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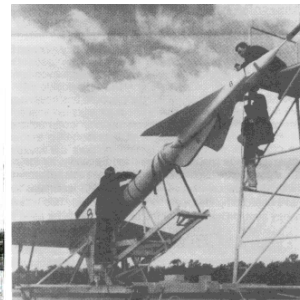
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Avro Arrow: The Obsession and the Myth

Sean M Maloney, PhD



The forty-year old grainy colour images jerk across the television screen for a few seconds, interspersed with modern, clear action of actors dressed in 1950s fashions leaning against a 1950s car. An orange scale model of an aircraft is perched atop a sawed-off and modified Nike rocket booster situated on a forty-five degree angle. The whole combination is suddenly gone, arcing out over Lake Ontario. The composite characters ooh and ah and speak the rather insipid lines written for them. These brief seconds, embedded in the CBC movie "The Arrow" mark the start point for the latest iteration of Canada's obsession with the Avro-built fighter interceptor aircraft, cut down in its prime in 1959. The ghost of the CF-105 Arrow is still with us. Why, exactly, does the destruction of an aircraft over forty years ago continue to resonate in Canadian culture? Why does the obsession return like Haley's Comet?



I rendezvoused with the convoy at Tim Horton's in Picton, Ontario. It was what we called in the Army "O Dark Thirty," that is, any time before the sun was up. The crowd included Radio Canada, Kingston and other local media, numerous Arrow aficionados, and treasure hunters. A crew from the Discovery Channel rounded it out. Led by the Canadian Forces public affairs officer assigned to this hunt, the convoy of seven vehicles wound its way over the decaying tarmac roads of Prince Edward county. A rural community which had not seen a significant military presence since the air base and artillery range closed in the early 1970s, the locals must have wondered who would be obsessed enough to be up that early and not milking cows. The decaying tarmac disintegrated into gravel and we entered a designated conservation area, where Rigid Inflatable Boats or RIBs were waiting to take us to the ships. The sun was starting to rise: a red glow hit the grayish clouds as the RIBs roared across the swells towards the two Maritime Coastal Defence Vessels which were riding at anchor a couple of kilometers apart. My RIB headed for the MM 700, better known as HMCS Kingston. The other ship, designated MM 701, was called the HMCS Glace Bay. The second RIB curved off in its direction.

The controversy over the use of Maritime Command ships and resources to search for lost components of the Arrow programme hit the media several weeks ago which led me to get permission from my employers at the Canadian Defence Academy to tag along and observe the proceedings on Lake Ontario. As an historian dealing with the Cold War, the CF-105 Arrow programme figured prominently in the research I undertook as part of my PhD. Having read almost everything publicly available about the programme, books and archival documents, the obsessive nature of those who pursued the cancellation of the aircraft by the Diefenbaker government struck me as odd. I mean, most historians tend to keep their obsessions to themselves or, on the outside, to a small group of people who are interested in the same topic. They rarely garner national or international attention. These non-historians dealing with the Arrow, are a different bunch altogether. Anything related to the Arrow was and has been guaranteed to make national news.



Home ported in Halifax, HMCS Kingston and HMCS Glace Bay were conducting summer training cruises under command of Commodore Ty Pile. Cruises like this one are designed to acclimatize new officers with shiphandling and watchkeeping in a relatively benign environment. In addition, Maritime Command has a number of impressive and interesting, but discrete capabilities tucked away: two of those were mounted on the ships. Accompanying Glace Bay was the Phantom 4 Remotely Operated Vehicle or ROV. Phantom can dive down to an underwater object, and manoeuvre around it and take pictures. Kingston was mounted with a Side Scan Sonar pod and a "fish" which is towed behind the ship. Both pieces of equipment were accompanied by their crews and divers from the Fleet Diving Unit: this was also a training opportunity for them as well, for their jobs involved homeland defence, particularly mines and explosive ordnance clearance in Canada's ports and harbours. The hunt for Arrow artifacts was concurrent activity: doing several things at once to achieve efficiency. Others, however, were miffed at this "intrusion." And that opened up the abyss of the Arrow obsession once again.



