CHECK FLIGHT CERTIFICATE

B777-200
GE90-76B/85B & RR Trent 895 engines

CFS 282 issue 1

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	-120	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

CFS 282 issue 1 B777-200

INTRODUCTION

This schedule is applicable only to Boeing 777 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 undesireable must be recorded.

The minimum flight crew for this test shall 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. Passenger drop-out oxygen panels should be taped before flight. The test should, if possible, be carried out in the sequence as written; altitude conditions must be observed.

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 (Design and Manufacturing Standards Division) should be informed.

The crew of the aircraft must be familiar with the contents of this schedule before flight. In addition the pilot conducting the tests must be specifically approved by the CAA for carrying out check flights on Boeing 777.

LOADING AND CALCULATION OF WEIGHT

The aircraft is to be loaded to between 180,000 kg and 190,000 kg and a CG within normal limits. The actual values shall be recorded; where specific tests require the aircraft weight to be recorded, it shall be calculated from the "fuel quantity".

POST-FLIGHT ACTION

Complete a statement of defects, sign the Check Flight Certificate and state clearly whether or not the aircraft needs to be re-flown. Pass the completed Check Flight schedule to the CAA.

PERFORMANCE CLIMB AND STALL CHECK SPEEDS

Gross weight (1000 lbs/kgs)	15 flap V2 knots	ERC knots
320/145	126	194
330/150	126	197
340/154	126	200
350/159	126	203
360/163	126	206
370/168	127	208
380/172	129	212
390/177	131	214
400/181	132	217
410/186	134	220
420/191	135	223

Altitude (FL)	Aileron lockout speed band-knots
90 & less	270-280
100	267-280
110	262-280
120	257-280
130	253-275
140	248-270
150	243-265
160	237-259
170	232-254
180	230-249
190	230-244
200-250	230-240

Flaps	Up	Up	Up	5	5	5	30	30	30
Altitude	FL100	FL150	FL200	FL100	FL150	FL200	FL100	FL150	FL200
Weight lbs/kgs (x 1000)									
320/145	142	145	148	110	111	112	96	96	97
330/150	144	147	150	112	112	114	98	98	99
340/154	147	150	152	113	114	115	99	99	100
350/159	149	152	155	115	116	117	101	101	102
360/163	151	155	157	117	117	119	102	103	103
370/168	153	158	159	118	119	120	104	104	105
380/172	155	160	161	120	121	122	105	105	106
390/177	158	162	163	122	123	124	107	107	108
400/181	160	164	165	123	124	125	108	108	109
410/186	163	166	167	125	126	127	109	109	111
420/191	166	169	170	127	128	129	111	111	112

TOLERANCES & NOTES for the stall warning
+/- 5 knots IAS flaps up
+/- 4 knots IAS flaps 5 and 30
Table assumes shaker is latched to the icing level.
If anti-ice has not been turned on then the following corrections apply:
Flaps up - reduce shake speed by 9 knots
Flaps 5 - reduce shake speed by 5 knots
Flaps 30 - reduce speed by 3 knots
Table assumes 25% MAC.
C of G variations have the following effect:
4% aft shift - reduce shake by 1 knot
4% forward shift - increase shake by 1 knot
Table assumes idle power.

B777-200 maximum reverse powers

GE90-76B Maximum Reverse power

Degrees C	-20	-15	-10	-5	0	5	10	15	20	25	30
Degrees F	-4	5	14	23	32	41	50	59	68	77	86
% N1	65.6	66.2	66.9	67.6	68.2	68.8	69.4	70.0	70.6	71.2	71.8

GE90-85B Maximum Reverse power

Degrees C	-20	-15	-10	-5	0	5	10	15	20	25	30
Degrees F	-4	5	14	23	32	41	50	59	68	77	86
% N1	66.7	67.2	68.0	68.5	69.0	69.8	70.4	70.9	71.7	72.3	73.0

