TIPLE

UNCLASSIFIED .

CF-105

MOCK-UP EVALUATION CHANGE REQUESTS

PROGRESS RECORD

Classification cancelled/changed to (date)

and would be

- 1. The attached sheets are designed to provide a record of Engineering action taken against Change Requests published in RCAF/AMTS Development Study Report DAEng-45 "CF-105 MOCK-UP EVALUATION". Replacement sheets on which action is outstanding will be re-issued when further progress can be reported.
- 2. In explanation of the three sections of the form:-
 - Section 1 repeats, for ease of reference, the original Change Request from Report DAEng-45.
 - section 2 is intended to cover the various major engineering phases from initiation of study to allocation to a production aircraft, dates etc. being inserted as and when each stage is complete. Since this record was commenced in May 1956, in general no earlier date is quoted. The letters N.A. mean "Not Applicable".
 - Section 3 is to form a record of progress and will be entered up periodically until the Change Request has been dealt with.

DEFINITION OF CATEGORIES

- Cat. 1 To be evaluated on the existing Mock-Up and incorporated on the first aircraft.

 Some items may not require evaluation on the aircraft mock-up but are to be incorporated in the first aircraft.
- Cat. 2 To be incorporated in time for the RCAF Engineering Evaluation to be carried out on the aircraft (not necessarily the first aircraft).
- Cat. 3 To be incorporated in the mock-up of the PS-13 powered aircraft.
- Cat. 4 To be incorporated in the mock-up for evaluation at the same time the mock-up of the Armament System is evaluated.
- Cat. 5 To be incorporated in the mock-up for evaluation at the same time the mock-up of the Integrated Electronic System is evaluated.
- Cat. 6 Changes of a nature requiring a study by the contractor or the RCAF.
- Cat. 7 Changes not acceptable.

INDEX

- A Crew Accommodation
- B Structures
- C Engine Installation
- D Electrical
- E Air Conditioning
- F Low Pressure Pneumatics
- G Fire Detection & Protection
- H Icing Protection
- I Fuel System
- J Telecom & Navigation
- K Hydraulics
- L Oxygen
- M Instruments



SECTION "A"

CREW ACCOMMODATION

Category: 1

Items A-1

Sheet: 1

CP-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

1. Change Request Detail

Initiator: DIEEng

Change Desired: Put wedge behind altimeter to tilt upwards.

Reason:

To obtain full view to top area of scale. As mounted the new

10,000 ft index could be out of sight along with most of the

graduations.

Action:

Cat. 1.

2. Progress Summary

	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation	
,						
	N.A.			May 15/56	lst & subs.	

· ·	•	<u> </u>	
Date	Remark		,
9 May 1956	Mock-up change in work.		
			•

•				
40 3 AF	MAGE IN	ATTACKED TOTAL PROPERTY		
	MITIKAND	CHANGE REQUEST	PRUBRICA	M MATTER IN
NA TAV	*************	ATRICKAN TOTAL COMMO		TOTAL COLORS

Category: 0

Item: A-2

Sheet: 1

1. Change Request Detail

Initiator: DFS

Change Desired:

Reason:

Action: Withdrawn on request of initiator.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Date	R	emarks		
9 May 1956	For record purposes only.	No action required.		
			•	
			•	

Category:

Sheet:

Change Request Detail 1.

Initiator: DFS

Change Desired:

Provide fail safe regulator or a by-pass to oxygen

regulator from emergency bottle.

Reason:

One regulator is common to normal and emergency oxygen; failure of regulator will preclude use of emergency oxygen.

Cat. 7. Action:

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
				,

Progress Detail 3.

Date	Remarks	,	
9 May 1956	No Company action. G.F.E.		
			•

Category: 1

Items A-4

Sheet: 1

1. Change Request Detail

Initiator: AMC - CEPE

Change Desired: To manufacture canopy latch access door between cockpit

bulkhead in a transparent material.

Reason: To enable the navigator to see the pilot's seat and top of

pilot's head.

Important re:- determining if the pilot anoxic or incapacitated,

determining if pilot ejected. Psychological effect of being

closed in helped.

Action: Cat. 1 - Mirror arrangement morked-up - door to be openable

in flight. Refer: A-8.

2. Progress Summary

Study .	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
March 1/56			,	

Date	Remarks		
9 May 1956	Pending canopy emergency opening tests. If rigid pipe can be replaced by flexible this CR can be incorporated. Transparent feature will be accommodated in any case, together with opening facility (ref. A-8). Flex. pipe would clear ledge for use as step (ref. A-31).		

Unchest

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category:

Sheet: 1

Change Request Detail

Initiator: AMC - CEPE

Change Desired: Insure that the two upper rear cockpit floodlights are

removed from operational version.

In present position, light would reflect directly on proposed operators indicator. Reason:

Action: Cat. 5.

Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Date	Remarks	
9 May 1956	No Avro action required at this stage.	•
		:



Cate

Item:

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DIEEng

Change Desired: The proposed wording on the dials of certain instruments is

considered excessive. DIEEng is commenting on oxygen. Turbine outlet thermometer drawing submitted by Avro.

Reasons

Action: Cat. 1 - Cockpit Sub-Committee to present proposal to AVRO.

Refer A-8.

•	Progress Summar	Progress Summary				
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation	
•	No				,	

Date	Remarks	
9 May 1956	Awaiting RCAF advice.	

Category: 6

Item: A-7

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Instrument panel - re-arranged as detailed by Cockpit

Sub-Committee.

Reasons

To accommodate space provision for an attack scope.

Action:

Cat. 6 - AVRO to study and present proposal to meet the change

request, i.e., leading to Cat. 1 - Changes to left

hand console to be Cat. 1.

2. Progress Summary

Study Initiated	Mock-Up	Mock-Up	Prod. Drawings	Production
	Changed	Approved	Issued	Allocation
Completed	Yes	March 20/56	May 15/56	lst A/C

Date	Remarks
9 May 1956	Immediately after Mock Up Conference pilet's attack scope reduced from 5 inch to 3 inch diameter. Instrument panel alteration not possible until IDI available. Rearrangement of engine instruments on main panel as requested not possible because of structure interference.
	Discussed and agreed with Cockpit Sub-Committee on March 20/56

CONFORTALIAL CONTRACTOR

Category:

Item: A-

Sheet: 1

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Clear view panel separating front and rear cockpit with

an access door which can be opened in flight.

Reason: To permit navigator to see into front cockpit and to be

able to pass small articles into front cockpit.

Action: Cat. 7 Partially covered by A-4.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remai	rks
9 May 1956	See A-4.	

Category: 7

Item: A-9

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Red and amber master warning lights to be flashing and if

the flashing feature fails, it must not prevent the

functioning of the warning lights in a steady condition.

Reason: More eye catching when flashing.

Action: Cat. 7.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
			•	

Date	Remarks	•
		,
	•	
}		
		,
ŀ		

Category: 1

Item: A-10

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Rudder, elevator and aileron trim position indicators, and

a control surfaces movement indicator are required on port

console.

Reason: Safety of flight.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed	Yes	March 20/56	Yes	lst A/C

Remarks	
Instrument presentation and position approved by Cockpit Sub-Committee March 20/56.	
5	6 Instrument presentation and position approved by Cockpit

UNCHASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Item: A-11

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: "Damping System Disconnect" on control column to be renamed

"Auto Flight Control System Disconnect" and to be connected

to the tit in the "spare" position.

Reason: (a) Control now mis-named.

(b) Should be connected to "spare" tit as less likelihood

of it being inadvertently actuated in that position.

Action: Cat. 1 For putting switch on control columns. The actual

definition of the switch is to be determined as

per A-6.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	N.A.	N.A.	Yes	lst A/C

Date	Remarks
9 May 1956	The switch has been relocated - switch altered from "Normally Open" to "Normally Closed". Part (a) not yet finalized: for RCAF action.

UNCLASSIMED L

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

Item: A-12

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Circuit breakers in circuits essential to flight should be

in front cockpit.

Reason: Safety factor.

Action: Cat. 6 Refer to D-1, D-29, D-35.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes				

Date	Remarks
9 May 1956	Awaiting RCAF decision - W/C Braham undertook to expedite this item at 26th Co-ordinating Committee Meeting, 18 April 1956

1	7	CONE	I, D	_E_	N	Ť	I	A	L
				_	-		_		_

Category:

Item: A-13

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Angle of rudder pedals makes full depression of brakes

difficult. Shaft should be rotated to correct this defect.

Reason: Safety factor and easier operation.

Action: Cat. 1

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	Yes		Yes	lst A/C

Date	Remarks
9 May 1956	Brake system being assessed in Mock Up. Deviation from MIL Spec. appears necessary. Pedal movement for full braking too great.

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6 →1

Item: A-14

Sheet: 1

1. Change Request Detail

Actions

Initiator: Cockpit Sub-Committee

Change Desired: Method of permitting crew members to lean forward without

loosening harness straps.

Reason: To provide similar facility to that now in CF-100 or T33.

Cat. 6 leading to Cat. 1 - harness details not

available.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed		AFFECT ON	Yes	lst A/C

Date	nemarks			
9 May 1956	Mock-up set of harness and reel box have been ordered. Seat specification and order including this feature issued for Production aircraft.			

Category: 1

Item: A-15

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Method of preventing inadvertent release of harness by

accidental operation of quick release on right side of seat.

Reason: Quick release could very easily be inadvertently operated in

flight particularly since it is in a similar position to the seat raising lever but on the opposite side of the seat.

Actions Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes			Yes	lst A/C

Remarks

3. Progress Detail

Date

9 May 1956	Shape of handle altered. Will be incorporated in Mock-Up for RCAF evaluation.

Category: 6 -1

Item: A-16

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Rear seat should be raised by two or three inches.

Reason: Only when seat is adjusted to its maximum height is vision

out of the windows made facile, and then seat is too high to permit proper actuation of the "D" ring for ejection.

Action: Cat. 6 leading to Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete	No	N.A.	N.A.	N.A.

Date	Remarks		
9 May 1956	Seat could not be raised without considerable structural redesign. Lower edge of Navigator's window has been dropped on Mock-Up.		

HICONOTHEDIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: A-17

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Map stowage required in rear cockpit.

Reason: Com

Company request. No space in front cockpit.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N. A				

Date	Remarks
9 May 1956	Request this change be altered to Cat. 5. Mins. of Cockpit Sub-Committee 20 March 56 say " position can be established only in relation to other equipment which is not firm."

Category: 1

Item: A-18

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: RMI in front and rear cockpits to be replaced by IDI.

Reason: IDI has

IDI has been selected as the direction indicator for this aircraft.

Action: Cat. 1 - subject to availability.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Completed			•	- oth N/C

Date	Remarks
9 May 1956	IDI not available for 1st A/C. Alteration accepted for 6th A/C at Cockpit Sub-Committee Meeting March 20/56.

Category: 6 → 7

Item: A-19

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Prevention of console and panel light reflections in

convex face of R-0.

Reason: Convex face of R-O causes spots of light on face of

instrument.

Action: Cat. 6 - to be studied by RCAF.

Cat. 7 - with respect to aircraft.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

,	
	•
	•

Category: 2

Item:

Sheet: 1

Change Request Detail 1.

Initiator: Cockpit Sub-Committee

Change Desired: Largest possible windows to be installed in rear cockpit.

Reasons

The small windows seriously restrict visibility and further

will create a morale problem.

Actions

Cat. 2 - Not available on first aircraft but to be available

on first aircraft accepted by RCAF for test flying. Company to determine weight penalty of larger

window plus de-misting covered in A-29, D-13.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete	Yes			Cn or before 16th A/C

Date	Remarks				
9 May 1956	Mock-up to be approved.	,			

UNCLASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 4

Item: A-21

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: The adequacy of space and weight provisions for the

indicators, scopes, and panels required by the armament

installation and the electronic system cannot be determined.

Reason: A design for the armament installation has not been established

and the electronic system has not been selected.

Action: Cat. 4.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved		Allocation
				.'

Date	Remarks			
9 May 1956	Noted.			

UNCLASSIFIEDAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: A-22

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Positive interlock must be provided in the crew ejection

system to prevent the ejection seat from attempting to

eject through the candpy.

Reason: Present system mock-up provides only a one second delay

between canopy opening and seat ejection.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes			·	Sept of the sept o

Date	Remarks			
9 May 1956	System being redesign to eliminate necessity of interlock - opening of canopy fires seat if seat firing control has been actuated.			

UNCLASSIFIEDIAL

		•			ategory: 4
:	CF-105 MOCK-	UP CHANGE REQUES	T PROCRESS RECORI	2	tem: A-23
				s	heet: 1
1.	Change Request	<u>Detail</u>		·	
	Initiator: AFH	Q/DArmE		•	
	Change Desired	: Adequacy of p cannot be det	rovision for an o	optical sighting	device
	Reason: A s	pecific optical	sighting device	has not been sel	ected.
ŕ	Action: Cat	. 4.			•
	·				
					.
					. 8 3 4 4
			•		
			•		
		 		· · · · · · · · · · · · · · · · · · ·	
2.	Progress Summa	Y			
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawin	gs Production Allocation
•					·
3.	Progress Detail	<u> </u>			
	Date	•	Rema	rks	
	9 May 1956	Noted.			

JACOREDENTIAL DENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

Item: A-24

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Provision should be made for thermal radiation protection.

Reason: Protection is a requirement for the CF-105.

Action: Cat. 6 - Study by RCAF and AVRO.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings Issued	Production
Initiated	Changed	Approved		Allocation

Date	Remarks				
9 May 1956	Awaiting data from RCAF.				
			•		

Category: 1

Item: A-25

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: The indication in the navigator's cockpit of which UHF

antenna is in use is not required.

Reason: No useful purpose is served by this indicator.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.) 55 A:17

Date	Remarks
9 May 1956	Indicator has been deleted.

NO WESTEDT

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6

Item: A-26

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: In the event that the IDI is not fitted in the first aircraft

and TACAN is fitted, an indication of TACAN range must be made

available to the pilot.

Reason:

Distance indication to selected TACAN station is required for pilots.

Actions

Cat. 6 - Study by AVRO if IDI is not available.

2.	Progress Summary						
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation		
	Yes	N.A.	No	No	Nil		

Date	Remarks		
9 May 1956	TACAN range repeater not available.		

UNCLASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6

Item: A-27

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: It has not been proven by tests that this configuration of

canopy will open under conditions specified. Such tests should be carried out. Simultaneously, work should be done on design of a conventional type canopy which would be

available should the clamshell type prove unsuitable.

Reason: To ensure suitability of this type of canopy.

Action: Cat. 6 (AVRO) Aerodynamics Sub-Committee to monitor -

Delete last sentence. Sub-Committee to check

with IAM on their requirements.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date		Remarks	
9 May 1956.	Nothing to report		

Category: 1

Item:

A-28

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Installation of an interlock to prevent the seat from

firing unless the clamshells are open.

Reason: To prevent seat being fired into the canopy in event

clamshells do not open.

Action: Cat. 1 Refer to A-22.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
				· ·

- 1					
	Date	•	Remarks		
	9 May 1956	See A-22.			
					•
					•

Category: 6

Item: A-29

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Installation of de-misting and de-icing facility in

windows in navigator's cockpit similar to that in

pilot's cockpit.

Reason:

Flight safety.

Actions

Cat. 6 - This request to be cross referred to D-13, A-20.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes				

Date	Remarks	
9 May 1956	Will be incorporated with larger window.See A-20.	

Category: 6

Item: A-30

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Better visibility forward and down. Mock-up required to

be placed on truck to re-assess visibility in approach

and landing altitudes.

Reason:

Flight safety.

Actions

Cat. 6 - Cockpit Sub-Committee to monitor.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Completed	Yes	Yes	Yes (May/56)	lst A/C

Date	Remarks				
9 May 1956	Runway test completed to satisfaction of RCAF (W/C Braham, F/L Wills, S/L Schultz, F/L Kersey, S/L O.B. Philp, etc.) Apr. 23/56.				

CONFIDENTIAL Category: 1 CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD Item: **A-31** Sheet: 1 Change Request Detail 1. Initiator: Cockpit Sub-Committee The left side of the ledge in the front cockpit immediately Change Desired: in front of the access door into the rear cockpit should be converted into a step. Reason: To facilitate entry into the front cockpit. Actions Cat. 1. 2. Progress Summary Prod. Drawings Production Mock-Up Mock-Up Study Allocation Changed Initiated Approved Issued

3. Progress Detail

Yes

Date	Remarks						
9 May 1956	See A-4.						
					•		

lst A/C

UNCLASSIFIED

Category: 6

Item: A-32

Sheet: 1

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Area and adequacy of ground coverage by the landing and

taxi lights not known. Mock-up when tried again on the

truck should include the lighting system.

Reason: To ensure adequate coverage by landing and taxi lights.

Cat. 6 - Cockpit Sub-Committee to monitor. Refer to A-30.

2. Progress Summary

Actions

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed	N.A.	N.A.	Yes (May/56)	lst A/C

	Date	Remarks		
	9 May 1956	Runway tests of taxi light satisfactory to RCAF. (W/C Braham, F/L Kersey) April 23/56.		
į				

UNCHASCIBIED

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: A-33

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Cockpits and components should be coloured in accordance

with ARDCM 80-1, Para 23, 28.

Reason: Eye comfort.

Action: Cat. 1 - Cockpit Sub-Committee to specify colour.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete	Yes	Yes	Yes (May /56)	lst A/C

Date	Remarks
9 May 1956	Cockpit colour scheme now in accordance with ARDCM 80-1.

UNCHASSEFUAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

Item: A-3

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Inclusion of amber warning light in the warning light system

to indicate if undercarriage is not locked down when

approaching to land.

Reason: Safety factor.

Action: Cat. 6 - RCAF to study.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete	N.A.	N.A.	N.A.	Nil

Date	Remarks	
9 May 1956	Cockpit Sub-Committee Meeting March 20/56 decided not to include the undercarriage indication in master warning light system.	

INCLASSIFIE

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Item: A-35

Sheet: 1

1. Change Request Detail

Initiator: DAEEng

Change Desired: Ensure sufficient space at back of seat to accommodate

parachute pack containing canopy at least 28 feet in

diameter.

Reason: Present pack appears to hold 24 foot diameter canopy. Larger

canopy required to provide reduced rate of descent.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Completed	N.A.	N.A.	Yes (Muz 156)	lst A/C

Remarks

3. Progress Detail

Date

being supplied by AVRO will accommodate 28 ft. dia. achute. RCAF to decide the element of risk involved a low altitude ejection with 28 ft. dia. canopy. tin Baker and AVRO recommend 24 ft. dia. canopy.
ξ

Category: 1

Item: A-36

Sheet: 1

1. Change Request Detail

Initiator: DAEEng

Change Desired: Alternate firing system in addition to blind is required.

Reason: In the event the man cannot reach the blind firing handle.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed			Yes (Mag (56)	lst A/C

	Date	Remarks	
	9 May 1956	Alternate seat firing control for Mock-Up has been ordered.	
,			

Category: 1

Item: A-37

Sheet: 1

1. Change Request Detail

Initiator: Cockpit Sub-Committee

Change Desired: Check list to be removed from instrument panel and

repositioned in less important area.

Reasons

Action: Cat. 1.

2. Progress Summary

Stud y	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
				15 A/C

Date		Remarks	
9 May 1956	Propose leawe as is -	space otherwise us	eless.
	·	e e	
		•	

Category: 1

Item: A-38

Sheet: 1

1. Change Request Detail

Initiator: DFO

Change Desired: Install guard on Master Electric Switch to prohibit

accidental movement of switch to off position.

Reason:

Flight safety.

Action:

Cat. 1.

2. Progress	Summary
-------------	---------

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	Yes			lst 1/0

Date	Remarks			
9 May 1956	Guard will be fitted.			

UNCLASSIFIEDIAL

SECTION "B"

STRUCTURES

TO CO GO TO TALL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: B-1

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Installation of a spring detent to hold the engine access

doors in the fully open position.

Reason: To prevent the doors swinging at random and the possibility of

injury to maintenance personnel.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.				

			• • • • • •	
Date		Remarks	·	
10 May 1956	In work.			

THE TIAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6

B-2

Sheet: 1

Item:

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Replace attachment screws of removable duct wall panels

with Camloc type fasteners.

Reason: Increased fastener life, increased removability, increased

fastener replacement, no damage to screw holes in duct wall

by screws and thus increased duct integrity.

Action: Cat. 6 leading to Cat. 1. 3

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)				

Date	Remarks
10 May 1956	Further examination required in conjunction with RCAF Maintenance Sub-Committee.

GOLIBRITAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: B-3

Sheet: 1

1. Change Request Detail

Initiator: ADC-AMC

Change Desired: That it be clearly established that all six upper tie bars in

each fuel tank can be removed without prejudice to re-installation and if such prejudice exists, that a tool to adjust the structure so as to make installation possible be designed.

Reason: To obviate any possible re-installation problems.

Action: Cat. 1 - Company to investigate method and Maintenance

Sub-Committee to monitor. Refer to B-37.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)	N.A.	N.A.	Yes (May 56)	lst A/C

Date	Remarks	•
10 May 1956	All tie bars can be removed at the same time.	
		•

Category: 6

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

B-4 Item:

Sheet: 1

Change Request Detail 1.

Initiator: AMCHQ - ADC - DME ng

Change Desired: That all screwed panels requiring reasonably frequent

access be completely changed to a reliable quick release

fastener.

Screws wear in service, panel holes are damaged and structural Reason:

integrity is jeopardized.

Actions Cat. 6 - Test program to determine reliability of quick release

fastener to be monitored by the Maintenance Sub-Committee.

Progress Summary

	Study	Mock-Up	Mock-Up	Prod. Drawings	Production
	Initiated	Changed	Approved	Issued	Allocation
-	Yes				

Date	Remarks		
10 May 1956	RCAF requested and received drawings of typical access door and surrounding structure towards end of 1955 for transmission to NRC for vibration strength tests. Results of this investigation are awaited by Avro.		

CONDIDENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6

Item: B-5

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: That approval of quick access facility to equipment located

behind Electronic Power Bay Panel be deferred until such time as the equipment to be located behind this panel in

future aircraft be defined.

Reason: To ensure that quick access facility to equipment located

behind this panel in future is not overlooked.

Action: Cat. 6.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Date		Remarks	
10 May 1956	Noted.		

Category: 3

Item: B-6

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: That the structure of the rear equipment area be re-designed

so as to remove the single vertical tie bars in this area.

Reason: To increase the accessibility of equipment located in this

vicinity.

Action: Cat. 3.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 56)	vg			

Date	Remarks
10 May 1956	These vertical tie bars will not be used in PS-13 version.

Category: 6

Item: B-7

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ - ADCHQ

Change Desired: Control boxes and surfaces - Approval in these areas be

deferred until these components are available and

interchangeability and/inspection facility be confirmed.

Reason: Impossible to observe on these features at this time.

Action: Cat. 6 - Maintenance Sub-Committee to follow up.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)				

Date		Remarks			
10 May 1956	Noted.				

Category: 4

Item: R-8

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ - ADC

Change Desired: Approval of missile pack extends only to the principle.

Reasons

Detail is not sufficiently representative.

Actions Cat. 4.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
			•	:

THE RESERVE OF THE PERSON NAMED IN COLUMN	في والتراث والت والتراث والترا			
Date		Remarks		
10 May 1956	Noted.		•	
			•	

Category: 1

Item:

B-9

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: That drain holes be provided at all points of the structure

at which condensate or spilled fluids are liable to collect.

Reason: To prevent the collection of condensate or spilled fluids in the

structure.

Action: Cat. 1 Refer to K-12.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)	N.A.	N.A.		

THE CASSIDED TIAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 1
Item: B-10

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Front Inward Engine Attachment - Actuating lever for hinged

half of socket to be made more robust and more firmly

attached to hinged half of socket.

Reason: Cumulative effects of heat on hinge may make hinge stiff to operate.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 56)	Yes (May 56)		Yes (May 56)	lst A/C

Date	Remarks	·
10 May 1956	Change incorporated.	,

OMETONTIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 4

Item: B-11

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Armament Package - Front Attachments Linkage to engagement

"hook" should incorporate an "over-centre" arrangement.

Reason: To improve safety of attachment.

Action: Cat. 4 - Maintenance Sub-Committee to monitor first aircraft installation.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)				

Date	Remarks		
10 May 1956	Schemes completed. about 2 weeks.	Drawings will be issued f	or Mock-Up in

Category: 4 Item: B-12 Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Armament Package - Front Attachment, Final securing should

not be a bolt and anchor nut. Quick Connector required

(hi-shear Camloc).

Reason: Bolt and nut are slow in use and wear out too rapidly.

Action: Cat. 4 - Delete (hi-shear Camloc) Maintenance Sub-Committee

to monitor.

Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)				

Date	Remarks
10 May 1956	Revised design is being incorporated in Mock-Up.

Category: 4

Item: B-13

Sheet: 1

Change Request Detail 1.

Initiator: AMC - ADC

Change Desired: Armament Package - "Bayonet" or "Push-Pull" type connector

to be used.

"Cannon" plug with screw-type lock ring is clumsy to use and Reasons

wears out rapidly in frequent use.

Cat. 4. Actions

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remarks	
10 May 1956	Agreed. Work will commence shortly.	

Category: 4

B-14

Item:

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Armament Package - Hydraulic Connectors - must be more

durable, more reliable, and more easily handled than

AN642 type.

Reason: AN642 couplings are subject to rapid wear when used frequently

and are difficult to operate rapidly.

Action: Cat. 4.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed	N.A.	N.A.	N.A.	Nil

Date	Remarks	
10 May 1956	Withdrawn by Maintenance Sub-Committee, April 17/56.	

