

9 July 1958
Mr. J.L. Plant
J.C. Floyd

Private and Confidential

ARROW MARK 2A

I am perturbed about the Company's approach to the RCAF on the matter of the Mark 2A, and the fact that we have indicated it will cost over \$70,000,000. to incorporate the modifications to bring approximately the last 125 of a 200-aircraft order up to Mark 2A status.

In our original submissions to the RCAF on the CF-105 we were always somewhat dubious about the specified range and allowed extra fuel capacity to improve this at some later date, if required. Increase in aircraft weight, increase in drag, and reduction in engine thrust have all tended to use up this reserve. At the same time, the RCAF are now realizing, for a number of reasons, including the extended range of the Bomars, that to be a flexible weapon, which is what they set out to get, the Arrow requires more range.

I believe, in view of all the circumstances, that we should assist them to achieve this increased range if they require it, since this could have a definite bearing on whether we receive a go-ahead on a production basis.

There is no doubt in my mind that the figure of \$71,000,000. for modifications will frighten them off completely, and they will assume that they can never afford to get their required increased range on the Arrow.

In any event, I cannot understand the figure of \$71,000,000., since the Engineering cost is \$4,600,000. for increased fuel capacity, and an extra \$3,500,000. for the nozzle changes, a total of \$8,100,000. for Engineering. I understand that there is another \$9,000,000. for Tooling, making a total for Tooling and Engineering of \$17,100,000.

I understand that the cost per lb. average on the Arrow airframe is approximately \$100. The increase in weight due to the modifications is around 1,600 lb., which would make an increase per aircraft on production of \$160,000. If we assume that 125 aircraft were involved, the increase would be \$20,000,000., or an over-all total, including Engineering, of \$37,100,000.

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These are only ball park figures, however, when our latest submission, unofficial or not, is likely to frighten the customer to death, I feel that we should have had an opportunity to discuss it in detail before submission.

J. C. Floyd,
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cc's Messrs W.H. Riggs
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