TL. 113-58/04

AVRO AIRCRAFT LIMITED

Inter-Departmental Memorandum

Ref 7757/22/J
Date April 1, 1958
To S. E. Harper
From J. D. Hodge
Subject ARROW 1 - FIRST FLIGHT R.F.T.

Herewith Addendum 4, of R.F.T. 07-5024, giving the flight plan and fuel used for the third flight of the initial series of flights.

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AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

R.F.T. NO. 07-5024 Add. 4

SHEET NO. 1 OF 2

DATE: April 1, 1958

REQUISITION FOR FLIGHT TEST

AIRCRAFT 25201	ASSIGNMENT NO.	WORK ORDER NO.

This Addendum covers the flight plan and fuel used for the third flight of the initial series of flights.

1. INSTRUMENTATION

1.1 Telemetry

Telemetry requirements are identical to those for flight number 2.

1.2 Oscillograph

It is requested that roll rate signal be added to the oscillograph channels, either as an extra measurement or in place of emergency aileron angle signal.

Otherwise all measurements are as for flight number 2.

2. FLIGHT PLAN

2.1 Take-off

Take-off without afterburner. Normal damper, gear down mode may be engaged at the pilots discretion.

Raise landing gear, select normal damper gear up mode and accelerate to 350 kts.

2.2 Climb

Climb at 350 kts. to the altitude corresponding to M = 0.90 (approximately 25,000 ft), and continue climbing at M = 0.90. Light the afterburner at 30,000 ft. and continue climbing to 40,000 ft.

R.F.T. PREPARED BY:	APPROVED BY:	AUTHORIZED BY:
DATE FOR COMPLETION	PRIORITY	ESTIMATED COMPLETION DATE:

AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

R.F.T. NO. 07-5024 Add. 4

SHEET NO. 2 OF 2

DATE: April 1, 1958

AIRCRAFT 25201	ASSIGNMENT NO.	WORK ORDER NO.

2.3 Test Period

Level off at 40,000 ft, disengage the damper and assess aircraft handling at M = 0.90.

Accelerate to M = 1.10 and again assess handling. It is recommended that a continuous acceleration be made between these speeds.

Decelerate to M = 0.90 engage normal damper gear up mode, light afterburner and accelerate to M = 1.10.

was not accomplished

Continue to accelerate to M = 1.3 in steps of 0.05 M proceeding in conjunction with ground operations controller. Aileron taps will be required at each speed.

2.4 Descent

Reduce speed to M = 0.90 and descend to approximately 25,000 ft., continuing to descend to circuit height at 350 kts.

Land.