	CF-105 MOCK-U	P CHANGE REQUEST	PROCRESS RECORD		Category: 7 Item: B-15 Sheet: 1	
1.	Change Request	Deta <u>il</u>			Meet. I	
	Initiator: DME	v g				
	Change Desired:	Access Doors - of assuming the	That the company integrity of scr			ı
		service, or even i ect, and are cert				•
·	Action: Cata	7 - Refer to B-A	+•			
٠	·					
2.	Progress Summar	¥		·	·	
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Draw Issued		
3.	Progress Detail	· •	· · · · · · · · · · · · · · · · · · ·			
	Date		Remark	(S		

Category: 6

Item:

B-20

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC - DMEng

Change Desired: Scavenging Rear Equipment Area - Positive ducted air flow

of suitable volume to change the air in this area and

minimize its temperature.

Reasons

Reduce explosive concentrations and limit temperatures.

Actions

Cat. 6 - Refer G-1, 2, and 3.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remarks	
10 May 1956	See G1, G2, G3.	
	·	

UNCARSSIFIEDIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: B-21

Sheet: 1

1. Change Request Detail

Initiator: DMEng - ADC - AMC

Change Desired: Main Undercarriage Door - Quick disconnect and strap or

stay required for door jack.

Reason: To facilitate access to Air Conditioning/Hydraulic Access

Door on fuselage, when undercarriage lowered.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed			·	

Date	Remarks
9 May 1956	A quickly removable pin necessitates major redesign of the surrounding details. Further discussion required with RCAF.
	Frequent removal of this pin does not appear necessary. Hydraulic access in the area is no longer required since pipes have been rerouted. Only access required is for air conditioning pressure reducing valve and then only for replacement. Testing is accomplished using pressure tapping on heat exchanger.



Category: 6

Item: B-22

Sheet: 1

1. Change Request Detail

Initiator: DMEng

Change Desired: Mudguard for nose wheels or covers for equipment in well

or make door cycle from closed position during retraction.

Reason: To keep dirt and water out.

Action: Cat. 6 - The RCAF has experienced considerable trouble with

open wells - Company to fully investigate and determine portions to be covered. It is noted that cycling makes retraction time marginal. See K-7.

2. Progress Summary

Stud y	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)			·	

Date	Remarks
10 May 1956	Due to position of wheel during taxiing, and height of wheel well above runway, it is recommended that this request be held until experience is available on an actual aircraft. It is probable that covers will be required. If necessary, a buttoned-on canvas cover could be supplied for critical equipment such as the circuit breaker panel.

	•	•	·		Category: 7	
	CF-105 MOCK-U	P CHANGE REQUEST	PROCRESS RECORD		Item: B-23	
	•				Sheet: 1	
1.	Change Request	<u>Detail</u>				
	Initiator: AFHO	Q/DArmE	•			
	Change Desired:	Armament Pack	- Method of fast	ening access o	doors unacceptable	•
	Reasons			•		
·	Action: Cat.	7 - Refer to B-	4 and B-16.			
	•					
·	·	·				
	·					
2.	Progress Summar	Z				
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawi Issued	ngs Production	
3.	Progress Detail					
	Date		Remai	rks		
				i		

•				47:	
				Cate	gory: 7
	CF-105 MC	CK-UP CHANGE REQUES	r Procress Record		
		•			t: 1
1.	Change Requ	est Detail			
	Initiator:	AFHQ/DArmE	•	·	
	Change Desi	red: The radome ca	nnot be approved.	,	•
	Reasons	The radome is of so electrical characte	lid construction	with no specified	
	Action:	Cat. 7. 6	110108		
,					
·	:				
				•	*
•				•	
2.	Progress Su	mary			· .
	Study	Mock-Up	Mock-Up	Prod. Drawings	Production
	Initiated	Changed	Approved	Issued	Allocation
				,	
3.	Progress De	tail			
	Date		Rema	rks	
·					, , , , , , , , , , , , , , , , , , ,
	·				
		İ			

UNCLASSIFIEDTIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 4 - 7

Items

B-25

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Armament Pack Dolly - A single, variable speed dolly

panel control should be provided.

Reason:

For efficient removal and replacement of the Armament Pack.

Actions

Cat. 4 - This is not an aircraft item, but it is to be

considered for the Armament Pack Dolly.

Cat. 7 - With respect to aircraft.

2. Progress Summary

Study	Mock-Up	Mosk-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.				

		· · · · · · · · · · · · · · · · · ·
Date	Remarks	
9 May 1956	This feature will be incorporated.	,
		•
	· 	
1	J	

Category: 7

Items

B-26

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Armament Pack Dolly - Study use of pneumatic tires and

possible reduction in size of dolly structural members.

Reason: To optimize winter and summer condition operation and to cut

cost and weight.

Action: Cat. 7 - With respect to aircraft. This is not an aircraft

item, but it is to be considered for the Armament

Pack Dolly.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.				

Date	Remarks		
9 May 1956	The features requested will be incorporated.	•	
			:
			÷
1			

HOUNGEN THE L

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 5

Item: B-27

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Adequacy of the space and weight provisions for the

electronic system cannot be determined.

Reason: The space and weight requirements of a system to meet the

requirements if Air 7-5 and/or Air 7-6 are not known.

Action: Cat. 5 - Consideration should be given when equipment is

specified in Air 7-5 and Air 7-6 to the space

available.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Date		Remarks		,
10 May 1956	Agreed.		•	
				•

Category: 6

B-28

Sheet: 1

Item:

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Armament Pack Dolly - Study to determine feasibility of

using the Dolly as a reloading rack.

Reason: Possible saving in ground handling equipment and spare

Armament Packs.

Action: Cat. 6 - Maintenance Sub-Committee and Readiness Sub-Committee

to continue discussion with AVRO and give guidance to

the Company.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 56)	N.A.	N.A.	N.A.	Nil

Date	Remarks
9 May 1956	Study has indicated that it is not feasible to incorporate the feature requested and at the same time produce a mechanical sound design in relation to height of aircraft above ground and space required for loading missiles.

UNCLASSIFIFD 4

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Item: B-29

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Armament Pack Delly - Forward up-locks should eliminate

linkage, if possible, and provide visual indication of

positive up-lock.

Reasons

To ensure positive up-lock of the Armament Pack.

Actions

Cat. 4 - Similar to B-12.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 56)				

Date		Remarks	·	
May 1956	See B-11, B-12.			
		·		

INCORESTEDIAL

01 10E	MOON IN	CITTA NATIO	DESCRIPTION	DOMODRAGA	DENODE	
いトーエロン	MUCK-UP	CHANCE	KECOEST	PROGRESS	KECUKU	

Category: 7

Item: B-30

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Armament Pack - Hydraulic and electric connections

require guides.

Reasons

To prevent damage and wear in service use.

Action: Cat. 7 - Refer to B-19.

2.	Progress Summar	x			•
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation

Date	Remarks	
		•
i		•

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD Item: B-31 Sheet: 1 Change Request Detail Initiator: AFHQ/Darme Change Desired: Armament installation cannot be approved at this time.

Reason: AVRO design for an armament installation has not been established.

Action: Cat. 4.

1.

Study Mock-Up Mock-Up Prod. Drawings Production Initiated Changed Approved Issued Allocation

Date	Remarks	
10 May 1956	Sparrow II Armament Installation sent to RCAF for consideration April 10/1956.	

Category: 6

Item: B-32

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: Engine duct walls to be installed with quick release

fasteners on one side between stations 697 and 591 in 1 or 3 segments, depending on cost and the details of the removal of the floating duct and gill box be made available to allow consideration of its removal to be

given.

Reason: Access to equipment area, generally and in detail.

Action: Cat. 6 leading to Cat. 1

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)				

Date	Remarks
10 May 1956	Study has so far shown that no change can be made on J-75 installations due to present investment in design and tooling.

				Cate	Category: 7	
	CF-105 MO	CK-UP CHANGE REQU	EST PROCRESS RECOR	<u>Item</u> :	B-33	
	. •			Sheet	i: 1	
1.	Change Requ	est Detail				
	Initiator:	DMEng	·		•	
	Change Desi	where acces	ghting to be place s is difficult. T ery cart.	d in equipment comp he power can be sup	artments Plied	
.	Reason:	Self evident. Be	st locations to be	determined by expen	riment.	
	Actions	Cat. 7.	•			
	•					
	·					
·	,					
2.	Progress Su	mary			:	
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation	
3.	Progress De	tail				
	Date		Rem	arke	· · · · · · · · · · · · · · · · · · ·	
					,	

UNCLASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Item: B-34

Sheet: 1

1. Change Request Detail

Initiator: TSD - AMC

Change Desired: Make use of as many sealed-for-life bearings as possible,

and use one speck of grease only for complete lubrication

of aircraft.

Reasons

Efficiency, saving of manhours.

Actions

Cat. 1 - Agree in principle to be followed up by Maintenance

Sub-Committee.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Continuous (May 56)	N.A.	N.A.	N.A.	lst A/C

	Date	Remarks	
	10 May 1956	Agree in principle.	•
			•
•			

Category: 1

Item: B-35

Sheet: 1

1. Change Request Detail

Initiator: TSDs, AVRO

Change Desired: Reference external emergency canopy release on right

side of fuselage - Notation "Emergency canopy release" changed to larger red letters - notation added to left side of fuselage "Emergency canopy release - other side".

Reasons

Safety aspect should "rescuer" approach aircraft from left

side and unfamiliar with CF-105 (ref. CF-100).

Action: Cat. 1 RCAF to specify.

2. Progress Summary Production Study Mock-Up Mock-Up Prod. Drawings Issued Allocation Initiated Changed Approved Yes NoA. 1st A/C (May 56)

Date	Remarks	340
10 May 1956	Drawings complete and issued.	
		8
	,	

JOHEBBENTEN L

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 7

Item:

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: That the fuselage fuel tank tie rod attachment bolts

be either tapered or utilize a waisted thread on a

screw-on tapered nose.

Reasons

To facilitate the insertion of bolts when mis-alignment

has occurred.

Action:

Cat. 7 - Refer to B-3.

2.	Progress S	Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Date		Remarks		
			· · · · · · · · · · · · · · · · · · ·	
			·	
	Date	Date	Date Remarks	Date Remarks

CONFIDENTIAL

, i	Item: Sheet:	B-37
1. Change Request Detail	Sheet:	1
	;	
Initiator: DMEng		
Change Desired: Structure must be designed to allow simultane removal of all struts in either fuel tank.	eous	·
Reason: To permit ready access for bladder and equipment maintenance.		
Action: Cat. 7 - Refer to B-3.		
		·
2. Progress Summary	· · · · · · · · · · · · · · · · · · ·	
Study Mock-Up Mock-Up Prod. Drawing Initiated Changed Approved Issued	ngs	Production Allocation
	· · · · ·	
3. Progress Detail		
Date Remarks		
		•

Category: 1

Item: B-38

Sheet: 1

1. Change Request Detail

Initiator: TSU

Change Desired: Small inspection doors to have gang release buttons.

Present

Future

0770

0 0

Reason: Cold weather operation with mitts.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)				

Date	Remarks				
O May 1956	This only applies to External Electric Power Supply socket. Study proceeding.				

Category: 6

Item: B-3

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Paint interior of equipment area to provide illumination

Reason:

Action: Cat. 6 - leading to 1 - Type of paint and area to be painted to be determined by Maintenance Sub-Committee and AVRO. Weight penalty to be considered and Co-ordinal Committee advised.

2. Progress Summary

	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Produ
٠					

Remarks	
Study will be initiated shortly.	· · · · · · · · · · · · · · · · · · ·
	Study will be initiated shortly.

CONFIDENTIAL

SECTION "C"

ENGINE INSTALLATION

ς;

UNCLASSIFICAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: C-1

Sheet: 1

1. Change Request Detail

Initiator: ADC

Change Desired: Engine Mount Torque Values - Stencil torque values for

mounting bolts on structure.

Reasons

To have information readily available. To provide a reminder.

Action: Cat. 1.

2. Progress Summary Study Mock-Up Mock-Up Prod. Drawings Production Approved Issued Allocation N.A.

Date	Remarks		,
9 May 1956	Production drawings in work.	,	
			ŧ

UNCIMOCOENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category 3

Item: C-2

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ- ADCHQ

Change Desired: Forward Engine Mount - Approval of this mount is granted

only on the grounds that it was necessary on the J75

installation.

Reasons

It seriously prejudices accessibility in this area.

Action: Cat. 3.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	N.A.	N.A.	N.A.	Nil

Date	Remarks	
9 May 1956	RCAF decision noted.	,

Category: 1

Item: C43

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ - ADC

Change Desired: Guide Rail - Either continuous or 'entry' guides at

each former to allow smooth entry of the engine

guide bars.

