

30 November 1956

Mr. John McCulloch,
Avro Aircraft Limited,
18, St. James's Square,
LONDON S.W.1,
England.

Dear John :-

I am sending over, attached herewith, the CF-105 Standard Aircraft Characteristics brochure for Dick Walker. Quite honestly, I had a problem here, and that was that we had just collected together all the data from the wind tunnels, free flight models, and computer work, and were in the process, during the last month or so, of revising the brochure.

However, since this is apparently a matter of great urgency, I am sending you the old one, since the new one is not yet prepared.

We had a meeting with the CAS yesterday in Ottawa, and presented him with a new schedule on the CF-105, and estimate of the Mark 2 performance, and a number of other facets in the program, and I think that the most useful thing that I can do is to send you a copy of the summary report which we are now preparing for the RCAF, on the basis of our discussions there yesterday.

This will give you the very latest gen on the performance, a brief write-up on the present philosophy of the program, and the new schedule up to the 40th aircraft. This should be ready within one week.

Briefly, this is the picture :-

(a) Due to some slippage on design, and some in

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production, the first aircraft flight date is back by approximately 3 months, i.e., flight in August instead of May, 1957. However, by the time of flight of the 5th aircraft, this delay is cut down to two months and this delay then persists through the rest of the program, moving the date of the delivery of the first operational aircraft, i.e., the 37th aircraft, to September, 1960, instead of July, 1960.

You will realize that a very intensive program covering complete weapon assessment, etc., will have been carried out by the 36th aircraft, prior to this date, and this date is, in essence, a very different kind of milestone than is usually implied by a British squadron release date.

Because of the differences now between the first aircraft and that which goes into operational use, we have now decided to call the first 5 aircraft with J.75's Mark 1's, and the second batch of aircraft, starting at the 6th in November '58, and subsequent aircraft, being equipped with the PS.13 Iroquois Engine, the Mark 2. We call this 'Program 4'.

I am sending you a sheet indicating the actual delivery dates.

As you can guess, John, this is all really hot, since it has not yet been accepted by the RCAF, and it is entirely for your own personal file. I would not want you to discuss the matter at this time with anyone. I certainly will let you know when agreement has been reached on the program.

(b) With regard to performance, we have increase in profile drag, some increase in induced drag, and some increase in weight, which has pulled the 'g' in a turn at Mach 1.5 at 50,000 feet to approximately 1.65g.

However, we are now optimizing the Mark 2 aircraft to Mach 2 rather than Mach 1.5, and due to certain changes which have been made to the engine to take advantage

of the higher ram at Mach 2, we hope to achieve the 2 'g' in a turn at Mach 2 at 50,000 feet, which should actually give better performance than the specification.

We have also been looking at an increase in performance up to Mach 2.5.

This is obviously a very long story, and I suggest that you relax a little while longer and wait for the brochure. However, in the meantime I am sending you some sheets which we used to demonstrate our points yesterday.

Here again, on the performance side, I would rather you did not pass on this information at this time, and I enclose it merely in an attempt to show you what we have been up to over the last week or so. You will probably now understand why I didn't send you a brochure previously.

I have asked Rolf to let you have a copy of our monthly performance reports, and he will also look after the stability report.

Many thanks for the summary on escape, which was excellent. These reports always make real exciting reading.

Best regards,

Sincerely,

JCF-kas

J. C. Floyd