RR TRENT 895 Maximum Reverse power

Degrees C	-20	-15	-10	-5	0	5	10	15	20	25	30
Degrees F	-4	5	14	23	32	41	50	59	68	77	86
% N1	70.8	71.5	72.0	72.8	73.5	74.2	74.9	75.3	76.2	76.8	77.5

PRE-FLIGHT INFORMATION

Operator		
Time :	Chocks Under	
	Chocks Away	
	Total Chock to Chock	
Time :	Landing	
	Take-off	
	Total Airborne	

TEST SCHEDULE

Except where otherwise indicated the flight techniques are those associated with normal operation of the aircraft. Fuel asymmetry must be maintained across the aircraft particularly during and after the engine out climb.

A Before Starting Engines

A1 Fire Warning

FIRE/OVHT 'TEST' switch PUSH (hold for 15 seconds)

Both aural warning speaker bells sound
Both master warning lights illuminate
All fire warning red lights illuminate

FIRE TEST IN PROG (followed by)
FIRE TEST PASS

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A2 Configuration Warnings

Initiate Take-Off Configuration Warning test from Maintenance Access Terminal, with		Master warning lights illuminate, SIREN sounds and Warning messages appear:
Slats or flaps not in take-off position Parking brake handle set Rudder trim not within 2 units of zero Speedbrake lever not in 'DOWN' detent Stabiliser position out of greenband Tiller not centered Any entry or cargo door open		**CONFIG FLAPS** **CONFIG PARKING BRAKE** **CONFIG RUDDER** **CONFIG SPOILERS** **CONFIG STAB** **CONFIG GEAR STEERING** **CONFIG DOOR**

Initiate STALL WARNING test from Maintenance Access Terminal		Left and right stick shakers vibrate the left and right control columns.
Initiate GROUND PROXIMITY WARNING test from Maintenance Access Terminal		Appropriate voice aurals sound
Initiate TRAFFIC COLLISION AVOIDANCE SYSTEM test from Maintenance Access Terminal		TCAS SYSTEM TEST OK aural sounds

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Select:
ONBOARD MAINTENANCE
LINE MAINTENANCE
GROUND TESTS 27 STALL WARNING MANAGEMENT - SYSTEM TEST
34 TCAS - SYSTEM TEST
34 GPWS - SYSTEM TEST
31 WES - SYSTEM TEST

1. Fuel quantities

Record EICAS and FMC fuel quantities

Synoptic	L=	C=	R=
Synoptic	Total=		
EICAS	Total=		
FMC	Total=		

2 Engine start

Start engines using AUTO START procedures	
As first engine is selected to start	L & R PACK 'OFF' lights illuminate with no messages Synoptic page shows pack & isolation valve operation Both packs remain OFF for two minutes or until second engine has reached minimum idle L/R BLEED air 'OFF' lights extinguish

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3 Take-Off Configuration Warning

SET the parking brake		**PARKING BRAKE SET**
Advance either or both engine(s) above 60% N1		MASTER WARNING red light & aural **CONFIG PARKING BRAKE**
PUSH Master warning light		Cannot silence warning
Parking brake release -		Warnings extinguish
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4. Take-Off

Carry out a normal take-off.

TOGA switch PUSH — Both thrust levers advance together to selected take-off thrust
At 80 knots 'HOLD' is annunciated on PFD

Record any unusual characteristics.

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5. Flight Controls (FL100-FL250)

Operate flight controls in all three axes	Aircraft responds satisfactorily STAB 'GREENBAND' disappears
Alternate 'PITCH TRIM'	Observe proper operation Alternate pitch trim levers control stabiliser
Roll the aircraft to more than 30 degrees bank	Bank angle protection PFD bank angle indication Control wheel forces increase Aircraft maintains 30 degrees bank with control wheel release
Aileron and spoiler lockout -increase airspeed with outboard ailerons deflected	Outboard ailerons and #5/#10 spoilers are locked out at airspeeds within band given in table on page 2

	TARGET	ACHIEVED
Record speed		knots

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6. Performance/Engine relight

If required, carry out performance climbs - see appendix 1.
If not required, carry out relight as follows.
Idle RIGHT engine for 3 minutes before shutting down.
RR TRENT 895 engines : At FL 150, relight right engine at 220 knots
GE90 engines : Below FL 250, relight right engine at 220 knots.

