CHECK FLIGHT CERTIFICATE

Hawker 750 (GARRETT TFE731-5BR)
Hawker 800 XP (GARRETT TFE731-5BR)
Hawker 850 XP (GARRETT TFE731-5BR)
Hawker 900 XP (GARRETT TFE731-50R)

CFS 332 Issue 2

Registration:

Date:	Crew:	Observer:

Performance	Climb #1	Climb #2	
Average Weight			
Average Altitude			ft
Average Temp.			°C
Speed			KIAS
Achieved Rate			fpm
Scheduled Rate			fpm
Margin			fpm
Permitted Margin	-80	-100	fpm

Airfield:

Start Weight lb

Takeoff cg: % smc

Performance:

SATIS/UNSATIS/NOT APPLICABLE*

*(delete as applicable)**

Defects

No.	Defect	-/R/FT	Action?

(use a continuation sheet as necessary)

Conclusions/Comments

I CERTIFY that I have tested the above aircraft and have detailed the deficiencies and unsatisfactory features above. Those items annotated R or FT must be dealt with as shown in the notes on the reverse side.

Name:	Signed:	Date:	Licence No.:
For CAA Use only	Report Logged by:	Date:	Report No.:

NOTES

General
Only CAA personnel or pilots specifically briefed to carry out CAA Check Flights may conduct the test.
General notes on test conduct can be found in the CAA Check Flight Handbook.

Registration: If the aircraft is not on the UK register, add the manufacturers serial number and expected UK registration (if known).
Crew: Captain, co-pilot, Flight engineer (where applicable).
Airfield: Departure airfield.
Start Weight: Actual all up weight at first engine start. Also delete Kg or Lbs as appropriate.
Takeoff cg: Actual cg at lift-off, preferably as a % of the Mean Aerodynamic Chord.

Performance
A full description of climb analysis is given in the CAA Check Flight Handbook.
Climb#1/Climb#2: Enter in these columns data from the first and second climbs.
Average Weight: The aircraft all up weight at the midpoint of the measured climb.
Average Altitude: The altitude at which the line drawn to average the measured points passes through at the mid time.
Average Temp: The temperature at which the line drawn to average the measured points passes through at the mid time.
Speed: The target climb speed (Indicated Airspeed.)
Achieved Rate: The climb rate as given by the slope of the line drawn to average the measured altitude points in feet per minute.
Scheduled Rate: The expected gross rate of climb read from the appropriate graph in the Flight Manual with any adjustments for configuration differences. For large aircraft, the basic gross data are normally to be found in a separate supplement labelled 'Additional Flight Test Data'.
Margin: The difference between the Scheduled and Achieved rates of climb (negative if achieved is lower than scheduled).

Defects
Enter all defects from the flight. All defects must also be entered in the Technical Log. Procedural items entered in the Technical Log (such as re-stowing oxygen masks) need not be entered here. Items affecting flight safety which were known before the flight, whether or not they were deferred should be entered. In the latter case, the defect should be annotated accordingly after the details.
No.: The first column is to allow the items to be numbered.
Defect: Enter details of the defect.
-/R/FT: Classify each defect according to its impact on safety, regardless of whether it can be deferred according to the MEL. Any deferrals should be dealt with in the normal way in the Technical Log. Items requiring rectification (or deferral under the MEL) before further flight for hire or reward or before the issue of the CofA should be marked 'R'. Additionally, items that require re-checking in-flight following rectification (such as inadequate climb performance) should be marked 'FT'. Items requiring both should be marked 'R/FT'.
Action?: This column should be left blank unless further information is required from the engineers or the item is considered to be of sufficient import that CAA action is considered necessary, then the person/department/agency from whom further action is required should be noted in this column. Annotate accordingly if an MOR or similar report is to be raised.

Conclusions/Comments
Any conclusions, notes or comments useful for tracking defects may be entered.
Name: Only the pilot who carried out the test may sign this sheet.

CAA Check Flight Schedules

All CAA Airworthiness Check Flight Schedules (CFSs) are prepared based on a design standard which, before September 2003, was the UK Type Certificate. Following the creation of EASA there may be different design standards in service within the European Union (EU) - this may include modifications approved in any EU country.

It is the responsibility of the flight crew to ensure that the exercises and limitations in the CFS are correct for the aircraft under test.

The prime source of information will be the aircraft flight manual and in the event of conflict the flight manual should be taken as overriding.

CAA policy is that pilots who conduct airtests on the behalf of the Authority must be acceptable to the Authority, must have been briefed on techniques and safety considerations before carrying out the tests in these schedules and must have carried out an airtest within the last 4 years.

The CAA does not accept responsibility for the use of a CAA CFS on a test flight not directly under their control.