Reason: Difficult to man-handle the 201 bar into place because

of the successive formers.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 56)				

Date	Remarks		
9 May 1956	It has been arranged for rail to be guided between Station 803 and 742. Also section of rail has been changed from that shown on Mock-up with a view to increasing rigidity and reducing weight. Mock-up will be revised accordingly.		

Category: 3

Item: C-4

Sheet: 1

1. Change Request Detail

Initiator: ADC - AMC

Change Desired: Approval for future engines can only be considered

after demonstration.

Reasons

Action: Cat. 3.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.				,

Remarks	
Noted.	· · · · · · · · · · · · · · · · · · ·

Category: 1

Item: C-5

Sheet: 1

1. Change Request Detail

Initiator: DMEng

Change Desired: Further demonstration of installation when it is

complete, i.e., with piping, wiring, etc.

Reason: Principle of engine installation and change only can be

accepted at present. Detail is unknown to any extent.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes			,	

Date	Remarks		
9 May 1956	Demonstration can be arranged after September 1/56.		
-			

UNCINE SOFTIFFIAL

CF+105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6 - 7
Item: C-6

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Engine Change Stand - Positive mechanical lock be provided

to confirm elevation of forward rails.

Reason: Hydraulically achieved elevation may not be sufficiently

reliable for transporting engines.

Action: Cat. 7 - With regard to aircraft.

Cat. 6 - With regard to GHE.

2. Progress Summary

Study	Mock-Up	Mook-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

N.A.

Date	Remarks				Remarks	
9 May 1956	Mock-up not representative. in design.	Feature requested is incorporated				

UNCLASSIFIEDAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6 - 7

Item: C-

Sheet: 1

1. Change Request Detail

Initiator: DMEng

Change Desired: Engine Change Stand should be provided with steadying

jack to raise it off wheels and fix its position

during operation.

Reasons

A small movement of the stand can strain the stand to

rail joints.

Action:

Cat. 7 - With reference to aircraft.

Cat. 6 - With reference to GHE.

2. Progress Summary

Study	Mock-Up	Mook-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

N.A.

Date	Remarks	
9 May 1956	The feature requested has been incorporated.	

Category: 6 - 7

Item:

C-8

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ - ADC

Change Desired: That the engine stand be capable of being towed with

engine in place and positive braking be provided.

Reason:

To allow engines to be transported on the stand and

to minimize loads on the airframe.

Actions

Cat. 7 - With reference to aircraft.

Cat. 6 - With reference to CHE.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Completed (May 56)				

Date	Remarks	
9 May 1956	A separate report will be sent to the RCAF.	

Category: 1

C-9

Item:

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Outer Rear Engine Mount - The design of the adjustable

feature of this mount be considered for high temperature

effects, i.e. lubrication etc.

Reasons

This unit, if cooked, would conceivably not function.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes			·	

Date	Remarks		,
May 1956	Test in hand on cooking of unit.	•	,

Category: 1

Item: C-10

Sheet: 1

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

1. Change Request Detail

Initiator: ADC - AMCHQ

Change Desired: Re-routing of two lines port of utility hydraulic

compensator -- 3/8" line to be bent nearer to the area floor, then run aft to rise to its junction block -- 7/8" line T'd off the compensator charging line be

brought off 6" lower than at present.

Reason: To improve access to forward engine mount.

Action: Cat. 1 - Re-route lines to give desired accessibility.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)	Completed (May 56)			1

Date	Rem	arks
9 May 1956	Pipes rerouted.	1
		•

Category: 1

Item: C-11

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Engine pad elbow be redesigned to allow aft in line

coupling at aft end of this line with maximum

accessibility.

Reasons

Present installation impossible.

Action:

Cat. 1 - With further demonstration.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes				

Date	Remarks	; 4
9 May 1956	Redesign proceeding.	
		•
	·	

Category: 6 -7

Item: C-12

Sheet: 1

1. Change Request Detail

Initiator: ADC - AMC

Change Desired: Engine Change Stand - A cable and winch are required

to effect the actual engagement of the trolley to

the side rails.

Reasons

To ease and hasten the attachment.

Actions

Cat. 7 - With reference to aircraft.

Cat. 6 - With reference to GHE.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)	,			

IZORS COS SCORE	3 8.		4.7	
Date	·	Remarks	·	
9 May 1956	See C-8.			
				1 1
				•

Category: 1

Item: C-13

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: Rear Engine Mount - Outboard Engine Mount Bolt to have

locking wire.

Reasons

To ensure satisfactory engagement at all times.

Actions

Cat. 1.

2. Progress Summary

Study	Mook-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	N.A.	N.A.	Yes (May 56)	lst A/C

Date	Remarks	
9 May 1956	Mock-up not representative of Production Drawings which call up split pin.	

Category: 1

Item: C-14

Sheet: 1

1. Change Request Detail

Initiator: ADC - AMC - DMEng

Change Desired: Outboard Front and Rear Engine Mounts - Outboard Engine

Mount Bolts to be attached to chain.

Reason: To prevent dropping of bolts inside Engine Bay.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.			Yes (May 56)	lst A/C

Date Remarks				
9 May 1956	Mock-up not representative of production drawings which call up chains.			

Category: 1

Item: C-15

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: That some means of checking and replenishing the oil in

the fuel pump and right angle gear boxes be provided in

the vicinity of the lower access doors.

Reason: It is impossible to check the oil level or replenish the oil

in these gear boxes without extensive removal of components.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remarks	
9 May 1956	Gear boxes affected not yet available.	,

Category: 1

Item: C-16

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/AMTS

Change Desired: Inboard Forward Engine Mounts - Particular attention should

be paid to re-routing of lines between stations 571 and 591

to facilitate access to engine mounts.

Reasons

Present working space is rather restricted.

Actions

Cat. 1 - See C-10.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Completed (May 56)	Completed (May 56)			,

Date		Remarks		,
May 1956	See C-10.		,	- -

Category: . 1 CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD Item: C-17 Sheet: 1 Change Request Detail 1. Initiator: AFHQ/AMTS Change Desired: Outside Engine Mounts should be labelled to indicate that it must be loosened prior to inboard mount for engine removal and tightened after inboard mount for engine installation. Reason: Cat. 1 - AVRO to determine proper label. **Action**: 2. Progress Summary Prod. Drawings Production Study Mock-Up Mock-Up Initiated Changed Approved Issued Allocation N.A. 3. Progress Detail Remarks Date 9 May 1956 No progress.

Category: 7

Item: C-18

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/AMTS

Change Desired: Inboard Forward Engine Mounting - Lever required to open up

mounting clamp - must be such as to permit easy rotation of

clamp prior to engine removal.

Reason: Present lever is very difficult to rotate.

Action: Cat. 7 - Refer to B-10.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Completed (May 56)	Yes (May 56)		Yes (May 56)	lst A/C

Date	Remarks	1
10 May 1956	Change incorporated: See B-10.	

Category: 1

Item: C-19

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/AMTS

Change Desired: Control Tabs adjusting the open and closed position of the

lower seal aft of the accessory zone must be clearly marked and positioned such that the access hatch cannot be closed

inadvertently with the lower segment not sealed.

Reason:

Accessory Section must be "Sealed off" from the hot end.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.			Yes (May 56)	lst A/C

	Date	Remarks					
	9 May 1956	Mock-up not representative of production drawings which call up feature requested.					
		·					
į			•				
1	•						
,]							

CONFIGNATION

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Item: C-20

Sheet: 1

1. Change Request Detail

Initiator: DMEng

Change Desired: Maintenance instructions are required for almost all

operations in the engine and equipment areas.

Reason: Because of density of equipment a sequence of removing

equipment to get at other equipment is necessary if time

is to be saved.

Action: Cat. 2.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.	N.A.	N.A.	N.A.	N.A.

Date	Remarks
9 May 1956	The information will be contained in the preliminary Maintenance manual. More detailed removal instructions will be included in final Maintenance manuals.

UNCLASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 3

Item: C-

Sheet: 1

1. Change Request Detail

Initiator: TSDs - AMC

Change Desired: Accessibility of equipment in rear centre section should be

of prime interest in design of PS-13 installations - Request

full scale mock-up of PS-13 installation together with equipment arrangement for RCAF evaluation prior to first

installation.

Reason: Improve accessibility based on knowledge gained to mock-up stage

together with knowledge gained from operating J-75 aircraft

prior to PS-13 powered aircraft.

Action: Cat. 3.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)				,

Date		Remarks	
9 May 1956	RCAF request noted.	Study proceeding.	•
	•		

COMPADE MARKI

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 7 - 6

Item: C-22

Sheet: 1

1. Change Request Detail

Initiator: DMEng

Change Desired: Engine Stand should be made to fold in order to reduce

overall height after removal or before installation.

Reason: To facilitate movement in hangar.

Action: Cat. 7 - With reference to aircraft.

Cat. 6 - With reference to GHE.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 56)				

Date		Remarks	·	
9 May 1956	See C-8.			-

Category: 1

Item: C-23

Sheet: 1

1. Change Request Detail

Initiator: TSU

Change Desired: A change in the piping run of the low pressure fuel supply to the engine, at the engine disconnect point. Changes requested to fuel piping run.

- (a) That the $2\frac{1}{2}$ line from the heat exchanger be continued aft to bring the forward disconnect point over the access door area.
- (b) That the engine connection line be brought down and forwarded by a gooseneck elbow which would bring that disconnect point nearer the access door area and provide a more "in-line" connection; these changes will facilitate engine removal and will make these joints more reliable in service.

Reason:

In its present location, access to the wig-o-flex coupling is difficult.

Action:

Cat. 1 - With further demonstration.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)				•

Date	Remarks	
9 May 1956	Will be incorporated in Mock-up for demonstration after September 1, 1956. Study proceeding.	

Category: 1

Item: C-24

Sheet: 1

1. Change Request Detail

Initiator:

Change Desired: Engine Oil - Fill connections should be made accessible -

small door 1 or 2 Camloc only.

Reason: At present 36 screws or Camlocs used on access door.

Action: Cat. 1 - Not necessarily Camloc. Maintenance Sub-Committee

to monitor.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 56)				

Date	Remarks
9 May 1956	Access is provided by the small segment of the main engine access doors. Fasteners consist 8 Camlocs and 3 latches. This design has been reviewed by the RCAF Maintenance Appraisal Team at Avro and has been considered satisfactory for J-75 installation.
	·

CONFIDENTIAL

SECTION "D"

ELECTRICAL SYSTEM

Category: 6

Item: D-1

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC

Change Desired: A limited number of the circuit breakers should be located

accessible to crew in flight -- those vital to safety of

aircraft and crew.

Reason: To improve safety factor.

Cat. 6 - RCAF to determine requirement of circuit breakers

in cockpit.

2. Progress Summary

Action:

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date		Remarks		,
9 May 1956	See A-12.		•	

Category: 1

Item: D-2

Sheet: 1

1. Change Request Detail

Initiator: DMEng - ADC - AMC

Change Desired: Electrical - Cover required for Refueling Indicator Panel -

Main Wheel Well.

Reason: Vulnerable to dirt and water from wheels.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)			•	·

Date	Remarks			
9 May 1956	Panel has been moved - (see I-3). This should eliminate necessity for cover. Terminal strips associated with this panel will be covered. Mock-up in work.			

INCHERGE VIOL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6

tem:

Sheet: 1

1. Change Request Detail

Initiator: DMEng - ADC - AMC

Change Desired: Electrical - Cover required for Circuit Breaker Panel -

Nose Wheel Well.

Reason: To exclude dust, water, mud, snow, slush.

Action: Cat. 6 - Refer to D-1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)			·	

Date	Remarks				
9 May 1956	Refer to B-22.	,			
	Į.				

CONFIDENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 1

Item: D-4

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ - AFHQ - ADC

Change Desired: Hi Energy Ignition Exciter Boxes to be individually fused.

Reason: In present system overload on one half of circuit will result

in failure of complete circuit.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)	N.A.	N.A.	Yes (May 56)	lst A/C

Date		Re	emarks				
9 May 1956	Done.					•	
					1		
				-			

Category: 1

Item: D-23

Sheeps: 1

1. Change Request Detail

Initiator: AFHQ/DIEEng - AMC

Change Desired: Open TRU terminals provided with covers.

Reason: Cable terminals on exterior of TRU are not protected.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.			Yes _{(My} /55)	lst A/C

Category: 6

Item:) D-24

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DIEEng - AMC

Change Desired: Covers provided over exposed terminals.

Reason:

Protection against foreign objects.

Action:

Cat. 6 - Refer to D-13.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.			Yes	lst A/C

Date	Remarks
May 1956	See D-23. Para. 1 reference to D-13 believed in error

Category: 6

Items D-25

Sheet 1 1

1. Change Request Detail

Initiator: AFHQ/DIEEng - AMC

Change Desired: Install standard battery with Elkson type quick disconnect.

Reason: Non standard design using terminals and nuts in place of quick

disconnect.

