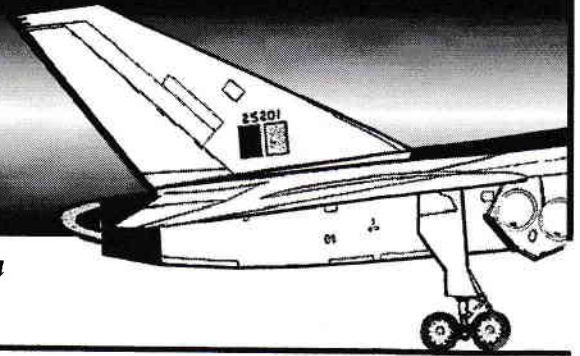


# *Pre-Flight*

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(Photo taken, Canadian Air and Space Museum, at the Avro Jetliner Anniversary)

## **James Charles Floyd**

James C. Floyd commented "I feel for the youngsters. In our day you could get on with the job and not worry about going over the precipice." Those hardly sound like the words of a man who has known overwhelming disappointment in "getting on with the job," yet they capture the spirit of the man who designed the C-102 Avro Jetliner which the New York press claimed "licks anything of ours" was Vice-President of Engineering for Avro Aircraft when it was building the CF-105 (Avro Arrow), and ended up consulting on production of the Anglo-French Concorde.

James C. Floyd, P.Eng., epitomizes the cheery "mustn't grumble" attitude of his native Manchester, yet he's a proud Canadian, who retired to this country after spending 20 years working in Britain following cancellation of the Arrow and the crumbling of A.V. Roe Canada. His concern for "the youngsters" has led him on a concerted campaign to set the history books straight if possible, and if not, well, he's written one of his own. He helped to set up the Aerospace Heritage Foundation of Canada which aims to build a full scale replica of the Arrow and other

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**AHFC**

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## From the President

In this issue May-June, of Pre-Flight, starts a series of articles as the Aerospace Heritage Foundation of Canada pays tribute and salutes our Past (and first) Patron, James C. Floyd. This first edition will be questions and answers posed to Jim shortly after the cancellation of the Arrow. In this interview with Engineering Dimensions' editor Margaret McCaffery, Jim's relives those days at Malton and his answers are very informative. I am looking forward to future Pre-Flights to see what other information Jim can provide us with.

**Frank Harvey**

Continued from page 1...

Canadian aircraft for permanent exhibit. Currently this task was taken on by the Toronto Aerospace Museum (now called the Canadian Air and Space Museum) and now has a full scale museum quality replica of the Avro CF-105 Avro Arrow.

What does someone who was responsible for the design of the Avro Arrow think about the criticisms of its abilities? Jim Floyd and other Avro engineers have expressed themselves eloquently to the publishers of Professor Morton's books, but he sees this kind of misinformation as part of a larger picture:

"High technology is, by its very nature, difficult for the layman or voter to adequately assess, and its worth and impact can only be fully appreciated, even by those who have to ensure its survival, if it is properly and comprehensively presented. In the past, Canadian engineers have tended to adopt a low profile in the political arena and have rarely been consulted about the long-term effects of the decisions made by the 'captains of industry' or their political counterparts. As an example, I firmly believe that had Mr. Howe been exposed to a proper and full-scale engineering briefing on the C-102 Avro Jetliner project, he would not have made the utterly erroneous statements about the alleged technical shortcomings of the aircraft, which must have influenced his decision to abandon the project and which later caused him considerable embarrassment, even within his own party."

Although he refers to himself (with a twinkle in his eye) as "just a poor engineer" who doesn't know anything about politics, he was embroiled in the Cold War politics of the late 1950s by his involvement with the Arrow. In this interview with Engineering Dimensions' editor Margaret McCaffery, he relives those days at Malton.

ED: Why do you think Prime Minister John Diefenbaker cancelled the Arrow?

FLOYD: Diefenbaker had the worst advice possible. His main advice came from General Pearkes, who was a brave old soldier, but he didn't know anything about airplanes at all. He'd been hoodwinked by a visit to the United States where he was told that airplanes are out and missiles



are in and there'll never be another manned airplane bought by any air force (and he was an American too boot).

ED: Was it on the strength of that advice alone that Diefenbaker acted?

FLOYD: Oh no. It was such a complex picture, it was like a tree: even the leaves had something to do with it dying.

There were four major reasons:

1. Diefenbaker could see the costs of the Arrow rising. It isn't unusual for the costs on high technology to be going up all the time; one of the prime examples would be the Concorde, which by the time it flew cost more than double what it had been estimated at. The Arrow was going the same sort of way.

2. General Pearkes had said we can only justify this sort of a cost if we could sell it to the Yanks or the Brits. So he went out, completely prematurely, because you never sell an aircraft to a foreign government before you've developed it yourself, and of course he came back with a no.

3. Then there's this memorandum Paul Campagna brought back from Washington (Sept. 51). It's obvious that the Americans had virtually insisted on the cancellation of the Arrow as part of this deal, long before Diefenbaker came out and said that the Arrow was cancelled. That's a new one to me.

4. Then the Americans were cutting down on their development of manned airplanes. Although they'd put out a specification for the F-108, which was a very highly supersonic airplane, probably as near to the Arrow as you can get, they'd cancelled it, because they weren't too sure that manned aircraft would be needed. The British government had put out a White Paper saying that they didn't foresee that there'd be any fighter aircraft designed from that point on. So I really don't blame Diefenbaker for his uneasiness looking at the program. I would blame him, though, for the way he accomplished the cancellation.

