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# The Avro Canada Archives



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## A short history of Avro Canada

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### **"There Never Was an Arrow"**

(at least that's what they wanted us to think!)

The title refers to an aircraft built in Malton, Ontario in the mid 1950's, and a quote by a politician in Ottawa following the destruction of six flyable aircraft, thirty-one planes at various stages of completion on the production line, plans, blueprints, films, photographs, negatives, and anything else that would ever remind future generations there had been such a piece of equipment.

To many people, including the almost thirty thousand who were directly affected by this apparent act of malice, the cancellation and destruction of the aircraft, and the ultimate destruction of the company that designed and built it, was the single biggest mistake ever made by a government of this country.

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First - we delve into a bit of history. Immediately following the end of the second world war, Canada was in a position to graduate into full-fledged industrialism. Plants and factories had sprung up all over the country during the war. One of these companies, which was owned by the federal government, was Victory Aircraft in

Malton, just outside Toronto.

Victory had turned out a large number of aircraft for the R.A.F. and the R.C.A.F. for use in Europe. Following the cessation of hostilities, an enterprising Englishman named Roy Hardy Dobson made arrangements for the British Hawker Siddeley Group to purchase the company and the sprawling plant near the Toronto Airport.



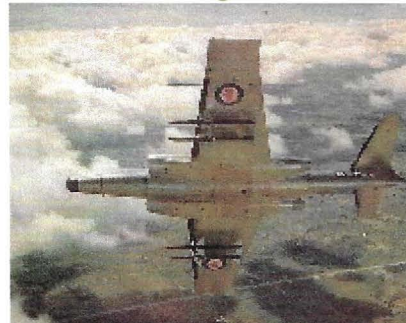
That was the birth of A.V. Roe Canada Limited. Mr. Dobson and the Avro Canada management had great plans for the company and the country. Their first project was a jet transport aircraft for Trans Canada Airlines (now Air Canada). After some initial difficulty, which was to be expected when breaking new technological barriers, the company flew their jet transport only thirteen days after the British flew their Comet aircraft.



The company had a success, or thought they had. Even the American press was quoted as saying that the flight of this aircraft proves that "Uncle Sam has no monopoly on brains." It would be seven years before the Americans flew a jet transport!

Unfortunately, the Avro Jetliner was not the success it should have been. That fact is tied in to Avro's second project and the outbreak of the Korean War. The only Avro Canada aircraft to go into full production, and to enter active service, was the CF-100 Canuck jet fighter.

Just as development of this aircraft was nearing completion, the Korean conflict began and the industry minister of the time, C. D. Howe, ordered Avro to concentrate fully on the production of the fighter. That decision was to have long lasting effects on the future of the company.



Even before the CF-100 went into service, the RCAF was looking for a replacement, expected to be needed nine or ten years down the road. After an exhaustive world search for an aircraft to meet the air force specifications, which turned up nothing, Avro was given the go-ahead on their design proposal - the CF-105 Arrow.

This project would really break in to previously unexplored areas



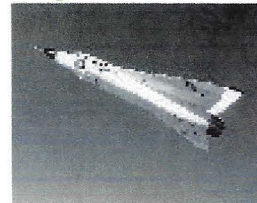
of flight and technology. But, the company was up to the challenge. On October 4th, 1957, ironically the same day the Russians launched their Sputnik satellite, the first Arrow was unveiled to the public. Exhaustive ground handling tests were conducted before the aircraft would fly for the first time.



Then, the day everyone involved had been waiting for - March 25th, 1958. Avro's chief test pilot, Jan Zurakowski, rolled the aircraft down the runway and into the air. After a flight of approximately thirty-five minutes, with every move recorded in detail by cameras on the ground and in the two chase planes, the aircraft came back to the ground.

Problems? Pilot Zurakowski listed on his snag sheet a couple of minor problems - the failure of two toggle switches and trouble with the cabin air-conditioning unit. On subsequent flights, with temporary interim engines, the plane easily fulfilled all design expectations. The air force had asked for a plane capable of Mach 2 - twice the speed of sound - with an operational ceiling of some 50,000 feet.

