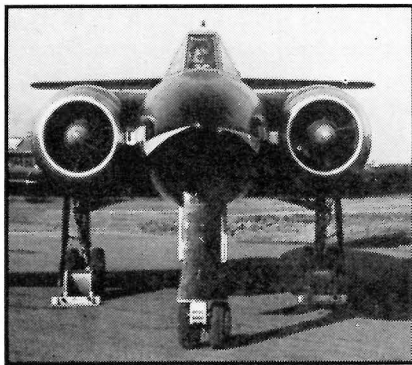




DON ROGERS



More About the CF-100

AIRCRAFT recently watched a 45-minute test flight made by Avro Canada's CF-100 and was much impressed by what it saw. The airplane accelerates rapidly and was off the ground in what was estimated to be not more than 2,000 ft. The wind at that time was a steady 15 mph blowing almost straight down the runway. The machine took off at a fairly sharp angle (see lower picture at right), giving the impression that it gathered itself and then leaped into the air.

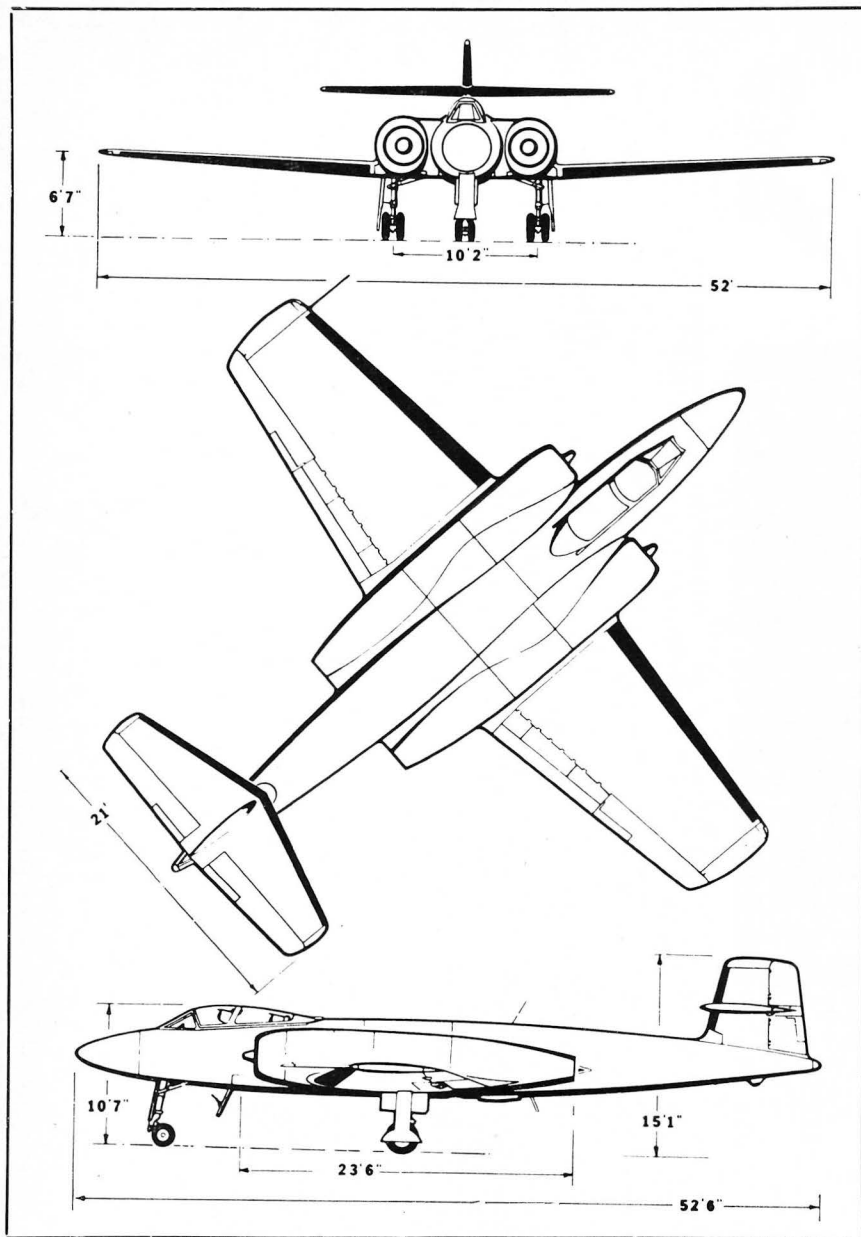
The climb away was at a moderate angle, but it was not to be expected that Test Pilot Bill Waterton would be pulling anything spectacular at that early stage of the flight test