Action: Cat. 6 - Inst and Electrical Sub-Committee to determine

adequacy and requirements.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)			•	,

Date	Remarks
9 May 1956	Avro has met requirement of Spec. AIR 7-4 and it has not yet been proved that Spec. AIR 7-4 should be altered. Tests are being conducted on Ni-Cd battery to substantiate arrangement described in Electrical Brochure E-4. Study in progress on quick disconnect.

Category: 6

Item: D-26

Sheet: 3

1. Change Request Detail

Initiator: AFHQ/DIEEng - AMC

Change Desired: Install larger capacity AN3150, 34 ampere hour battery.

Reason: Battery capacity of 15 ampere hour too low for emergency requirements.

Action: Cat. 6 - Refer to D-25.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete				

Date	Remarks
9 May 1956	See D-25.
	Reference Electrical Brochure E-4 for choice of battery capacity in relation to weight and installation problems.

Cathery: 6

Item: D-27

Sheet:

1. Change Request Detail

Initiator: AFHQ/DIEEng - AMC

Change Desired: Increased capacity of Direct Current output for growth

factor.

Reason: TRU rated 100 amperes each, available supply 200 amperes.

Present load is 175 amperes. Insufficient growth factor.

Action: Cat. 6 - Refer to D-13.

2. Progress Summary

Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation
Yes (May 56)				

Date	Remarks
9 May 1956	Study in relation to final power requirements of suppliers' equipment cannot be completed at this stage.

Categor 6

Item:

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DIEEng

Change Desired: Battery compartment and installation facilities provided

so that either a standard lead acid or nickel cadmium

battery can be installed.

Reason: BuAer have advised that a built-in thermostat acid relay in

nickel cadmium batteries is mandatory for aircraft use, in addition, cooling air to battery was supplied. AVRO batteries do not have these units, and the battery installation is not acceptable until thoroughly evaluated to ensure the batteries will never be subject to "vicious cycling" under aircraft

battery charging conditions.

Action: Cat. 6 - Refer to D-25.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)				

Date	Remarks	
May 1956	See D-25 and D-26.	,

Sheet:

1. Change Request Detail

Initiator: AFHQ/DIEEng

Change Desired: Provide accessibility to flight crews for resetting of

breakers in circuits essential to flight and aircraft

operational requirements.

Reason: Breakers are inaccessible. System facilities cannot be

operated if circuit breakers open during flight. Possible hazardous location for resetting by ground crew when engines

operating on ground.

Action:

Cat. 6 - Refer to D-1.

Progress Summary 2.

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date		Remarks	
9 May 1956	See A-12.		

Categor 5

Item: D-30

Sheet:

1. Change Request Detail

Initiator: AFHQ/DIEEng

Change Desired: Space provisions for additional breakers and switches.

Reason: Future

Future requirements.

Action:

Cat. 5 - Provision of CAP 479 and MIL E7080 must be met on

aircraft delivered to the RCAF.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
			,	

Date	Remarks			·
9 May 1956	See A-12.		,	

D-31

Sheet:

Change Request Detail 1.

Initiator: AFHQ/DIEEng

Change Desired: Space provisions for additional warning lights.

Reason:

Future requirements.

Action: Cat. 6 - Refer to A-7.

2. Progress Summary

Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation
Complete (May 56)	No change	Yes (Mar 20/56)		·

Date	Remarks
9 May 1956	Present provision agreed as adequate (contains 21 lights, can accommodate 24): ref. Cockpit Sub-Committee Mar. 20/56.

Categor 6

Item: (2.12-32

Sheet: 1

Trans.

1. Change Request Detail

Initiator: DADR

Change Desired: Cover should be provided for protection against slush, dirt, etc.

Reason: Protection.

Action: Cat. 6 - Refer to D-1 and D-3.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)				

Date		Remarks	•
9 May 1956	Refer to B-22.		
	,		
		•	

UNCLASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 7

Item: D-33

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DIEEng

Change Desired: Alternators made accessible for inspection and maintenance

of brushes, commutator when installed.

Reason: Provide ready inspection and meet Specification MIL E7614.

Action: Cat. 7.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
			,	

Date	Remarks	
·		
ŕ		,

UNGLASSIFIED AL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

Item:

D-34

Sheet: 1

1. Change Request Detail

Initiator: DADR

Change Desired: Provision of emergency alternating current power as

previously made known to the Company.

Reason:

Flight Safety.

Action:

Cat. 6 - Refer to D-25.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes			·	

Date	Remarks	
9 May 1956	Study in progress.	

UNCLASSIFIEDAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

Item: D-35

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Study relocation of circuit breakers.

Reason: Pending selection of an electronic system, some circuit

breakers essential for mission completion may be required

in a position accessible to the crew.

Action:

Cat. 6 - Ref to D-1, A-12, D-29.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Date	Remarks		
9 May 1956	Information not available on electronic system. See also A-12.		

II NOVASSIMIFIA L

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

Item: D-36

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: The main power supply cannot be approved at this time.

Reason: The power requirements of the electronic system are unknown.

Neglecting possible electronic system power requirements, and the possibility of alternator failure, the reserve power

planned makes inadequate provision for growth.

Action: Cat. 6 - Refer to D-25.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
			,	

Date	Remarks		
9 May 1956	Awaiting requirements on power envelope from RCAF (as D-11).		

Category: .6

Item: D-37

Sheet: 1

Change Request Detail 1.

Initiator: DADR

Capability of carrying out an attack in the event of one Change Desired:

alternator failure.

Reason:

Operational.

Action: Cat. 6 - Refer to D-13.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
			,	

Company of the Compan	المنتقب المنتقل والمنتقل والمنتقب والمنتقب والمنتقب والمنتقب والمنتقب والمنتقب والمنتقب والمنتقب والمنتقب		
Date		Remarks	:
9 May 1956	Refer to D-11.		,

UNCLASSIFIEDAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 1

Item: D-38

Sheet: 1

1. Change Request Detail

Initiator: TSU

Change Desired: Provide insulation between wire bundle and fuel line at

Station 579.

Reason:

Fuel line touching wires.

Action: Cat. 1 - DIEEng to rule on deviations that may be requested.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.	N.A.	N.A.	N.A.	lst A/C

Date	Remarks	
9 May 1956	Mock-up not representative.	

Category: 1

Item: D-39

Sheet: 1

1. Change Request Detail

Initiator: TSU

Change Desired: In the rear of navigators bulkhead attach wire bundle on

the side of existing channel, instead of on the face.

Reason:

To allow clearness of C/F Pressure controller tubing.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)			Yes Crows/46)	lst A/C

Date	Remarks
9 May 1956	Mock-up arrangement not representative.



SECTION "E"

AIR CONDITIONING SYSTEM

UNCLASSIFIED AL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: E-1

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: Introduction of a tapping downstream of the pressure

regulating valves.

Reason: To be used as a test point, to test the outlet pressure of

the pressure regulating valves.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	N.A.	N.A.	Yes (May 56)	lst A/C

Date	Remarks		
9 May 1956	There is a spare tapping on the Heat Exchanger which should be satisfactory.		

UNCLASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6

Item: E-2

Sheet: 1

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: Design study and structural testing to ascertain fatigue

life of piping due to effects of hi-temperature and vibration from airframe and air sources on pipe welding

(seam and end coupling).

Reason: As most of piping buried in prime structure and not capable

of inspection, pipe reliability of prime importance as leak in line could go undetected and cause structural failure in

immediate region.

Action: Cat. 6.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)	N.A.	N.A.	N.A.	N.A.

'	TAVRA GOD DOVE	.	·
	Date	Remarks	,
	9 May 1956	Test program in hand.	
			•

UNCLASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

Item: E-2

Sheet: 1

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: Design study and structural testing to ascertain fatigue

life of piping due to effects of hi-temperature and vibration from airframe and air sources on pipe welding

(seam and end coupling).

Reason: As most of piping buried in prime structure and not capable

of inspection, pipe reliability of prime importance as leak in line could go undetected and cause structural failure in

immediate region.

Action: Cat. 6.

2. Progress Summary

Study	Mock-Up	Mook-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)	N.A.	N.A.	N.A.	N.A.

Date	Remarks	:
9 May 1956	Test program in hand.	
1		

INGLASSIENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

Item: E-3

Sheet: 1

1. Change Request Detail

Initiator: AMC - TSDs - AFHQ/DAEng

Change Desired: Presentation of a scheme for periodic pressure testing of

air conditioning ducting to determine duct leakage rate, and an indication of permissible leak rates for all ducts.

Reason: To ensure duct integrity.

Action: Cat. 6 - AVRO Maintenance Sub-Committee to monitor.

2. Progress Summary

Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation
Complete (May 56)	N.A.	N.A.	N.A.	N.A.

Date	Remarks
9 May 1956	With the installation of the proposed shut-off valve at the connection of the bleed line to the engine it will be possible to pressurize all the high pressure ducting by attaching an air line to the pressure check point downstream of the pressure reducing and non-return line. An acceptable leak rate will be determined on the first aircraft and this information will be incorporated in the Maintenance manual.

Category: 1

Item: E-4

Sheet: 1

1. Change Request Detail

Initiator: AMC - AFHQ/DAEng - TSDs

Change Desired:

An over temperature sensing system to sense an over temperature condition in the vicinity of the main engine bleed air duct up to the heat exchanger; particularly at the joints and flexible areas. When over temperature sensed, main shut-off valve requested in CR No. E5 operated automatically and indication of same in cockpit with light is given.

Reason:

To indicate a duct leak.

Action:

Cat. 1 - Delete indication in cockpit but indication available during D.I., Maintenance Sub-Committee to monitor.

2. Progress Summary

Stud y	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 56)			Yes (May 56)	lst A/C

	27
Date	Remarks
May 1956	Over-temperature sensing devices will be located at each joint in the bleed air ducting between the engines and the heat exchanger. Two separate systems will be fitted (port and stbd When a leak is sensed the shut-off valve on the engine will be actuated to the closed position and will remain in this positi until reset on the ground. Indication of whether or not the valve is in the open or closed position will be given in a sui able accessible position. Non-return valves will be fitted at the Heat Exchanger inlets.
	The temperature sensing field is being surveyed so that a suit able system can be selected. A specification for the Non-Retu Valve has been written and space provision made.

INCLASSIFIED A L

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: E-5

Sheet: 1

1. Change Request Detail

Initiator: AMC - AFHQ/DAEng - TSDs

Change Desired: Reference CR No. E4 - Installation of a shut valve

immediately adjacent to the engine air bleed take-off.

Reason: To prevent damage to the structure in case of a leak in the

main engine air bleed duct.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)				

Date	Remarks		
9 May 1956	Specification for valve written, presently out for tender. Ducting system modified to accommodate valve. Production drawings in work.		

CONTESTMEPAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6

Item: E-6

Sheet: 1

1. Change Request Detail

Action:

Initiator: AMC - DAEng

Change Desired: Installation of a device to visually indicate the water

level in the boiler up to the full condition during

refilling operations.

Reason: To allow the boiler to be accurately and quickly filled without

physically measuring the quantity to be added.

Cat. 6 - AVRO study to incorporate in aircraft as soon as possible.

2. Progress Summary Study Mock-Up Mock-Up Prod. Drawings Production Initiated Changed Approved Issued Allocation Yes

3. Progress Detail

(May 56)

Date	Remarks		
9 May 1956	Scheme to satisfy this request is complete, to be investigated on test rig.		

HOOM REPRINTIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: E-7

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: Provision of a plug for the engine air take-off point

suitable for use during installation of the engine.

Reason: To prevent running the engine after installation without

the elbow installed with subsequent damage to structure.

Action: Cat. 1 - If valve called for in E-5 cannot be installed

in the engine.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete				

Date	Remarks
9 May 1956	Valve referred to in E-5 installed on engine but plug still required because valve is of the normally open type.

Category: 6

Item: E8

Sheet: 1

1. Change Request Detail

Initiator: DMEng

Change Desired: Recommended heating filler neck and steam outlet.

Reason: In

In order to remove ice from these areas first, and so remove

danger at present associated with overfilling. This will

also make filling a very simple operation.

Action:

Cat. 6 - Refer to E-6.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)				

Date	Remarks	
9 May 1956	Refer to E-6.	

Category: 6

Item: E-9

Sheet: 1

1. Change Request Detail

Initiator: AMC

Action:

Change Desired: That provision for determining on the ground air

conditioning air supply temperatures.

Reason: This would be the only check on the function of the air

conditioning equipment.

Cat. 6 - AVRO to determine procedures and report to

Maintenance Sub-Committee.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)				v.

Date	Remarks		
9 May 1956	With the air conditioning ground rig attached to the aircraft it is possible to check the functioning of the cockpit and radar temperature control valves by the use of a thermometer at the various heat or cooling outlets. It is felt that special equipment is not required.		



Category: 6

Item: E-10

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: That approval of the cockpit pressurization system be

deferred until an outline of the cockpit pressure test

procedure is provided.

Reason: In order that the suitability of the test procedure can be

evaluated.