The Arrow met the challenge, reaching a speed of Mach 1.98 while still climbing and accelerating, and still with the less powerful interim engines installed. In 1959 this plane, designed, developed and built in Canada, was twenty years ahead of anything else in the world. Where is it now? Why don't we see them flying, patrolling the vast areas of Canada's arctic?



What happened to Canada's entry into the space age? Avro Canada had assembled a team of technological specialists that could not be equalled anywhere in the world. Why don't we still have that technological lead, and the vast industrial base that would naturally accompany it?

While keeping busy producing almost seven hundred CF-100 fighters for the RCAF, Avro engineers had designed and built the Arrow. Instead of producing a virtually handmade prototype, Avro went full steam ahead and skipped that stage, preferring instead to go straight in to a pre-production run.

That type of operation could cause problems. Unforeseen technical

But that did not happen. All the research and exhaustive testing paid off. The aircraft stood up to expectations.

The problem, depending on who you listen to, and who you believe, was one of either economics or a rapidly advancing technology. In 1958, the newly elected government of John Diefenbaker stated concerns over both areas. The cost of the Arrow aircraft and the Iroquois engine programme, and the fire control system, was rising. But whose fault was it? The air force could not make a firm decision on the armament and fire control system that would be installed in the Arrow. Finally, instead of choosing a proven system that was in the advance stages of development, they chose one that was barely on the drawing boards. This was all added in as part of the costs of the entire Arrow programme.

Later in the project, because of the cost of the new fire control system, the air force had a change of mind and opted for an off the shelf system. But, as history shows, it appears that the decision was too late in coming.

On October 4th, 1957, the same day the Arrow appeared in public for the first time, the Russians orbited Sputnik 1. The space age had arrived. Wild rumours started circulating that the days of manned aircraft were over. The Russians were concentrating all their efforts on building intercontinental ballistic missiles. Manned fighters were no defence against those.

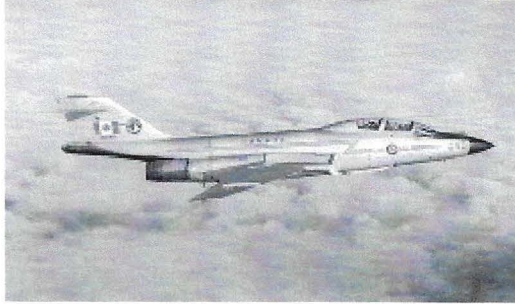
In September 1958, Diefenbaker announced that his government would review the whole Arrow programme the following March. The company was confident that once the aircraft had demonstrated its potential the government would not cancel the contracts. In the meantime, the government apparently tried to sell the aircraft abroad. Visits were made to the U.S. to see if they would want to make a purchase. No luck.

Then, in February 1959, a month before his own schedule, John Diefenbaker rose in the House of Commons and announced that he had decided to cancel the whole project. Telegrams were sent to Avro and Orenda Engines stating that the contracts had been cancelled as of that date and that "all work shall cease immediately." Avro had no alternative. On that very day, remembered as "Black Friday" to all who were affected, some 14,000 people were put into the street - jobless. Within hours,



recruiters from the major American aircraft firms, and the U.S.'s NASA, were comfortably settled into Toronto hotels, vying against each other for the cream of Canada's technological genius.

Avro was no more. There was no work available in Canada for the team that had put this country on top of the technological totem pole. The government had decided to buy the Bomarc missile - a weapon already obsolete and being withdrawn from service in the



U.S. To complement the Bomarc, we would buy second hand, second class fighters from the Americans. In 1961, Canada took delivery of sixty-six inferior, second hand, F-101 Voodoo aircraft from the U.S. A few years later we

started building, under licence, the American F-104 Starfighter - an aircraft the West Germans called the "Widowmaker" because of the number of fatal crashes they had been involved in.

As for the Bomarc - one of those sits in a museum in Ottawa, a few metres away from all that is left of the Arrow and the Iroquois engine. In April 1959, an order was received at what was left of Avro to dismantle the six flyable aircraft and all the aircraft in various stages of completion. After that, they were cut into pieces with acetylene torches. No one admits to issuing that order.



Men and women who had spent years of their lives in designing, developing and then building, the most advanced aircraft in the world were told to cut them into scrap. That scrap was sold for just over six cents a pound!

