

NOV 10 1958

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Inter-Departmental Memorandum

Ref 7604/07/J
Date November 5, 1958
To Mr. S.E. Harper
From T. Roberts
Subject FLYING CONTROL DEVELOPMENT

Herewith R.F.T. 07-5070, Add. 8, specifying testing requirements
on Aircraft 25202 on Flight 21.

A handwritten signature in cursive script, appearing to read "T. Roberts".

T. Roberts
Technical Design Coordinator
FLIGHT TEST

/b

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AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

SECRET

R.F.T. NO. _____

SHEET NO. _____

DATE: November 4, 1958

UNCLASSIFIED

AIRCRAFT 25202

ASSIGNMENT X73-383

WORK ORDER NO. _____

FLYING CONTROL DEVELOPMENT

The following testing is required on the next flight of A/C 25202.

1. Objectives

- 1.1 Assess modified flying controls.
- 1.2 To extend the flight envelope to $M = 2.0$.
- 1.3 To evaluate yaw damper with undercarriage down at low speed.

2. INSTRUMENTATION

2.1 Telemetry

2.1.1 Stability and Control

1. Normal acceleration
2. Lateral acceleration
3. Elevator angle
4. Aileron angle
5. Rudder angle
6. Roll rate
7. Aileron differential servo position
- * 8. Elevator differential servo position
9. Voltage output stick force transducer - pitch axis

2.1.2 Structural Integrity

10. Rudder trailing edge acceleration
11. Aileron trailing edge acceleration
12. Elevator trailing edge acceleration

* Superimpose flying control pressure switch signal on this channel

2.2 Data Tape

As many parameters as possible, as listed in memo 1719/02A/J.

R.F.T. PREPARED BY:

APPROVED BY:

AUTHORIZED BY:



AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

R.F.T. NO.

07-5070

SHEET NO.

2

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DATE:

November 4, 1958

UNCLASSIFIED

AIRCRAFT

25202

ASSIGNMENT

X73-383

WRK DRDR NO.

3. TEST PROCEDURE

- 3.1 At 7,500 ft. accelerate normal damper gear up, to 500 kts. EAS, assess handling, pull 'g' in level turn within aircraft limitations. Carry out rudder step inputs, aileron and elevator stick taps, at 500 kts. EAS if possible.
- 3.2 Climb at $M = .88$ ind. to 35,000 ft. ind. Carry out elevator stick taps during climb.
- 3.3 Cruise out from base $M = .88$ ind. at 35,000 ft. ind. Check emergency damper, engage roll and pitch axes, assess handling and apply elevator step inputs.
- 3.4 Heading towards base, accelerate and climb to obtain approx. $M = 1.5$ at 50,000 ft.
- 3.5 Accelerate at 50,000 ft. at $M = 2.0$. Note speed and engine conditions at stabilised conditions. During acceleration do not descend below 45,000 ft.
- 3.6 At approx. 160 to 200 kts. EAS at about 5,000 ft. assess yaw damper gear down with undercarriage down.

4. DATA

- 4.1 Telemetry records of parameters listed in 2.1
- 4.2 Data tape records in analog form.
- 4.3 Pilot's comments.

NOTE:- With the modified flying control system the full elevator deflections for the next flight are -20° and $+10^\circ$.

R.F.T. PREPARED BY:

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