CHECK FLIGHT CERTIFICATE

Learjet 40/45	**CFS 312 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	-100	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

LEARJET 40/45 **CFS 312, ISSUE 1**

Registration	
Flight Date	

INTRODUCTION

This schedule is applicable only to Learjet 40 or 45 series 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 flight 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) to carry out Check Flights on Lear 40/45 aircraft.

PASSENGERS

While it is 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.

UNITED KINGDOM AFM Supplement
Crew Training and Airworthiness Flight Testing

STALL IDENTIFICATION AND STALL WARNING SPEEDS

C.G. = 23.5% MAC

	GEAR/FLAP POSITION											
	UP/0°			DN/8°			DN/20°			DN/40°		
Weight -KG	Trim KIAS	Shkr KIAS	Aft Stop KIAS	Trim KIAS	Shkr KIAS	Aft Stop KIAS	Trim KIAS	Shkr KIAS	Aft Stop KIAS	Trim KIAS	Shkr KIAS	Aft Stop KIAS
6500	123	108	95	120	99	92	115	95	88	109	92	85
6750	124	109	95	121	100	93	115	96	89	110	93	86
7000	128	112	98	124	103	96	119	99	92	113	96	88
7250	130	114	100	126	105	98	121	100	93	115	98	90
7500	132	116	102	128	107	99	123	102	95	117	99	91
7750	134	118	103	130	108	101	125	104	96	119	101	93
8000	136	120	105	132	110	102	126	105	98	120	103	94
8250	138	122	107	134	112	104	128	107	99	122	104	96
8500	139	124	108	135	113	106	130	109	101	124	106	97
8750	141	126	110	137	115	107	131	110	102	125	107	99
9000	143	127	111	139	117	109	133	112	104	127	109	100

4SM-410

Figure 1

Weight - kg	V_2 Speed - KIAS
7500	116
8000	117
8500	118
9000	122
9500	124

Figure 2

TAKEOFF OR GO AROUND THRUST SETTING

ANTI-ICE — OFF

EFFECTIVITY
All

Figure 3 - GO AROUND N1

TAKEOFF THRUST — %N1

TEMPERATURE °C	ALTITUDE — FEET -1000	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000
50	85.1	84.9	84.7	84.5	84.4											
45	86.3	86.0	85.8	85.6	85.5	85.3	85.1									
40	87.5	87.3	87.1	86.9	86.7	86.5	86.3	86.1	85.9	85.6						
35	88.8	88.6	88.4	88.2	88.0	87.7	87.5	87.3	87.1	86.9	86.7	86.5				
30	88.3	89.5	89.8	89.6	89.3	89.1	88.9	88.6	88.4	88.2	88.0	87.8	87.6	87.3	87.0	
25	87.5	88.7	90.0	91.0	90.8	90.6	90.3	90.1	89.9	89.6	89.4	89.2	89.0	88.7	88.4	88.2
20	86.7	87.9	89.2	90.4	91.7	92.0	91.8	91.6	91.3	91.1	90.8	90.6	90.4	90.1	89.9	89.6
15	86.0	87.1	88.4	89.6	90.9	92.1	93.2	93.0	92.7	92.5	92.3	92.1	91.8	91.6	91.3	91.1
10	85.2	86.3	87.6	88.8	90.1	91.3	92.6	93.8	94.1	93.9	93.7	93.5	93.3	93.1	92.8	92.6
5	84.4	85.6	86.8	88.0	89.3	90.5	91.7	92.9	94.5	95.4	95.2	95.0	94.8	94.6	94.3	94.1
0	83.6	84.8	86.0	87.2	88.5	89.7	90.9	92.1	93.7	95.3	96.7	96.5	96.3	96.0	95.8	95.6
-5	82.9	84.0	85.2	86.4	87.7	88.9	90.1	91.3	92.8	94.4	95.9	97.4	97.8	97.6	97.4	97.2
-10	82.1	83.3	84.5	85.7	86.9	88.1	89.3	90.5	92.0	93.6	95.1	96.6	98.2	99.2	99.0	98.8
-15	81.3	82.5	83.7	84.9	86.1	87.3	88.5	89.7	91.2	92.7	94.2	95.7	97.3	99.0	100.0	100.0
-20	80.5	81.6	82.8	84.0	85.3	86.5	87.7	88.8	90.3	91.9	93.4	94.8	96.4	98.1	99.7	100.0
-25	79.7	80.8	82.0	83.2	84.5	85.7	86.8	88.0	89.5	91.0	92.5	93.9	95.5	97.1	98.8	100.0
-30	78.8	80.0	81.2	82.3	83.6	84.8	86.0	87.1	88.6	90.1	91.6	93.0	94.5	96.2	97.8	99.4
-35	78.0	79.1	80.3	81.5	82.7	83.9	85.1	86.2	87.7	89.2	90.7	92.1	93.6	95.3	96.9	98.5
-40	77.1	78.2	79.4	80.6	81.8	83.0	84.2	85.3	86.8	88.3	89.7	91.1	92.6	94.3	95.9	97.5
-45	76.3	77.4	78.5	79.7	80.9	82.1	83.2	84.4	85.8	87.3	88.8	90.2	91.7	93.3	94.9	96.5
-50	75.4	76.5	77.7	78.8	80.0	81.1	82.3	83.4	84.9	86.4	87.8	89.2	90.7	92.3	93.9	95.4
-55	74.6	75.7	76.8	77.9	79.1	80.2	81.4	82.5	83.9	85.4	86.8	88.2	89.6	91.3	92.8	94.3

