

CANADA

AVRO CANADA CF-100

Remarkable in many ways, the CF-100 long-range all-weather interceptor marked Canada's entry into the field of jet combat aircraft. Designed in the early post-war years to provide a reliable method of air defense in the vast northern areas of Canada, the CF-100 has exceptional long-range endurance characteristics, coupled with the outstanding ability to exceed Mach unity (in a dive) despite its straight wings.

The CF-100 Mk.1 was flown for the first time on January 19, 1950, powered by Rolls-Royce Avon turbojets which were later replaced with Canadian-built Orendas. The initial production version of the famous interceptor, the CF-100 Mk.3, was powered by a pair of Orenda Mk.8 engines and carried an armament of eight .50-caliber machine guns in a ventral pack. With the total of 12,000-lbs. of thrust developed by its Orendas, the Mk.3 had a maximum speed of 640 mph. The most widespread production version of the CF-100 is the Mk.4 with a redesigned (blunter) nose section to house the Hughes APC-40 radar system which is used in conjunction with the 58 2.75-in. Mighty Mouse folding-fin rocket projectiles carried in two small wing-tip pods. Being an exceptionally heavy and versatile aircraft, the CF-100 Mk.4 can also be armed with either eight .50-cal. guns, four 30-mm. guns, or an additional 48 Mighty Mouse unguided rockets in an underfuselage pack. Adding to the versatility of the celebrated fighter, six Sperry Sparrow air-to-air guided missiles can be carried in place of the above loads. The Mk.5 employs different versions of the Orenda turbojet, replacing the Orenda Mark 11 with a Mark 14, a larger wing with extended tips and a modified tailplane.

All CF-100s accommodate a crew of two, seated in tandem under a single-piece cockpit canopy, and consisting of a pilot and a radar operator. The airframe design is comparatively conventional, with straight wings and tail surfaces, and two axial-flow turbojets mounted at the sides of the aerodynamically clean, long fuselage.

Production of the CF-100, taking place since 1951, is still far from its closing stages, and a number of R.C.A.F. squadrons are presently equipped with that aircraft, both in Canada and at European bases. The Mk.4, the version in production at the Avro Canada plant up to 1956 (when it was superseded by the Mark 5), is a modern interceptor matching any other fully operational all-weather fighter in the world.

And when the production of the CF-100 is completed, the CF-105 delta-wing supersonic long-range fighter will take its place on the assembly lines. Powered by a 20,000-lb. thrust (with afterburning) Iroquois twin-spool turbojet, known also under the designation Project Study No. 13, or P.S.13, it is expected to enter service with R.C.A.F. in 1959 and may well be the last Canadian piloted warplane to be produced in quantity. It is expected to approximate closely the B-58 Hustler bomber in size as well as in planform.

TECHNICAL DATA — Maximum speed: 650 mph. Range: Max. 1700 miles (clean). Ceiling: App. 55,000 ft. Weight: Loaded 35,500 lbs. Engines: Two 7000-lb. thrust Orenda Mk.11 turbojets. Armament: 106 2.75-in. Mighty Mouse rocket projectiles or 6 Sparrow air-to-air guided missiles. Wingspan: 52 feet. Length of fuselage: 54 feet, 2 inches. ■

Two-seat all-weather fighter

