

Reflections on the Arrow - by Jim Floyd.

Few Canadian events have generated such a flood of controversial and conflicting statements, written and verbal, as the saga of the Avro Arrow, or indeed of the whole Avro Canada company activities from the formation of the company in 1945 to its virtual demise after the cancellation of the Arrow/ Orenda programs in 1959.

Books and articles on the subject have appeared almost annually over the past few years, some good, some containing half-truths and others lacking the research that is an essential ingredient for any worthwhile contribution to Canadian history.

In the latter category we have an eminent professor of history at one of our leading universities writing a book which in one chapter outlines what he considered to be a technical deficiency on the Arrow which he claims would cause it to disintegrate in the air. When it was pointed out to him that he had mistakenly referred to a feature on an entirely different aircraft, a device not used on the Arrow, he admitted that he had assigned the research on the subject to one of his students ! While he later had the grace to correct the story in a second edition of the book, the original edition was not withdrawn and is still on the shelves of our public and institutional libraries, where our young Canadians assume that they can find the truth about our aviation heritage.

Unfortunately, the above incident is not an isolated one and other self-styled experts on the subject continue to provide written and on-the-media matter which, at best, can only be described as gross misinformation on the subject of both the Arrow and Avro Canada in general.

At the other end of the scale, we have the equally erroneous assertions that everything was 'sweetness and light ' at Avro, that there were no problems on the Arrow and that the employees were always right and were some kind of supermen.

Those of us that lived with the Arrow project throughout its short life know that we had more than our share of problems, problems of administration of the largest and most complex total-systems-concept aviation project ever undertaken in Canada and technical problems associated with providing the RCAF with an aircraft which would meet their almost impossible requirements, involving the application of technology well beyond the state-of-the-art at that time.

Despite the fact that we had assembled an engineering team of outstanding experience and capability, the like of which we will probably never again see in this country, we were not immune to the constant pressure of such an undertaking or the inevitable

unwarranted criticism of 'outsiders' who lacked the experience to understand the difficulties inherent in a program of that magnitude and particularly those associated with our commitment to production drawings prior to any flight testing.

We certainly did have our problems, but the bottom line on the Arrow was that we managed to solve the problems as they arose and despite the opinion of certain 'experts' at one of our national scientific establishments that the Arrow would probably never fly supersonically, test pilot Jan Zurakowski flew through the sound barrier on the third flight of the first Arrow, powered by the lower thrust interim engines, exceeded 1000 mph on the seventh flight while still climbing and accelerating at 50,000 ft. and Jan and test pilot Spud Potocki carried out a number of flights approaching twice the speed of sound, all with the interim engines.

The tough and no-nonsense RCAF evaluation pilot Jack Woodman, after his phase 1 flight program on the Arrow reported that " the Arrow was performing as predicted and was meeting all guarantees ".

An indication of the quality and expertise of the engineering team on the Arrow can be assessed by what they went on to do after Black Friday. Many went into frontier-of-technology jobs in other countries and made significant contributions to the United States space programs, to the Concorde project and to Canadian, US and European commercial and military aircraft programs.

In a book titled -- Apollo: The Race to the Moon, published in 1969 by Simon and Shuster of New York, authors Charles Murray and Catherine Bly-Cox had this to say about the contribution to the American space programs made by the ex-Avro team of Canadians that went down to NASA after the cancellation of the Arrow program:

" As the Space Task Group's burden was threatening to overwhelm it, the Canadian government unintentionally gave the American space program its luckiest break since Wernher von Braun had surrendered to the Americans -----The Canadians never gained much public recognition for their contribution to the manned space program, but to the people within the program their contribution was incalculable"

The book also quotes one of the original American Space Task Group engineers as saying, about the Canadians ;

" They had it all over us, in many areas ----- just brilliant guys ----- They were more mature and they were bright as hell and talented and professional, to a man."

It might even be said that the Arrow tragedy was not an unmitigated disaster for many of us, since we were still young and it allowed us to go on to bigger and newer challenges, using the knowledge, disciplines and spirit nurtured in the Avro programs, but the collective and closely integrated team that had brought the 'golden age' of Canadian aviation to life, was lost to Canada for ever.