CHECK FLIGHT CERTIFICATE

Jetstream 41	**CFS 271 Issue 1**	Registration:

Date:	Crew:	Observer:

Performance	Climbs L engine		Climbs R engine		
Average Weight					
Average Altitude					ft
Average Temp.					°C
Speed					KIAS
Achieved Rate					fpm
Scheduled Rate					fpm
Margin					fpm
Permitted Margin	-35	-35	-35	-35	fpm

Airfield:

Start Weight Kg/Lbs*:

Takeoff cg:

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 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

JETSTREAM 41 **CFS 271 ISSUE 1**
(Garrett TPE 331-14 engines - 1500 and 1650 SHP ratings)

INTRODUCTION

This schedule is applicable only to the Jetstream 41 aircraft.

The schedule 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 to report any unserviceable items. In addition to completing all the required tests in the schedule, any characteristics which are considered unsafe or undesirable must be recorded.

MINIMUM CREW

The minimum crew shall be increased by one observer to record the results of the tests. The pilot conducting the tests shall be specifically approved by the CAA (SRG) for carrying out Check Flights on Jetstream 41.

PASSENGERS

While is it legal to carry passengers on a test flight of an aircraft with a valid Certificate of Airworthiness, the practice is not recommended. If passengers are carried, however, they should be informed that the risk is greater than on an ordinary flight.

TEST SCHEDULE

The pilot conducting the tests must be familiar with the contents of this schedule before flight. All members of the required minimum crew must be provided with copies of the schedule for use in flight.

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 Flight Manual is overriding, and CAA (SRG) Flight Test Section must be informed. The altitude conditions in the schedule must be observed to ensure adequate safety and validity of the test results. The tests should, if possible, be carried out in the sequence as written.

Operator or Maintenance Organisation	
Airfield	
Engine rating	1500 SHP 1650SHP

LOADING AND CALCUALTION OF WEIGHT

The aircraft is to be loaded with about 2000 kg fuel, with the C.G. within the Flight Manual limits.

RECORD:	AIRCRAFT WEIGHT :	
	CG :	

PART 1 - TEST SCHEDULE

Except where otherwise indicated, the flight techniques are those associated with normal operation of the aircraft, for example yaw damper engaged. Fuel symmetry must be maintained, particularly during and after the engine-out climbs.

1. FUNCTIONING - PART ONE - PRE-FLIGHT CHECKS

Check flight deck placards for presence, accuracy and legibility.	SAT/UNSAT

2. ENGINE STARTS

During each start note :

	Left	Right
(a) Maximum EGT achieved		
(b) time from 60% RPM to reduction in EGT limit		

3. PRE-TAKE-OFF

With the aircraft configured for take-off, and TOCWS FLAP switch (if fitted*) set to 9 flap, confirm operation of the Take-off Configuration Warning by monitoring audio warning and CAP with the power up to approximately 65% torque for each of the following conditions (items a,b,d,e,f can be tested on the TOCW TEST switch if it is fitted):

(a)	SPOILERS NOT ARMED	SAT/UNSAT
(b)	PARK BRAKE ON	SAT/UNSAT
(c)	CONDITION LEVERS NOT MAXIMUM	SAT/UNSAT
(d)	FLAPS UP AND 15*	SAT/UNSAT
(e)	ELEVATOR TRIM NOT IN GREEN BAND	SAT/UNSAT
(f)	GUST LOCK ENGAGED	SAT/UNSAT

*NB. If TOCWS FLAP switch is not fitted, check the aircraft flight manual for permissible Take-off flap settings.

4. TAKE-OFF

Carry out normal take-off.

Record any unusual characteristics

5. PERFORMANCE CLIMB

5.1 Climb After Take-off

(Start above 3000 feet AGL and below FL 70)

Select left generator off; confirm satisfactory behaviour; and that EFIS blanking does not occur. SAT/UNSAT

Shut down LEFT engine with APR off, using the stop switch
Note any unusual characteristics and satisfactory NTS behaviour.