Action: Cat. 6 - AVRO to submit proposal covering test procedure

for Maintenance Sub-Committee approval.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Date	Remarks
9 May 1956	A report on cockpit pressurization has been issued by Mr. G. Shaw. Ref. Provision has been made in the cockpit floor for the attachment of an air line. An acceptable leak rate will be established. The procedure will be laid down in the preliminary maintenance manual.
·	It will be possible to carry out cockpit pressurization tests without having a man in the cockpit if the requirement is raised. It is possible to lock the canopy from outside by inserting a special tool through the top centre deflated canopy seals and forcing the locking bar forward. This proced would only be carried out for pressurization tests.

CONFIDENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: E-11

Sheet: 1

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: The Company should obtain a better duct clamp.

Reason: Present clamp is too stiff to install in confined space.

Action: Cat. 1 - Subject to availability of suitable clamps.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)				

Date	Remarks
9 May 1956	An improved type of clamp is under consideration and a test program to determine its suitability will be initiated.
	Because the change of clamp will change flanges on ducts and equipment this change can only be accommodated under Cat. 3.

Category:

E-12 Item:

Sheet: 1

Change Request Detail 1.

Initiator: TSDs AVRO

Change Desired: Design study to consider installation of main heat exchanger and turbine/pump in rear equipment area - move ram cooling air inlet from behind intake ramp to bottom of rear equipment area; use turbine/ pump to pump all of inlet cooling air from flush intake in bottom - hence smaller heat exchanger required as less heat energy contained for heat exchanger.

Reasons

- (a) Reduces length of hot air piping from engine to heat exchanger thus reducing source of fatal damage to aircraft.
- (b) Adds weight to rear to assist in moving C of G to rear for PS-13 installation.

Action: Cat. 7.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
				•

Date	Remarks	
9 May 1956	No progress.	

111

Category: 5

Item: E-13

Sheet: 1

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Adequacy of air conditioning provision for the armament

installation and the electronics system cannot be

determined.

Reason: This approval pending design of the armament installation and

selection of an electronics system.

Action: Cat. 5 - Consideration to be given in the selection of

equipment to the requirements of Air 7-5 and

Air 7-6 to the existing system.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation	
Initiated	Changed	Approved	Issued		

Date		Remarks	· .
9 May 1956	Noted.		

Category: 6

Item: E-14(1)

Sheet: 1

1. Change Request Detail

Initiator: DADR

Change Desired: (1)

(1) Air conditioning of the cockpit when engines are at idling R.P.M. (i.e. at rest, taxiing, and certain descent conditions) is not presently provided but is required.

Action: Cat. 6 - For descent condition, rest, and taxing monitored by Cockpit Sub-Committee.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation	
Initiated	Changed	Approved	Issued		
Yes (May 56)	N.A.	N.A.			

Date	Remarks		
9 May 1956	At rest and during taxiing provision has been made for 5 lb air/min at a suitable temperature to be supplied to cockpit. Production drawings are in work.		
	Discussions have been held at AFHQ with DOR representatives on descent techniques. We are now awaiting RCAF recommendation		

Category: 1

Item: E-14 (2)

Sheet: 1

1. Change Request Detail

Initiator: DADR

Change Desired: (2)

The system calls for temperature in the cockpits to be not below 55°F at altitudes below 20,000° to prevent fogging in the cockpits. Pilot control of cockpit temperature at all altitudes is required. The defogging switch now included in the system will be adequate to ensure that no fogging occurs.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation	
Initiated	Changed	Approved	Issued		
N.A.			Yes (May/56)	lst A/C	

Remarks	_
Rheostat control for temperature selection and defog swi have been provided. Altitude switch has been deleted.	tch
	Rheostat control for temperature selection and defog swi have been provided. Altitude switch has been deleted.

Category: 6 CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD Item: E-14 (3) Sheet: 1 Change Request Detail 1. Initiator: DADR Change Desired: (3) Under certain conditions the rate of air change in the cockpit is probably at the upper limit for crew comfort. It must be demonstrated that, in fact, the rate of change of air does not exceed acceptable limits. Action: Cat. 6 - Crew Accommodation Sub-Committee to monitor. 2. Progress Summary Prod. Drawings Production Mock-Up Study Mock-Up Initiated Changed Approved Issued Allocation N.A. N.A. N.A. N.A. 3. Progress Detail . Date Remarks 9 May 1956 Will be assessed in first aircraft.

CONTRAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: E-14 (4)

Sheet: 1

1. Change Request Detail

Initiator: DADR

Change Desired: (4) An amber warning light as part of the warning light system is required to alert the pilot at the earliest possible moment of a failure in the air conditioning system.

Action: Cat. 1 - Provision for varying supplies to crew comfort as well as aircraft equipment.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.				

Date	Remarks	
9 May 1956	Warning light added.	

E-14 (5) Item:

Sheet: 1

Change Request Detail 1.

Initiator: DADR

Change Desired: (5) In the event of a failure of the air conditioning

system the pilot must be able to select ram air to the cockpits as well as the equipment bays.

Cat. 6 - Crew Accommodation Sub-Committee, AVRO and IAM to Action:

determine acceptable condition re crew and equipment.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved		Allocation
Complete (May 56)	Olianged	Approved	200404	1110000101

Date	Remarks
9 May 1956	The crew will be on oxygen at all times. There is therefore no reason for ram air ventilation of the cockpit other than for purposes of changing the temperature in the cockpit after fails of the Air Conditioning System. The cockpit will however tend towards the outside skin temperature at all times and the addition of ram air ventilation will merely hasten this process. After failure of the Air Conditioning System it will presumably be desired to retain the cockpit pressure. To obtain ram air ventilation this pressure will have to be dumped.
	In our opinion the added complication and weight of a ram air ventilation system cannot be justified under these circumstance merely to hasten a change in cockpit temperature.

Cargory: 6

Item: E-14(6)

Sheet: 1

1. Change Request Detail

Initiator: DADR

Change Desired: (6) Amber warning light as part of the warning light system is required to indicate excessive cabin pressure leaks.

Action: Cat. 6.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
			,	

Date	Remarks
9 May 1956	Will be raised at May 15th Cockpit Sub-Committee meeting.

Gategory: 1

Item: E-15

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: A means of ensuring the serviceability of the main pressure

reducing valves by providing tapping points that do not require removal of the undercarriage door jack to use.

Reason: Given.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.	N.A.	N.A.	Yes (May 56)	lst A/C

Date	Rema	ırks
9 May 1956	Cleared. See E-1.	

CONFIDENTIAL

SECTION "F"

LOW PRESSURE PNEUMATICS SYSTEM

Category: 1

Item:

F-l

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: That a drain line be installed from the air filter to a

drain point at the aircraft skin.

Reason: This alternation to be carried out if test shows that frequent

draining of the moisture trap is necessary - to obviate the

necessity for removing a large access panel.

Action: Cat. 1.

2. Progress Summary

Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation
				·

Date	Remarks
9 May 1956	Which air filter is this? Avro intends to provide a drain from fuel tank pressurization line in roof of armament bay. This drain will lead into fuel cavity drain.

Category: 1

Item:

F-2

Sheet: 1

1. Change Request Detail

Initiator:

Change Desired: Provide ground test fittings so that seals can be tested

independently.

Action:

Cat. 1 - AVRO to develop procedures.

Cat. 7 - For test fittings.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
			,	

Dave	vetter.va
9 May 1956 下10	This is a requirement on T33 and F101 & F102 aircraft. On the CFF05, a pressure line is installed down to the wheel well where an air line may be attached. On the CF105 a "T" fitting will be inserted in the pressure line in the fuselage structur above the screwed access door forward of sta. 255 (72 screws). This will enable the ground crew to test the canopy seals independently.

CONFIDENTIAL

SECTION "G"

FIRE DETECTION & PROTECTION

Category G-1
Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: That the Company investigate the possibility of installing an

explosion suppression system in the rear equipment area.

Reason: To counter the possibility of explosion in the rear equipment area.

Action: Cat. 6 - Refer to G-2.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.	N.A.	N.A.	N.A.	Nil

Date	Remarks
9 May 1956	Reference 15th Maintenance Sub-Committee Meeting Minutes Item 1 Para. 30 and 31 - 19 lb/min air mass flow which changes 50% of volume every minute is considered sufficient to prevent accumulation of explosive mixtures.

Category: 6

Item: G-2

Sheet: 1

1. Change Request Detail

Initiator: DMEng - AMC - ADC

Change Desired: RCAF requests Company assurance that scavenging of this area

will positively prevent build-up of explosive mixtures (fuel

or hydraulic fluid).

Reason:

Action: Cat. 6 - Further investigation to be carried out by AVRO.

Refer to G-1, G-3, B-20.

2. Progress Summary Prod. Drawings Production Study Mock-Up Mock-Up Initiated Changed Approved Issued Allocation N.A. Nil N.A. N.A. N.A.

Date	Remarks
9 May 1956	See G-1.

Category: 6

Rem: G-3

Sheet: 1

1. Change Request Detail

Initiator: AMC - TSDs AVRO

Change Desired: Redesign of arrangement of components in rear equipment area

to reduce possible fire sources. Suggest isolation of possible "trigger" agents, e.g. electrics and gear box.

Reason: As rear equipment area does not meet requirements of fire zone

for practical or other reasons, redesign of position of components will reduce fire hazard. Present fire protection considered

acceptable if above measures taken to reduce potential fires.

Action: Cat. 6 - Refer to G-2.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.	N.A.	N.A.	N.A.	Nil

Date		Remarks	
9 May 1956	See G-l.		

CONFIDENTIAL

SECTION "H"

ICING PROTECTION

Category: 1

Item: H-1

Sheet: 1

1. Change Request Detail

Initiator: DMEng

Change Desired: Visual indicator in convenient location to indicate whether

Radome De-icing System has been used.

Reason: Since system is automatic, between flight check is now a question

of checking contents of tank. (Access on top of nose).

Action: Cat. 1.

2. Progress Summary

I	Study nitiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation
	Complete (May 56)				

Date	Remarks		
9 May 1956	Indication will be provided - wiring drawings in work. Type and supply of equipment being investigated.		

Category: 1 CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD Item: H-2 Sheet: 1 1. Change Request Detail Initiator: AMC Change Desired: Provision made to prevent leaks of de-icing fluid reaching compartment equipment in the radome. Reason: Given. Cat. 1. Actions 2. Progress Summary Production Prod. Drawings Study Mock-Up Mock-Up Allocation Issued Initiated Changed Approved N.A. N.A. N.A. 3. Progress Detail Remarks Date 9 May 1956 This provision will be included.

	•			·	Category: 7	
	CF-105 MOCK-1	JP CHANGE REQUEST	PROCRESS RECORD	<u> </u>	Item: H-3	
				<u> </u>	Sheet: 1	
1.	Change Request	Detail	· ·			
	Initiator: AFH	Q/DIEEng	•			
	,		akh dukala duaba	in assemble of all		
	CURURE Desired		oth intake ducts ad of one only at			
	Reason: De-icing of one duct only in event of alternator failure is apparently a restriction imposed by lack of electrical power. Another reason by increased power supplies are considered necessary.					
	Action: Cat.	. 7.				
				•		
		•				
		•				
2.	Progress Summar	¥				
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawing Issued	ngs Production Allocation	
·				·		
		<u> </u>	1			
3.	Progress Detail	<u>.</u>			· .	
	Date		Rema	rks		
		,				

Item: H-4

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: The correlation between radome de-icing and radome sensor

de-icing should be demonstrated before approval.

Reason: It has not been shown that the disimilar means of de-icing will be

effective to the same degree. The sensor could thus provide

inaccurate control.

Action: Cat. 1 - Sensor to be calibrated to be compatible with radome

de-icing.

2.	Progress Summa				
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation
	·				

Date	Remarks		:
9 May 1956	Noted.	•	

CF-105	MOCK-UP	CHANGE	REQUEST	PROCRESS	RECORD

Category: 7

Item: I-1

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: Investigate the possibility of installing fuel system

components on the tie bars.

Reason:

To obviate the bracketry attached to the tank walls.

Action:

Cat. 7.

2.	Progress	Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
			·	

Date	Remarks			

Category: 6

Item: I-2

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: The non use of locking wires or other locking devices on

fuel couplings be justified.

Reason: To ensure fuel leaks do not occur at couplings.

Action: Cat. 6 - Maintenance Sub-Committee to monitor.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remarks			
9 May 1956	Locking wires can be used if desired. All tests being done without locking wires and Avro does not propose to incorporate this feature.			

Category: 1

Item:

I**-**3

Sheet: 1

1. Change Request Detail

Initiator: ADC

Change Desired: Move Refuel Control Switch Panel to the vicinity of

refueling adaptor and rotate lights to make them more

visible.

Reason:

Speed and convenience.

Action:

Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)				

Date	Remarks		
9 May 1956	Lights and switch being repositioned closer to refueling adaptor. Scheme drawing issued. Mock-up change in work.		