CHECK FLIGHT SCHEDULE

Hawker 750 (GARRETT TFE731-5BR)
Hawker 800XP (GARRETT TFE731-5BR)
Hawker 850XP (GARRETT TFE731-5BR)
Hawker 900XP (GARRETT TFE731-50R)

CFS No.332, Issue 2

INTRODUCTION

This schedule is applicable to Hawker 750, 800XP, 850XP and 900XP aircraft. It is based on the assumption that the everyday operation of the aircraft serves as a continuous check on the functioning of all normal services. On these test flights, however, the crew are expected generally to monitor the behaviour of all equipment and report any unserviceable items. In addition to completing all the required tests in this schedule any characteristics which are considered unsafe or undesirable must be recorded.

The minimum crew for this test flight should be increased by one observer to record the results of the tests. Passengers should not be carried. Oxygen shall be available for all persons on board. Passengers drop-out mask covers may be loosely secured to prevent full mask deployment during the cabin de-pressurisation checks provided that operation of the cover latches is not obscured.

The data contained in this schedule is correct at the time of writing, but might not be in agreement with subsequent Flight Manual amendments. In cases of conflict the current Flight Manual is overriding and CAA (Flight Department - Airworthiness Division) should be informed.

LOADING

Hawker 750

The aircraft is to be loaded with 3500 lb of fuel per side in the wing tanks. C.G. as convenient within normal limits.

The actual initial weight and C.G. must be recorded.

Hawker 800XP/850XP/900XP

The aircraft is to be loaded with 3500 lb of fuel per side in the wing tanks and with the ventral tank full. C.G. as convenient within normal limits.

The actual initial weight and C.G. must be recorded.

POST-FLIGHT ACTION

Plot out the performance climbs and compare the results with the gross performance graphs in the Flight Manual.

Complete a statement of defects, sign the Flight Test Certificate and state clearly whether or not the aircraft needs to be re-flown. Pass the completed flight test report to the CAA (Airworthiness Division) supervising Surveyor.

PRE-FLIGHT INFORMATION

Aircraft Registration	
Operator	
Date	
Crew: 1st Pilot	2nd Pilot
Observer	
Total Airframe Hours	
Times : Chocks under	
Chocks away	
Total chock to chock	
Landing	
Take-off	
Total airborne	
Ramp Weight	lb
C.G.	% SMC

TEST SCHEDULE

Except where otherwise indicated the flight techniques are those associated with normal operation of the aircraft.

1. PRE-FLIGHT CHECKS

1.1 Before Starting Engines. APU Running

1.1.1 Flight Deck Placards, Colour Coding and Labelling

Check all flight deck placards, instrument colour coding and control labelling for presence, accuracy and legibility.	SAT/UNSAT

1.1.2 Gust Lock Throttle Baulk

With the flying controls gust lock engaged, HP cocks ON, check that each throttle in turn can be fully opened but that they are baulked at about half travel when operated together.	SAT/UNSAT

1.2 After Engine Start

1.2.1 Airbrake Warning

With the flaps set to 25 degrees check that the airbrake/lift dump lever is baulked at the airbrake OPEN position.	SAT/UNSAT
With the airbrake open , advance the throttles sufficiently to trigger the continuous warning horn (approximately half throttle). Check operation of the continuous warning horn.	SAT/UNSAT
Leave the throttles at the position necessary to generate the warning horn. Close the airbrake and reset the flaps for take-off.	

1.2.2 Out of trim warnings

With the throttles set as above and the elevator trim set within the take-off range, operate the aileron trimmer in each direction in turn. Check the ELEV/AIL TRIM warning occurs at not more than 1 division of trim in each direction.	SAT/UNSAT
Operate the elevator trimmer in both directions. Check that the ELEV/AIL TRIM warning occurs outside the take-off range.	SAT/UNSAT
Reset the elevator trimmer as required for take-off. Close the throttles.	

2. **TAKE-OFF**

Carry out a normal full throttle take-off

Record - Airfield pressure altitude

- OAT

- N1 REF (See tables 5 or 6, as applicable, pages 25 to 28)

- N1 for each engine when power set

LEFT RIGHT

- any unusual characteristics

Select cabin altitude to 8000 feet.

NOTE : Do not select AUX FUEL TRANSFER until after the completion of item 4.1. (Not applicable to Hawker 750)

3. **HIGH SPEED WARNING (VENTRAL TANK FULL) (Except Hawker 750)**

Recommended 4,000 feet

With the ventral tank full, check each overspeed warning in turn by tripping the appropriate ADC circuit breakers on panel behind co-pilots head.