LIMIT TABLE	°C	N1	°C	N1	°C	N1	°C	N1	°C	N1	°C	N1	°C	N1	°C	N1	°C	N1	°C	N1
	35	88.8	35	88.6	30	89.8	25	91.0	25	90.8	20	92.0	15	93.2	15	93.0	10	94.1	5	95.4
	34	88.9	31	89.6	28	90.4	24	91.1	21	91.9	18	92.6	14	93.2	11	93.9	7	94.9	3	95.8
	30	88.3	30	89.5	25	90.0	20	90.4	20	91.7	15	92.1	10	92.6	10	93.8	5	94.5	0	95.3

°C	N1	°C	N1	°C	N1	°C	N1	°C	N1
0	96.5	-5	97.8	-10	99.2	-10	99.0		
-4	97.6	-8	98.5	-12	99.5	-14	100.0	-25	100.0
-5	97.4	-10	98.2	-15	99.0	-18	100.0	-27	100.0
						-20	99.7	-30	99.4

NOTE: If temperature falls within shaded area, determine Takeoff N1 from the Limit Table.

EXAMPLE:
1. Altitude = 3600 feet.
2. Temperature = 19° C.
3. At 3000 feet, the temperature is below the shaded area. Interpolate between 15° C and 20° C.
4. At 3000 feet, power setting is 91.5% N1.
5. At 4000 feet, the temperature is in the shaded area. Interpolate between 18° C and 20° C in the Limit Table.
6. At 4000 feet, power setting is 92.3% N1.
7. Interpolate between power settings for 3000 feet and 4000 feet in order to obtain power setting.
8. Power setting is 92.0% N1.

45-129

REF Figure 5-23

FM-126
FAA Approved 5-14-2001

MAXIMUM CONTINUOUS THRUST FOR TRANSITION and CLIMB (N1)

SINGLE ENGINE
ENG SYNC — OFF

EFFECTIVITY
Aircraft 45-170 & Subsequent and prior aircraft modified by SB 45-22-4

EN ROUTE CLIMB SEGMENT

ALTITUDE ~ 1000 FT	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50
51	**96.2**	**97.5**	**98.8**	**98.1**	**95.7**	**93.2**	**90.0**	**86.9**																	
	93.1	91.6	89.2	86.4	82.6	78.6	78.7	79.5																	
50	**96.0**	**97.4**	**98.6**	**98.4**	**96.2**	**93.8**	**91.0**	**88.1**																	
	93.3	91.9	89.3	86.5	82.6	78.7	77.9	78.7																	
45	**95.0**	**96.2**	**97.5**	**98.7**	**98.1**	**96.2**	**94.1**	**91.7**	**89.3**	**86.6**															
	95.0	93.9	92.1	89.9	87.3	84.5	81.7	79.2	76.6	76.1															
40	**93.9**	**95.1**	**96.3**	**97.5**	**98.7**	**98.0**	**96.4**	**94.5**	**92.4**	**90.4**															
	93.9	95.1	94.4	92.6	90.8	88.3	85.8	83.7	81.7	79.8															
35	**93.0**	**94.2**	**95.4**	**96.5**	**97.7**	**98.9**	**97.9**	**96.5**	**94.6**	**92.7**	**91.1**														
	93.0	94.2	95.4	94.8	93.3	91.5	88.8	86.3	84.3	82.2	80.4														
30	**92.5**	**93.6**	**94.7**	**95.8**	**96.9**	**98.0**	**99.1**	**97.9**	**96.3**	**94.5**	**92.9**	**91.3**	**89.7**												
	92.5	93.6	94.7	95.8	96.0	94.6	92.0	89.3	86.9	84.7	82.8	80.9	79.1												
25				**95.9**	**96.9**	**98.0**	**99.0**	**98.8**	**97.4**	**95.8**	**94.3**	**92.7**	**91.2**	**89.7**	**88.2**	**86.7**									
				95.9	96.9	97.4	95.6	93.6	90.9	87.7	85.0	83.0	81.1	79.3	77.6	75.9									
20				**96.1**	**97.1**	**98.2**	**99.2**	**99.7**	**98.4**	**96.9**	**95.4**	**93.9**	**92.4**	**90.9**	**89.5**	**88.0**	**86.5**	**85.2**							
				96.1	97.1	98.2	98.1	96.9	94.9	92.2	89.5	86.7	84.0	81.7	79.4	77.9	76.3								
15				**93.3**	**94.4**	**95.5**	**96.5**	**97.5**	**98.5**	**98.2**	**96.8**	**95.3**	**93.7**	**92.3**	**90.9**	**89.4**	**88.0**	**86.6**	**85.2**	**83.9**					
				93.3	94.4	95.5	96.5	97.5	97.9	96.2	94.5	91.7	88.9	86.2	83.5	81.2	79.1								
10				**84.5**	**85.5**	**86.5**	**87.5**	**88.5**	**89.4**	**90.3**	**91.3**	**92.1**	**93.0**	**93.5**	**92.0**	**90.6**	**89.1**	**87.7**	**86.4**	**85.0**	**83.8**	**82.5**			
				84.5	85.5	86.5	87.5	88.5	89.4	90.3	91.2	92.1	92.8	90.6	88.0	85.5	83.0								
5				**77.4**	**78.3**	**79.2**	**80.1**	**81.0**	**81.9**	**82.8**	**83.6**	**84.5**	**85.3**	**86.1**	**86.9**	**87.7**	**88.4**	**88.9**	**87.5**	**86.0**	**84.8**	**83.5**	**82.3**	**81.1**	
				77.4	78.3	79.2	80.1	81.0	81.9	82.8	83.6	84.5	85.3	86.1	86.9	87.7	86.0								
S.L.				**72.0**	**72.9**	**73.7**	**74.6**	**75.4**	**76.2**	**77.1**	**77.9**	**78.7**	**79.5**	**80.3**	**81.0**	**81.8**	**82.5**	**83.2**	**84.0**	**84.7**	**85.5**	**84.5**	**83.2**	**81.9**	**80.7**
				72.0	72.9	73.7	74.6	75.4	76.2	77.1	77.9	78.7	79.5	80.3	81.0	81.8	82.5								