The footage Canadians saw in "The Arrow" involved a series of tests conducted by Avro Canada and the Royal Canadian Air Force in the mid-1950s. The CF-105 Arrow was designed to be a Mach-2 plus supersonic interceptor capable of destroying Soviet bombers if they had attacked North America. In the early 1950s, however, Mach 2 was at the outer edge of the speed envelope, even for American aeronautical research and development. Once Avro decided on the shape of the CF-105, models were constructed for testing in wind tunnels. However, not all flight surface and airframe behaviour could be modeled in that environment and, with a multi-million dollar project at stake, the decision was made to build a number of scale models for flight testing. These models, however, were not your average plastic model plane put together with glue by a fourteen-year old on a rainy Saturday afternoon. These were big: about three meters long. They were loaded with instrumentation, which provided telemetry, or flight data, to ground receivers. The CBC Arrow movie does a fair job about describing this process and why it was important. In any event, each model was different. If one could line up the models in chronological sequence, the aerodynamic thinking process that was in play at the time could be extracted. Each change would indicate the solution to a new problem.

On the surface, this may seem esoteric and technical boredom might set in to an audience confronted with the extreme detail. Indeed, if I was going to bore my students from Canadian National Security policy, I would give them a lecture on how various bureaucratic attacks were launched against the Arrow programme in an effort to discredit it in the mid-1950s. These bureaucratic attacks used spurious arguments (ie: they lied or were ignorant) and bogus data. Avro, operating under Cold War secrecy, could not respond publicly and, with the end of the programme, was prevented from doing so. Information on flight testing with the models could be a piece of the larger puzzle of the Arrow story.



But that line of reasoning was not in play when the Kingston and Glace Bay were sailing off the Point Petre launch site. To the sailors, this was an interesting secondary task and a great way to check themselves out on new equipment and improve skills. For the trainees, it was a challenge in ship handling. For the obsessives, however, this was an unwelcome intrusion by the federal government on their self-declared "turf."



Project, if you will, a wedge-shaped slice of Lake Ontario emanating from the former launching pad at Point Petre. Now divide that up into three-dimensional cubes. Yes, I know it seems crazy: how do you divide up pieces of water and lake bed? Global Positioning System technology helps. In effect, several commercial entities have “bought” licenses to “rent” these cubes from the provincial government. Ownership, however, is not like owning a house: the license permits the commercial entity to search the water cube for Arrow artifacts. Years ago, one of these entities towed a sonar behind a Zodiac and put their data up on a website with labels like “suspected Arrow model” and so on, but recovered nothing. Another Arrow model search entity actually kept a spotter on land to watch over “their” cube and report “trespassing” if by chance sports divers or others with more “malevolent” intent decided to go down for a look. The invective got worse: when Maritime Command announced that as part of the summer training cruise they would look for Arrow artifacts, press releases in the “shrill” band were released and the debate on the internet even linked the new search to the election as part of a plan to embarrass the Conservatives. In one case, a ministerial inquiry was apparently sent in to the Department of National Defence in an attempt to prevent the Kingston and Glace Bay from deploying the Side Scan Sonar fish and the Phantom ROV or otherwise question the financial aspects of the ship deployment. What was driving all of this? It couldn’t be something as crass as money, could it? What would one of the nine Arrow models be worth? Who would appraise it? Who would own it? Indeed, there was far more to this situation than met the eye. And it was an extension of the larger controversy surrounding the Arrow and its cancellation.

To put things in perspective, the literature dealing with Canada’s involvement in the Cold War is not vast. If you broke down the number of those books by topic, you would find that there are nearly more Arrow books than any other Cold War topic or topics combined. Indeed, there are more than double the number of books dealing with Arrow than the second-most prolific topic, Canada’s involvement in Vietnam. Indeed, the Arrow is the only Canadian Cold War topic to have a movie made about it. It sort of is more exciting that, say, a cinematic recreation of a St Laurent government cabinet meeting over the decision to send military observers to the former French colonies in Indochina. We do not have books or movies about the cancellation of other military projects. How many people know (or care) that Canada built a prototype armoured personnel carrier called Bobcat, or an anti-submarine hydrofoil called HMCS Bras D’Or? Nobody tracks down Bobcat artifacts. Nobody write books detailing with diagrams explaining the advanced technology on Bras D’Or. Or if they do, they do not strike chord in the Canadian psyche anywhere near the Arrow.

