

# How American paranoia downed the Avro Arrow

By Bill Taylor  
TORONTO STAR

A combination of American paranoia, bullying and dishonest salesmanship shot down the Avro Arrow project and with it an aerospace industry that would have made Canada a world leader in aviation, an Arrow expert says.

Instead, the fall-out from the warplane's demise in 1959 has given Canadians a national inferiority complex about their ability to compete "on big projects in world markets," Palmiro Campagna says.

Campagna, an aviation electronics engineer with the Department of National Defence, has written — "purely as a private citizen" — a book that he says blows apart the myth that the Arrow was "Canada's Edsel."

As he did the research for *Storms Of Controversy* (recently published by Stoddart), Campagna had access to previously classified documents in both Canada and the United States.

"The Arrow project was not killed because it was too expensive, poorly designed or obsolete before it got off the ground, nor because the company was mismanaged," he said in an interview.

"It was easily 25 years ahead of its time. It could well have been developed into the equivalent the SR-71 Blackbird, the American super spy-plane.

"In fact, had Canada continued with the Arrow I don't doubt that the Americans would have wound up buying it, as they did the British Harrier jump-jet once it had been allowed to prove itself."

Washington wanted to kill off the Arrow because it was the only aircraft capable of intercepting Ameri-

ca's top-secret U-2 spy planes, Campagna said.

"Remember, we're talking about the days of McCarthyism, the height of the Cold War, spies supposedly all over the place," he said.

"There was a very real fear in the States of Soviet infiltration in Canada, that the RCMP had been infiltrated by double agents.

"They genuinely thought that Canada had a partiality towards Moscow, that we had leanings that way."

America pressured Canada to buy the Bomarc anti-aircraft missile system, Campagna said, knowing we couldn't afford both that and the Arrow.

"It was partly coercion and partly a con job," he said.

"There was one meeting where we said, 'What happens if we don't buy the Bomarc?'"

"The response, and I have this from a good American source, was very simply, 'Fine. We'll put our Bomarcs south of the Great Lakes.'

"Now, the Bomarc was only effective with a nuclear warhead and its range was a couple of hundred miles. So that meant we could have a nuclear holocaust over the most populated area of Canada."

The minister of national defence, George Pearkes, decided Canada would buy Bomarcs and put them in the north, Campagna said.

"But Canada was not allowing nuclear weapons onto its soil," he said. "And without its nuclear tip, the

Bomarc was like a gun without bullets.

"Apart from that, the Bomarc system was a complete bust right from the word go and the Americans knew that even as they were selling it to us.

"Bomarc bases were huge, immobile, wide-open targets and the missiles themselves could be jammed by oncoming bombers. The whole system was untried, unproven, useless.

"You really have to scratch your head now and say why were we doing this? It boils down to a massive lack of self-confidence."

There were other, earlier side-effects, Campagna said, that led to the demise of two other technologically advanced projects — the Avro Jetliner passenger plane and the Velvet Glove missile.

The Jetliner was axed to concentrate resources on the CF-100 fighter, a subsonic forerunner of the Arrow.

"Everybody wanted the Jetliner but Canada," he said. "Howard Hughes was very interested in buying it for his airline.

"The Jetliner was widely acknowledged as a milestone in aviation development, well ahead of the British Comet and the Boeing 707. It had enormous potential."

Documents relating to the Velvet Glove are still classified, Campagna said.

"They spent \$24 million in 1950s money on its development before it was dropped in favor of missiles from the States," he said. "We don't know why. I've tried without success to get access to the files.

"I talked to Stan Kubina, who's a professor at Concordia now. He worked on the electronics for the Velvet Glove and he said the missile's homing system was so technological-

ly advanced that even today it would be something to look at."

In his book, Campagna compares the Arrow with modern jet fighters.

"The F/A-18's top speed is on the order of Mach 1.8 and Arrows flew to Mach 1.98 with less powerful engines and had power to spare.

"The F/A-18 is a 'fly by wire' aircraft, as was the Arrow. The Arrow's feature of internal weapons carriage is gaining in favor since it reduces aerodynamic drag and radar cross-section, a significant feature in Stealth aircraft design.

"An aircraft that comes closer to the Arrow on specifications alone is the Soviet MiG-31.

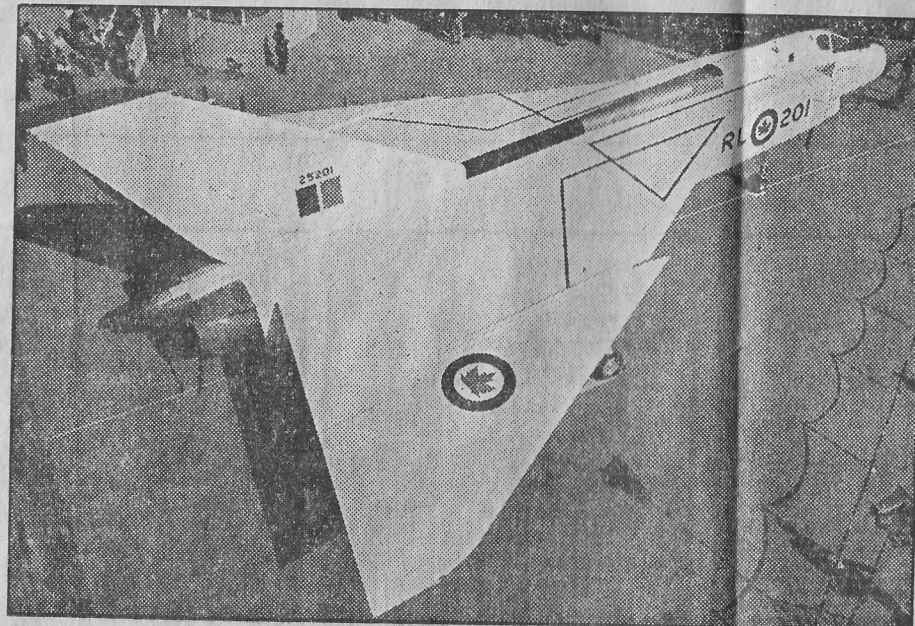
"Would new Arrows rolling off the assembly line today compare at all with those of 1959? Is Wayne Gretzky as good as Gordie Howe?"

Campagna believes that if the Arrow and Velvet Glove projects had been allowed to continue, Canada could have also regained its lead in the airliner industry.

"The brain drain was in our direction in those days," he said. "Everybody wanted to work here. Our research and development teams were the best in the world and it was homegrown talent.

"Now a lot of our companies are foreign owned and the R and D is done in those countries. We're the assembly line. That's not my idea of competing. "The whole Arrow thing has affected Canadian psychology. Kids are taught it was a technologically unsound, too expensive project that was doomed from the outset.

"The message we've grown up with since then is that we don't have the talent, we don't have the ability. We've been brainwashed for 35 years."



**DOOMED PLANE:** Washington wanted to kill fighter because it was the only aircraft that could intercept U-2, author says.