STATIC AIR TEMPERATURE (SAT) ~ °C

45-502a

SPEED SCHEDULE

TRANSITION SEGMENT
Speed — V_2

EN ROUTE CLIMB SEGMENT
200 KIAS up to 21,000 FT
0.45 MI from 21,000 to 29,000 FT
170 KIAS from 29,000 to 49,000 FT
0.70 MI from 49,000 to 51,000 FT

xxx.xx ANTI-ICE OFF
xxx.xx FULL ANTI-ICE

DO NOT USE
* FULL ANTI ICE *
DATA

REF { Figure 5-28.2

Figure 4 - Max Continuous N1

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.

LOADING AND CALCULATION OF WEIGHT

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

Record:	- aircraft weight		kg/lb
	- cg		

PRE-FLIGHT INFORMATION

Record:	- total airframe hours	

Record:		**Port**	**Starboard**
- each engine serial	S/N		
and total hours run	Hrs		

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. PRE-FLIGHT CHECKS

1.1 Exterior Lights

Check operation of NAV, RECOG, BCN/STROBE, WING INSP and L & R LDG lights (confirm both filaments of fuselage light) SAT/UNSAT

1.2 Placards

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

1.3 Pitch and Roll Disconnect

Pull the pitch disconnect handle out and rotate 90 degs. Verify each control column operates its own elevator independently

SAT/UNSAT

Reset the pitch disconnect and verify the columns are re-locked

Pull the roll disconnect lever on the pilot's wheel. Verify that the wheels can be moved independently and right controls the ailerons.

SAT/UNSAT

Reset the roll disconnect lever and confirm the wheels are re-locked

1.4 Configuration Warnings and Rudder Boost

Select AUX HYD and HYD X FLOW on.

Set a takeoff configuration with PARKING BRAKE off.
Move the left throttle to the MCR position. During the course of the following, retard the left lever to the idle position and advance the right to MCR to ensure both throttles will activate the warning.
Confirm no configuration warning, then confirm the following configurations cause a warning:

Flaps less than 8	SAT/UNSAT
Flaps more than 22	SAT/UNSAT
Pitch trim outside takeoff band	SAT/UNSAT
Rudder trim outside takeoff band	SAT/UNSAT
Aileron Trim outside takeoff band	SAT/UNSAT
PIT TRIM BIAS not full nose down (run NUP for at least 2 secs)	SAT/UNSAT
PARKING BRAKE set	SAT/UNSAT

Check the rudder boost system is operative (full rudder and foot force applied - Green RB displayed) SAT/UNSAT

Select AUX HYD and HYD X FLOW off.

2. POST ENGINE START CHECKS

2.1 APR Checks

APR switch to ARM
Set both engines to 30% N1.
Advance L throttle and verify both N1 increase by about 1.5% and APR ON in green is displayed as N2 split becomes greater than 15%. SAT/UNSAT

Retard L throttle and cycle APR switch to ARM

Repeat for R throttle SAT/UNSAT

Check that the wheel deflections activate the spoilerons SAT/UNSAT

3. TAKE-OFF

Prior to takeoff, check the Takeoff Configuration Warning for SPOILERS EXT and reverser deployed. In the takeoff configuration with the aircraft held on the foot brakes, advance one throttle to MCR. Deploy the other thrust reverser at idle and confirm TOCW. Cancel reverse thrust, then deploy the spoilers. Retract the spoilers

Reverser	SAT/UNSAT
Spoiler	SAT/UNSAT

Carry out normal take-off using full power with APR armed.

Record any unusual characteristics:

4. FUNCTIONING

Recommended FL 40; limits 3000 ft AGL to FL 80

Engine accelerations.

