



S/L Armstrong

Inter-Departmental Memorandum

Ref 7921/07/J  
Date November 14, 1958  
To Mr. S. E. Harper  
From T. Roberts  
Subject FLYING CONTROL SYSTEM TESTING ON A/C 25202

Herewith R.F.T. 07-5096, specifying testing required on the flying control system on the above aircraft prior to commencing repair work. An advance copy of this R.F.T. has been supplied to Mr. D. Woolley and the test carried out. The attached is therefore for record purposes only.

T. Roberts  
Technical Design Coordinator  
FLIGHT TEST

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S/L K. Owen, C.E.P.E.  
Detachment.  
Central Files



AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

## REQUISITION FOR FLIGHT TEST

R.F.T. NO. 07-5096

SHEET NO. 1 OF

DATE: November 12, 1958

AIRCRAFT 25202

ASSIGNMENT X73-384

WORK ORDER NO.

### FLYING CONTROL SYSTEM TESTING

#### 1. PURPOSE OF TEST

To investigate the cause of restriction of stick movement in the Pitch axis during Flight No. 22.

#### 2. CONDITION OF TEST

- 2.1 This test is to be completed before the control system is operated or in any way disturbed for any other purpose.
- 2.2 A hydraulic test rig should be made available - to be connected only on specific instruction from Systems Engineering Dept.
- 2.3 Access panels to be removed from both elevator jack boxes and rear quadrant to be exposed.
- 2.4 The following equipment will be required:-
  - (a) Head phones between cockpit, rear quadrant, and elevator boxes.
  - (b) Spring balance to measure stick force.
  - (c) Means of recording Elevator Angle.

#### 3. TEST PROCEDURE

- 3.1 Visual investigation of Elevator Control system.
  1. Stick below floor.
  2. Front quadrant installation.
  3. Cable tension regulator.
  4. Parallel Servo installation.
  5. Feel-trim unit installation.
  6. Follow-up linkage on the actuator.
  7. Valve and differential servo.
  8. Valve dampers.

#### 4. SIMULATION OF FOULING

Connect hydraulic rig.

- 4.1 Trim to 4° up elevator. Operate stick to approximately  $\pm 2^\circ$  elevator, observing all components for proper functioning.

R.F.T. PREPARED BY:

APPROVED BY:

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AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

R.F.T. NO. 07-5096

SHEET NO. 2 OF 2

DATE: November 12, 1958

AIRCRAFT  
25202

ASSIGNMENT  
X73-384

WORK ORDER NO.

4.2 Repeat 1. with elevator trimmed to  $3^{\circ}$ ,  $2^{\circ}$ ,  $1^{\circ}$ , and  $0^{\circ}$  up elevator, also  $1^{\circ}$  down elevator.

5. CALIBRATIONS

1. Measure stick travel for various trim positions.
  2. Calibrate stick position vs elevator angle.
  3. Calibrate stick force vs elevator angle for various trim position.
  4. Calibrate system friction.
6. Investigate Feel Trim Unit, Valve Dampers, Control Valves, Parallel Servo, Cables, etc., individually as required.

R.F.T. PREPARED BY:

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