ED: Did you suspect that the program was going to be cancelled?

FLOYD: We suspected that there'd be some hiccup. In September 1958, we were told that the whole thing would be reviewed in March, so of course we were on tenterhooks. But the appraisal was done on February

20th and the cancellation came the same day. That was the biggest shock of the century. We were in a board meeting with John Plant (president of Avro Aircraft) trying to settle some very mundane union situation about seniority Joe Morley (sales and service manager) came running down the corridor with a man from the DDP (Department of Defence Production) saying they'd heard on the radio that Diefenbaker had cancelled the Arrow.

ED: So you heard about it at the same time as the general public?

FLOYD: Later than the general public--- they heard it on the radio.

ED: It sounds like the government had a gun to its head.

FLOYD: We were told to close everything down and that nothing would be paid as from that day. My first thought was to see if any of our other projects could be got into shape so I could keep my 1,500 engineers. I'd been pleading for years to get another project going at the same time as the Arrow, but Fred Smye (general manager), who was a most sincere man, felt we had a duty to do the best we could on that airplane.

ED: I still find it very difficult to understand why it was ordered scrapped, especially when today we're all talking about technology transfer, joint ventures, etc.

FLOYD: You're in very good company, The first thing that I did was to get on to the RAE (Royal Aircraft Establishment) in the United Kingdom to see if they'd be interested in taking some of these airplanes and they said of course, provided we could back them up with parts. Well, we had 31 aircraft back through the plant in different stages of production, so we had plenty of parts. We'd even worked out a method of transportation over the northern route and then the order to scrap came down. (This was mid-April 1959. I had been ordered to scrap the Jetliner, my admitted favourite project, on November 23rd., 1956. Three years later, after setting up another first class design team at Hawker-Siddely, United Kingdom, where I led the feasibility study on the Concorde, I experienced the disappointment of seeing the design study for Concorde go to Bristol Aviation Corporation. I didn't want to see another aircraft, I quit and took my family on vacation. On my return, my first call was from the minister in charge of

the Concorde asking me to consult on the project. That one flew!)

ED: What message would you have for today's engineers?

FLOYD: The best things I've learned have been about dealing with people to bring out the best in them. The old things I learned in England I rebelled against. I try to coax people rather than beat them over the head. Canadians are very flexible: treat them the right way and you can get anything out of them.

One of the things I'm trying to do with the Aerospace Heritage Foundation of Canada is to help young people get the incentive to do some of the things we tried to do. Today there seems to be an apathy, a sense of too many things in the way. I'd like to give the kids some hope.

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## Obituary



**Margaret Mary (Rita) Cooper-Slipper**

It is with sadness that I share with you the passing of a great lady Rita Cooper-Slipper.

COOPER-SLIPPER, Margaret Mary (Rita) Passed away peacefully in her sleep at her retirement residence in Mississauga on Sunday, February 15, 2015 in her 91st year.

Predeceased by her husband Mike, Rita is survived by her devoted and only son Chris (Pat), beloved granddaughter Jessica Rauch (Kevin) and cherished great grandson, Otis Cooper Rauch, all of Toronto.

Rita was born on May 29, 1923 in Tunbridge Wells, Kent, United Kingdom, the only child of Rupert and Eta Brown. In 1941, Rita met a handsome young

Royal Air Force flying officer and on November 5th of that year she married Thomas Paul Michael Cooper-Slipper, DFC, in Hastings, Sussex. They were 18 and 21 respectively and their marriage was to last for 62 years until Mike's passing in 2004.

In 1947 Mike emigrated to Canada in search of employment in Canada's fledgling aerospace industry and the following year Rita and her son Chris joined him, taking up residence in Weston, Ontario.

Following the cancellation of the ill fated Avro Arrow in 1959, Rita and Mike returned to England but after a year there they both realized they had become too "Canadianized" and returned to Toronto and resided in Etobicoke.

In 1986 Rita and Mike retired to Victoria, BC, where Rita remained until 2011 when she returned to Toronto to live close by her family. Rita was a life member of the I.O.D.E. and active in the Anglican Church of Canada working at the Anglican Book Centre in Toronto and as church secretary at All Saints Kingsway. Rita loved ballet and opera and was a passionate supporter of wildlife causes and animal welfare. Rita's charming personality endeared her to all she came in contact with. She had a true joie de vivre and will be fondly remembered for her charm, her wit, her humour and her often outspoken opinions about the things in life that mattered most to her.

Rita's family would like to extend a special thanks to the caring staff at Chartwell Classic Robert Speck, her home for the past 3 1/2 years, the Halton Peel CCAC and SRT support staff and Turner and Porter's Butler Chapel.

A private family service has taken place and a memorial service celebrating Rita's life is being planned to take place in Victoria, B C in the early spring. Rita will be interred next to her husband Mike at Royal Oak Burial Park in Victoria.

Details of that memorial service will be announced at a later date.

Rita's family would like to thank everyone for their kind expressions of condolence and sympathy. Anyone wishing to remember Rita may do so by way of donation to PATS, the Pacific Animal Therapy Society, P.O. Box 131, Saanichton, BC, Canada V8M 2C3.