



*The chief test pilot is carefully planning for "the day". The sleek, jet-powered airliner, the first of its type, will be wheeled from its hangar. A million hours of thought and work will come to fruition.*

*There is a tense expectant hush in the offices, the drafting rooms, the workshops and the hangars. Within the factory areas of the airport, groups of workers stand waiting and watching the high tailed silver craft. From the buildings more people stream out to share in a great event. Their aircraft - the product of their hands and brains is about to fly!*

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# Jet too soon

Politics and Aviation in Canada  
– the disassembly of an industry, part 1

story by Jack Schofield

Such was the content of the A.V. Roe advertisement appearing in the August 1949 edition of the McLean Hunter publication, Canadian Aviation. "Test Flight at Malton" was its headline and it went on to say much more, but it was rather badly composed so we spare you here.

However, the concluding paragraph to this advertisement is significant: *At AVRO Canada's Malton plant, the Jetliner, the first aircraft of its type in the world, is undergoing final adjustments. Soon, the chief test pilot will give the word.*

Well, soon, the chief test pilot did give the word and on August 10, 1949 at 15:25 eastern daylight saving time, the Avro Jetliner lifted off the runways of Toronto's Malton airport - the very first jet-powered transport aircraft to fly in North America; second in the world to the British Comet, an inter-continental jet powered aircraft, which had been test flown on July 27th, scarcely two weeks before this Canadian contender. The advertisement went on, glowingly, explaining how the Jetliner's silver wings carried the hope and pride of all the workers who contributed to its creation.

It was the dawning of the jet age and, unbelievably, little old Canada

was at the forefront with a jet transport capable of carrying 50 passengers at 430 mph at 30,000 feet. Boeing, Douglas and Lockheed were not even on the horizon and the 200 mph DC3 was the front line inter-city aircraft on North American routes while this new Canadian jet was tracking between Toronto and New York, cutting in half the flight time on this domestic route and making headlines in U.S. papers. More than one United States publication asked what had happened to the American plane makers that Canada was able to usurp first place in this industry. To answer that question one would have to realize that following the second world war, Britain, not the United States was the principal contender for dominance in aircraft manufacture. With the advantage of lead time provided by Britain's early, war-time development of the jet engine, deHavilland was poised to present the DH Comet as the airliner of the century and with it Britain would assume a leadership position in the supply of the world's transport aircraft. The tragedies which stalked the Comet included the loss by Britain of leadership in design and production. US plane builders, Boeing in particular, were quick to benefit

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from the lessons learned from the Comet disaster and developed the successful B-707, but in the interim, Canada played its hand - the Avro Jetliner for North American domestic routes. The British resources in A.V. Roe Canada had carried this company to the forefront of the industry and provided the country with a leading position in aerospace technology. The tragedy here was the inability of Canada's politicians to recognize what they had and how to use it. The Jetliner had been financed with public money permitting its future to be determined by those least able to assess its value. This fact is at the heart of subsequent political acts which led to the disassembly of the aviation industry in Canada, following the destruction of the Iroquois and Arrow projects and the demise of A.V.Roe Canada. These events cannot be treated as simply ancient history, for this political attitude toward

the aviation industry has prevailed throughout subsequent elected governments and continues to reflect in political decisions of this day. An additional factor existed back in 1949 as it does today - Canada has no aviation press. If any employee of the Globe and Mail or other national paper, reads Hansard or sits in the Parliamentary press gallery, they miss everything commencing with the letter A as, then and now, the Canadian public are totally uninformed on matters relating to aviation policies which slide through the House unnoticed and yet impinge, heavily, on every taxpayer.

Typically, in Canada's leading aviation publication of that day, no bells and whistles were attached to the 3 columns and one photo on page 57 in a 64 page magazine. That publication's coverage of the British Comet, in the same issue, was treated as a lead story while the Jetliner article



Flight test crews reflecting the happy sense of optimism prevailing with the Jetliners fame. The craft cut in half the flight time Toronto to New York and was the darling of the US aviation press.

photo courtesy Mike Cooper-Slipper



missed the significance of the Canadian plane's role. In typical reticence to laud Canadian achievements, the article did nothing to advance the realization that a company of engineers and entrepreneurs at A.V. Roe Canada Limited had put this country ahead of the pack in an industry populated by giants.

This sad, oft told story, goes on to relate how Eastern Airlines, United Airlines, TWA and even Howard Hughes himself, but significantly, not Trans Canada Airlines, were about to place advance orders for the Jetliner when C.D. Howe, the then Canadian minister of everything, blew them all away by ordering the Jetliner scrapped - cut into pieces with chain saws! This was a precedent in aviation history - who chops up a prototype aircraft that has rocked the world with its mind-bending performance? Well, the answer is Canadian politicians, and they had even a bigger surprise for the industry and the taxpayers a little way down the road.