Record the onset of the overspeed warnings:

ADC 1 C/B PULLED	KIAS	SAT/UNSAT
ADC 2 C/B PULLED	KIAS	SAT/UNSAT

(Limits 280-284 knots)

DO NOT EXCEED 290 KIAS IN THE ABSENCE OF A WARNING

4. PERFORMANCE AND FUNCTIONING

Carry out 5 minute climbs clear of cloud and turbulence and on a constant heading. Start recording when in a stabilised trimmed condition at the scheduled speed using not more than 5º bank towards the operative engine. Aim to maintain IAS within ± 2 kts of scheduled speed, and to adjust the operative engine as necessary to maintain the scheduled thrust setting. The achieved rate of climb must be compared with the relevant gross performance information in the Flight Manual.

For each climb record:
- aircraft weight at start and finish of climb
- Captain's altimeter (set to 1013 mb) every half minute
- Captain's ASI reading and OAT every minute
- all operative engine instrument readings after three minutes
- flying control trimmer settings and any remaining control forces
- both pilots ASI readings at any one moment

4.1 Engine Idling Take-off Climb

Recommended start FL40. Limits 3000 ft. AGL to FL80.

Conditions
- gear up, flaps 15°
- No.2 engine idling, throttle closed
- No.1 engine at maximum take-off power (full throttle) – Table 5 or 6
- APR ON
- airspeed V2 (see table 2, page 22)
- No.1 engine MAV to CLOSE (conditioning/pressurisation may be maintained from No. 2 engine if desired)
- rudder trim neutral with applied bank to maintain steady heading
- engine synchroniser OFF
- anti-ice OFF

Record :	LEFT	VENTRAL	RIGHT
- fuel quantity at start of climb	lb	lb	lb

- aircraft weight at start of climb ____ lb

- V2 for test conditions (Table 2) ____ KIAS

TIME	*ALTITUDE (1013 mb)*	*IAS*	*INDICATED OAT*	*No. 1 ENG N1*
Min	feet	Knots	°C	%
0				
½		-	-	-
1				
1½		-	-	-
2				
2½		-	-	-
3		-	-	-
3½				
4				
4½		-	-	-
5				

Note: For analysis true OAT is 2°C below indicated OAT.

- ASI comparison LEFT ____ KIAS RIGHT ____ KIAS

- trimmer settings rudder ____ aileron ____

N1	ITT	N2	OIL P.	OIL T.	FUEL FLOW
%	°C	%	psi	°C	lb/hr

Record :	LEFT	VENTRAL	RIGHT
- fuel quantity at end of climb	lb	lb	lb

- aircraft weight at end of climb ____ lb

At the end of the climb balance the wing fuel then select AUX FUEL TRANSFER

Select the main air valves OPEN

Select APR OFF

Check that the auxiliary tank fuel transfers equally starboard wing tanks. SAT/UNSAT

4.2 Electrical Generators FL 150

Trip and reset each generator in turn:
Confirm that the remaining generator picks up load and that there is no display blanking

LEFT SAT/UNSAT

RIGHT SAT/UNSAT

4.3 Pressurisation FL 150

Check and record operation of crew oxygen masks for flow and microphones.

LEFT SAT/UNSAT

RIGHT SAT/UNSAT

Select main air valves to CLOSE.

If fitted, check that CABIN HIGH DATUM switch is selected OFF.

Check and record:

- cabin altitude at which the altitude warning occurs

feet (limits: 9,000 to 9,600 ft) SAT/UNSAT

- cabin altitude at which passenger oxygen dropout occurs

feet (limits: 11,250 to 12,750 ft) (or, 13,500 to 14,500 ft on aircraft fitted with High Datum Switch (Mod 259747B)) SAT/UNSAT

- operation of flight deck valve. SAT/UNSAT

Re-pressurise using manual pressurisation control. Check operation of manual control. SAT/UNSAT

Reselect automatic pressurisation control and select cabin altitude to 4000 feet in preparation for test 7.

4.4 Engine Out En-Route Climb

Recommended start FL150. Limits FL100 to FL300.

NOTE : The auxiliary tank fuel transfer must be complete before starting the climb.

Conditions

- gear and flap up
- No.1 engine shutdown
- No.2 engine at MCT
  (subject to not exceeding: 968°C ITT, -5BR engine - see table 3, page 23
  991°C ITT, -50R engine - see table 4, page 24)
- en-route climb speed (see table 1, page 22)
- pressurisation ON
- all anti-icing OFF
- engine synchroniser OFF
- APR disarmed

Record :	LEFT	RIGHT
- fuel quantity at start of climb	lb	lb

- aircraft weight at start of climb ____ lb

- En-route climb speed for test conditions ____ KIAS

TIME	***ALTITUDE (1013 mb)***	***IAS***	***INDICATED OAT***	***No. 2 ENG N1***
Min	feet	Knots	°C	%
0				
½		-	-	-
1				
1½		-	-	-
2				
2½		-	-	-
3		-	-	-
3½				
4				
4½		-	-	-
5				

- ASI comparison LEFT ____ KIAS RIGHT ____ KIAS

- trimmer settings rudder ____ aileron ____

N1	ITT	N2	OIL P.	OIL T.	FUEL FLOW
%	°C	%	psi	°C	lb/hr

Record :	LEFT	RIGHT
- fuel quantity at end of climb	lb	lb

- aircraft weight at end of climb ____ lb

4.5 No.1 Engine Relight (Starter Assisted) | Not Above FL 150

After completion of the climb, with 15° flap at 130 KIAS, time an assisted relight on No.1 engine.