On the day the destruction began, defence minister Pearkes was asked by the press if it was true that the Arrows were being destroyed. He answered no. That very day, my father came home from work with photographs of the aircraft being destroyed! The next day Pearkes rose in the House of Commons to



correct himself and say that yes, it was true, the Arrows were being cut into scrap. In truth, much more than that was happening. Crews were going all over the plant gathering plans, drawings, photographs, negatives and films - anything relating to the Arrow - to be destroyed. There was to be no record left that the aircraft had ever existed.



The destruction of all this material can be put this way: "Looking back on this extraordinary event, the scrapping of the Arrow seems an act of either inspired malevolence or of criminal stupidity. A mocking epitaph to the work of the men and women who built her."

The infamous, useless, obsolete Bomarc surface-to-air missile that replaced the human who would fly the Arrow and who could actually make a determination as to whether a particular aircraft was an off-course civilian passenger jet or a Soviet nuclear bomber!



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**(Updated 09 June 2000 - 2030 edt)**



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## Links to Other Avro Related Sites

Read Daniel Wyatt's book "Last Flight of the Arrow", available as an E-Book from the following link:



### Arrow Sites:

[The Arrow \[Tripod\]](#)

[Arrow 2000 Project](#)

[Arrow Alliance "The Arrow"](#)

### Avro Related Sites:

[Aerospace Heritage Foundation](#)

[Aviation USK Models](#)

[Aviation Videos Ltd.](#)

Scrapbook"

The Arrow Page

[Avro Arrow & Canadian Aerospace](#)

Avro Arrow [Maverick]

Avro Arrow [Sheridan]

Avro Arrow [IDirect]

Avro Arrow Picture Archive

Avro Arrow Canada Recovery

Arrow Rollout [Bill Zuk]

CBC Avro Arrow Homepage

Canadian Wings - Avro Arrow

CISTI News

Dennis Web Emporium  
[Arrow]

Gemini Diversions

Home of the One-O-Five

Homage to the Avro Arrow  
[Schmidt]

Monique's Arrow Obsession  
Group

Nomad on the net . . . CF-105

Original Arrow Press Guide

Secret of the Arrow

Unofficial Arrow Page

Janusz Zurakowski

Avro Canada Aircraft

Avro - The Story

B-47 in Canada - Iroquois  
Testing

CAF/RCAF Air Command  
Page

Canadian Air Force

Canadian Aviation Historical  
Society

C.A.H.S. - Toronto Chapter

Canadian Military Aviation  
Photos

Canadian Museum of Flight

Flight Deck Canada  
[EXN/Discovery]

Hobbycraft Canada [Models]

RCAF.Com

Toronto Aerospace Museum

Zurakowski [Schoolnet]

[Avro CF-100 Canuck](#)

All Weather Fighter  
Asscoiation

Avro Canada CF-100 Canuck

CF-100 Canuck - The Virtual  
Museum

The Clunk from Hell

CF-100 Mk. 4 Simulator # 7

[Avro VZ-9V Flying Disc](#)



[Aviation Screen Savers](#)

[Mach 3 Graphics \[Excellent!\]](#)

[R.L. Whitcomb Fine Art](#)

[Simulated Arrow Site](#)

[Sleeping with the Avro Arrow](#)

### Flight Simulators

[AIIFS \[Aircraft 200-400\]](#)

[Aircraft - 1960 to present \[2  
CF-100's\]](#)

[Avro CF-105 Arrow Mk. 1](#)

[Planes - Flightsims](#)

### Other Aviation Sites

[Canadian Military Aviation  
Museum](#)

[Last Flight of the Arrow - E-  
Book](#)

[1955 Look Magazine - UFO's](#)

[About "Starfire"](#)

[AR7 - UFO's of the Third Reich](#)

[Avro Canada VZ-9V Avrocar](#)

[Flying Contraptions](#)

[Flying Disc - Air Intelligence  
Digest](#)

[Flying Saucers Gallery](#)

[Man-made Flying Saucers](#)

[Project Silverbug](#)

[Report on Project Silverbug](#)

[Saucer Archives](#)

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[Unnatural Museum](#)

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(Updated 09 June 2000 - 2100 edt)