Category: 1

Item:

I-4

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: Fuel Quantity Capacitor Units require a more secure

method of mounting that is used at present.

Reason:

Action:

Cat. 1 - Maintenance Sub-Committee to monitor.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 1956)	N.A.	N.A.	Yes (May 56)	lst A/C

Date	Remarks			
9 May 1956	Mock-up not representative. Unit has been obtained and can be demonstrated at next Maintenance Sub-Committee Meeting.			

					Catego	ry: 7	
• .	CF-105 MOCK-U	P CHANGE REQUEST	PROCRESS RECORD		Item:	I-5	
 -	·				Sheet:	1	
1.	Change Request	Detail Detail					
	Initiator: TSDs	AVRO					
	Change Desired:	in left connect	lled in right hand tions of two cros tank pressurization to bay roof.	s-members ad	jacent	to air	
	Reason: To f	acilitate removal	l of air filter fo	or inspectio	n and m	aintenanc	е.
	Action: Cat.	7.			•		
						-	
	·						
2.	Progress Summar	Y			·		
	Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Draw. Issued		Producti Allocati	
3.	Progress Detail						
	Date		Remark	(8			
						•	

I-6 Sheet: 1

Change Request Detail 1.

Initiator: TSDs AVRO

Change Desired: Re-position of access panels to booster pumps and other

"valvery" on top surface of wing to eliminate necessity

of first removing portion of dorsal cowling.

Reason:

Facilitate maintenance of fuel system components in area without

removing unnecessary cowling.

Action: Cat. 7.

2.	Progress	Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Progress Detail	:			
Date		Remark	S	
				•
	•,			
	-			
		Progress Detail Date		

Item: I-7
Sheet: 1

1. Change Request Detail

Initiator: TSD

Change Desired: Design life of engine driven fuel pumps should exceed 2000

hours and no maintenance should be required during life of

aircraft.

Reason: Simple pump, with modern metallurgy -- this should be no problem.

Action: Cat. 7 - This recognized as desirable if available.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remarks

Çategor	y: 1	
Item:	I - 8	
Sheet:	1	

1. Change Request Detail

Initiator: DMEng

Change Desired: Defueling switch to be moved to position in which it is

accessible with aircraft on its belly.

Reason: Otherwise aircraft in this position cannot be defuelled.

Action: Cat. 1 - In principle it is a requirement that the aircraft can be defuelled when on its belly.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remarks
9 May 1956	The aircraft can be defuelled when on its belly. The fuel tender hose may be attached to the refuelling adaptor which is in an invulnerable position and the suction pressure of the fuel tender is sufficient to defuel the aircraft. The fact that the refuelling panel on the bottom of the fuselage is hidden only means that the fuel has to be drained through the flow proportioner rather than through the proportioner by-pass. This only extends the time for defuelling. Since it is not advisable or common practice to put electrical power into a crashed aircraft, moving the refuelling panel to a less vulnera position would not help the situation.
	Due to the anhedral angle of the wings it is not practical to defuel through the top access plates in the tanks. It would be possible to drain the fuselage tanks through the top access doc

Category: 6

Item: I-9

Sheet:]

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: Request design study to find method of ascertaining an error

in reading of fuel tank contents along with method of

isolating unserviceable capacitance unit.

Reason:

To facilitate trouble shooting and maintenance of fuel tank

capacitance contents system.

Action: Cat. 6 - AVRO study.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Completed (May 9/56)				

3. Progress Detail

Date	Remarks
9 May 1956	A requirement has been raised for test equip. from M-H which will answer this problem. By plugging into existing connectors, on the
	ce electrical system, it will be possible to determine the contents
of each individ	dual tank in percentage of total capacity.

Knowing the total tank capacity, this would serve as a check on the capacitance sy On the other hand if the tanks generally show 25% capacity and one tank shows a different amount; 2 possible sources of malfunction are available: (a) The fuel rair valves or the flow proportioner may be malfunctioning. (b) Capacitance unit

in that particular tank may be malfunctioning. Since experience shows that tank capacitance units are fairly reliable, it is recommended that possibility (a) be checked first. If the valves and proportioned appear satisfactory then the capacitance units should be pulled and bench checked

SECTION "J"

TELECOM & NAVIGATION

Category: 6

Item:

J-1

Sheet: 1

1. Change Request Detail

Initiator: AMC - ADC - AFHQ

Change Desired: Request inclusion of a test system, terminating on a

multi-purpose plug, so that the performance of the

telecommunications system may be determined by measuring

RF, AF, and DC energies which are available without modification to the equipments. The test plug is to be immediately accessible through its own access door on a

D.I. basis.

Reason:

To permit economical D.I. of telecommunication equipment.

Action:

Cat. 6 - RCAF requirement to be incorporated in Air 7-6.

Equipment to be included on RCAF aircraft.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	N.A.	N.A.		

Date	Remarks
9 May 1956	Noted. Will be incorporated in first RCAF aircraft.

UNCEASSI

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: J-2

Sheet: 1

Change Request Detail 1.

Initiator: AFHQ/DATel - ADCHQ - AMCHQ

Change Desired: Stays are required to hold the side access doors of the

electronic bay open.

Reason:

To facilitate removal of equipment from mounts.

Action: Cat. 1 - Maintenance Sub-Committee to approve installation.

Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
			·	

Date	Remarks	
9 May 1956	Will comply. No progress to report.	,

UNCLASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Item: J-3

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ - ADCHQ - AFHQ

Change Desired: A device such as a secondary latch, chain, or automatic

down load sensing device on centre electronic door.

Reason:

To preclude the door suddently releasing after cable motor

has unwound endangering equipment and personnel.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)	N.A.	N.A.	Yes (May 56)	lst A/C

Date	Remarks			
9 May 1956	Load sensing device has been incorporated in the door actuation system. This will stop the door actuator when load in cable falls below 20 lb.			

Category: 1

Item: J-4

Sheet: 1

1. Change Request Detail

Initiator: AFHQ - ADCHQ - AMCHQ

Change Desired: A device to ensure that UHF transmitter is shut down while

switching between antennae.

Reason:

To preclude damage to equipment due to reflected RF.

Action:

Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete (May 56)	N.A.	N.A.		

Date	Remarks	
9 May 1956	This provision has been incorporated.	•
·		
	j	

				e \$	دا	K.	V)			
C	0	N	F	67	A.	J.	T	Ι	A	L	
_	_	_	-		~		_	_			

Item: J-5

Sheet:

1

1. Change Request Detail

Initiator: AFHQ/DATel

__.

Change Desired: The present mock-up is not sufficiently advanced to enable a quantitative appraisal to be made on the telecommunication configuration. The equipment location and accessibility as presently installed is acceptable for this mock-up. However, no engineering approval can be given to any installed equipment

Reason:

It is inappropriate to approve this mock-up since there is no assurance that this configuration will guarantee that space, cooling, pressurization, etc., will be adequate for the electronic systems called up under Spec. AIR 7-5 as amended by AIR 7-6 which is an integral part of the overall AIR Spec. 7-4.

Actions

Cat. 5 - Consideration to be given to requirement of AIR 7-6 in the light of existing equipment.

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	

Date		Remarks	
9 May 1956	Agreed.		



SECTION "K"

HYDRAULIC SYSTEMS

Category: 4

(i)

Item: K-1

Sheet: 1

1. Change Request Detail

Initiator: AFHQ/DArmE

Change Desired: Adequacy of the utility hydraulic system cannot be determined.

Reason: The armament installation design has not been completed.

Action: Cat. 4.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
			•	

9 May 1956 Noted.	

Category: 6

Item: K-2

Sheet: 1

1. Change Request Detail

Initiator: TSDs

Change Desired: Nose leg - "Telescopic Air Strut" Design change required

to eliminate between flight inspection.

Reason: A pressure check is required to ensure closing of undercarriage

door.

Action: Cat. 6 - Maintenance Sub-Committee to monitor.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Complete			,	

Date	Remarks
9 May 1956	Cannot accommodate mechanical spring. Jarry Hydraulics have been asked for performance data on air spring to assess adequacy.

K-3

Sheet: 1

1. Change Request Detail

Initiator:

Change Desired: Hydraulic pump mounting (6 x 3/8 UWF) nuts replace 4 studs

with H.T. dowels, using through bolts and 2 nuts only.

Reason:

Saving of manhours.

Action:

Cat. 6 - Reliability of pumps and ease of maintenance to be

established. To be monitored by Maintenance Sub-

Committee.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)				

Date	Remarks			
9 May 1956	4-bolt flanges and Marman Clamps are being investigated.			
	1			

Category: 1

Item: K-4

Sheet: 1

1. Change Request Detail

Initiator: ADC

Change Desired:

Protective covering for main undercarriage shortening and rotating chains and linkage at upper end of main leg to prevent entrance of foreign material particularly sand,

water, and ice.

Reasons

Experience shows that this can readily happen especially during

winter break-up.

Action:

Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)				

Date	Remarks			
9 May 1956	Proposal awaited from Dowty, Ajax.	•		



Category:

K-5 Item:

Sheet: 1

Change Request Detail 1.

Initiator: ADC

Change Desired: Ensure that the swivel joints in plubing will resist damage from cumulative effects of water, sand, and

freezing.

Reason:

Experience shows clearly that all exposed under-surfaces are

subjected to coating with water, sand, and slush, particularly

in winter thaw periods.

Action:

Cat. 1.

Progress Summary

				<u>.</u>
Study Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation
Yes (May 56)	N.A.	N.A.		

Date	Remarks
9 May 1956	These aspects will be covered in Qualification Tests called up for this equipment. Awaiting proposal from Dowty, Ajax regarding plumbing on Main Undercarriage.

Category: 6

Item: K-6

Sheet: 1

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: Deletion of anti-skid device on brakes.

Reason:

Anti-skid on brakes considered not worth penalty of approximately 50 lbs. in weight, and complexity for maintenance. Present drag chute and normal brakes sufficient to give good braking without additional "luxury" - (F-102 not equipped with anti-skid).

Action:

Cat. 6 - AVRO study and investigate.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)				

Date	Remarks	
9 May 1956	Study in process.	

UNGLASSIF

CF-105 MCCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6

K-7 Item:

Sheet: 1

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: Reconsideration of time interval between undercarriage up and point when aircraft has accelerated to undercarriage design limit speed of 250 K. Present interval is of order of 5 secs in which pilot must assess undercarriage light indication and take action to prevent aircraft accelerating past 250 K time interval considered too short. Redesign of gear up operation required or pilot drill changed to hold speed down to below 250 K until gear up and locked.

Reason:

Prevent damage to undercarriage when down beyond 250 K. Possibility of aircraft accelerating beyond limit much

greater than present day aircraft.

Action:

Cat. 6 - RCAF and AVRO to study.

Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
			'	

Date	Remarks
9 May 1956	These conditions were laid down as design criteria for the undercarriage and are not to be regarded as Operating Instructions.
	Pilot drill will be established during Avro development flight testing.

CONFIGNATION

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Item: K-8

Sheet:

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: Replace present pipe-knuckle system of carrying hydraulic

fluid to nose undercarriage drag strut lock over drag

strut structure joint by flexible line.

Reason:

Reduce possibility of leakage - flex line eliminates three movable

metal joints. Seems to be sufficient room in nose gear bay to

accommodate hose.

Action:

Cat. 6 - AVRO and Maintenance Sub-Committee to investigate.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
			,	

Date		Remarks	
9 May 1956	No progress.		,

C	0	N	F	I	D.F	W	n	I	A	L

Category: 6

Item: K-9

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: Arrange hydraulic pump installation studs so as to allow

installation of securing nuts in all instances.

Reason:

Action: Cat. 6 - Refer to K-3.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)				

Date	·	Remarks	
9 May 1956	Refer to K-3.		

30 May 1 4 5

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: K-10

Sheet: 1

1. Change Request Detail

Initiator: TSDs AVRO

. . . .

Change Desired: Ground testing of undercarriage and associated wing attachment structure under simulated airborne undercarriage extension with gravity, air loads, and/or "g" loads accelerating gear

down at maximum allowable lowering speed.

Reason:

Kinetic energy accumulated by gear going down under influence of above forces (especially air loads acting on door or leg) being transformed into hydraulic pressure energy by "buffer" pivot - hence danger of fatigue and bearing failures thought to be large.

(Ref. CF-100 main gear problem).

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
N.A.	N.A.	N.A.	N.A.	N.A.

	Remarks	Date			
•	Already scheduled in Avro/Dowty test program.	9 May 1956			

Category: 6

Item: K-11

Sheet: 1

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: Replacement of pipe-knuckle arrangement of hydraulic

inlet to main undercarriage drag strut lock with

flex hose.

Reason: Present arrangement has 3 moving joints - flex hose decreases

leakage possibility - appears to be room for hose stowage on

undercarriage retraction.

Action: Cat. 6 - Refer to K-8.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date		Remarks	,	
	No.			<u></u>
9 May 1956	No progress.			

C	0	N	F	I PUNT I A	L

No. C.