Record - altitude [ ] feet

- windmill speeds

N1	N2
%	%

- time from fuel on to ITT rise

[ ] sec SAT/UNSAT

- Max ITT

[ ] °C SAT/UNSAT

Leave engine at idle for 3 minutes before increasing thrust.

4.6 Fuel System | As convenient

Check and record:

- operation of fuel crossfeed and correct annunciation. SAT/UNSAT
- operation of wing tank fuel transfer and correct annunciation. SAT/UNSAT

5. TRIM, CONTROLS AND TRIMMERS | Climb to FL350

Continue a normal climb to FL350. Trim the aircraft accurately about all axes.

Check and record lateral and directional trim settings:

Aileron [ ] SAT/UNSAT

Rudder [ ] SAT/UNSAT

- all primary flying controls for backlash, breakout, centring, forces and response. Record any unsatisfactory characteristics: SAT/UNSAT

- all trimmers for effectiveness, operating forces and backlash. Record any unsatisfactory characteristics. SAT/UNSAT

6. **PRESSURISATION** FL350

With the cabin altitude selected to 4000 feet and the cabin stabilised at maximum differential pressure, check and record:

- aircraft altitude feet

- cabin altitude at stabilised maximum Δ□P. feet

- stabilised maximum differential pressure.

psi (limits: 8.6 to 8.8 psi) SAT/UNSAT

DO NOT EXCEED 9.0 psi

Select cabin altitude to 6000 feet and allow to stabilise.
Close No.2 main air valve and fully close No.1 throttle.
Check and record:

- cabin altitude does not increase, apart from an initial transient. SAT/UNSAT

Restore power on No.1 engine and re-open No.2 main air valve. After 30 seconds close No.1 main air valve and fully close No.2 throttle. Check and record:

- cabin altitude does not increase, apart from an initial transient. SAT/UNSAT

Restore normal pressurisation.

7. **HIGH MACH** FL350 to FL300

Trim the aircraft accurately at Mmo. Check each overspeed warning in turn by accelerating with the appropriate C/B tripped.
Trip C/B ADC 2, set RH ADC to REV and accelerate to 0.82 IMN on the left ASI.
Check and record overspeed warning.

IMN	(limits: not before the airspeed needle reaches the Vmo tape and not above 0.81 IMN).	SAT/UNSAT

- handling qualities at 0.82 IMN (no significant trim changes, airframe or control buffet). SAT/UNSAT
- operation of airbrakes at 0.82 IMN. SAT/UNSAT
- operation of Mach trimmer, needing positive push to achieve speed. SAT/UNSAT

Reduce speed to Mmo. Reset C/B ADC 2 set RH ADC to NORM and trip C/B ADC 1 then set RH ADC to REV and accelerate to the onset of overspeed warning on the right ASI (but not above 0.82 IMN in the absence of a warning).
Record - onset of the overspeed warning on the right ASI.

IMN	(limits: not before the airspeed needle reaches the Vmo tape and not above 0.81 IMN).	SAT/UNSAT

Reduce speed to Mmo and reset C/B ADC 1 and reset RH ADC to NORM.

Check operation of yaw damper. SAT/UNSAT

8. **ENGINE SHUTDOWN AND RELIGHT** FL300

Select flight idle on the right engine and cool for 3 minutes

Shut down the right engine for 2 minutes and then time a windmill relight at 220 knots at 30,000 feet. (The engine should be shutdown above 30,000 feet to permit a drift down to 30,000 feet on the left engine).

Record windmill speeds	N1	N2
Note. N2 must be 10% or greater and N1 must be indicating before attempting relight.	%	%

time from fuel on to ITT rise (10 sec maximum)		sec	SAT/UNSAT
Maximum ITT (maximum 978 °C)		°C	SAT/UNSAT

Maintain RH engine at flight idle for 3 minutes before increasing thrust.

9. STALLING

FL180 to FL100

The following conditions apply to the stall checks:

- the stall identification system MUST be fully serviceable, as shown by normal pre-flight checks and systems.
- the ventral fuel tanks MUST be empty.
- altitude to be between FL180 and FL100.
- all external surfaces to be free from ice.
- weather radar, if fitted, to be at standby.
- the tests must be conducted clear of cloud and with a good visual horizon.
- autopilot disengaged.
- the yaw damper should be ON for the stalls in the clean configuration and OFF for the stalls in the flaps 45° configurations.
- Airbrakes closed.

