



Inter-Departmental Memorandum

Ref 2718/05/J
Date July 29, 1958
To Mr. S.E. Harper
From T. Roberts
Subject FUEL PRESSURIZATION SYSTEM AIR TEMPERATURES

3/1 Armstrong

*Reads Note 2 - this
could be interesting
K.O. Owen.*

R.F.T. 07-5084, covering tests to measure the temperature of the air supply to the fuel pressurization system during ground engine running of aircraft 25202, is attached.

T. Roberts

/b

T. Roberts
Technical Design Coordinator
FLIGHT TEST

C.C.

Messrs J. Chamberlin
C. Lindow
F. Brame
F. Mitchell
P. Martin
D. Scard
D. Woolley (6)
J. Scott
J. Ames
J. Booth
S. Whiteley
A. Cornish
A. Thomann
G. Shaw
C. Marshall
F. Bradshaw

A. Binding
W/C G. Waterman
W/C G. Waterman (2) AVRO T.S.D. RCAF
for transmittal to
S/L K. Owen,
C.E.P.E. Detachment

Central Files



AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

R.F.T. NO. 07-5084

SHEET NO. 1 OF

DATE: July 29, 1958

AIRCRAFT 25202	ASSIGNMENT NO. X73-4153	WORK ORDER NO. 63138-08-4153-2
----------------	-------------------------	-----------------------------------

FUEL PRESSURIZATION SYSTEM AIR TEMPERATURES

During ground engine running with the aircraft stationary record temperature of the air supply to the fuel pressurization system during the following operations:-

1. With one engine only operating at 70% N₂ RPM switch off the air conditioning cooling turbine. Record temperature of the air supplied to the fuel pressurization system at 2 min.intervals until stabilized.
2. Increase N₂ RPM in 5% steps allowing stabilization at each stage prior to proceeding.
3. When stabilized temperature has reached or exceeded 350°F reduce steps to 1%.
4. Record N₂ RPM corresponding to 400°F temperature.
5. With the N₂ RPM established in step 4 stabilized switch on the air conditioning cooling turbine. Record temperature in the fuel pressurization supply line at 2 min intervals till stabilized.
6. With N₂ RPM stabilized as in step 5 retard the throttle to idle and record temperature as before.
7. Report Ambient temperature.

- NOTE:-
1. Tests on the air conditioning test rig indicate that stabilization times may be of the order of 15 minutes. Under these circumstances it is important that the cockpit operator proceed with the successive phases of the test only after being informed of stabilization from the observer on the temperature indicator.
 2. Extreme caution is urged in approaching the 400°F limit on this temperature since under ideal conditions fuel can ignite spontaneously in contact with a surface at 450°F.
 3. A/C 25202 has been requested since instrumentation was installed in this aircraft previously for this test but adequate safety facilities did not exist at the time the test was scheduled.

R.F.T. PREPARED BY: <i>Mr. C. S. Herington</i>	APPROVED BY: <i>H. Dmy</i>	AUTHORIZED <i>[Signature]</i>
DATE FOR COMPLETION	PRIORITY	ESTIMATED COMPLETION DATE: