft's exact position, with the computer showing distance travelled along the flight track and any lateral displacement from it. Evaluation of the system was undertaken in conjunction with Defense Research Board, Canadian Marconi and Computing Devices, with James Murray of Spartan's Research and Engineering Division supervising. Officials of a number of international airlines have expressed interest in the system, which they observed in operation, and are now studying results of the trials to date.

Caribou Experiments

De Havilland Aircraft of Canada Ltd. is engaged on experiments in the tail configuration of the twin-engined Caribou project. The drawings which appeared originally showed a dihedral tailplane and twin fins and rudders, at right angles to the tail surface (that is off-vertical in relation to the ground). Now, alternative possibilities are being considered in the experimental design stage. These include a tall single fin and rudder of large area. Caribou is de Havilland's latest bid to maintain its leadership in the short-take-off-and-landing class of plane, following the wide acceptance of the Beaver and Otter. The aim is to produce an efficient airplane which will fly at lower speeds than any other built in the same category. The Caribou will be a weight-lifter. Its design payload, over the shorter runs (200 miles), will be more than 7,000 lb., just over half the empty weight.

TCA Expands Overseas

Trans-Canada Air Lines is to expand its overseas route pattern to include Belgium and Switzerland this spring. TCA President G. R. McGregor has announced plans to inaugurate service to Brussels on April 2 and to Zurich on May 17. Initial service of one flight a week will be doubled on June 3. Flights to Belgium will be operated on a Toronto-Montreal-Brussels-Dusseldorf route, with the service to Switzerland going Montreal-Paris-Zurich.

Turbine Centre

The world's first overhaul and maintenance base designed specifically for turbine-powered aircraft is to be built by Trans-Canada Air Lines at Dorval Airport in Montreal. Described as the largest commercial structure of its kind in Canada, cost of the over-all project, including equipment, is estimated at about $20,000,000. The new facility is to be ready for TCA's fleet of six Douglas DC-8, Rolls-Royce Conway by-pass powered turbojets and 20 Vickers-Armstrongs turboprop Vanguards on which delivery is scheduled to begin in 1960 and 1961 respectively. Construction of the new base is to begin in the late spring of this year to be available by late 1959 when the first units to complement TCA's Vickers-Armstrongs Viscounts into an all-turbine fleet will begin to arrive. In addition to the new Montreal turbine centre, TCA will maintain its Winnipeg base for overhaul on its Viscount fleet.