Record : Altitude [ ] TAT [ ]

Engine windmilling speed N2		
Time to EGT rise		30 seconds max.
Maximum EGT during relight		
Time to idle		

NOTE: Following relight, the engine must be left at stabilised idle for one minute before power is increased.

7. Pressurisation FL150-250

Select manual landing altitude by pulling out on 'LDG ALT' knob		ECS DATA block appears on upper EICAS **LANDING ALTITUDE**
Rotate knob to 'INCR'		'LANDING MAN' increases to 10000 - 15000 feet and cabin climbs to 8000 feet at 500 ft/min.
Push FWD & AFT outflow valve switches to 'MAN'		**CABIN ALTITUDE AUTO**
Toggle outflow switches towards 'OPEN'		Cabin altitude climbs
Push in 'LDG ALT' knob		
Record Cabin Altitude when warning occurs (9200 - 10,800 feet)		feet
Confirm correct operation of crew oxygen masks and microphones		SAT/UNSAT
Record automatic oxygen deployment (13,200 - 13,800 feet)		feet
Lower cabin altitude to below 10000 feet		
Push FWD & AFT outflow valve switches to 'AUTO'		ECS DATA block goes from upper EICAS when cabin is below 8000 feet
Record oxygen panels which do not open		
Select passenger oxygen to reset		
		SAT/UNSAT

8. Fuel

8.1 Fuel Jettison

NOTE: Jettison minimum amount of fuel to check system operation.

FUEL JETTISON ARM switch 'ARMED'		FUEL JETTISON ARM 'ARMED' illuminate and fuel remaining replaces Fuel Temp on EICAS (Max landing weight minus zero fuel weight)
FUEL JETTISON FUEL TO REMAIN selector 'PULL ON'		Slew towards 'DECR' to lower Fuel remaining on EICAS-first detent 1000 lbs/sec, second detent 5000 lbs/sec. Slew fuel remaining to 1000 lbs/500 kgs above Total Fuel indication L & R NOZZLE switches 'ON' No fuel flow from jettison nozzles Slew fuel remaining to 1000 lbs/500 kgs Fuel flows from jettison nozzles below total fuel Electrical load increases as pumps run Synoptic page shows fuel jettison When fuel remaining = fuel total, jettison stops
FUEL JETTISON ARM & NOZZLE switches 'OFF'		
FUEL JETTISON FUEL TO REMAIN selector PUSH		FUEL JETTISON system restored
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8.2 Fuel Crossfeed

FWD FUEL CROSSFEED switch 'OPEN' Push RIGHT & CENTRE FUEL PUMP switches 'OFF'		Verify both engines fuel supply from left tank **FUEL IN CENTRE** **FUEL PUMP R AFT** **FUEL PUMP R FWD**
AFT FUEL CROSSFEED switch 'OPEN' FWD FUEL CROSSFEED switch CLOSED' RIGHT FUEL PUMP switches 'ON' LEFT FUEL PUMP switches 'OFF'		Verify both engines fuel supply from Right tank **FUEL PUMP L AFT** **FUEL PUMP L FWD**
LEFT & CENTRE FUEL PUMP switches 'ON' AFT FUEL CROSSFEED switch 'CLOSED'		Fuel system restored to normal fuel feed. All fuel advisories extinguished.
		SAT/UNSAT

9. Pressurisation **9.3 PSI MAXIMUM**

At a cruise altitude above 39000 feet record differential pressure (8.4-8.7 PSI)		PSI
In MANUAL, toggle outflow switches towards 'CLOSE'		
Cabin descends to maximum pressure relief. Record pressure (8.8-9.2 PSI)		PSI
Return pressurisation to AUTO		
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10. APU start and electrics