program. When the CF-100 returned to the field it made three low passes, downwind, over the runway in use, before making a circuit and landing. The low passes were made at an altitude of about 150 feet at an estimated speed of 350-400 mph. Entry into turns is clean and the aircraft seems to be able to reduce speed sufficiently to make its turns within a radius quite comparable with the Vampire piloted by Avro Chief Test Pilot Don Rogers, which has been accompanying the CF-100 on its test flights. Test Pilot Rogers, incidentally, will doubtless carry

out all tests on production CF-100's.

A vivid demonstration of slow flying qualities was given by the aircraft on its circuit and final approach. It dangled along at an obviously high angle of attack. The approach and landing appeared quite docile, with the landing being made at an angle similar to that used for take-off. The nosewheel was kept well off the ground until the speed dropped. Landing roll from point of touchdown was impressively short, being completed in about a third of the runway available (6,000 ft.).





Even more impressive than the foregoing flight was the first official flight which was made at RCAF Station, Rockcliffe, near Ottawa, before officials of the Canadian and foreign governments, March 11.

The CF-100 was flown from Toronto to Ottawa for the exhibition in just 26 mins. 28 secs., for an average ground speed of 521 mph over a distance of 230 miles.

Prior to the flight at Ottawa, nobody knew what S/L Bill Waterton planned to do by way of a demonstration of its possibilities; nobody, that is, but Bill Waterton. And since the aircraft had been flown only ten hours in a total of eleven flights, it was somewhat surprising when he put it through a series of aerobatics.

The take-off was made without flap, in spite of which the machine became airborne in just over 1,000 feet and climbed away at a 35-40 degree sustained angle, apparently with little or no effort. S/L Waterton climbed to about 3,000 feet, just below the cloud base, turned and dived at the field. He levelled off at about 100 feet then pulled up and did three consecutive upward rolls.

This was followed by a series of half-loops and rolls off the top, etc. On one pass over the field S/L Waterton announced that his air speed was 460 knots (529 mph.). Most impressive was the exhibition of the aircraft's ability to turn within the perimeter of Rockcliffe Airport . . . surely a bit of a feat for a machine the size of this one.

The low speed flight demonstration, made with everything but the wheels down, was equally startling. The CF-100 dangled by at about 100 feet at what W/L Waterton said was 115 mph. It looked even slower. Throughout the flight the pilot's comments were relayed to the spectators via a direct hook-up with the public address system. At one point (he was about halfway through a roll off the top at the time) he said that as yet they (Avro) felt the controls were a little too sensitive.

The two Avons have a somewhat different note compared to what Canadians have come to expect from a jet engine. They roar, rather than whistle, and it is a sound that is much easier on the ears than that made by the Goblin or the Derwent. The Avons will, it has now been definitely decided, be replaced by Orendas as soon as the latter has successfully completed its flight tests. Even now a Lancaster is being converted into a flying test bed, with two Orendas being mounted in the outer engine positions. This machine will fly in the very near future. While no announcement has yet been made concerning the power output of the Orenda, it is thought that it has a greater static thrust than the Avon, which is officially rated at 6,000 pounds (though the SBAC originally said that it developed 7,500 pounds).

In a release dated March 8, the RCAF had said that ". . . the fighter is still undergoing flight tests, and there will be no attempt to display its maximum performance, as regards speed maneuverability and rate of climb." What the spectators at the Rockcliffe show did see may not have been maximum performance, but it was still a highly impressive display.

For that matter, it was also watched by an impressive audience, including the Governor General, who was accompanied by His Royal Highness the Prince of the Netherlands (Prince Bernhard). Also in attendance were Defence Minister Brooke Claxton, Opposition Leader George Drew, members of the cabinet, members of the House of Commons and the Senate, senior government and armed forces officers, members of the diplomatic corps, as well as representatives of various aviation concerns. *AIRCRAFT* was the only Canadian aeronautical publication in attendance.