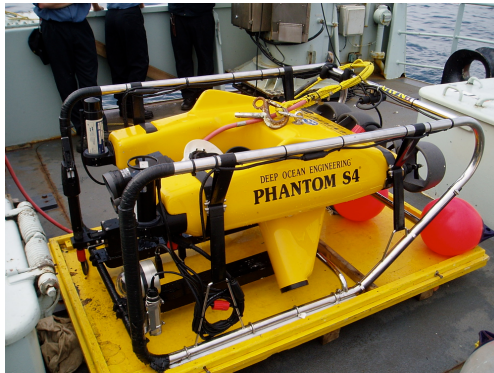


The Arrow was different. And the treatment of the Arrow by those who have written about it is very different from the treatment of other historical topics in Canada. Indeed, none of those writing about the Arrow are professional historians. They do not have training in document handling, nor do they have the deep comprehension of the strategic, economic, and political context of the time in which the Arrow was created necessary to put the programme in any form of historical context. Let me give you an example. At least two Arrow books indulge in a level of plagiarism that would get any of my students kicked out of university. During my research, I noticed that one author used, word-for-word, the language employed by several government documents from the archives that I was using for my work, without attribution whatsoever. When one of my students Lisa Goodyear asked me for a course paper topic, I put her on to this: find out more if you can. She determined that several Arrow book authors were plagiarizing each other! Word for word, with no indication as to where their information was coming from. In academia, there is no way that any of us could get away with that blatant disregard for method and convention.

Yet, if you put a painting of a CF-105 Arrow aircraft on the cover of a book, it will sell. There is a voracious appetite amongst those who love aviation for anything, and I mean, anything, on the CF-105 Arrow programme. Where there is a demand, people will emerge to fill that demand, regardless of verifiable historical evidence, or historical reality. My favourite example is Palmiro Campagna’s *Storms of Controversy* which is reprinted in new editions every time some new document is allegedly “discovered”. Campagna goes as far to imply that the Arrow programme was threatened because the CIA didn’t want Canada to have an aircraft which could compete with their spy planes or shoot them down. We didn’t need an Arrow to do that: a CIA U-2 crashed in Saskatchewan of its own accord back in the early 1960s.



Any historical book tells us as much about the motives of the author and the context of his time as it tells us about the topic under examination. The Arrow literature is no exception: some wanted to justify the programme ex post facto, others wanted to satisfy their techno-lust, while others still wanted to indulge in anti-American conspiracy theory. Some wanted to write the "definitive" history. But what were the motives of those observing the search operations off Point Petre?



I spent most of the day aboard Kingston before transferring over to Glace Bay. Kingston's wardroom was relaxed, professional. Lieutenant Commander Marta Mulkins had a great ship and crew. The reporters and Arrow aficionados occupying Glace Bay's wardroom, however, generated an atmosphere that could be cut with a knife. It was tense. I spoke with one of the reporters, a laid-back guy who had little or no stake in the larger debate over the Arrow or the recovery operation. I explained that I was a military historian and that the Arrow programme formed part of my inquiry into the 1950s and that it was always neat to have physical representations of any period to ensure that our heritage was maintained with objects, not just words. Oh, and by the way, I have a book coming out next year which deals with the programme. Sitting in front of me was a balding man who had glowered at me earlier on the dock while we were waiting for the RIB. I had no clue who he was, he didn't know me from Adam. He immediately whirled around and, in an alarmed tone of voice, demanded to know more about my book.

"Well," I said, "wait until it's published and you can read all about it."

His reply was strange, to say the least.

"When it comes out, I'll tell you how its all wrong."

I was somewhat taken aback. He couldn't possibly know what I'd written, had no access to my draft manuscript. I have delivered no papers on my research. The sheer effrontery was something to behold: that was like me telling my doc how to go about removing my appendix. At the same time, a lot of people think that they can tell historians how to write history. This individual alone possessed the only perspective on the Arrow programme? He alone had compiled all the possible sources? What, exactly, was he an authority on? What were his credentials? I knew from his name that he had published nothing detailed on the project. Of course in Canada, everybody's opinion, informed or otherwise, is equal and valid, right?

I was speaking with another reporter, who asked me what I thought about the Arrow programme's demise.

"Well, it's a complex series of events and decisions. I'd have to walk through all of them." Before I could get a word out edgewise, another Arrow aficionado cut in with an alarmed tone of voice, "I have the document. He hasn't seen it."

"What do you mean, the document?"

"The one canceling Arrow. It's a secret document."

