

CHECK FLIGHT CERTIFICATE



BAe 125-800 (GARRET TFE 731-5R-1H)

CFS 228 Issue 1

Date:	Crew:	Observer:	Registration:
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Performance	Climb #1	Climb #2		Airfield:
	Average Weight			Start Weight Kg/Lbs*:
	Average Altitude		ft	Takeoff cg:
	Average Temp.		°C	Performance: SATIS/UNSATIS/NOT APPLICABLE* <i>(delete as applicable)*</i>
	Speed		KIAS	
	Achieved Rate		fpm	
	Scheduled Rate		fpm	
	Margin		fpm	
Permitted Margin	-80	-100	fpm	

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.

This sheet replaces any check flight certificate given in the schedule.

Registration: If the aircraft is not on the UK register, add the manufacturer's 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 check flights on 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 a check flight 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



BAe 125-800 (GARRETT TFE 731-5R-1H)

CFS 228, Issue 1

Registration:	
Flight Date:	

1 INTRODUCTION

This schedule is applicable only to BAe 125-800 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 (Airworthiness Division) should be informed.

LOADING

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

The actual initial weight and CG must be recorded.

POST-FLIGHT ACTION

Plot out the performance climbs and compare the results with the gross performance graphs in sub-section 5-12 of the Flight Manual.

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 Report to the CAA (Airworthiness Division) supervising Surveyor.

PRE-FLIGHT INFORMATION

Aircraft Registration:

Operator:

Place:

Date:

Crew:

1st Pilot:

2nd Pilot:

Observer:

Total Airframe Hours:

Time:

Chocks under:

Chocks away:

Total Chock to Chock:

Landing:

Take-off:

Total Airborne:

Ramp Weight:

 lb/kg

CG:

 % 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.

Record any unsatisfactory items:

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

1.1.3 EFIS Reversionary Modes:

a) Captain's SSU

- Select PFD to ND.
Check transfer, annunciation and PFD blanked.
Reselect PFD to normal.

SAT/UNSAT

- Select ND to MFD.
Check transfer and annunciation.
Reselect ND to normal.

SAT/UNSAT

- Select DSP to ALTN.
Check annunciation and ND2 format displayed on ND1 with primary course information in yellow.
Reselect DSP to normal.

SAT/UNSAT

- Select DPU to ALTN.
Check annunciation and ND1 format displayed on MFD.
Reselect DPU to normal.

SAT/UNSAT

b) F/O's SSU

- Select PFD to ND.
Check transfer, annunciation and PFD blanked.
Reselect PFD to normal.

SAT/UNSAT

- Select DSP to ALTN.
Check annunciation, ND1 format displayed on .
ND2 with primary course information in yellow.
Reselect DSP to normal.

SAT/UNSAT

- Select DPU to ALTN.
Check annunciation and ND2 format displayed on MFD.
Select Captain's DPU to ALTN.

SAT/UNSAT

- Check that with both DPU ALTN's selected, the captain's DSP controls all displays.
Reselect both DPU's to normal.

SAT/UNSAT

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

Record any unsatisfactory items:

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 operating together.

SAT/UNSAT

1.1.3 Air Data, Attitude and Heading Transfer

a) Air Data

Select AIR DATA, CAPT 2.
Check correct transfer of data and annunciation.
Reselect AIR DATA, CAPT 1.

SAT/UNSAT

Select AIR DATA, F/O 1.
Check correct transfer of data and annunciator.
Reselect AIR DATA, F/O 2.

SAT/UNSAT

b) Attitude and Heading

Select AHRS CAPT 2 (on aircraft pre S/N 258048, select ATT, CAPT 2 and HDG, CAPT 2).
Check annunciation and transfer.
Reselect Captain's instruments to normal.

SAT/UNSAT

Select AHRS F/01 (on aircraft pre S/N 258048, select ATT, F/01 and HDG, F/01).
Check annunciation and transfer.
Reselect F/O's instruments to normal.

SAT/UNSAT

1.2 After Engine Start

1.2.1 Airbrake Warning and Lift Dump Baulk

With the flaps set to 25°, check that the airbrake/lift dump lever is baulked at the airbrake OPEN position.

SAT/UNSAT

With the airbrakes open, advance the throttles sufficiently to trigger the continuous warning horn (approx 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 airbrakes 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 that 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 but within the following limits:

Nose Down:

SAT/UNSAT

Nose Up:

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:	
N _{1REF} :	

N₁ for each engine at approximately 80 knots:

LEFT:	<input type="text"/>	RIGHT:	<input type="text"/>
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Any unusual characteristics:

Select cabin altitude to 8000 feet.

NOTE: Do not select AUX FUEL TRANSFER until after the completion of Item 4.1.

3. HIGH SPEED WARNING (VENTRAL TANK FULL)

With the ventral tank full, check each overspeed warning in turn by accelerating with the appropriate C/B tripped.