For each stall the aircraft is to be trimmed at 1.4 times the scheduled stall (stick push) speed with the throttles closed. Speed should then be reduced smoothly at approximately 1 knot per second. Do not attempt to maintain constant altitude. Target speeds are in table 1 on page 22.

During normal operation of the system with all three channels of the stall identification system operating, the stall VALVE A and VALVE B lights by ASI should illuminate simultaneously. Any delay between illumination of the VALVE A and VALVE B lights indicates that the 3rd channel is inoperative and should be recorded as a defect.

The test must be discontinued and recovery action taken in the event of:

- speed reducing to the scheduled stick shake speed minus 4 knots in the absence of stick shake occurring.
- a natural aerodynamic stall occurring. Some aerodynamic buffet may occur briefly, coincident with stick pusher operation.
- speed reducing to the scheduled stick push speed minus 4 knots in the absence of stick push occurring.

9.1 Clean Configuration Yaw damper ON.

(a) Normal operation

Record - aircraft weight

lb/kg

	SCHEDULED SPEED KIAS	ACHIEVED SPEED KIAS (from ADI)	LIMITS	
TRIM		-		
STICK SHAKE			SCHEDULED ±3 KIAS	SAT/UNSAT
STICK PUSH			SCHEDULED ±3 KIAS	SAT/UNSAT
MARGIN SHAKE TO PUSH	-		NOT LESS THAN 5 KIAS	SAT/UNSAT

- stall characteristics (straight nose down pitch in response to stick pusher). SAT/UNSAT
- simultaneous illumination of stall VALVE A and VALVE B lights. SAT/UNSAT

(b) Autopilot disconnect

With the aircraft trimmed at the original trim speed, engage the autopilot in altitude hold and close the throttles. Allow speed to reduce until the autopilot disconnects automatically.

Record - autopilot disconnect occurs at onset of stick shaker. SAT/UNSAT

DO NOT CONTINUE below the scheduled stick shake speed if autopilot fails to disconnect.

9.2 Flaps 15°, gear up Yaw damper OFF

(a) Normal operation

Record - aircraft weight

lb/kg

	SCHEDULED SPEED KIAS	ACHIEVED SPEED KIAS (from ADI)	LIMITS	
TRIM		-		
STICK SHAKE			SCHEDULED ±3 KIAS	SAT/UNSAT
STICK PUSH			SCHEDULED ±3 KIAS	SAT/UNSAT
MARGIN SHAKE TO PUSH	-		NOT LESS THAN 5 KIAS	SAT/UNSAT

- stall characteristics SAT/UNSAT
- simultaneous illumination of stall VALVE A and VALVE B lights. SAT/UNSAT

9.3 Flaps 45°, gear down Yaw damper OFF

(a) Normal operation

Record - aircraft weight [lb/kg]

- scheduled and achieved speeds.

	SCHEDULED SPEED KIAS	ACHIEVED SPEED KIAS (from ADI)	LIMITS	
TRIM		-		
STICK SHAKE			SCHEDULED ±3 KIAS	SAT/UNSAT
STICK PUSH			SCHEDULED ±3 KIAS	SAT/UNSAT
MARGIN SHAKE TO PUSH	-		NOT LESS THAN 5 KIAS	SAT/UNSAT

- stall characteristics SAT/UNSAT
- simultaneous illumination of stall VALVE A and VALVE B lights. SAT/UNSAT

RETRACT FLAPS AND GEAR.

10. **HIGH IAS** [FL 100]

Trim the aircraft at V_{MO}.

Trip C/B ADC2, set RH ADC to REV and accelerate to 350 KIAS on the left ASI. Check and record:

[KIAS] (limits: not before the airspeed needle reaches the V_{MO} tape and between 335-339 KIAS). SAT/UNSAT

- operation of flying controls over small angles SAT/UNSAT
- airframe behaviour SAT/UNSAT
- operation of airbrakes at 350 KIAS SAT/UNSAT

Reduce speed to V_{MO}. Reset C/B ADC 2 and RH ADC. Trip C/B ADC 1, set LH ADC to REV. Accelerate to the onset of overspeed warning on the right ASI (but not above 339 KIAS in the absence of a warning).

Record - onset of the overspeed warning on the right ASI.

[KIAS] (limits: not before the airspeed needle reaches the V_{MO} tape and between 335-339 KIAS). SAT/UNSAT

Reduce speed and reset C/B ADC 1 and LH ADC.

11. FUNCTIONING

As convenient

11.1 Emergency gear lowering

With the flap up at 150 knots, pull the red AUX HYD SYSTEM handle and extend the landing gear using the hand pump.
Check and record indication of gear extension and locking on main and standby gear lights (the main landing gear lights should show both red and green) SAT/UNSAT

Select gear DOWN on the normal selector and note that the red lights go out. Select AUX HYD SYSTEM handle IN. Recycle the gear on the normal selector.
NOTE : Sufficient fluid will remain for a further emergency lowering if a genuine failure occurs. The auxilliary hydraulic low level warning light only indicates that the tank is not full.

