

15 November 1956

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

Dear John :-

Many thanks for your letter of November 5th and 8th. It will certainly be in order for you to loan Sir Sydney the copy of the brochure which I sent you on the skip flow generator ejection seat.

With regard to the Sparrow, we do of course have quite a problem here, and, in fact, there are two distinct problems. One is that, believe it or not, we still do not have any detail drawings of the Sparrow Missile which we have to fit in the CF-105, and are only just managing to get the clearances through on the Sparrow for the CF-100 to receive this detailed information. The second problem is that, of course, from a security point of view, the U.S. are very touchy about any information whatsoever going out on their missiles, and this restricts us considerably in getting information over to you.

However, I am enclosing a drawing which gives the basic dimensions of the Sparrow II, and a separate sheet showing other relevant details.

Incidentally, you have said in your letter that Hawkers are fitting 50 Sparrow missiles -- I assume you mean 5, unless Sir Sydney has a new version of a Christmas Tree, weighing about three times the weight of the present Hunter !!

..... 2

When you have managed to pass this information over to Sir Sydney, you might ask him if there is anything else that we can help him with in this regard, and we will be only too pleased to do this.

I am asking Rolf to try and get you a copy of NACA Report RM.E54127.

I now understand that Dermot Boyle will not be coming over to see us in December as we had hoped, and I wondered if you felt that it would really achieve anything if either I came over, or sent somebody over to keep the pot boiling on the CF-105.

We have had a number of crises over here again with regard to dates and performance, and it now appears that the first aircraft date has slipped by about three months to August next year, and the performance has gone down somewhat, but we are investigating encouraging ways and means of increasing the performance, and hope to even beat the specifications by a good margin by these methods, one of which is to put a fully convergent divergent variable nozzle on the back end, and the other is to change in the Iroquois engine, which really amounts to re-setting the high speed compressor blading to optimize flow conditions to Mach 2 instead of Mach 1.5.

I realize that you probably feel isolated sometimes and wonder what is going on over here, and when the smoke clears away, I will attempt to send you a full briefing on the changes in program and performance. In the meantime, I strongly suggest that you do not pass this information on to M.O.S. until I can send the detailed data over, or, better still, maybe bring it over.

Desmond Earle has arrived back, and phoned my office about an hour ago to say that he had information from Zborowski, which we will process as quickly as possible and let you know the score on this.

With regard to your holidays, John, it is certainly

..... 3