NOTE: C/B DA-N-A3 (ADS COMPUTER 1) controls the left ASI, and C/B DA-N-B3 (ADS COMPUTER 2) controls the right ASI.

Record the onset of the overspeed warnings:

- On the left ASI with C/B DA-N-B3 tripped:

<input type="text" value="KIAS"/>	(Limits 282 to 286 KIAS)	<input type="text" value="SAT/UNSAT"/>
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- On the right ASI with C/B DA-N-A3 tripped:

<input type="text" value="KIAS"/>	(Limits 282 to 286 KIAS)	<input type="text" value="SAT/UNSAT"/>
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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 5° 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 section 5-12.

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) subject to not exceeding 100% N₁, 100% N₂ or 952° ITT). Do not arm APR.
- Airspeed V₂ (see graph of standard speeds)
- Air bleed off on No. 1 engine (conditioning/pressurisation may be maintained from No. 2 engine if desired)
- Rudder trim neutral with applied bank to maintain steady heading
- Engine synchroniser OFF

Record:

	LEFT	RIGHT
Fuel used at start of climb:	lb/kg	lb/kg
Aircraft weight at start of climb	lb/kg	
V ₂ for test conditions	KIAS	

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

ASI Comparison: LEFT:

 KIAS RIGHT:

 KIAS

Trimmer Settings: Elevator:

 Aileron:

N ₁	N ₂	ITT	OIL P	OIL T	FUEL FLOW
%	%	°C	psi	°C	(lb/kg)/hr

	LEFT	RIGHT
Fuel used at end of climb:	lb/kg	lb/kg

Aircraft weight at end of climb:	lb/kg
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At the end of the climb select AUX FUEL TRANSFER. Select the main air valves open. Check that auxiliary tank fuel transfers equally to port and starboard wing tanks.

SAT/UNSAT

4.2 Electrical Generators

In Climb to FL150

Trip and reset each generator in turn:

LEFT:	SAT/UNSAT
RIGHT:	SAT/UNSAT

4.3 Pressurisation

FL150

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

LEFT:

SAT/UNSAT

RIGHT:

SAT/UNSAT

Select main air valves to CLOSE.

Check and record:

- Cabin altitude at which the altitude warning occurs:

feet

(Limits 9000 to 9600 feet)

SAT/UNSAT

- Cabin differential pressure at which passenger oxygen dropout occurs:

psi

(Limits 0.7 to 1.3 psi)

SAT/UNSAT

NOTE: Oxygen dropout should occur between 11500 and 12500 feet cabin altitude. These cabin altitude limits are equivalent to the differential pressure limits quoted above with the aircraft at FL150.

- 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 V_{MO} Pointers

FL150

Record the V_{MO} pointer readings on each ASI at 15000 feet.

LEFT:

KIAS

RIGHT:

KIAS

(Limits : 330 ± 3 KIAS)

SAT/UNSAT

4.5 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 maximum continuous thrust (100% N₁, subject to not exceeding 100% N₂ or 924 °C ITT)
- En route climb speed (see graph of standard speeds)
- Pressurisation ON
- All anti-icing OFF
- Rudder trim neutral
- Engine synchroniser OFF

Record:

	LEFT	RIGHT
Fuel used at start of climb:	lb/kg	lb/kg
Aircraft weight at start of climb	lb/kg	
En route climb speed	KIAS	

TIME	ALTITUDE (1013 mb)	IAS	INDICATED SAT
Min	feet	Knots	°C
0			
½			
1			
1½			
2			
2½			
3			
3½			
4			
4½			
5			

ASI Comparison:	LEFT:	KIAS	RIGHT:	KIAS
Trimmer Settings:	Elevator:		Aileron:	

No. 2 engine data:

N ₁	N ₂	ITT	OIL P	OIL T	FUEL FLOW
%	%	°C	psi	°C	(lb/kg)/hr

	LEFT	RIGHT
Fuel used at end of climb:	lb/kg	lb/kg
Aircraft weight at end of climb	lb/kg	

4.6 No. 1 Engine Relight

Not Above FL300

After completion of the climb, with 15° flap at 120 KIAS, time an assisted relight on No. 1 engine.

Record:

Altitude	feet	
Windmill speeds:	N ₁	N ₂
	%	%

Time from fuel on to ITT rise:

Sec

(Limit 10 sec)

SAT/UNSAT

4.7 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		(limit)	SAT/UNSAT
Rudder		(limit)	SAT/UNSAT

- All primary flying controls for backlash, breakout, centering, forces and response.

SAT/UNSAT

Record any unsatisfactory characteristics:

- All trimmers for effectiveness, operating forces and backlash.

SAT/UNSAT

Record any unsatisfactory characteristics:

6. INSTRUMENT READINGS

FL350

Establish a normal cruise.