11.2 Engine Slam Accelerations

Flaps 25°, gear down. 150 KIAS. Record N1 Ref. (Table 5 or 6) %

For each engine in turn, take the air bleed and synch off, close the throttle to idle, and with APR off slam throttle to T.O.

Record:

	LEFT	RIGHT
IDLE N1 %		
TIME TO ACCELERATE FROM IDLE TO 2% BELOW N_1REF.		

(Limit : 8 seconds) SAT/UNSAT

11.3 Ram Air Valve

Reduce cabin differential pressure to approximately 1 psi. Close both main air valves and select the dump valve OPEN. Check and record:

- cabin pressure is released. SAT/UNSAT

  (A slight residual pressure may be maintained due to ram effect with dump valve open).

Restore pressurisation as required.

12.4 Airframe De-icing

Select airframe de-icing ON approximately 5 minutes before landing.

13. LANDING

Carry out a normal landing. Record any abnormal characteristics.

14. FUNCTIONING - AFTER LANDING

Shut down engines insert landing gear safety pins then check and record:

-	select battery switch to emergency and check flight deck emergency lighting.	SAT/UNSAT
-	wing and tail de-icing strips for satisfactory distribution of fluid.	SAT/UNSAT

Record any unsatisfactory items.

NOTE : After flight the hydraulic system must be checked and the replenishment of the emergency hydraulic tank etc. carried out.

Before the flight test certificate is completed (front page) both climbs should be checked to ensure that the achieved rate-of-climb is within the allowable tolerance. Results worse than the allowable tolerance should be investigated before the flight test is signed off as being successfully completed.

Record of Revisions:

Issue 2: July 2011 - Updated to include all Hawker models. i.e. Hawker 750, 800XP, 850XP and 900XP

Scheduled speeds

AIRCRAFT WEIGHT LBS	FLAP 0 ERC	FLAP 45 VREF	FLAPS UP			FLAPS 15			FLAPS 45 GEAR DOWN		
			TRIM	SHAKE	PUSH	TRIM	SHAKE	PUSH	TRIM	SHAKE	PUSH
24,000	172	127	163	123	115	151	115	107	144	110	102
23,500	170	126	162	122	114	150	113	106	143	109	101
23,000	168	125	160	121	113	148	112	105	141	108	100
22,500	166	124	159	120	112	147	111	104	140	106	99
22,000	164	122	157	118	111	146	110	103	138	105	98
21,500	161	121	155	117	109	143	109	101	137	104	97
21,000	159	119	154	116	108	143	108	101	136	103	96
20,500	157	118	152	115	107	141	106	99	1134	102	94
20,000	155	117	150	114	106	139	105	98	132	101	93

TABLE 1

V_2 KNOTS, FLAPS 15°

AIRCRAFT WEIGHT LBS	OAT °C											
	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25
25,000	133	133	133	133	133	133	133	133	133	132	132	131
24,000	131	131	131	131	131	131	131	130	130	130	130	129
23,000	128	128	128	128	128	128	128	128	128	127	127	126
22,000	127	127	127	127	127	127	126	126	126	126	125	124
21,000	127	127	127	127	127	126	126	126	125	124	122	122

TABLE 2

Hawker 750
Hawker 800XP
Hawker 850XP

MAXIMUM CONTINUOUS POWER; BLEEDS ON; ANTI-ICE OFF

TFE 731-5BR ENGINE

OAT °C	Sea Level	5000 feet	10000 feet	15000 feet	20000 feet
+20	93.8	95.8	94.6	93.2	
+15	93.0	96.6	95.6	94.3	93.6
+10	92.1	97.4	96.4	95.3	94.8
+5	91.3	96.7	97.2	96.2	95.8
0	90.5	97.1	97.9	96.9	96.6
-5	89.7	96.2	98.6	97.6	97.3
-10	88.8	95.3	99.3	98.2	98.0
-15	87.9	94.4	99.9	98.9	98.3
-20	87.1	93.4	100.0	99.6	98.5
-25	86.2	92.5	100.0	100.0	99.2
-30	85.3	91.5	99.5	100.0	100.0