Feather Left Propeller.

Carry out an engine out take-off climb for 5 minutes on a constant heading, clear of cloud, turbulence, wave effects and inversions using not more than 5 degrees of bank towards the operative engine with :

Flaps 9
Gear up
Left engine inoperative, propeller feathered, fuel off
Right engine go-around power (Table 2 or 5)
Maximum RPM; synchroniser off
Flow set to zero
Anti-icing off
Airspeed V2 (Table 1 or 4) KNOTS

Altimeter set to 1013 mb

Record: Aircraft weight at start of climb.

Zero fuel weight	
Fuel contents	
Aircraft weight	

TIME	ALTIMETER	IAS	SAT	TORQUE
(mins)	(feet)	(knots)	(°C)	%
0				
½				
1				
1½				
2				
2½				
3				
3½				
4				
4½				
5				

TRIMMER SETTINGS

ELEVATOR	
RUDDER	
AILERON	

ASI COMPARISON

CAPTAIN	
CO-PILOT	

ENGINE READINGS AT 2 MINS

	R
TQ	
EGT	
RPM	

FUEL CONTENTS

If further climbs are required by SB J41-61-013 go to page 20

6. RELIGHT

At 150 knots relight the left engine using normal procedures.

RECORD:

Time to flight idle	secs
Maximum EGT	°C

(< 60 secs)

7. SHUT-DOWN and RELIGHT

Select right generator off; confirm satisfactory behaviour SAT/UNSAT
ARM APR
With the left engine set to about 80% torque, right engine at Flight Idle, shut down right engine using the LP fuel cock switch.

Note any unusual characteristics, confirm autofeather of right engine and APR operation on left engine.

Without APR	Torque:	EGT:
With APR	Torque:	EGT:

Select LP fuel cock back on.

DESELECT APR

At 150 knots relight the right engine using normal procedures.

Record:

Time to flight idle	secs
Maximum EGT	°C

8. PRESSURISATION

With the cabin at maximum obtainable differential, in MANUAL.

Record:

MAXIMUM CABIN DIFFERENTIAL	PSI

(5.9 - 6.1 PSI)

Confirm little change with each flow controller to OFF in turn. SAT/UNSAT

9. PRESSURISATION (ABOUT FL 170)

With the pressurisation controller in AUTO, raise the cabin altitude by setting a landing altitude of 11,000 feet.

Record:

CABIN ALTITUDE AT AUDIO WARNING	FEET

(9,500 - 10,500 FEET)

If automatic dropout fitted:

Select both flow controllers off. Select the manual control knob on the Pressurisation Controller to a mid position and the AUTO/MAN switch to MAN. Increase cabin altitude by selecting the control knob to UP. Record:

CABIN ALTITUDE WHEN OXYGEN CAPTION ILLUMINATES	FEET

(11,000 - 12,000 FEET)

Repressurise by selecting flows on, then reselect AUTO. Set a low landing altitude.

10. CONTROLS AND TRIMMERS

Establish a high speed cruise and check flying controls for break out, backlash, weight and response	SAT/UNSAT
Check trimmers for friction backlash and response.	SAT/UNSAT

11. HIGH IAS (below 17400 feet)

Accelerate to not more than 255 knots. Confirm airspeed readout turns red and record airspeed when audio warning sounds.

WARNING SPEED	KNOTS

(252 - 254 knots)

12. STALLING (not below FL 80)

With flap and gear up, idle power, 100% RPM carry out a stall from a 1.4 V_S trim speed, decelerating at 1 knot/second. Scheduled speeds are given in Table 1 or 4.