Check and record:

- Comparison of instrument readings:

	LEFT	RIGHT
ALTITUDE ft		
IAS knots		
IMN		

- V_{MO} pointers t 35000 feet.

LEFT: KIAS

RIGHT: KIAS

(Limits : 272 ± 3 KIAS)

SAT/UNSAT

7. 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 ΔP feet

- Stabilised maximum differential pressure.

 psi

(Limits: 8.55 to 8.75 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. 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.

8. HIGH MACH

FL350 to FL300

Trim the aircraft accurately at M_{MO} . Check each overspeed warning in turn by accelerating with the appropriate C/B tripped.

Trip C/B DA-N-B3 and accelerate to 0.82 IMN on the left ASI.

Check and record:

- Onset of the overspeed warning on the left ASI.

 IMN

(Limits: Not before the
airspeed needle reaches the
 V_{MO} pointer 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

Reduce speed to M_{MO} . Reset C/N DA-N-B3 and trip C/B DA-N-A3. 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 V_{MO} pointer and not above 0.81 IMN)	SAT/UNSAT
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Reduce speed to M_{MO} and reset C/B DA-N-A3.

Check operation of yaw damper.

SAT/UNSAT

9. ENGINE SHUTDOWN AND RELIGHT

FL300

Shut down No. 2 engine for 2 minutes and then time a windmill relight at 220 KIAS at 30000 feet. (The engine should be shut down above 30000 feet to permit a drift down to 30000 feet on No. 1 engine).

Record: Windmill speeds:

N_1	N_2
%	%

- Time from fuel on to ITT rise:

Sec

 (Limit: 10 sec)

SAT/UNSAT

10. STALLING

FL100 to FL180

The following conditions apply to the stall checks:

The stall identification system MUST be fully serviceable, as shown by the normal pre-flight checks and systems indications.

SAT/UNSAT

The ventral fuel tank MUST be empty.

SAT/UNSAT

Altitude to be between FL180 and 10000 feet AGL

SAT/UNSAT

All external surfaces to be free from ice

SAT/UNSAT

Weather radar, if fitted, to be at standby

SAT/UNSAT

The tests must be conducted clear of cloud and with a good visual horizon.

SAT/UNSAT

The yaw damper should be ON for the stalls in the clean configuration and OFF for the stalls in the flaps 15° and 45° configurations.

SAT/UNSAT

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.

During normal operation of the system with all three channels of the stall identification system operating, the stall VALVE A and VALVE B lights above each 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.

All scheduled speeds are shown in the graph at the end of this schedule. Stick shake and push operating speeds should be read from the PFD digital speed scale to avoid any instrument error that may occur on the conventional ASI.

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

- Speed reducing to the schedule 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.

10.1 Clean Configuration

Yaw damper ON

a) Normal Operation

Record:

- Aircraft Weight

lb/kg

- Scheduled and achieved speeds:

	Scheduled Speed KIAS	Achieved Speed KIAS (from PFD)	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) 3rd Channel Inoperative

Trip C/B A4 on Panel D to isolate the 3rd channel of the stall identification system.

Record:

- Aircraft Weight

	lb/kg
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- Scheduled and achieved speeds:

	Scheduled Speed KIAS	Achieved Speed KIAS (from PFD)	LIMITS	
TRIM		-		
STICK SHAKE			SCHEDULED \pm 3 KIAS	SAT/UNSAT
STICK PUSH			SCHEDULED \pm 3 KIAS	SAT/UNSAT
MARGIN SHAKE TO PUSH	-		NOT LESS THAN 5 KIAS	SAT/UNSAT

- Stall characteristics

	SAT/UNSAT
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c) Autopilot Disconnect

Reset C/B A4 on panel D. 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:

For aircraft S/N pre 258048) airspeed when autopilot disconnect occurs:

	KIAS	(Limits: between 1.25 times the stick push speed and stick shaker)		SAT/UNSAT
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(For aircraft S/N 258048 onwards) autopilot disconnect occurs at onset of stick shaker.

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

10.2 Flaps 15°, Gear Up

Yaw damper OFF

a) Normal Operation

Record:

- Aircraft Weight

	lb/kg
--	-------

- Scheduled and achieved speeds:

	Scheduled Speed KIAS	Achieved Speed KIAS (from PFD)	LIMITS	
TRIM		-		
STICK SHAKE			SCHEDULED \pm 3 KIAS	SAT/UNSAT
STICK PUSH			SCHEDULED \pm 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
--	-----------

b) 3rd Channel Inoperative

Trip C/B A4 on panel D.