TABLE 3

Hawker 900XP

MAXIMUM CONTINUOUS POWER; BLEEDS ON; ANTI-ICE OFF

TFE 731-50R ENGINE

OAT °C	Sea Level	5000 feet	10000 feet	15000 feet	20000 feet
+20	96.3	99.5	99.8	99.0	99.0
+15	95.4	99.6	100.0	99.7	99.4
+10	94.6	99.6	100.0	100.0	99.8
+5	93.7	99.5	100.0	100.0	100.0
0	92.8	99.2	100.0	100.0	100.0
-5	91.9	98.4	100.0	100.0	100.0
-10	91.1	97.5	100.0	100.0	100.0
-15	90.2	96.7	100.0	100.0	100.0
-20	89.4	95.8	100.0	100.0	100.0
-25	88.5	95.0	100.0	100.0	100.0
-30	87.6	94.2	100.0	100.0	100.0

TABLE 4

TAKE-OFF REFERENCE N_1%

(Part 1 of 2: -50° C to 0° C)

APR ARMED (NOT OPERATING)

CABIN AIR OFF
ENG ANTICE OFF

ALTITUDE FT	Outside Air Temperature° C											ALTITUDE FT
	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	
15,000	98.7	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	15,000
14,000	98.7	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	14,000
13,000	98.7	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	13,000
12,000	98.7	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	12,000
11,000	98.7	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	11,000
10,000	98.7	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	10,000
9000	98.1	99.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	9000
8000	96.1	97.1	98.1	99.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	8000
7000	93.9	95.0	96.0	97.0	98.0	99.0	99.9	100.0	100.0	100.0	100.0	7000
6000	92.2	93.2	94.2	95.2	96.2	97.2	98.1	99.1	100.0	100.0	100.0	6000
5000	90.7	91.7	92.7	93.7	94.7	95.6	96.6	97.5	98.5	99.4	100.0	5000
4000	89.4	90.4	91.4	92.3	93.3	94.2	95.2	96.1	97.0	97.9	98.8	4000
3000	88.1	89.1	90.0	91.0	91.9	92.9	93.8	94.7	95.6	96.5	97.4	3000
2000	86.8	87.7	88.7	89.7	90.6	91.5	92.4	93.3	94.2	95.1	96.0	2000
1000	85.6	86.6	87.5	88.4	89.3	90.2	91.1	92.0	92.9	93.8	94.7	1000
Sea Level	84.4	85.4	86.3	87.2	88.1	89.0	89.9	90.8	91.6	92.5	93.4	Sea Level
-1000	83.4	84.3	85.2	86.1	87.0	87.9	88.8	89.7	90.5	91.4	92.2	-1000

TABLE 5A

TAKE-OFF REFERENCE N_1%

(Part 2 of 2: 0° C to 50° C)

APR ARMED (NOT OPERATING)

CABIN AIR OFF
ENG ANTICE OFF

ALTITUDE FT	*Outside Air Temperature° C*											ALTITUDE FT
	0	*5*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*	
15,000	100.0	99.4	98.7	97.8	97.0	0.0	0.0	0.0	0.0	0.0	0.0	**15,000**
14,000	100.0	99.5	98.7	97.9	97.1	0.0	0.0	0.0	0.0	0.0	0.0	**14,000**
13,000	100.0	99.5	98.7	97.9	97.1	0.0	0.0	0.0	0.0	0.0	0.0	**13,000**
12,000	100.0	99.5	98.8	98.0	97.1	96.2	0.0	0.0	0.0	0.0	0.0	**12,000**
11,000	100.0	99.6	98.8	98.0	97.2	96.2	0.0	0.0	0.0	0.0	0.0	**11,000**
10,000	100.0	99.6	98.8	98.1	97.3	96.3	95.1	0.0	0.0	0.0	0.0	**10,000**
9000	100.0	99.6	98.9	98.1	97.3	96.4	95.2	0.0	0.0	0.0	0.0	**9000**
8000	100.0	99.6	98.9	98.1	97.3	96.4	95.3	94.1	0.0	0.0	0.0	**8000**
7000	100.0	99.6	98.9	98.1	97.3	96.4	95.3	94.1	92.8	0.0	0.0	**7000**
6000	100.0	99.7	98.9	98.1	97.4	96.5	95.3	94.1	92.8	0.0	0.0	**6000**
5000	100.0	99.7	99.0	98.2	97.4	96.5	95.4	94.1	92.8	91.5	0.0	**5000**
4000	98.8	99.7	99.0	98.2	97.4	96.5	95.4	94.2	92.9	91.5	0.0	**4000**
3000	97.4	98.3	99.0	98.2	97.4	96.5	95.4	94.2	92.9	91.5	90.2	**3000**
2000	96.0	96.8	97.7	98.2	97.4	96.6	95.4	94.2	92.9	91.5	90.2	**2000**
1000	94.7	95.5	96.4	97.2	97.5	96.6	95.5	94.3	93.0	91.6	90.2	**1000**
Sea Level	93.4	94.2	95.0	95.9	96.7	96.6	95.5	94.3	93.0	91.6	90.2	**Sea Level**
-1000	92.2	93.1	93.9	94.7	95.5	96.3	95.5	94.3	93.0	91.6	90.2	**-1000**