APU BLEED AIR switch 'OFF'	
Start APU	APU starts on electric motor and operates normally
APU GEN switch 'OFF'	APU GEN 'OFF' light illuminates **ELEC GEN OFF APU**
L GEN CONT switch 'OFF'	L GEN CTRL 'OFF' light illuminates R generator powers the L main AC bus, L backup generator supplies the left transfer bus **ELEC GEN OFF L** **ELEC GEN OFF APU**
APU GEN switch 'ON'	APU GEN 'OFF' light extinguishes,L AC bus powered by APU generator. L transfer bus repowered by main AC bus (15 second time delay) **ELEC GEN OFF L**
R GEN CONT switch 'OFF'	R GEN CONTROL 'OFF' light illuminates, APU generator supplies the l & R main AC busses, R backup generator supplies the R transfer bus. **ELEC GEN OFF R** **ELEC GEN OFF L**
L GEN CTRL switch 'ON'	L GEN CTRL 'OFF' light extinguishes, L generator powers L main AC busses, R transfer bus powered by main AC bus (15 second delay).
APU GEN switch 'OFF'	**ELEC GEN OFF APU** **ELEC GEN OFF R**
R GEN CTRL switch 'ON'	R GEN CTRL 'OFF' light extinguishes, R generator powers the R AC bus. **ELEC GEN OFF APU**
APU GEN switch 'ON'	Electrical system restored to normal.
APU BLEED AIR switch 'AUTO'	Bleed air system restored to normal

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11 Overspeed Warning-Mmo

With target speed beyond Mmo accelerate the aircraft		Autothrottle protects from overspeed
Autothrottle 'DISC'		**AUTOTHROTTLE DISC**
Accelerate aircraft		**OVERSPEED**
		At Mmo nose down normal trim inhibited. Mmo + 6 knots gives a 3 pound increase in feel force.
Record speed of overspeed warning on Captains display (.875 - .885 IMN)		IMN
Deploy speedbrakes		No aircraft roll off
Speedbrakes down		
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12 Engine Relight (FL 330 and 270 knots)

GE90 engines - FL330 and 270 knots
TRENT 895 - FL 300 and 275 knots

Idle L engine for 3 minutes Open L ENG EDP SUPPLY VALVE C/B (B5) Lower EICAS display blank		
With the APU generator OFF, select the L Autothrottle 'OFF'		
L FUEL CONTROL switch 'OFF'		Lower EICAS display & inflight restart envelope, GEN CTRL 'OFF' light illuminates as engin decelerates, opposite backup gen powers transfer bus.
FUEL CONTROL switch 'RUN' when EGT is below 150 degreees C.		Engine starts
GEN CTRL switch cycle (if necessary)		Generator resumes normal operation
Restore c/b		
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13. Overspeed Warning Vmo

Below 30,000 feet & above 21,000 feet with autothrottle off, accelerate aircraft to 340 knots		
Master warning light with aural warning		**OVERSPEED**
Record speed of overspeed warning from Captains display (333 - 339 knots IAS)		knots
Deploy speedbrakes		No aircraft roll off
Speedbrakes down		
		SAT/UNSAT

14 Stall warning/Auto slat/Autothrottle

Ensure autothrottle is in SPD mode. Reduce speed slowly by selecting min IAS on MCP.		PLI appears Autothrottle maintains min speed (top of amber band)
Disconnect autothrottle		No PFC trim below min speed Flight Director disappears then autothrottle wakes up
Disarm autothrottle and reduce speed at 1 knot/sec		

Record stick shake speed.	Aircraft weight	kgs
	Target speed	kts
	Achieved speed	kts

Select flaps 5, reduce speed at 1 knot/sec and record stick shake speed.

