

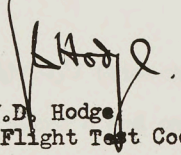


INTER DEPARTMENTAL MEMORANDUM

DATE: February 27th, 1958
REF: 6779/01/J
TO: MR. S.E. HARPER
FROM: Mr. J.D. Hodge
SUBJECT: ARROW 1 FIRST FLIGHT RFT

Herewith RFT 07-5024 with attachments covering first flight
ARROW 1 Aircraft 25201.

JDH:df


J.D. Hodge
Technical Flight Test Coordinator

cc Messrs:

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WILSON AIRCRAFT REPAIRS LTD.
MILTON, ONTARIO.

Form No. 94-502

Sheet No. 1 of 1

REQUISITION FOR FLIGHT TEST

Date. February 27th, 1958

AIRCRAFT
25201

ASSIGNMENT NO.
X73-362

WORK ORDER NO.

INITIAL FLIGHTS

ARROW 1

DATA:

1. OBJECT

The object of these flights is to obtain the pilots preliminary assessment of the handling qualities of the aircraft prior to engineering flights.

2. EQUIPMENT

- 2.1 Instrumentation as defined in memo 3749/22/J (Attached)
 - 2.2 Two chase aircraft are required. One Sabre 6 and one CF100 Mk. 5
 - 2.3 Two Vinten F47 Cameras.
 - 2.4 1 High speed camera (approx. 1000 frames/sec)
- (Item 2.3 and 2.4 to cover take-off and landing)

3. PROCEDURE

- 3.1 Procedure is given for first flight only. Amendments will be added to this R.F.T. to cover subsequent flights as required.
- 3.2 A pre-flight cockpit check is given in Appendix 1.
- 3.3 A flight is to be made at moderate altitude to examine low speed and subsonic handling characteristics.
- 3.4 Handling is to be carried out at the pilots discretion within the framework of the following flight plan.

R.F.T. Prepared By: *[Signature]*

Approved By: *[Signature]*

Authorized By:

Date for Completion

Priority

Estimated Completion
Date:

REQUISITION FOR FLIGHT TEST

Date, February 27th, 1958

AIRCRAFT
25201

ASSIGNMENT NO.
X73-362

WORK ORDER NO.

3.5 Flight Plan

3.5.1 Take-off

The take-off should be made without afterburner and in the normal damper (yaw only) mode with gear down selector switch on.

3.5.2 Climb

With the landing gear extended climb to 5000 ft. at 200 kts.

3.5.3 Accelerate and Climb

At 5000 ft. level off at 200 kts. Raise landing gear and switch to normal damper, gear up mode. Accelerate to 350 kts. Climb to 12,000 ft. at 350 kts. At this altitude and speed carry out mild manoeuvres and assess aircraft and engine handling.

3.5.4 Climb

Climb to 20,000 ft. at 350 kts, with normal damper gear up mode. At 20,000 ft. and 350 kts, switch the emergency mode, gear up, for sufficient time to insure that this mode is operative. It is not required to assess manoeuvring and handling in this mode.

Switch to normal damper, gear up mode.

3.5.5 Low Speed Handling

Reduce speed to 200 kts, and lower landing gear. Select Normal Damper, gear down mode. Carry out mild manoeuvres and assess handling between 160 kts and 200 kts.

3.5.6 Descend

Descend at 200 kts, to sea level in normal damper, gear down mode.

Prepared By:

Approved By:

Authorized By:

Date for Completion

Priority

Estimated Completion
Date:

TRIPON, ONTARIO.

W.P.O. No. 94-82

Sheet No. 3 of 3

REQUISITION FOR FLIGHT TEST

Date. February 27th, 1958

AIRCRAFT
25201

ASSIGNMENT NO.
X73-362

WORK ORDER NO.

Land.

3.6 Fuel Used and Time

3.6.1 Appendix 2 shows an estimate of the fuel used and time taken for the above procedure.

3.7 Recommended Take-off and Landing Procedure

Attached Appendix 3 give recommended take-off and landing procedures.

4. CONDITIONS

4.1 The configuration and flight limitations are given in the Design Certificate for aircraft 25201.

5. DATA

5.1 Reference memo 3749/22/J

5.2 Camera Records

5.3 Plots comments

Prepared By:

Approved By:

Authorized By:

For Completion

Priority

Estimated Completion
Date:



PILOTS CHECK LIST

RFT 07-5024
APPENDIX 1

After Entering the Cockpit

Manual harness release in forward position.