The reporter asked if he could see it and the man shook his head and retreated. As anybody who has studied complex decisionmaking knows, there were several way points which culminate in a decision: there are decisions on top of decisions. When an airliner crashes, there never is one reason: there is a cascading series of events which produces the crash. The Arrow programme is no exception. There were literally thousands of secret documents which were part of that process. The first guy viewed my presence with an interesting combination of alarm disguised with dismissiveness: clearly, I had walked into something here and the historical context which I could bring to bear to provide the media with background to the Arrow story was unwelcome.

Another media individual walked up "I'm going for a smoke. Want to join me?" I replied in the affirmative. Incidentally, I don't smoke, but the atmosphere in Glace Bay's wardroom was pretty stuffy.

We climbed through a hatch onto the sweep deck of the ship.

"What the hell is going on here?" I asked with the most perplexed tone of voice I could muster.

"I don't know. Every time I interview one guy, he trashes the other guys. I move on to guy number two, he trashes guys number one and three about what assholes they are and that they don't know anything. When I get to three, he shits all over one and two. I've never seen anything like this. It makes Kingston municipal politics seem refined and gentle."

Another Arrow aficionado saw me talking with the reporter and sidled up. I've read this guy's stuff and thought it was okay. When I

had made an earlier comment in the wardroom about Arrow books plagiarizing each other (without mentioning names or titles) the balding guy silently but vigorously gestured at this Arrow aficionado who was out in the hallway talking to the aloof Discovery Channel crew who were more interested in the technology used by Kingston and Glace Bay to look for the models rather than the history behind it. Our companion on the smoking deck related to us a bizarre story about how one group of Arrow aficionados arranged a dinner for surviving Avro employees. A rival group contacted the group that set up the dinner and demanded that they cancel out since only "their" organization was "permitted" to organize dinners for former Avro employees what had some relationship to the Arrow.

Slices of lake; dinners; documents. Ownership. Rivalry. Competition. Wow: according to the ideology we were indoctrinated with during the Trudeau era, that's pretty un-Canadian, isn't it? Didn't we all own this history?

The motives that I could discern at play here were a combination of who was "right" and who "discovered" something new or different. This "rightness" and the supposed "ownership" of discovery had deeper roots. Prestige, apparently. But amongst what group? Prestige does not always transfer into all aspects of society. In the case of the Arrow people, it was a rivalry between individuals and groups to "one up" the others. In that environment, a fragment, any fragment, no matter how small, was a card to be played in this game, particularly who "discovered" it. But there was money involved too. Books on the Arrow, as we know, sell, no matter what is in them. I am sure more documentaries will be made about Arrow, recycling the finite number of grainy coloured images that exist. Somebody will profit from that. The Canadian subsidiary of the Discovery Channel will have a mini-version of Robert Ballard-like events that will satisfy CRTC Canadian content criteria. Plus some drama, if the editors at the Discovery Channel were smart.

Several important aspects of the Arrow story were lost in all of this high school-like behaviour. First, the underlying importance of the Arrow programme historically and its relationship to the Canadian psyche was the first casualty. Canada's aviation industry of the day was incredibly advanced and the Arrow was a product of that. There was a substantial amount of Canadian prestige, at all levels of society, invested in the Arrow (this aspect is captured well at least representatively in the CBC film). Prestige is a slippery thing: political scientists cannot measure it using their tools, nor can politicians. Prestige is one of those great intangibles that an historian with impressionistic tools is best suited to capture effectively. The cancellation of the Arrow programme had short and long-term effects on the Canadian psyche and prestige. There was the major body blow of "Black Friday" in 1959 when the announcement came to close down Arrow production. A secondary shock wave was sent into the psyche when the aircraft and tooling was ordered destroyed. These two shocks have resonated over time, and the question always has been, "Why?"

Since the Trudeau era Canadians don't handle things like "pride" and "prestige" well: they have been socially engineered to shy away from it: they are supposedly "American" attributes. The bulk of the Arrow literature emerged since the 1970s and is influenced by this zeitgeist, albeit in a number of ways. The answer to "why" the Arrows were cancelled and destroyed has invariably been cast in the context of Canada-US relations. Somebody has to be blamed: it is easy, so easy, to imply that there was some American conspiracy (either Big Business, CIA, Pentagon or all three) to end the programme: it is similar to the situation we see today over the reasons for the Iraq war. If you want to believe in a conspiratorial reason for an event, you will. Indeed, almost all Arrow books and particularly the Arrow film deal with this aspect in one way or another. The American conspiracy theory taps into latent Canadian anti-Americanism, particularly that which was generated by the Trudeau government in its quest to unify Canada after the FLQ Crisis, keep American oil companies out of Alberta, and implement the Third Option foreign policy of the day. And, better yet, no proof is required.