Aircraft weight	kgs
Target speed	kts
Achieved speed	kts

Select gear down, select flaps 30, reduce speed at 1 knot/sec and record stick shake speed.

Aircraft weight	kgs
Target speed	kts
Achieved speed	kts

Select flaps 15

Time gear up(less than 16 seconds)	seconds

Retract flaps

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15. **FUNCTIONING** Flight level 100 (Flight level 100 - 50 for 15.1 onwards).

15.1 Alternate/secondary flap

Observe flap limit speeds		
Select AUTOTHROTTLE 'ON' with minimum speed		Check speed tracks above min manoeuvering speed.
Push ALTN flap ARM switch to 'ALTN'		**FLAP/SLAT CONTROL**
Rotate ALTN flap switch to 'EXT'		rotate ALTN flap switch to 'EXT'
rotate ALTN flap switch to 'EXT'		
Flaps extend to 20		
Record extension times.		
LE (48 to 68 secs)		secs
TE (151 to 171 secs)		secs
Autothrottles 'OFF'		
Flap handle to 20		
ALTN flap ARM switch 'OFF'		
ALTN flap switch 'OFF'		
ALTN flap switch 'OFF'		
'C HYD' system OFF		
Flap handle to 30		Flaps & slats operate in secondary mode. **FLAPS PRIMARY FAIL** **SLATS PRIMARY FAIL**
With landing gear up and landing flaps Master warning lights and aural		**CONFIG GEAR**
Push GND PROX GEAR switch		Master warning lights can be cancelled siren silences.
Restore 'C HYD' system to ON Accelerate and retract the flaps.		Flaps & slats operate normally.
Restore GND PROX 'GEAR' switch		All cautions extinguish.
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15.2 PFC Secondary/Direct

PRIMARY FLIGHT COMPUTERS switch 'DISC' — PRIMARY FLIGHT COMPUTERS 'DISC' light illuminates.

PFC in 'DIRECT' mode

PRI FLIGHT COMPUTERS
THRUST ASYM COMP
NO AUTOLAND
AUTO SPEEDBRAKE

Primary PITCH TRIM from captain's & F/O's — Thumbswitch controls stabiliser

Initiate Dutch Roll with rudder pedals — Observe aircraft returns to stable flight
Observe rudder action on synoptic page.

PRIMARY FLIGHT COMPUTERS switch 'AUTO' — PFC 'DISC' light extinguishes,PFC in normal mode, Dutch Roll stops.

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15.3 EEC

With autothrottles off and with throttles in a mid position		
EEC switches 'ALTN' in turn.		
Engage autothrottle		Check autothrottle operates normally.
EEC switches back to normal		
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16. Alternate landing gear

With airspeed below 270 knots, select ALTN GEAR switch to 'DOWN' with the GEAR LEVER in the'UP' position.		EICAS gear display expands to 3 boxes, 'IN TRANSIT' (white crosshatch) followed by DOWN (green 'DN')
Time extension (45 secs max)		secs
		GEAR DISAGREE **GEAR DOOR** **AUTO SPEEDBRAKE** **TAIL SKID**
Select Landing Gear Lever 'DOWN' wait 90 seconds then select Gear 'UP'		All warnings return to normal
		SAT/UNSAT

17. RAT

Deploy RAT manually		Confirm green 'PRESS' light and correct indications on the HYD synoptic page
		SAT/UNSAT

18. Speedbrake warning

Above 800 feet radio altitude with flap 20 put speed brake lever aft of 'ARM' position and thrust lever to idle		No message
Below 800 feet, repeat the above		Caution aural and master caution light **SPEEDBRAKES EXTENDED**
Put speedbrake lever 'DOWN'		All warnings back to normal.
Speedbrake lever to 'ARM' for landing		
		SAT/UNSAT

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19. Landing

Carry out a normal landing.