At 160 KIAS, flaps 20, with engine anti-icing bleeds off and APR off, check and record:

	Port	Starboard
Flight idle N1 for each engine		
Slam acceleration times to TOGA Thrust N1 less 1% (see figure 2)		

(8 seconds max)

5. PERFORMANCE AND FUNCTIONING

5.1 Engine Idling Take-off Climb

Recommended start at FL40; limits 3000 ft AGL to FL80

Carry out an engine out take-off climb for 5 minutes, on a constant heading, clear of cloud and significant turbulence. Commence the climb from not below 3000 ft above terrain. Start recording when in a stabilised trimmed condition at the scheduled speed using not more than 5 degrees bank towards the operative engine. Aim to maintain IAS within 2 knots of the scheduled speed.

Configuration	Flap	20 degrees
	Gear	UP
	Speed	V2
	APR	OFF
	No.1 Engine	T/O
	No.2 Engine	Idle (throttle fully closed)
	Engine bleeds	ON
	PACK	ON
	HI FLOW	OFF
	Anti-icing WING/STAB, LNAC, RNAC	OFF
	Captains Altimeter	Set to 1013 mb

Engine Idling Take-off Climb | Recommended start at FL40; limits 3000 ft AGL to FL80

START ZERO FUEL WEIGHT	
FUEL	
START CLIMB WEIGHT	

SPEED | TARGET

TIME	ALTIMETER	ASI P1	IOAT	N1
0				
0.5				
1.0				
1.5				
2.0				
2.5				
3.0				
3.5				
4.0				
4.5				
5.0				

Trim Positions Stab [ ] Aileron [ ] Rudder [ ]

ENGINE PARAMETERS AFTER 3 MINUTES

N1		OIL PRESSURE	
ITT		OIL TEMPERATURE	
N2		FUEL FLOW	

START ZERO FUEL WEIGHT	
FUEL	
END CLIMB WEIGHT	

AVERAGE CLIMB WEIGHT [ ]

ASI COMPARISON AT ONE INSTANT

P1	P2

5.2 Engine Out En-Route Climb

Rec start FL150; limits FL100 to FL200

After 3 minutes at idle:
No 1 Thrust lever to CUT OFF

Carry out a single engine climb as follows.

Configuration	Flap	UP
	Gear	UP
	Speed	200 KIAS
	APR	OFF
	No.2 Engine	MCT
	No.1 Engine	CUTOFF
	Engine bleeds	ON
	PACK	ON
	HI FLOW	OFF
	Anti-icing WING/STAB, LNAC, RNAC	OFF
	Captains Altimeter	Set to 1013 mb

Engine Out En-Route Climb | Recommended start at FL150 limits FL100 to FL200

START ZERO FUEL WEIGHT	
FUEL	
START CLIMB WEIGHT	

TIME	ALTIMETER	ASI P1	IOAT	N1
0				
0.5				
1.0				
1.5				
2.0				
2.5				
3.0				
3.5				
4.0				
4.5				
5.0				

Trim Positions Stab [ ] Aileron [ ] Rudder [ ]

ENGINE PARAMETERS AFTER 3 MINUTES

N1		OIL PRESSURE	
ITT		OIL TEMPERATURE	
N2		FUEL FLOW	

START ZERO FUEL WEIGHT	
FUEL	
END CLIMB WEIGHT	

AVERAGE CLIMB WEIGHT [ ]

	P1	P2
ASI COMPARISON AT ONE INSTANT		

5.3 Engine Relight

On completing the climb, check the No.1 engine N1>0 then relight at 150 kts with flaps as required using Starter Assist Procedure.