3. FUEL USED AND TIME

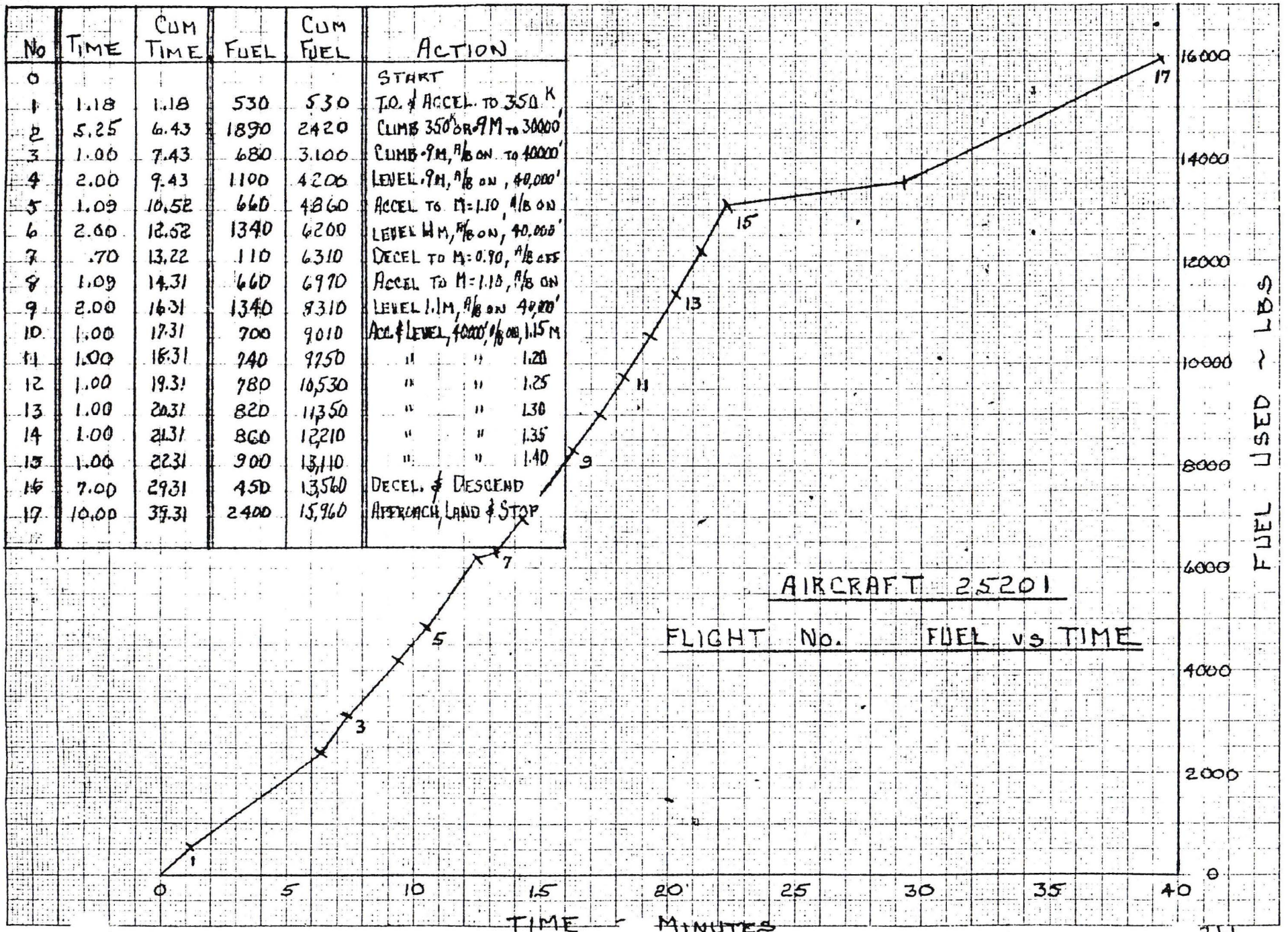
3.1 Attached appendix 2e shows an estimate of fuel used and time for the above flight plan.

3.2 During taxi the aircraft is estimated to use 1400 lb/hour/engine.

3.3 2500 lb. of fuel shall remain unuseable in addition to any fuel used to ballast the aircraft.

R.F.T. PREPARED BY:	APPROVED BY:	AUTHORIZED BY:
DATE FOR COMPLETION	PRIORITY	ESTIMATED COMPLETION DATE:

No	Time	Cum Time	Fuel	Cum Fuel	Action
0					START
1	1.18	1.18	530	530	T.O. & ACCEL. TO 350 K
2	5.25	6.43	1890	2420	CLIMB 350 K OR .9M TO 30000'
3	1.00	7.43	680	3.100	CLIMB .9M, A/B ON TO 40000'
4	2.00	9.43	1100	4200	LEVEL .9M, A/B ON, 40,000'
5	1.09	10.52	660	4860	ACCEL TO M=1.10, A/B ON
6	2.00	12.52	1340	6200	LEVEL 1.1M, A/B ON, 40,000'
7	.70	13.22	110	6310	DECEL TO M=0.90, A/B OFF
8	1.09	14.31	660	6970	ACCEL TO M=1.10, A/B ON
9	2.00	16.31	1340	8310	LEVEL 1.1M, A/B ON 40,000'
10	1.00	17.31	700	9010	ACC. & LEVEL, 40000', A/B ON, 1.15 M
11	1.00	18.31	740	9750	" " 1.20
12	1.00	19.31	780	10,530	" " 1.25
13	1.00	20.31	820	11,350	" " 1.30
14	1.00	21.31	860	12,210	" " 1.35
15	1.00	22.31	900	13,110	" " 1.40
16	7.00	29.31	450	13,560	DECEL. & DESCEND
17	10.00	39.31	2400	15,960	APPROACH, LAND & STOP



T.W.