

1 June 56

R/ 853-1936  
(Dictated 31 May 56)MEMORANDUM TO FILE

Re: NOTES ON DISCUSSIONS WITH A/C TRUSCOTT,  
G/C FOOTIT, G/C ALDWINKLE, W/C BROUGH,  
AND W/C HAMILTON (RCAF PROJECT COORDINATOR,  
CF-105 AND PS.13) ON WEDNESDAY, MAY 30/56

A number of discussions took place on both the CF-100 and the CF-105, the main points of interest of which are shown below.

CF-105 EVALUATION

The R.C.A.F. had intended to have a formal evaluation of the CF-105 prior to December 1957 in order for the C.A.S. to recommend to Cabinet, by January 1958, that work on the 12th aircraft and beyond should proceed.

This timing was based on our manufacturing lead time rather than any R.C.A.F. magic date.

I made it quite clear that any evaluation, especially on handling qualities of the aircraft, prior to June, 1958, when we expected to have the damping system in reasonable shape, could be dangerous from a decision point of view, since the aircraft would not have particularly good handling qualities until the damping system had been wrung out and developed, and we would, for instance, not be able to fly the full flight envelope until that time. I pointed out that while the Company would obviously have no objection to R.C.A.F. pilots flying the aircraft during the latter part of 1957 or early 1958, we could not be a party to a pretence that we would have an aircraft which would have good flying qualities over the flight envelope at that time.

It was finally agreed that the Company would provide the R.C.A.F. with a short write-up, giving an indication of the flying qualities and the portions of the flight envelope that could be reasonably covered, on a time basis, i.e.,

by October '57, January '58, April '58 and July '58, showing the general increase in performance and flying qualities as the damping system was wrung out.

The R.C.A.F. agreed to confine any evaluation to a C.E. & P.E. pilot and keep the Operators out of it, and the C.E. & P.E. pilot would be brought into the program prior to flying the aircraft to get a good assessment of what he could hope to evaluate.

#### CF-105A INTERIM VERSION:

I described in some detail the general philosophy of the introduction of the CF-105A, and the meeting was very enthusiastic about the idea and the possibility of getting aircraft in use in the R.C.A.F. prior to the mid-1960 date.

They felt that the J.75 version was unworkable on the basis that it was not possible to do an easy retrofit to full CF-105 specification, and also that some twenty to twenty-five million dollars would be required for additional J.75 engines from P & W.

They felt that the CF-105A program only made sense if it was a straight de-rating based on development time, but that it automatically became a full CF-105 to meet the specification as the various items were wrung out and developed.

They agreed that this was a far better program than spending a large amount of development money on a sophisticated CF-100.

There are apparently sections in the R.C.A.F. who are still exerting pressure on the need for an aircraft to meet the threat between the CF-100 and the CF-105, and the F-102 and F-104 are still being discussed. As a result of yesterday's meeting, I feel that while there may be no funds available to go ahead with the CF-105A, at least the ANTS group who were in the meeting, are now convinced that if there should be an interim aircraft of any kind between the CF-100 and the CF-105, it should be the CF-105A, and, on that basis, I believe that the discussions achieved their objective.

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The AMTS group are most anxious to receive our submission on the CP-105A.

#### CP-105 FIRE CONTROL SYSTEM

It was obvious from discussions on the Fire Control System for the CP-105A that Alswinkle now has some doubts about getting the Astra-1 by the date originally assumed, especially since R.C.A. apparently do not have a contract from U.S.A.F. to carry out this work, and this is unlikely to materialize for another two to three months. While the E.C.A.F. are worried about this, they still feel that the Astra-1 system is well worth waiting for and they have not changed their minds on the technical superiority of this system over the MX.1179.

#### CP-105 DAMPING SYSTEM

I mentioned Hughes' offer to provide Minneapolis-Honeywell with all the data on the Damping System. They agreed that if H-H could use this data and either improve the schedule or take less risk in designing hardware, we should be in a position to cancel the Hughes contract.

I promised to let them know the results of our visit to Minneapolis-Honeywell.

#### CP-100 DEVELOPMENT

Apparently, the decision to go ahead with Sparrow-II and the Wee Beast, i.e., the Mark 6, is irrevocable, and I pointed out that the specification called up a number of items over and above these modifications which could modify our program considerably.

I told them that we propose to write them a letter indicating what we could provide them with by the June '56 delivery date, and separately list the items that we could not, with appropriate dates for incorporation and additional costs where applicable.

I made it clear that the data collected by S/L Landry was not a formal Company submission, and that we would

not submit any proposal on the 8500# thrust engine with afterburner, and that our submission on the CF-100 development program would be based on a prototype program involving three aircraft for (a), Standard Series 11 Engine with 35% Afterburner, and (b), Orpheus Engines on the wing tips.

CF-100 MARK 5 CRASH

I brought them up to date with our own investigations on the crash at Kinross and suggested that a team of Carl Lindow, Fred Flueh and somebody from Ray Footitt's office, and probably a pilot, visit the Squadrons to educate them on the use of the Mark 5 and assist them to become familiar with the flight envelope and the effect of gusts on the maneuver envelope, since, unless the pilots get this type of education, they are likely to break up Mark 5's in the future, if they fly on fast demonstrations at low altitude, especially in the condition that the aircraft at Kinross was in, i.e., with tip pods on and empty.

Truscott and Footitt agreed to try and arrange this with the Squadrons.

The F.C.A.F. had felt that they should have a full scale test on the CF-100 Mark 5 wing, since the last test had been a simulation on a stub wing, but after discussing this with them, and pointing out that the failures were exactly at the spot which had failed on test, and that we could show that the failure had all the indications of being due to a 'g' overload, they felt the test would not be necessary and agreed with the approach of educating the Squadrons.

J. C. Floyd,  
VICE-PRESIDENT, ENGINEERING

JCF-kas

Cc's to Messrs:  
FTBays  
HBSaith  
Jalorley  
LHMcCarty  
RLindley  
GShke  
CVLindow