Category: 1

Item: K-12

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: That drain points be installed at suitable low points in

the hydraulic systems to cater for system draining prior

to component removal.

Reason:

To prevent spillage of fluid during component removal.

Action:

Cat. 1 - Refer to B-9.

2.	Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Yes (May 56)				

Date	Remarks			
9 May 1956	Drainage of system to major extent may be accomplished through return ground service quick disconnect coupling. Draining facilities will be added in places where more than an estimated 1/2 pint of hydraulic fluid would be trapped inside the system.			

Category:

K-13

Sheet: 1

Item:

Change Request Detail 1.

Initiator: AMC

Change Desired: That the Company cater to the requirement for using a torque

wrench on high pressure hydraulic fitting connection by

design of tools or positioning of components.

Reason:

To ensure that torque can be read.

Action:

Cat. 1 - In principle RCAF to be assured that all fittings are

accessible and method of suitable torquing developed - lubrication of threads to be considered when torque

valwes are given.

Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
	N.A.	N.A.	N.A.	N.A.

Date	Remarks
9 May 1956	It is not intended to torque high pressure hydraulic fittings.
	A procedure will be laid down, based on past experience and ar extensive test program, which will instruct maintenance persor to tighten the fitting to "finger tight" condition plus 1/4 or 1/3 turn depending upon tests. This is standard procedure whe dealing with flareless tube fittings. The threads will be lubricated.

Cetter: 1

Ref. K-14

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: That the Company initiate design of "open sleeve" wrench for

all difficult connections incorporating ratchet operation and

torque indication.

Reason:

Action: Cat. 1 - Refer to K-13.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
	N.A.	N.A.	N.A.	N.A.

Date	Romarks
May 1956	Any special wrenches required to service the CF-105 will be supplied as ground handling equipment. The requirement for special wrenches will be determined by carrying out maintenance operations on the CF105 mock-up.

No Ca

Category: 6

Item: K-15

Sheet: 1

1. Change Request Detail

Initiator: AMC

Change Desired: That a study be made of the possibility of using flexible

lines for the main leg brakes lines.

Reason:

To eliminate the 24 flexible couplings now used.

Action:

Cat. 6 - AVRO and Maintenance Sub-Committee to investigate.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
				÷

Date		Remarks	
9 May 1956	No progress.		į

Category: 6

Item: K-16

Sheet:]

1. Change Request Detail

Initiator: AMCHQ

Change Desired: The

The "change over" from utility support of the flying control/compensator to internal support be utilized to connect the pressure side of the flying control system into the brake system to provide braking when

the utility accumulator is spent.

Reason:

Action:

Cat. 6 - RCAF DAEng to study.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remarks	1
9 May 1956	No AVRO action required at this stage.	

Category: 1

K-17

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: Approval of piping run into aileron and elevator control

boxes be delayed pending further mock-up.

Reason:

Action: Cat. 1 - Maintenance Sub-Committee to follow up.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
				lst A/C

<u> </u>				
	Date	Re	marks	
Γ	9 May 1956	No progress.	,	
1				•

MCLH Category:

tem: K-18

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: Th

That approval of the flareless tube fittings for installation be deferred until qualification testing has demonstrated the adequacy of this fitting to meet the temperature, pressure

and fatigue conditions encountered.

Reasons

To ensure adequacy of fittings.

Action:

Cat. 1.

2.	Progress Summary						
	Study Initiated	Mook-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation		
	Continuous			,	ı		

Date	Remarks	·	
9 May 1956	Tests still in progress.	,	

CONFILENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Category: 6

Item: K-19

Sheet: 1

1. Change Request Detail

Initiator: DMEng

Change Desired: Study required for self contained brake system with

components located on bogie beam. Actuation

electrically. Power derived from wheels. (Similar

to current systems).

Reason:

Present system very complex.

Action:

Cat. 6 - AVRO to investigate.

2. Progress Summary

Stud y	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)				

Date	Remarks
9 May 1956	An initial study indicates that the landing gear bogie beam will require redesign to incorporate features requested by RCAF. Further study in connection with this redesign is certain to be a lengthy undertaking and it is accordingly suggested that the RCAF review this request before further work is carried out by AVRO.

Category: 6

Sheet:

Change Request Detail 1.

Initiator: AMCHQ - ADC

Change Desired: Provide for powering the parallel and differential servo from each hydraulic system such that should one system fail automatic flight features and damping be retained even under the reduced rate.

Reason:

Actions

Cat. 6 - DAEng to study.

Progress Summary

Stud y	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
·				

Remarks	
No AVRO action required at this stage.	

CONFINENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

MCLA Category: 1

Items

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: That drainage facilities be incorporated in bottom of tanks.

Reason: To drain off collected fluid.

Action: Cat. 1.

2. Progress Summary

Study	Mock=Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	N.A.	N.A.	N.A.	

			<u> </u>
Date			
9 May 1956	Tank deleted.		
		•	

CONFESTIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 1

Item: K-2

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: That it be definite that the hydraulic components do not

leak at the low range of temperature operation requirements.

Reason: To prevent leakage at low temperature.

Action: Cat. 1.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Continuous	N.A.	N.A.		

Date	Remarks	
9 May 1956	Qualification tests will cover these conditions.	

CONFIRENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

NCL Category: 7

Item: K-23

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: That the size of the sump be reconsidered.

Reason:

It appears that it might be possible to reduce the size of this tank.

Action: Cat. 7 - Installation to be checked on actual aircraft.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
N.A.	N.A.	N.A.	N.A.	N.A.

Date	Remarks			
9 May 1956	Tank deleted - replaced by overboard drain. See also K-21.	·		

UNCLASSIFIED

UNCLASSIFIED

SECTION "L"

OXYGEN SYSTEM

L-l

Item:

Sheet: 1

1. Change Request Detail

Initiator: TSDs AVRO

Change Desired: Consideration of installation of smaller oxygen converter

for normal combat missions with interchangeable 5 litre

converter for ferry mission.

Reason:

Weight saving approximately 8 lbs. for 2 1/2 litre converter

over 5 litre.

Action:

Cat. 7.

Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
			,	

Date		Remarks	
			,
·			
[
	``		

Category: 1

Sheet: 1

Item: L-2

Change Request Detail 1.

Initiator: DMEng

Change Desired: Position "pinch-off" so that it does not face person

making installation.

Reason:

Safety.

Action:

Cat. 1.

Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)	N.A.	N.A.	Yes (May 56)	lst A/C

Date	Remarks			
9 May 1956	Reference drawing #7-2154-14 Issue 2 - modified as requested.			
	·			

on Between

COMPASSIFIED

CF-105 MOCK-UP CHANGE REQUEST PROCRESS RECORD

Category: 6 -- 2

Item: L-3

Sheet: 1

1. Change Request Detail

Initiator: ADC

Change Desired: A smaller access panel to remove oxygen converter on Between

Flight Servicing.

Reason: At present entire panel must be removed to change converter.

This is very awkward for one man to do.

Action: Cat. 6 - Leading to Cat. 2.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production Allocation
Initiated	Changed	Approved	Issued	
Yes (May 56)			·	

Date	Remarks			
9 May 1956	Scheme drawings complete.			



ndicabion. 2014 Carres

et and mey to the ethical

o valarezaria UNISTER MARILIA MARILIA

CONFILENTIAL

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Item: L-4
Sheet: 1

1. Change Request Detail

Initiator: IAM/DRML

Change Desired: Remove oxygen pressure gauge completely.

Reason:

Reads steady 300 psi at all times down to empty tank indication. Failure of oxygen pressure always evident to pilot on 100% demand system - contents gauge at empty indicates • 15 minutes

before switch to emergency.

Action:

Cat. 1 - System will be checked on initial test flying.

2. Progress Summary

`					
	Stud y Initiated	Mock-Up Changed	Mock-Up Approved	Prod. Drawings Issued	Production Allocation
	N.A.	Yes (May 56)	N.A.	N.A.	lst A/C

Date	Remarks	ı
9 May 1956	Indicator deleted.	

CONSENTIAL

SECTION "M"

INSTRUMENTS

256

S.e.M

I sizemen

in watt

ecent

Production Allocation

- WRRO (ACE)

e etalia kanalandan keessa ee

CONSSENTIAL

SECTION "M"

INSTRUMENTS

NTIAL

9 :420

Lell Francisco

J. Addr. ..

÷

lodication,

nedemons[e]

Canada - 201

est approximately and and a

Commence in the specific of the

Category: 6

Item:

M-1

Sheet: 1

1. Change Request Detail

Initiator: DIEEng

Change Desired: Relocate accelerometer from shock mounted panel to a

non-shock mounted location.

Reason: Shock mounting of the accelerometer induces inaccurate indication.

Action: Cat. 6 - Refer to A-7 - Requirement for additional accelerometer

to be determined.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
			,	

Date	Remarks	·	
9 May 1956	Awaiting report from RCAF.		

milliminous. in watt

recent

रहाउन्हरूक **म**

35.6

Mas 2

Allocation Producter

Tolication ANDRO (VCE)

CONFIDE

CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD

Catego

tem: M-2

Sheet: 1

1. Change Request Detail

Initiator: DIEEng

Change Desired: Minor markings of instrument dials to be finished in matt

white major markings and pointer to continue self luminous.

Reason: No ultra violet lighting fitted in aircraft and fluorescent marking is redundant and uneconomical.

Cat. 1 - RCAF to specify requirement.

2. Progress Summary

Action:

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
			,	

Date	Remarks
9 May 1956	Requirements from RCAF letter S1038-105-4 TSDs/AVRO (ACE) 1 December 1954 contradict this request. Clarification required from RCAF.

OENTIAL

Category: 1

E-M :med

I :deedb

And the second second

. Oflot

7.C 1

্নির ১৯৯১ **- জুরুর জ**িন্দ্র

Froduction

ockpit

820 5.01

Category: 1

Sheet: 1

Item:

1. Change Request Detail

Initiator: DIEEng

Change Desired: Altimeter presentation to provide extended 10,000 foot

pointer with inverted triangular tip and warning flag.

Mod. Kits for 6A1850 altimeters being designed by

Sperry Canada.

Reason:

To improve accuracy of reading altimeter.

Action:

Cat. 1 - Subject to availability.

2. Progress Summary

Study	Mock-Up	Mock-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation

Date	Remarks		
9 May 1956	This request will be discussed at the May 15th Cockpit Sub-Committee meeting.		

AITHEGITY

Sheet: I

The state of the s

NOW HOUSE

t of the available for

The compatibility and must be a larger to be self-

3.15 L

besogning and part of 30 server

ರ ಭೂಪಗತೂಡಿತದ ಅಚಿತ್ರವರ್ಷ ನ

CHARGE Flow to Argain to the late of All Armstrage Cabida at

i puse (1882) e nei eredi

Production F. d. Drawings 1.00 mg ्रीक्ष्मंब क्षस

Alloostic bauacī N.A.

E MELLO

e for a companie suitable. there is the trained of space

Category: 6

Item: -M-5

Sheet: 1

1. Change Request Detail

Initiator: AMCHQ

Change Desired: Study to determine if more suitable location available for

J4 compass flux valve.

Reason:

Relative proximity of main landing gear and present proposed

location may prove difficult for compass swinging.

Action:

Cat. 6 - AVRO study.

2. Progress Summary

Study	Mock-Up	Mook-Up	Prod. Drawings	Production
Initiated	Changed	Approved	Issued	Allocation
Complete (May 56)	N.A.	N.A.	N.A.	N.A.

Date	Remarks			
9 May 1956	Study has shown that location as existing is most suitable. Location in outer wing is impossible due to lack of space and excessive vibration.			

Alloon the Procesories endification and approve THE USE ALLTO ADDITIONED 4 The state of the s **!**---11000000 ののこれの後に、数 To Changaige 00000 7. 9. ... 1800 F 6 1971 TAKE 129 The state of the s 1 はからなり The state of the s Comment and the testing formation THE RESERVE TO SERVE THE PARTY OF THE PARTY ... * · 图图 · 图图 · 图图 . 1. **.:** 44. -は一般を受け ALL CHARMONISMENS OF SALE The state of the s # ** The state of 60 <u>ب</u> T () () () () ц. С*

. 2

Category: . 7 CF-105 MOCK-UP CHANGE REQUEST PROGRESS RECORD Item: M-6 Sheet: 1 1. Change Request Detail Initiator: DRML - TSD (AVRO) Change Desired: Radio Compass ARN-6 to be removed completely. Excess baggage will be useless for high speed navigation account "P" static. In emergency no standard broadcast band available. Present function as a crutch or substitute for D.R. navigation. 60 lbs. too much penalty for dubious use in checking marker beacons. Reason: Weight saving approximately 60 lbs. and valuable space requirements instrument panel and bay. Cat. 7. Action: 2. Progress Summary Production Mock-Up Mock-Up Prod. Drawings Study Initiated Changed Approved Issued Allocation 3. Progress Detail Remarks Date