Now, the Jetliner is ancient Canadian history and while the controversy could not be described as "raging" at this late date, there were two sides to



The mayor of Toronto, Jim Rogers, chief test pilot with TCA President Gordon McGregor pictured with the Jetliner. photo courtesy Mike Cooper-Slipper

the issue: the Trans Canada Airlines position and that of the plane's builder, A.V. Roe. Canada's public airline, TCA, at A.V.Roe's entreaty, had agreed to order a jet-powered inter-city transport to certain specifications developed in concert with Avro engineers. The design which emerged from these consultations was to be powered by the Rolls Royce AJ65 jet engine. Avro's proposal offered an alternate design of a prop-jet aircraft but, at that time,

TCA were keen for the pure jet version. The AJ65 was an exclusive military designed engine and Rolls Royce offered little hope that it would be available for civilian use. As it turned out, the AJ65 jet engine was never even built and along the way Avro had to re-design their aircraft to accommodate a four engine concept using the Rolls Royce Derwent engine. As history proves, this was the back door that TCA used to exit the project as

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the Jetliner's structure, weight, thrust and fuel consumption were altered with the advent of the Derwent engines and while the aircraft was quite superior in operation to the original TCA specifications, the cost of the project was escalating and TCA, very early in the game, lost enthusiasm.

One of the significant factors in TCA's position was Canada's shortage of airports having instrument landing systems. This meant that aircraft operating under IFR conditions would be forced to carry sufficient fuel to make good an alternate landing at great distances from their destination; an unrealistic demand on the range and load characteristics of any aircraft and certainly not feasible for the likes of the Jetliner. Also, it is clear that there was, what TCA and government officials would describe as, an "arrogance" at A.V. Roe, whose spokesmen seemed to view the project as vital and important for Canada. It seems they suffered fools badly at Avro and the lock-step attitudes often prevalent with government created clashes of temperament.

TCA's position became diametrically opposed to the Jetliner. While allowing that the airline's engineering department had some valid concerns, it was as if TCA now had second thoughts about their own earlier decision and were quietly distancing themselves from the project. An element most obviously missing from TCA's attitude was the recognition of the national importance of this bold endeavor but then, even the government of Canada missed out on that one. Pragmatists would declare that you can't run an airline on national pride - something the French, six

years later, hadn't learned.

To at least one man, the Jetliner events are part of a lifetime of flying memories. Mike Cooper-Slipper, a Battle of Britain fighter pilot with an amazing flying background and one of the test pilots of that magnificent, ill-fated airplane recalls what a dream it was to fly; how it exceeded the specifications originally established by Trans Canada Airlines and how dumbfounded were the US airlines when it was scrapped. Cooper-Slipper had the doubtful privilege of living in billionaire aviator, Howard Hughes's pocket for six months during the period when Hughes was evaluating the craft. Himself, something of a bizarre character who made weird decisions, Hughes found the Canadian government's act of destroying the plane beyond his own understanding. Howard Hughes wanted to build the Jetliner in the US if Canada didn't want it, but the Canadian government were not negotiable - they had chain saws on their mind.

Six years would pass before any aircraft comparable to the Jetliner would fly. It was the French Caravelle, heavily financed and promoted by the French government, which first flew in 1955 and was in service with Air France in 1959. Boeing's 707 came on the line in 1958.

While Trans Canada Airlines' influence was significant, the official reason for the scrapping of the Jetliner project was the Korean war. Work on the airliner was deemed to be impeding delivery of the CF-100 jet fighter developed for the RCAF by A.V. Roe Canada.

C.D. Howe ordered the plane builder to concentrate on the development and production of the new fighter and the new Orenda 'Chinook' jet

engine currently under test. Howe would ultimately issue the order for destruction of the Jetliner when he heard of US interest in building the craft.

Mike Cooper-Slipper, now retired in Victoria, B.C., could not explain the rationale for this attitude by the politicians of that day and indicated that, in later years, C.D. Howe took to slandering A.V. Roe as a means of defending what was then being recognized as his own irrational actions.

In the September 1949 issue of Canadian Aviation magazine, that edition describing the maiden flight of the Avro Jetliner, there are 36 full page advertisements in a 70 page monthly magazine – a testimony to the huge size of the aviation industry in Canada at that time. The names

of the advertisers are significant: With the exception of Canadian Pratt & Whitney and Esso, those 1949 advertisers; each producing aircraft components or services are now extinct.

While a shock wave went through the ranks with the destruction of the Jetliner, the huge military contract in place for CF100 fighter-interceptors and the development of the Orenda Chinook and later, the Iroquois jet engine and the Arrow were to maintain a degree of stability within the industry. This, of course, was but a temporary situation as a similar fate to that of the Jetliner awaited the Avro Arrow and its Orenda Iroquois when the government chose to shoot down both with a single shot.

In the shadow of the tragedy of the Avro Arrow and the lay-off of 14000 aircraft workers and the ultimate dis-

solution of A.V. Roe Canada, the world importance of the Jetliner slipped through the cracks. Without doubt, had this aircraft been allowed to develop and had Trans Canada Airlines lived up to even part of its commitment to put the aircraft into service, Canada's position in the world aviation industry would be quite a different story, today.

One consolation remains; Canada can claim to have coined the word, "jetliner" and that famous airplane was accepted by Canada Post to be pictured on a stamp – some small achievement for what was left of the Canadian aviation Industry. ✈

Mike Cooper-Slipper, Mario Pesando and David Marshall, who assisted with background data are retired AVRO/Orenda execs living in Victoria, replete with many memories some of which are told here

**In the next issue: Cowboys and Indians – One dead Iroquois**

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