All switches off except ALT., L-P., Damper

Air Brakes position

Ground supply A.C.

UHF Mode 1

RMI, Standby compass

Oxygen - normal, emergency

Starting

Start R H engines Check Hydraulic Systems Flying Controls and Utility

Start Port engine

Check crossfeed, L.R.

Engage normal damping

Check emergency damping

Return to normal

Check all dampers out (Stick switch)

Engage normal again and select U/C down Mode

Check warning lights ON

Check emergency and all controls movement

Check all dampers out

Engage normal again and *gear down*



-2-

Check all controls full movement

Check trimming range of all controls

Set all controls neutral

Check oxygen contents again

Check air conditioning setting - Normal - Cockpit press

Check emergency fuel system (at idle, lights on) bring back

Before take-off

Trimmers neutral

Damper on, Damper normal U/C down mode

Speed brakes closed

Check canopy locked

Harness

Pitot heat, switch on.

Before landing

Speed brakes open

U/C down

Harness

RPM 75-80

Approach 180

Touchdown 160

End of Flight

Switch off pitot heater

Stop RH engines check flying controls and utility hydraulics

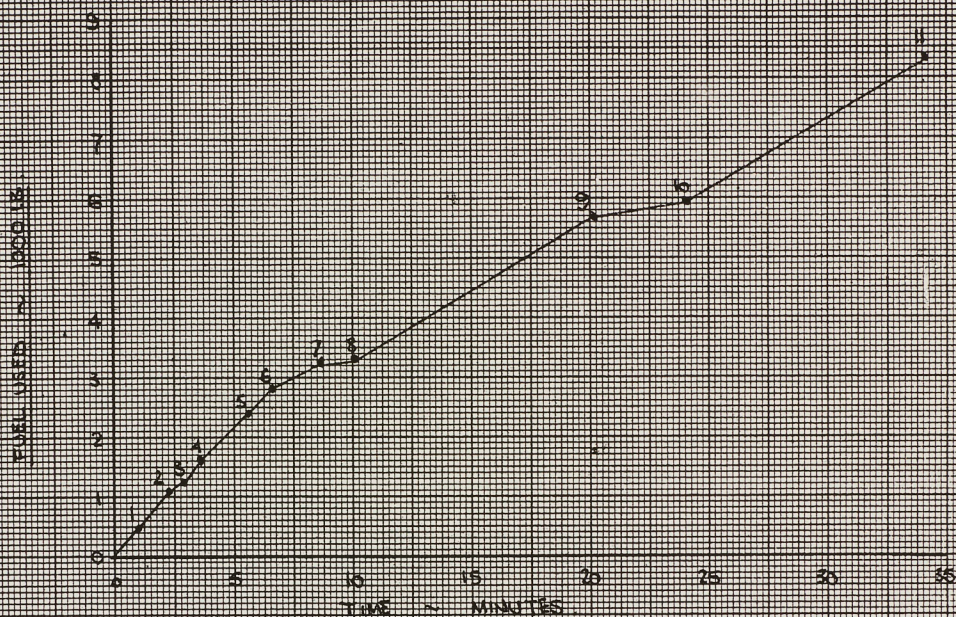
APPENDIX 1

WACRAFT 25701

KFJ 5024

APPENDIX 2

FIRST FLIGHT - FUEL & TIME



NO.	TIME	CUM. TIME	FUEL	CUM. FUEL	ACTION
1	1.0	1.0	500	500	ACCL. TO 250 KTS
2	1.2	2.2	200	700	CLIMB TO 5000'
3	1.8	4.0	150	850	ACCL. TO 350 KTS
4	1.7	5.7	350	1200	CLIMB TO 12000'
5	2.0	7.7	800	2000	MANOEUVRE
6	1.0	8.7	400	2400	CLIMB TO 20,000'
7	2.0	10.7	450	2850	MANOEUVRE
8	1.8	12.5	50	2900	DECEL. TO 200 KTS
9	1.0	13.5	2400	5300	MANOEUVRE
10	4.0	17.5	250	5550	DESCEND TO SIL
11	10.0	27.5	2400	7950	LATER & LAND