Record:

Zero fuel weight	
Fuel contents	
Aircraft weight	

Trim speed	knots	Trim setting	
Scheduled warning	knots	Achieved warning	knots
Scheduled push	knots	Achieved push	knots
		Achieved minimum	knots

Time flaps from up to 9 degrees	secs (2-5 seconds)

Carry out a 9 flap, gear up, idle power stall from a 1.4 VS trim speed decelerating at 1 knot/second.

Record:

Zero fuel weight	
Fuel contents	
Aircraft weight	

Trim speed	knots	Trim setting	
Scheduled warning	knots	Achieved warning	knots
Scheduled push	knots	Achieved push	knots
		Achieved minimum	knots

PUT ENG/ELEV ANTI-ICE on, and repeat stall to STICK PUSH.

Trim speed	knots	Trim setting	
Scheduled warning	knots	Achieved warning	knots
Scheduled push	knots	Achieved push	knots

Time gear down at 120 knots	secs(10 seconds max)

Time flaps from 9 to 15 degrees	secs (2-5 seconds)

Select ice mode off by putting ENG/ELEV Anti-ice OFF and pushing ice mode push button.	SAT/UNSAT

Carry out a 15 flap, gear down, idle power stall from a 1.4 VS trim speed decelerating at 1 knot/second.

Record:

Zero fuel weight	
Fuel contents	
Aircraft weight	

Trim speed	knots	Trim setting	
Scheduled warning	knots	Achieved warning	knots
Scheduled push	knots	Achieved push	knots
		Achieved minimum	knots

Time flaps from 15 to 25 degrees at 130 knots	secs

Carry out a 25 flap, gear down, idle power stall from a 1.4 V_S trim speed decelerating at 1 knot/second.

Record:

Zero fuel weight	
Fuel contents	
Aircraft weight	

Trim speed	knots	Trim setting	
Scheduled warning	knots	Achieved warning	knots
Scheduled push	knots	Achieved push	knots
		Achieved minimum	knots

Time flaps from 25 to up at 140 knots	secs (7 seconds max)
Time gear UP at 140 knots	secs (9 seconds max)

13. NORMAL LANDING

Using high level of reverse power.	SAT/UNSAT

14. AFTER LANDING

During taxy check emergency brakes. SAT/UNSAT

15. CHANGEOVERS

Confirm satisfactory operation of ADC/SG/AHRS changeover switches. SAT/UNSAT

16. POST FLIGHT ACTIONS

16.1 Check all cockpit placards and warning notices for presence, accuracy and legibility. SAT/UNSAT

16.2 Check all filaments are working correctly in cockpit switchlights SAT/UNSAT

16.3 Complete the statement of defects and sign the Flight Test Certificate and state whether or not the aeroplane needs to be reflown.

16.4 Before the Check Flight certificate is completed (first 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 Check Flight is signed off as being successfully completed. Results should be recorded on the front sheet.

	CLEAN			9 FLAP			15 FLAP			25 FLAP		
LBS	1.4 VS	SHAKE	PUS	1.4VS	SHAKE	PUS	1.4VS	SHAKE	PUS	1.4VS	SHAKE	PUS
21000	141	108	101	131	99	93	126	95	89	118	90	84
20500	140	106	100	129	98	92	124	94	88	117	90	83
20000	138	105	99	128	97	91	123	93	87	116	89	83
19500	137	104	97	126	96	90	122	92	86	115	88	82
19000	135	103	96	125	95	89	120	91	85	113	87	81
18500	134	102	95	123	94	88	119	90	84	112	86	80
18000	132	101	94	122	93	87	117	89	83	111	85	79

LBS	V2 9 FLAP	EN-ROUTE CLIMB	9 FLAP ICING		
21000	113	128	143	109	102
20500	112	127	141	108	101
20000	110	125	140	106	100
19500	109	124	138	105	98
19000	107	122	137	104	97
18500	106	120	135	103	96
18000	105	119	134	102	95

1500 SHP RATING - OLD STATIC PLATES

TABLE 1

CLIMB AFTER TAKE-OFF TORQUE SETTING (IN-FLIGHT TAKE-OFF TORQUE)

