



AVRO ARROW

Triumph

Shaky Start
 Triumph
 Deterioration
 Black Friday

Days of Triumph

June 28, 1999



The unveiling of the Arrow

The Arrow was rolled out to an admiring public of 12,000 people on Oct 4th, 1957. As fate would have it, the USSR launched Sputnik 1 the same day, stealing headlines and providing an ominous foretaste of a technologically confusing world. But at the Avro plant in Malton, Ont, all was well with the world.

Defence Minister George
Pearkes, who would be so
instrumental in the demise of
the Arrow, was on hand, as
was Canadian aviation
luminary John A. D. McCurdy.
If the space race and missile
technology was making
Pearkes change his mind
about the Arrow, he wasn't
about to mention it here:



Sputnik, and the launch of the space age.

"Much has been said of late about the coming missile age,

and there have been suggestions from well-intentioned people that the era of the manned aeroplane is over and that we should not be wasting our time and energy producing an aircraft of the performance, complexity and cost of the Avro Arrow. They suggest that we should put our faith in missiles and launch straight into the era of push-button war. I do not feel that missile and manned aircraft have, as yet, reached the point where they should be considered as competitive.

"They will, in fact, become complementary. Each can do things which the other cannot do, and for some years to come both will be required in the inventory of any nation seeking to maintain an adequate 'deterrent' to war. However, the aircraft has this one the battle, and closer to the target where human judgement, combined with the technology of an aircraft, will provide the most sophisticated and effective defence that human ingenuity can devise." (from the book 'Arrow')

The irony of these comments is remarkable considering subsequent events.



After a period of elaborate tests including engine ground running tests, low speed taxi trials, high speed taxi trials and many hours in the most advanced flight simulator in Canada, the aircraft was ready for its first flight. Just before 10 a.m. on March 25th 1958, most of the staff of Avro poured out as

loudpeakers invited all non-essential workers to watch the Arrow's maiden flight, with Janusz Zurakowski at the helm. Two chaser airplanes, a single-seat F-86 Sabre flown by Jack Woodman, and a CF-100 flown by "Spud" Potocki with Avro photographer Hugh Mackechnie on board, were already aloft.

At 9:51 a.m. the Arrow lifted off, barely halfway down the 3,368 metre runway. At 1525 metres Zurakowski requested the CF-100 to close in and check on the nose wheel landing gear door because the safety light in the cockpit indicated it was open. The speed was then boosted from 200 knots to 250 knots and the Arrow moved up to 3350 metres. After 35 minutes, the airplane



Things looked good at Avro

landed. The first flight was a success, and only two microswitches had failed to respond. Zura's only complaint was that there was no clock in the cockpit to tell the time. Upon leaving the craft, he was hoisted on the shoulders of the crowd like a hero.



On August 23rd the aircraft was taken to supersonic



Crawford Gordon with Canadian flying legend John McCurdy, and Roy Dobson of Hawker-Siddeley, attending the roll-out.

week speeds up to Mach 1.7 were recorded. The program had its share of small problems, most noticeable when Zurakowski had the landing gear fail and headed off the runway at some 50 kilometres per hour. No real damage was done, and the problems were fixed. There was a similar accident later with Potocki. In general, as testing continued, the Arrow

grew easier to handle. Speeds needed to take off were reduced, as was landing runway length.

The RCAF stipulation that the Arrow be able to pull 2 G's at 50,000 feet (15240 metres) at a speed of Mach 1.5 was achieved. Avro believed it could be done at 60,000 feet (18288 metres) with the as-yet-untried Iroquois. The aircraft was finally pushed to Mach 1.98, over 2000 kilometres per hour, with Potocki at



The maiden flight

the controls, and would fly up to a height of 58,000 feet. Jack Woodman, the only RCAF pilot to fly the Arrow and the official representative of the government, reported that the aircraft performing as predicted and was meeting all guarantees. The design team was confident that the Mark-2 Arrows, with their Iroquois engines, would pass Mach 2 easily, and planned on hitting Mach 3 with future series.





 Many kudos to the people who put this effort toget ... John Israel