Canada had this great plane, the Americans interfered with the programme, and got it cancelled, which made Canada subservient to the United States and part of the ongoing and incremental attempt to absorb Canada. A neat, simple, meme to pass on to generations of Canadians. Which, of course, bears no resemblance whatsoever to the complex historical realities surrounding the Arrow programme. Like the near-covert assistance provided by American industry and the US Air Force to Avro Canada and the RCAF, or the fact that the Eisenhower administration had a policy of helping Canada to be as independent as possible in matters of continental defence to relieve their defence burdens and at the same time retain integrity of the deterrent effort against the Soviet Union.

The answer to the "why" question leans in other directions: essentially we did this to ourselves. The elected leadership of this country made several decisions. They bear the ultimate responsibility. Whatever their motives, be they economic, military, or a lack of foresight as to what impact cancellation would have on Canadians, John G. Diefenbaker and his advisors said "no." It was not the CIA. It was not the Bilderburgers. It was not aliens infiltrating Canadian society to stop Arrows from shooting down their UFOs (Seriously, I heard this one during the "X-Files" craze in the 1990s: obviously, the documentary evidence remains sparse...). These men did not really foresee, or chose not to see, the damage they would cause to Canadian confidence and prestige.

And that leads us back to the two Maritime Command ships operating off Point Petre in July 2004. Maligned as tools of the Liberal political machine on the internet (I mean, dredging up the Arrow programme to embarrass Steven Harper? Come on....), accused of thievery and trespassing by treasure hunters, the crews and their ships set out to examine the lake floor. HMCS Kingston put its Side Scan Sonar "fish" into the water and "did the Zamboni" pattern back and forth through the search grid. Several contacts were made: if one was promising, HMCS Glace Bay would move to the spot and deploy the Phantom ROV for a closer look. The "needle in a haystack" cliché is a hopelessly inadequate descriptive: the Point Petre firing range was used by the Canadian Forces and its research and development arms for decades. Hundreds of missiles were fired into Lake Ontario. The Avro team launched nine model-booster combinations. The booster would quit and drop into the lake while the instrumented model continued on its way in an arc until it crashed into the lake. In theory, locating the boosters and identifying them accurately as Nike boosters associated with the test programme would provide clues as to the location of the models themselves. One known rocket booster was already plotted: it was found in 2003 but appears to have been a Nike Hercules booster not associated with the Arrow programme. Indeed, it was apparent that for all their understanding of the Arrow, some Arrow aficionados did not understand the differences between the Nike Ajax and Nike Hercules missiles: both were American air defence systems but had different characteristics and configurations.



It was excruciating work. Looking at the "waterfall" display for the Side Scan Sonar, one rapidly learns that, like history, a trained operator is required to interpret the results. What looks like a booster rocket to a layman is in all probability a rock outcropping. After three days at sea "mowing the lawn" with HMCS Kingston, and with a hour to spare before the search was to be suspended so the ships could move on to other training, two previously unplotted rocket boosters were discovered. Covered in zebra mussels, the boosters defied immediate identification: at some point, the pictures taken by the Phantom will assist in identifying them.

But there were no Arrow models to be found in the search areas this time. Like their larger relations, they have disappeared without a trace. One Arrow aficionado has initiated a new conspiracy theory: the Department of National Defence removed them. Or: the Americans secretly removed them with minisubs so they could study them. Extrapolating those arguments, maybe it was the UFO's who didn't want Arrows shooting them down. Or, maybe it was the Arrow aficionados themselves who removed them to embarrass Maritime Command and the government.

And so it continues...

It will continue until, in 3004, archaeologists from the University of Greater Mongolia's North American Studies Department will excavate the foundations of our homes and find evidence of a "Great White Bird God" which was worshipped by a small and previously unknown cult determined to keep the dream alive. Perhaps that will be the only way to distinguish between the culture of the North and the culture of South.

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