FLOW SELECTORS OFF - APR OFF

Pressure altitude (feet x 1000)

SAT°C	SL	1	2	3	4	5	6	7	8
38	96.7	93.1	89.7	86.3	83.1	79.9	76.8	73.8	70.9
36	98.6	95.0	91.5	88.1	84.8	81.5	78.4	75.4	72.4
34	100.0	96.8	93.3	89.8	86.4	83.1	79.9	76.8	73.9
32		98.7	95.1	91.6	88.2	84.8	81.6	78.4	75.3
30		100.0	96.9	93.3	89.9	86.5	83.2	80.0	76.8
28			98.7	95.1	91.5	88.1	84.8	81.5	78.4
26			100.0	96.7	93.2	89.7	86.3	83.0	79.7
24				98.4	94.8	91.3	87.8	84.4	81.1
22				100.0	96.4	92.8	89.3	85.9	82.5
20					97.8	94.2	90.6	87.2	83.8
18					99.3	95.6	92.0	88.5	85.1
16					100.0	97.0	93.3	89.8	86.3
14						98.5	94.8	91.1	87.6
12						99.9	96.1	92.3	88.8
10						100.0	97.5	93.8	90.2
8							99.2	95.3	91.6
6		Torque is					100.0	96.8	93.1
4		100%						98.3	94.6
2		in this						99.8	96.0
0		area						100.0	97.5
-2									99.0
-4									100.0
-6									
-8									
-10									
-12									
-14									
-16									
-18									
-20									

1500 SHP ENGINES

TABLE 2

EN-ROUTE CLIMB TORQUE SETTING (MAX. CONTINUOUS)

FLOW SELECTOR 5

Pressure altitude (feet x 1000)

SAT°C	SL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
+30	100	97	93	90	86	83	80	77	74	71	68					-
+28	100	97	94	90	87	84	81	78	76	73	70					-
+26	100	97	94	91	88	85	82	79	77	74	71					-
+24	100	100	97	93	90	86	83	80	78	75	72	69	66	64	61	58
+22	100	100	97	94	91	88	85	82	79	76	73	70	67	65	62	59
+20	100	100	97	95	92	89	86	83	79	76	73	70	68	65	63	60
+18	100	100	100	97	93	90	87	84	80	77	74	71	69	66	64	61
+16	100	100	100	97	94	91	88	85	81	78	75	72	69	67	64	61
+14	100	100	100	98	95	93	90	86	83	79	76	73	70	68	65	62
+12	100	100	100	100	97	94	91	87	84	80	77	74	71	69	66	63
+10	100	100	100	100	98	95	92	88	85	81	78	75	72	70	67	64
+8	100	100	100	100	98	96	92	89	85	82	78	75	72	70	67	64
+6	100	100	100	100	100	97	93	90	86	83	79	76	73	71	68	65
+4	100	100	100	100	100	98	94	91	87	84	80	77	74	72	69	66
+2	100	100	100	100	100	99	95	92	88	85	81	78	75	72	69	66
0	100	100	100	100	100	100	96	93	89	86	82	79	76	73	70	67
-2	100	100	100	100	100	100	97	93	90	86	83	80	77	73	70	67
-4	100	100	100	100	100	100	97	94	90	87	84	81	78	74	71	68
-6	100	100	100	100	100	100	97	94	91	88	85	82	79	75	72	69
-8	100	100	100	100	100	100	100	97	93	90	86	83	80	76	73	70
-10	100	100	100	100	100	100	100	98	95	92	87	84	81	77	74	71
-12	100	100	100	100	100	100	100	98	96	93	88	85	82	78	75	72
-14	100	100	100	100	100	100	100	100	97	94	90	86	83	79	76	72
-16	100	100	100	100	100	100	100	100	98	95	91	88	84	81	77	73
-18	100	100	100	100	100	100	100	100	99	96	92	88	85	81	78	74
-20	100	100	100	100	100	100	100	100	100	97	93	89	86	82	79	75
-22	100	100	100	100	100	100	100	100	100	98	94	90	87	83	80	76
-24											95	91	88	84	81	77
-26																77
-28																78
-30																79

