

28 June 1957
Mr. F. T. Snye
J. C. Floyd

COMPLAINT FROM D.L. THOMPSON ON AVRO'S OVER-ENTHUSIASM
ON SPARROW PROGRAM.

C O N F I D E N T I A L

I asked Bob Lindley to come up with a complete chronology of our activities on the Sparrow missile, and I believe that the attached data prepared by Guest Hake is self-explanatory. However, a letter from the Director of the Aircraft Branch of D.D.P., couched in such terms as that addressed to you, obviously cannot be ignored, and Wes Hurley and I have talked about this and the suggestion is that we should do the following.

(a) Explain to Thompson that Avro acted in accordance with the R.C.A.F.'s directives, as outlined in the letters quoted on the attached sheets, and that we felt that we were acting in the best interests of the Arrow program. Also, the situation has always been a little smokey, and it has not been the easiest thing in the world to determine exactly what the policy was in this regard. Certainly, I, personally, have never been given to understand from any source that we were not to work with Douglas.

(b) We should tell Thompson that we have discussed ways and means of improving the overall coordination, with Canadair, and we believe that we are all now in general agreement on how the situation should be handled, which is as follows.

Since the U.S. Navy have now abandoned the Sparrow 2 program, even to the extent of the development and proving of the weapon, the complete missile development program should become a Canadair responsibility, and Avro will not approach Douglas on any phase of the missile development. In doing this, of course, Avro cannot now accept any responsibility for incompatibilities

Fred mentioned that his conversation with R.C.A. ran something like this: --- He is convinced that, for both development and production, the costs of the Astra 1 System and the missile, over and above the airframe and engine, are so high that the Government could not support them in the final analysis. Since there is little or nothing in the airframe and engine that could be eliminated to save funds, this means a different approach on both the Fire Control System and the missile.

With regard to the missile, the approach is fairly easy from his point of view, entailing merely a substitution of a production Sparrow III for a Sparrow II entailing a considerable amount of development.

On the Fire Control System, his thoughts were as follows : --- R.C.A. are developing the Astra 2 type of system for USAF, to be used on the North American LRI. It is believed that this system will be later available for the R.C.A.F. through USAF on the basis of 'off the shelf' hardware, development costs having been paid in full by USAF. Fred therefore felt that instead of going along with the Astra 1 system, which is a system tailored solely to the Arrow, we would take an existing interim system for the aircraft, such as the Aries, which is being used on the McDonnell 101B and includes an Astra 1 type of radar, until such time as the Astra 2 type of system becomes available. In this way, the R.C.A.F. would have virtually no costs for Fire Control System development.

This all sounds very logical, but I am not too clear on what the Aries system will do. I believe it will fire the Sidewinder and the Falcon, but do not know whether it is compatible with the Sparrow series. Also, my guess is that there would be enough difference in black box size between the Aries and the Astra 1 to involve us in considerable re-design of the airframe.

My own personal feeling on this, for what it is worth, is that we should let our air force continue with the

basic Astra 1 system, but, at the same time, delete items in the system which we feel are unnecessary or incompatible with the Arrow time scale. This is, I think, a little different than your minimum system, and I would be glad if you could give this some thought. In other words, if we were full systems managers, and were technically responsible for the complete weapons system, and, at the same time, we knew that money was going to be tight for the full program, what, in detail, would we recommend and how would this affect the present Astra program?

Item Five

Arrow One Build -- We are now getting to the position on the Arrow One first aircraft which has everybody jittery, and Smith insisted that it was getting close to the day where he would have to close off all Assignments if he was to meet the December date. I pointed out that the content of the Assignments were known to Manufacturing, and these had been taken into consideration on choosing the December date, and both Engineering and Manufacturing were watching the position carefully and trying to sort it out day by day to ensure that the Assignments get in, but, at the same time, the components can be buttoned up in sufficient time to meet the schedule.

Smith said that, regardless of this, he now has to take the position that any further work to come from Assignments will put the schedule back. After much debate, it was agreed that he would review the present Assignment position and say whether he could meet the first aircraft schedule, and that any other Assignments which are raised from here on would be debated fully at the Management Meetings. Would you please be guided by this and, also, I would like to talk to you about it so that we can review our present status on Assignments.

Item Six

Arrow Two Schedule -- I mentioned this in the conversation that we had on the phone yesterday, but, basically,

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Manufacturing are going to work to a definite sequence established on their large chart, and Smith says that he is going to close off all work that is coming out of sequence, since he does not want Young to work on items not in sequence.

J. C. Floyd,
VICE-PRESIDENT, ENGINEERING.

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