TABLE 5B

TAKE-OFF REFERENCE N_1%

(Part 1 of 2: -50° C to 0° C)

APR ARMED (NOT OPERATING)

CABIN AIR OFF
ENG ANTICE OFF

ALTITUDE FT	*Outside Air Temperature° C*											ALTITUDE FT
	-50	*-45*	*-40*	*-35*	*-30*	*-25*	*-20*	*-15*	*-10*	*-5*	*0*	
15,000	98.1	98.7	99.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**15,000**
14,000	98.2	98.7	99.3	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**14,000**
13,000	98.5	98.9	99.3	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**13,000**
12,000	98.8	99.0	99.3	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	**12,000**
11,000	98.4	98.8	99.1	99.4	99.8	100.0	100.0	100.0	100.0	100.0	100.0	**11,000**
10,000	98.1	98.5	98.9	99.2	99.6	100.0	100.0	100.0	100.0	100.0	100.0	**10,000**
9,000	96.7	97.3	97.9	98.5	99.1	99.7	100.0	100.0	100.0	100.0	100.0	**9,000**
8,000	95.1	95.9	96.8	97.6	98.5	99.3	100.0	100.0	100.0	100.0	100.0	**8,000**
7,000	93.5	94.5	95.4	96.3	97.2	98.2	99.1	99.6	99.9	100.0	100.0	**7,000**
6,000	91.9	92.9	93.9	94.9	95.9	96.9	97.9	98.8	99.6	100.0	100.0	**6,000**
5,000	90.6	91.6	92.6	93.6	94.5	95.5	96.5	97.5	98.3	99.2	99.6	**5,000**
4,000	89.3	90.2	91.2	92.2	93.1	94.1	95.1	96.0	97.0	97.9	98.8	**4,000**
3,000	88.0	88.9	89.9	90.8	91.8	92.7	93.7	94.6	95.6	96.5	97.4	**3,000**
2,000	86.7	87.6	88.6	89.5	90.4	91.4	92.3	93.2	94.2	95.1	96.0	**2,000**
1,000	85.5	86.5	87.4	88.3	89.2	90.1	91.0	91.9	92.8	93.7	94.6	**1,000**
Sea Level	84.4	85.3	86.2	87.0	87.9	88.8	89.7	90.6	91.5	92.4	93.3	**Sea Level**
-1,000	83.2	84.1	85.0	85.9	86.7	87.6	88.5	89.4	90.2	91.1	92.0	**-1,000**

TABLE 6A

TAKE-OFF REFERENCE N_1%

(Part 2 of 2: 0° C to 50° C)

APR ARMED (NOT OPERATING)

CABIN AIR OFF
ENG ANTICE OFF

ALTITUDE FT	*Outside Air Temperature° C*											ALTITUDE FT
	0	*5*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*	
15,000	100.0	100.0	100.0	99.7	98.8	97.8						**15,000**
14,000	100.0	100.0	100.0	100.0	98.9	97.8						**14,000**
13,000	100.0	100.0	100.0	100.0	99.1	97.8	96.6					**13,000**
12,000	100.0	100.0	100.0	100.0	99.3	98.0	96.6					**12,000**
11,000	100.0	100.0	100.0	99.9	99.4	98.2	96.8	95.5				**11,000**
10,000	100.0	100.0	100.0	100.0	99.6	98.3	97.0	95.7				**10,000**
9,000	100.0	100.0	100.0	100.0	99.5	98.4	97.0	95.6				**9,000**
8,000	100.0	100.0	100.0	100.0	99.7	98.4	97.1	95.7	94.2			**8,000**
7,000	100.0	100.0	100.0	100.0	99.6	98.5	97.2	95.8	94.3			**7,000**
6,000	100.0	100.0	100.0	100.0	99.6	98.6	97.3	95.9	94.4	92.9		**6,000**
5,000	99.6	100.0	100.0	100.0	99.7	98.6	97.3	95.9	94.4	92.9		**5,000**
4,000	98.8	99.7	100.0	100.0	99.6	98.6	97.3	95.9	94.5	93.0		**4,000**
3,000	97.4	98.3	99.1	99.5	99.7	98.7	97.4	96.0	94.5	93.0	91.5	**3,000**
2,000	96.0	96.9	97.8	98.7	99.5	98.7	97.5	96.0	94.5	93.0	91.5	**2,000**
1,000	94.6	95.5	96.4	97.3	98.2	98.4	97.5	96.1	94.6	93.0	91.5	**1,000**
Sea Level	93.3	94.2	95.0	95.9	96.8	97.6	97.5	96.1	94.6	93.1	91.5	**Sea Level**
-1,000	92.0	92.9	93.7	94.6	95.5	96.3	96.9	96.1	94.6	93.1	91.6	**-1,000**

TABLE 6B