1500 SHP ENGINES

TABLE 3

	CLEAN			9 FLAP			15 FLAP			25 FLAP		
LBS	1.4 VS	SHAKE	PUS	1.4VS	SHAKE	PUS	1.4VS	SHAKE	PUS	1.4VS	SHAKE	PUS
21000	147	109	105	133	101	95	127	97	91	123	93	88
20500	146	108	104	132	100	94	126	96	90	122	92	87
20000	144	107	103	130	99	93	125	95	89	120	91	86
19500	143	106	102	129	97	92	123	94	88	118	90	84
19000	140	105	100	126	96	90	123	93	88	116	89	83
18500	139	104	99	125	95	89	122	92	87	115	88	82
18000	137	102	98	123	94	88	120	90	86	113	87	81

LBS	**V2 9 FLAP**	**EN-ROUTE CLIMB**	**9 FLAP ICING**		
21000	112	128	143	108	102
20500	111	127	141	107	101
20000	109	125	140	106	100
19500	108	124	139	104	99
19000	106	122	136	103	97
18500	104	120	134	102	96
18000	103	119	133	101	95

1650 SHP RATING - NEW STATIC PLATES

TABLE 4

CLIMB AFTER TAKE-OFF TORQUE SETTING (IN-FLIGHT TAKE-OFF TORQUE)

FLOW SELECTORS OFF - APR OFF

Pressure altitude (feet x 1000)

SAT°C	SL	1	2	3	4	5	6	7	8
38	88.0	85.0	82.5	78.9	75.5	72.5	69.8	67.0	64.3
36	89.6	86.5	83.3	80.2	77.1	74.0	71.2	68.3	65.7
34	91.3	88.0	85.0	81.7	78.6	75.5	72.6	69.7	67.0
32	93.2	89.7	86.5	83.2	80.3	77.0	74.2	71.2	68.3
30	94.8	91.3	88.0	84.7	81.6	78.6	75.5	72.5	69.8
28	96.8	93.0	89.7	86.4	83.2	80.2	77.0	73.8	71.0
26	98.6	94.9	91.4	88.0	84.8	81.7	78.4	75.3	72.3
24	100.0	96.6	93.4	89.4	86.2	83.0	79.8	76.6	73.6
22	100.0	98.2	94.6	91.0	87.6	84.5	81.2	78.0	74.9
20		99.8	96.0	92.4	88.8	85.7	82.4	79.3	76.2
18		100.0	97.4	93.8	90.3	87.0	83.8	80.5	77.4
16			98.8	95.2	91.6	88.3	84.8	81.6	78.4
14			100.0	96.5	92.8	89.8	86.0	82.8	79.6
12				98.2	94.3	91.0	87.3	84.0	80.7
10				99.5	95.8	92.3	88.6	85.3	82.0
8				100.0	97.3	93.6	90.2	86.7	83.3
6		Torque is			98.8	95.2	91.4	88.2	84.7
4		100%			100.0	96.7	92.9	89.6	86.0
2		in this				98.2	94.2	90.8	87.3
0		area				99.6	95.7	92.3	88.7
-2						100.0	97.8	93.5	90.0
-4							98.7	94.6	91.2
-6							100.0	96.2	92.5
-8								97.5	93.7
-10								98.7	95.0
-12								100.0	96.3
-14									97.5
-16									98.7
-18									100.0
-20									

1650 SHP ENGINES

TABLE 5

EN-ROUTE CLIMB TORQUE SETTING (MAX. CONTINUOUS)

FLOW SELECTOR 5

Pressure altitude (feet x 1000)