Windmilling	N1		N2	
Time to ITT rise				sec (20 secs max)
Max ITT				dg C
Time to stabilised Flight Idle				sec
Any abnormality during relight, spool up				

Check functioning of fuel crossfeed SAT/UNSAT

5.4 Pressurisation FL170

Verify landing field elevation set below 7000 ft and PAX OXY/AUTO switch ON

Check oxygen masks for flow and operation of microphones SAT/UNSAT

Note cabin altitude ft

Select PACK OFF

Observe CABIN ALT cautions between 8,550 ft and 8950 ft

Observe Emergency pressurisation L&R 9300 ft and 9700ft

Confirm Cabin Altitude descends to below 8000 ft SAT/UNSAT

Select L&R BLEED OFF

Observe cabin altitude aural between 9,800 ft and 10,200 ft

Observe pax oxygen drop between 14,250 ft and 14,750 ft

Note any passenger oxygen mask doors which do not open:

Select MANUAL PRESS ON

Select PACK, L & R BLEED ON

Descend the cabin altitide at a comfortable rate to the value noted before depressurizing

Select MANUAL PRESS OFF

Select PAX OXY/AUTO OFF

After cabin altitude has stabilised, set landing altitude to 3000 ft for later test.

6. CLIMB FL410

WING/STAB anti ice ON

Conduct normal climb to FL410. During the climb check and record:

Accurate aircraft trim EL [ ] AIL [ ] RUD [ ]

Instrument readings at one instant.

	P1	P2	
Altitude			ft
Airspeed			KIAS
Mach			
IOAT		degs C	

Controls for backlash, weight, response, centring, breakout loads.	SAT/UNSAT
Trimmers for effectiveness, friction and backlash.	SAT/UNSAT
Secondary Pitch trim	SAT/UNSAT
Confirm no ANTI-ICE warnings by 25,000 feet	SAT/UNSAT

WING/STAB anti ice OFF above FL250

7. FUNCTIONING | FL410 |

In cruise conditions check and record:

Yaw damper operation SAT/UNSAT

Control of max diff pressure [ ] psi (limits 9.0 to 9.4)

Select MANUAL PRESS switch ON

Rotate the MANUAL knob DN to achieve about 1000 feet per minute

Safety valve opens (rate falls to zero) [ ] psi (limits 9.45 to 9.85)

Raise the cabin altitude so that the differential pressure is as recorded above.

Select MANUAL PRESS switch OFF

7.1 High Mach Run | FL450 to FL370 |

Trim the aircraft accurately at 0.78 IMN

Increase speed to 0.82 IMN, check flight controls then deploy the air brake and recover.

Check and record:

	P1	P2
Over speed cues(limits: 0.81 TO 0.82 IMN)		
Operation of high speed warning (limits after both ASIs red,<0.825 IMN)		SAT/UNSAT

Caution
Do not exceed 0.825 IMN

Operation of Mach trim SAT/UNSAT

Flying controls for weight and response (use only small control deflections) SAT/UNSAT

General airframe behaviour SAT/UNSAT

Operation of airbrake SAT/UNSAT

7.2 High Mach Run - Mach Trim Off | FL450 to FL420

Reduce Mach No. to below 0.78.

PITCH TRIM to SEC

Autopilot Engage

Verify Mach Trim fail message SAT/UNSAT

	P1	P2
Over speed cues(limits: 0.775 TO 0.785 IMN)		

Accelerate to achieve overspeed warnings

Operation of high Mach aural warning SAT/UNSAT

(limits after both ASIs red, <0.795)

Caution
Do not exceed 0.795 IMN

Reduce Mach No. to below 0.78.

Autopilot Dis-engage

PITCH TRIM to PRIM

Autopilot As required

8. No.2 ENGINE SHUTDOWN AND RELIGHT | FL300

After 3 minutes at idle:

No. 2 thrust lever CUT OFF

Check:

BUS TIE auto connects after 5 seconds SAT/UNSAT

L & R NON ESS disconnects SAT/UNSAT

NON ESS can be reselected SAT/UNSAT

Leave the No.2 shut down engine for two minutes or until the ITT<100 degs and then time a windmill relight (ENG CMPTR On) at 210 KIAS or speed for 10% N2 and N1>0 at 30,000 ft. (It may not be possible to maintain altitude on one engine. If not, carry out the relight at the resultant altitude but increase airspeed to remain within the windmill relight envelope). Record:

Windmilling	N1		N2	
Time to ITT rise				sec (20 secs max)
Max ITT				dg C
Time to stabilised Flight Idle				sec
Any abnormality during relight, spool up				

9. HIGH IAS RUN

BELOW FL200

Test the high speed warning by carrying out the following away from significant turbulence.