Automatic speed brakes	Deploy if 'ARMED' upon touchdown Deploy if not 'ARMED' with reverse thrust.
Maximum reverse-thrust lever to FULL REVERSE	Amber 'REV' changes to green 'REV' within 3 seconds. Record maximun reverse:

All warnings return to normal	OAT=	Maximum N1=
	LH=	RH=

(within 2% of scheduled maximum)

Thrust lever to 'FWD IDLE'	'REV' disappears

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20. Engine Shutdown

Shut engines down using the fire handles.

Open L & R ENG EDP SUPPLY VALVE c/B (B5 & B20)

Pull LEFT ENGINE FIRE handle	Left engine shuts down
Left engine fuel switch to 'CUTOFF'	
Push LEFT ENGINE FIRE handle in	Monitor EGT and Fuel Flow
Pull RIGHT ENGINE FIRE handle	Right engine shuts down
Right engine fuel switch to 'CUTOFF'	APU bleed valve opens to supply L & R packs.
Push RIGHT ENGINE FIRE handle in	Monitor EGT and Fuel Flow.

Restore c/b's

Cycle GEN CTRL switches

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1. PERFORMANCE - TAKE-OFF CLIMB

1.1 Clear of cloud and turbulence carry out a measure climb for 5 minutes from a starting altitude between 4,000 ft and 7,000 ft.

Conditions
Gear up
Flaps 15
LEFT engine idle
RIGHT engine in flight go-around power N_1
2 A/C packs on
Engine anti-icing off
Recirc fans on
Aft cargo heat off
Pressurisation auto

Take-off safety speed V2 for the weight [ ]

Captain's altimeter set at 1013 mb.

Record : Altitude [ ] TAT [ ]

Thrust Computer Go-Around N1 [ ]

Flight Manual Go-Around N1 [ ]

If any discrepancy use the thrust computer power for the climb.

Fuel contents at start of climb. Total fuel [ ]

Time Mins	Altitude Captain's Altimeter	Speed Captain's A.S.I.	TAT	N_1	
				LEFT	RIGHT
0					
½					
1					
1½					
*2					
2½					
3					
3½					
4					
4½					
5					

Stabiliser [ ] Rudder [ ] Ailerons [ ]

ASI Comparison Captain [ ] First Officer [ ]

(Max difference 5 knots)

Fuel contents at end of climb. Total fuel [ ]

* After 3 minutes record the following engine parameters for left engine.

N1 [ ]

EGT [ ]

N2 [ ]

Fuel Flow [ ]

2. PERFORMANCE - ENGINE OUT EN-ROUTE CLIMB

Note: Leave No.2 engine at flight idle for 3 minutes before shutting off the fuel.

Start APU.
Clear of cloud and turbulence carry out a measured climb for 5 minutes from a starting altitude the higher of 5,000 ft above terrain or flight level 80 but not above flight level 160.

Conditions:

Gear up
Flaps up
Right engine inoperative
Left engine maximum continuous thrust
Pressurisation on; both a/c packs on
Engine anti-icing off, APU on
Airframe anti-icing off
Engine out en-route climb speed for the weight
Captain's altimeter set at 1013 mb

Fuel contents at end of climb. Total fuel	

Time Mins	Altitude Captain's Altimeter	Speed Captain's A.S.I.	TAT	N_1	
				LEFT	RIGHT
0					
½					
1					
1½					
*2					
2½					
3					
3½					
4					
4½					
5					

Stabiliser [ ] Rudder [ ] Ailerons [ ]

Fuel contents at end of climb. Total fuel [ ]

* After 3 minutes record the following engine parameters for left engine.

N1 [ ]

EGT [ ]

N2 [ ]

Fuel Flow [ ]

Engine Relighting

At the altitude prevailing at the end of the en-route climb relight right engine at 220 knots:

Record :	Altitude		TAT	

Engine windmilling speed N2		
Time to EGT rise		30 seconds max.
Maximum EGT during relight		
Time to idle		

NOTE: Following relight, the engine must be left at stabilised idle for one minute before power is increased.

SHUT DOWN APU.