SAT°C	SL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
+30	91	88	85	81	78	75	72	70	67	65	62	60	58			
+28	92	89	86	82	79	76	73	71	68	66	63	61	58	56		
+26	94	91	87	84	80	77	75	74	72	71	69	66	63	59	56	53
+24	96	93	89	86	82	79	76	73	71	68	65	63	60	58	55	53
+22	98	94	91	87	84	80	77	74	72	69	66	64	61	59	56	54
+20	99	95	92	88	85	81	78	75	73	70	67	65	62	60	57	55
+18	100	96	93	89	86	82	79	76	74	71	68	65	63	60	58	55
+16	100	97	93	90	86	83	80	77	75	72	69	66	64	61	59	56
+14	100	97	94	90	87	84	81	78	75	72	69	67	64	62	59	57
+12	100	100	96	93	89	85	82	79	76	73	70	67	65	62	60	57
+10	100	100	97	93	90	86	83	80	77	74	71	68	66	63	61	58
+8	100	100	97	94	90	87	84	81	77	74	71	68	66	63	61	58
+6	100	100	97	94	91	88	85	82	78	75	72	69	67	64	62	59
+4	100	100	100	96	93	89	86	83	79	76	73	70	67	65	62	59
+2	100	100	100	97	93	90	87	83	80	76	73	70	68	65	63	60
0	100	100	100	97	94	91	88	84	81	77	74	71	69	66	64	61
-2	100	100	100	100	96	92	88	85	82	78	75	72	69	67	64	61
-4	100	100	100	100	97	93	90	86	83	79	76	73	70	68	65	62
-6	100	100	100	100	97	94	91	87	84	80	77	74	71	69	66	63
-8	100	100	100	100	98	95	92	88	85	81	78	75	72	69	66	63
-10	100	100	100	100	100	97	93	90	86	83	79	76	73	70	67	64
-12	100	100	100	100	100	98	94	91	87	84	80	77	74	71	68	65
-14	100	100	100	100	100	99	95	92	88	85	81	78	75	72	69	66
-16							96	92	89	85	82	79	76	72	69	66
-18							97	93	90	86	83	80	77	73	70	67
-20								94	91	81	84	81	78	74	71	68
-22									92	89	85	82	79	75	72	69
-24										89	86	83	80	76	73	70
-26											87	84	80	77	73	70
-28												84	81	78	75	71
-30														79	76	72

1650 SHP ENGINES

TABLE 6

Carry out an engine out take-off climb for 5 minutes on a reciprocal heading to that used for the climb in paragraph 5.1, clear of cloud, turbulence, wave effects and inversions using not more than 5 degrees of bank towards the operative engine with :

Flaps 9
Gear up
Left engine inoperative, propeller feathered, fuel off
Right engine go-around power (Table 2 or 5)
Maximum RPM; synchroniser off
Flow set to zero
Anti-icing off
Airspeed V2 (Table 1 or 4) KNOTS
Altimeter set to 1013 mb

Record: Aircraft weight at start of climb.

Zero fuel weight	
Fuel contents	
Aircraft weight	

TIME (mins)	ALTIMETER (feet)	IAS (knots)	SAT (°C)	TORQUE %
0				
½				
1				
1½				
2				
2½				
3				
3½				
4				
4½				
5				

TRIMMER SETTINGS

ELEVATOR	
RUDDER	
AILERON	

ASI COMPARISON

CAPTAIN	
CO-PILOT	

ENGINE READINGS AT 2 MINS

	R
TQ	
EGT	
RPM	

FUEL CONTENTS

RELIGHT

At 150 knots relight the left engine using normal procedures.

Time to flight idle	secs	(< 60 secs)
Maximum EGT	°C	

Select right generator off; confirm satisfactory behaviour SAT/UNSAT
ARM APR and with the left engine set to about 80% torque, right engine at Flight Idle, shut down right engine using the LP fuel cock switch.