Increase speed to 340 kt, check flight controls then deploy the air brake and recover.

Check and record:

	P1	P2
Over speed cues(limits: 330-332 KIAS)		

Operation of high speed aural warning SAT/UNSAT

(limits after both ASIs red and <340 KIAS)

Caution
Do not exceed 340 KIAS

Flying controls for weight and response SAT/UNSAT
(use only small control deflections)

General airframe behaviour SAT/UNSAT

Operation of airbrake SAT/UNSAT

10. STALLING

FL150 to FL100

ENG SYNC	N1
YAW DAMPER	OFF

Before each stall, trim the aircraft with throttles closed at the scheduled trim speed.

Reduce speed at about 1 kt per second until the aircraft stalls or the stick reaches the back stop.

The pilot should take stall recovery action and establish safe flight conditions if the stall warning has not operated by 5 kts below the scheduled stall warning speed.

Check and record the following:

Aircraft Start Zero Fuel weight	
Fuel	
Aircraft weight for stalling	

Gear/Flap	UP/0	DN/20	DN/40	
V trim				KIAS Scheduled
V shake				KIAS Scheduled
V stall				KIAS Scheduled
El trim				
V shake				KIAS Achieved
V stall				KIAS Achieved
Characteristics				

ENG SYNC	As required
YAW DAMPER	ON

11. FUNCTIONING

BELOW FL180

11.1 Normal Gear and Flap Timings

Record the gear and flap operating times as follows:

Gear down at 195 KIAS		secs	(12 max)
Flaps 0 to 40 at 145 KIAS		secs	(15 max)
Flaps 40 to 0 at 145 KIAS		secs	(15 max)
Gear up at 195 KIAS		secs	(12 max)

(Note: flap timings should be between first indicator needle movement and needle stop)

11.2 Gear Free Fall

Speed	180 KIAS	
GEAR FREEFALL lever	Push full down and latch forward	
Three greens (may require about 1 minute)		SAT/UNSAT
Gear Lever	Down	
GEAR FREEFALL lever	Reset	
Gear Lever	UP	

(note: further cycles of the gear using the normal system may be required to ensure the gear doors close fully)

11.3 Emergency Depressurisation

With DELTA P less than 0.5 PSI, select EMER DPRESS to dump remaining pressure.

Observe cabin pressure releases SAT/UNSAT

Deselect EMER DPRESS

12. LANDING

Carry out normal landing using a high level of reverse thrust (if fitted, and meteorological conditions permit). Record any unusual handling characteristics. SAT/UNSAT

13. AFTER LANDING: EMERGENCY ELECTRICS

With engines running, confirm :

All electrics normal with **EXT PWR** and **APU GEN** off.

L GEN and R GEN	OFF	
BUS TIE auto open		SAT/UNSAT
Spoilers and spoilerons operative		SAT/UNSAT
L & R NON ESS cannot be reselected		SAT/UNSAT
L & R MAIN	OFF	
L & R BATT	OFF	
EMER PRESS not lit		SAT/UNSAT
Verify the following are operative		
N1	RMU1 Page 1	SAT/UNSAT
ITT	RMU1 Page 1	SAT/UNSAT
EMER V	RMU1 Page 2	SAT/UNSAT
Standby Attitude		SAT/UNSAT
Gear Lights		SAT/UNSAT
Electrical power	Restore	
AUX HYD	Restore	
NOSE STEER	Restore	