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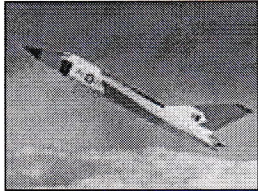
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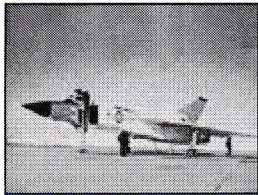
## CANADA'S AIR FORCE

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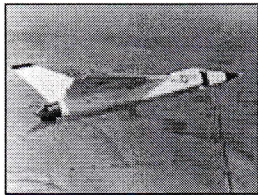
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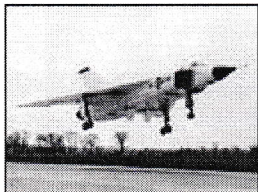
The Avro CF-105 Arrow first flew on March 25, 1958, following several years in development. The Arrow program was unique in that the prototype was built using the same tools and rigs that were to be used on production Aircraft, eliminating the expensive practice of building flight test prototypes by hand. In addition, it meant that the production run could be started immediately following flight test acceptance of the design. Seen here is the initial prototype, RL 201, on final approach to Malton, Ontario after its first flight.  
CF Photo



By the time the Arrow program was terminated, five of the six completed prototypes had flown a total of 70.5 hours. During the test flights, the Arrow had flown at mach 1.96 and up to 50,000 feet, results that are still impressive by today's standard of fighter Aircraft design. This is the fourth prototype getting ready for a winter flight from Malton.  
CF Photo



RL-201 was one of five Avro Arrows flown in 1958-59 and was the first of the fleet to get airborne on 25 March, 1958 when Avro test pilot Jan Zurakowski flew it for 35 minutes. 201 was the first Arrow damaged on 11 June, 1958 after a one and a half hour flight when the port landing gear failed to extend properly causing the Aircraft to veer off the runway which in turn caused some extensive damage. The Aircraft was flying once more on 5 October, 1958 after repairs and modifications had been made.  
CF Photo

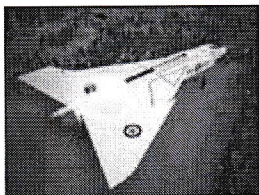


Throughout the 1950s, Avro had been working on a new, supersonic interceptor: the CF-105 Arrow. First flown in 1958, the Arrow proved to be the fastest, most sophisticated fighter in the world at the time, with a top speed of 1,650 mph.  
CF Photo

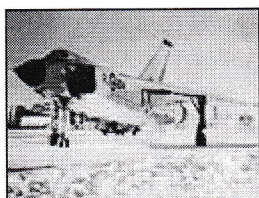
The CF-105 Arrow was to be the crowning achievement of the Canadian aerospace industry. Here, the prototype RL201 is seen at the Arrow roll-out ceremony at Malton, Ontario on 4 October, 1957. This Aircraft flew 25.5 hours before the program was

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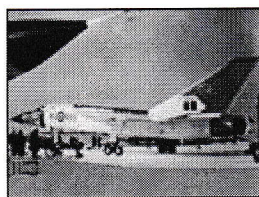


cancelled, the most hours of the six prototypes.  
CF Photo



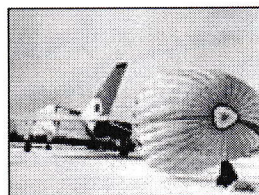
The CF-105 was built to provide Canada and NORAD with the most advanced air defence fighter in the world. The Arrow was a very clean design and many of its features were copied on other North American-made fighters, including today's F-22 Raptor. This is the fourth prototype seen taxiing at Malton airport, Ontario, during the winter.

CF Photo



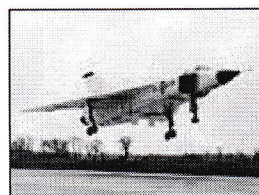
Arrow 25203 first flew on 22 September, 1958 and exceeded the speed of sound on this maiden flight, sustaining a speed of Mach 1.2. The exterior surfaces were painted dayglo to assist observers focussing on specific components under test. 203 was the only Arrow ever to sport the Canadian Commonwealth flag ("Red Ensign") marking on the tail.

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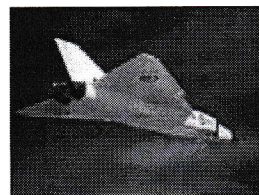
Drag chute streaming behind, Arrow 203 taxis back to the hangar. The Avro Arrow was one of the world's most advanced airplanes in its day, considered by many to be twenty years ahead of its time. Arrow 203 first flew on 26 September 1958. It flew a total of 12 times, for a total of 13.5 hours of flight time before the Arrow program was cancelled by the Canadian government on 20 February 1959.

CF Photo



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Avro Arrow 201 flew 25 flights between 25 March, 1958 and 19 February, 1959 for a total of 25:40 hours out of a grand total of 70:30 hours flown by all five completed Arrows. On its last flight 201 extended the flight envelope to Mach 1.75 at 35,000 feet while the highest speed achieved during Arrow test flights was Mach 1.96 by Aircraft 202.

CF Photo

Manufacturing the necessary undercarriage for the Arrow presented a whole range of special problems stemming from weight limitations, the extra stress associated with higher speed landings, and from the fact that the thin wing afforded almost no stowage and



the fuselage only a limited amount. The development of the ultra high tensile alloy steel which was found necessary for the relatively slender landing gear was an extremely expensive proposition. The ultimate strength of material ranged from 260,000 to 280,000 pounds per square inch.

CF Photo

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