Note any unusual characteristics, confirm autofeather of right engine and APR operation on left engine.
Select LP fuel cock back on.
DESELECT APR

	Torque	EGT
Without APR		
With APR		

Carry out an engine out take-off climb for 5 minutes on a reciprocal heading to that used for the climb in paragraph 5.1, clear of cloud, turbulence, wave effects and inversions using not more than 5 degrees of bank towards the operative engine with :

Flaps 9
Gear up
Right engine inoperative, propeller feathered, fuel off
Left engine go-around power (Table 2 or 5)
Maximum RPM; synchroniser off
Flow set to zero
Anti-icing off
Airspeed V2 (Table 1 or 4) KNOTS
Altimeter set to 1013 mb

Record: Aircraft weight at start of climb.

Zero fuel weight	
Fuel contents	
Aircraft weight	

TIME (mins)	ALTIMETER (feet)	IAS (knots)	SAT (°C)	TORQUE %
0				
½				
1				
1½				
2				
2½				
3				
3½				
4				
4½				
5				

TRIMMER SETTINGS

ELEVATOR	
RUDDER	
AILERON	

ASI COMPARISON

CAPTAIN	
CO-PILOT	

ENGINE READINGS AT 2 MINS

	L
TQ	
EGT	
RPM	

FUEL CONTENTS

Carry out an engine out take-off climb for 5 minutes on a reciprocal heading to that used for the previous climb, clear of cloud, turbulence, wave effects and inversions using not more than 5 degrees of bank towards the operative engine with :

Flaps 9
Gear up
Right engine inoperative, propeller feathered, fuel off
Left engine go-around power (Table 2 or 5)
Maximum RPM; synchroniser off
Flow set to zero
Anti-icing off
Airspeed V2 (Table 1 or 4) KNOTS

Altimeter set to 1013 mb

Record: Aircraft weight at start of climb.

Zero fuel weight	
Fuel contents	
Aircraft weight	

TIME	ALTIMETER	IAS	SAT	TORQUE
(mins)	(feet)	(knots)	(°C)	%
0				
½				
1				
1½				
2				
2½				
3				
3½				
4				
4½				
5				

TRIMMER SETTINGS

ELEVATOR	
RUDDER	
AILERON	

ASI COMPARISON

CAPTAIN	
CO-PILOT	

ENGINE READINGS AT 2 MINS

	R
TQ	
EGT	
RPM	

FUEL CONTENTS

RELIGHT

At 150 knots relight the left engine using normal procedures.

Time to flight idle	secs	(< 60 secs)
Maximum EGT	°C	

Return to page 8, test 8

The following climb is no longer required for a renewal airtest but is left here for the future.

PERFORMANCE EN-ROUTE CLIMB

Carry out a single engine en-route climb for 5 minutes on a constant heading, clear of cloud, turbulence, wave effects and inversions using not more than 5 degrees of bank towards the operative engine with :

Flaps up
Gear up
Right engine inoperative and propeller feathered
Left engine maximum continuous power (see Table 3 or 6)
Anti-icing off; 100% RPM
Flow set to 5 (reduce if necessary to achieve required power within EGT limits)
En-route climb speed (see Table 1 or 4) _____ knots

altimeter set to 1013 mb

Zero fuel weight	
Fuel contents	
Aircraft weight	

Record:

TIME	ALTIMETER	IAS	SAT	TORQUE
(mins)	(feet)	(knots)	(°C)	%
0				
½				
1				
1½				
2				
2½				
3				
3½				
4				
4½				
5				

TRIMMER SETTINGS

ELEVATOR	
RUDDER	
AILERON	

ASI COMPARISON

CAPTAIN	
CO-PILOT	

ENGINE READINGS AT 2 MINS

	L
TQ	
EGT	
RPM	

Record :

Zero fuel weight	
Fuel contents	
Aircraft weight	