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Avro Arrow: "There Never Was an Arrow"

Friday February 20, 1959 is known as "Black Friday" in Canada's aviation community. On that day, Prime Minister John Diefenbaker rose in the House of Commons and terminated the A.V. Roe *Arrow*, the world's most advanced military aircraft.

Only a year earlier, the atmosphere was quite different. At Malton, just outside Toronto, the legendary test pilot Jan Zurokowski eased himself through the clamshell canopy of a brand-new aircraft as sleek as its name. Even with borrowed engines, the aircraft was swiftly airborne. A sense of pride swept through the nation. Canadians clearly had "the right stuff."

The story of the *Arrow* had its origins in the Cold War and the growing spectre of Soviet bombers invading our northern skies.

Flush from its success in supplying the air force with the Canadian built CF-100, the RCAF laid out a set of ambitious specs for a "supersonic all-weather interceptor aircraft." Demanding an aircraft that would fly faster, higher and farther and carry the most advanced missile system, the RCAF dreamed of a plane that was not even on the drawing boards of any nation in the world. With its CF-100 well into production, its *Jetliner* prototype turning heads as only the second jet airliner in the world, and even a "flying saucer" on its drawing boards, A.V. Roe felt up to the task.

The first *Arrow* took only 28 months from the first drawings until roll-out on October 4, 1957. It might have caused more of a stir if it had not been the very same day that the Russians launched *Sputnik*!

While testing of the airframe was underway, A.V. Roe was also at work on the Iroquois engines that would drive the *Arrow* well beyond the speed of sound. Using titanium and high temperature alloys, the engineers skipped a whole generation of jet engine development. Powerful enough to drive the ocean liner *Queen Mary*, the engine was first tested June 24, 1956.

The weapons system proved the project's Achilles' heel. The RCAF's insistence on weapons and guidance systems that didn't exist pushed the cost of the *Arrow* into an impossible range.

In 1957 A.V. Roe was still riding high, with some 50 000 employees, though the *Jetliner* had failed to find a buyer and had flown for the last time in November 1956. In June 1957 John Diefenbaker turfed the Liberals out and became prime minister. He had long had a suspicious eye on A.V. Roe, the darling of the Liberal government. When the British military declared that interceptors were obsolete, he was jubilant. "There is no purpose in manufacturing horse collars when horses no longer exist" he replied.

On August 27, 1957 the prediction seemed confirmed as the Soviets launched the first ICBM. That same month Minister of Defence George Pearkes met the American Secretary of Defence, who trashed the *Arrow* and told him that the Americans would be glad to sell Canada "proven" aircraft at cheaper prices. Rumours spread that the *Arrow* was doomed.

On September 17, 1958, after numerous evasions, Prime Minister John Diefenbaker relented and granted a hearing to Crawford Gordon, Jr., the president of A.V. Roe. Gordon stormed into the room "incoherent, like a person demented" an aid reported. He pounded the prime minister's desk and demanded that his beloved *Arrow* not be scrapped.

Diefenbaker threatened to have him thrown out. Gordon knew in his heart that the *Arrow* would fly no more.

When Gordon heard Diefenbaker's announcement, he went straight to the loudspeaker at A.V. Roe. "Notice of termination," he said, "There will be no work for you." Some 14 000 lost their jobs overnight. The company was ordered to destroy the 8 prototypes – only a nose section of No. 206 survives. "We will now lose the cream of our skilled aircraft technicians to the United States," said Dennis McDermott of the UAW. "History will prove this to be one of the most colossal blunders made by a prime minister in the history of Canada."

The conventional, and no doubt sensible, historical view is that Diefenbaker made the right decision. The *Arrow* was getting too expensive, though the fault was as much with the RCAF as with the company. But historical events have more than simple economic or "policy" implications. The death of the *Arrow* and A.V. Roe was a symbolic set back, not only for "arrowhead" enthusiasts in love with the technology, or for the thousands of highly skilled Canadians thrown out of work (many moved to the US where they were eagerly taken up by NASA).

Diefenbaker's government rushed to buy American Bomarc missiles, which turned out to be useless without nuclear warheads, and then to purchase American Voodoo interceptors that the air staff had judged inferior years before. For many Canadians, the cancellation of the *Arrow* was a mortal blow to part of the national dream and confirmation that our leaders did not have the courage or the vision to forge a coherent defence policy independent of the United States.

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