Record:

- Aircraft Weight

	lb/kg
--	-------

- Scheduled and achieved speeds:

	Scheduled Speed KIAS	Achieved Speed KIAS (from PFD)	LIMITS	
TRIM		-		
STICK SHAKE			SCHEDULED \pm 3 KIAS	SAT/UNSAT
STICK PUSH			SCHEDULED \pm 3 KIAS	SAT/UNSAT
MARGIN SHAKE TO PUSH	-		NOT LESS THAN 5 KIAS	SAT/UNSAT

- Stall characteristics

	SAT/UNSAT
--	-----------

Reset C/B A4 on panel D.

10.3 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 PFD)	LIMITS	
TRIM		-		
STICK SHAKE			SCHEDULED \pm 3 KIAS	SAT/UNSAT
STICK PUSH			SCHEDULED \pm 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
--	-----------

b) 3rd Channel Inoperative

Trip C/B A4 on panel D

Record:

- Aircraft Weight

	lb/kg
--	-------

- Scheduled and achieved speeds:

	Scheduled Speed KIAS	Achieved Speed KIAS (from PFD)	LIMITS	
TRIM		-		
STICK SHAKE			SCHEDULED \pm 3 KIAS	SAT/UNSAT
STICK PUSH			SCHEDULED \pm 3 KIAS	SAT/UNSAT
MARGIN SHAKE TO PUSH	-		NOT LESS THAN 5 KIAS	SAT/UNSAT

- Stall characteristics

	SAT/UNSAT
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Reset C/B A4 on panel D.

11. HIGH IAS

FL100

Trim the aircraft at V_{MO} .

Trip C/B DA-N-B3 and accelerate to 355 KIAS on the left ASI.

Check and record:

- Onset of the overspeed warning on the left ASI:

KIAS	(Limits: Not before the airspeed needle reaches the V_{MO} pointer and not above 345 KIAS.	SAT/UNSAT
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- Operation of flying controls over small angles

SAT/UNSAT

- Airframe behaviour

SAT/UNSAT

- Operation of airbrakes at 355 KIAS

SAT/UNSAT

Reduce speed to V_{MO} . Reset C/B DA-N-B3 and trip C/B DA-N-A3. Accelerate to the onset of overspeed warning on the right ASI (but not above 355 KIAS in the absence of a warning).

Record:

- Onset of the overspeed warning on the right ASI:

KIAS	(Limits: Not before the airspeed pointer reaches the V_{MO} pointer and not above 345 KIAS.	SAT/UNSAT
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Reduce speed and reset C/B DA-N-A3.

12. FUNCTIONING

As convenient

12.1 Normal Operation of Flap and Gear

Record: Flap and gear operating times as follows:

OPERATION	SPEED KIAS	OPERATING TIME Sec	LIMIT Sec	
Flaps 0-15°	220		6	SAT/UNSAT
Gear Down	220		7	SAT/UNSAT
Flaps 15°-25°	175		4	SAT/UNSAT
Flaps 25°-45°	165		8	SAT/UNSAT
Flaps 45°-15°	165		6	SAT/UNSAT
Gear Up	220		7	SAT/UNSAT
Flaps 15°-0	220		4	SAT/UNSAT

12.2 Emergency Gear Lowering

With the flap up at 150 KIAS, 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 landing 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 auxiliary hydraulic low level warning light only indicates that the tank is not full.

12.3 Engine Slam Accelerations

Flaps 45°, gear down. V_{ATO} . **Record N_1 REF**

%

a) Engine computers in AUTO.

For each engine in turn, **record:**

	LEFT	RIGHT
IDLE N_1 %		
TIME TO ACCELERATE FROM IDLE TO N_1 REF sec		

(Limit : 8 seconds)

SAT/UNSAT

b) Engine Computers in Manual

Select the engine computers to OVSPD PROT

Advance each throttle in turn to determine whether N_1 REF can be achieved or, if not, the maximum N_1 . Close the throttle and allow the engine to stabilise at idle. Slam the throttle fully open and **record** the time to reach N_1 REF or the maximum N_1 minus 1%.

CAUTION: DO NOT EXCEED N_1 REF OR MAX ITT

	LEFT	RIGHT
MAXIMUM N_1		
IDLE N_1		
ACCELERATION TIME		

(Limit : 25 seconds)

SAT/UNSAT

12.4 Ram Air Valve

Reduce cabin differential pressure to approx 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).

With the cabin fan STOPPED and flood flow CLOSED, ventilating air flows through the flight deck.

SAT/UNSAT

Restore pressurisation as required.

12.5 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**

Check and Record:

Satisfactory functioning of each engine LP cock by closing the cock fully until a drop of fuel flow or rpm is realised, then reinstate immediately.

SAT/UNSAT

Shut down engines and **check and record:**

Emergency flap lowering (main pressure can be exhausted by use of airbrakes). Note the flap indicator will not indicate and a visual check should be made of the flaps.

SAT/UNSAT

Select battery switch to emergency and check flight deck emergency lighting.

SAT/UNSAT

Wing and tail de-icing strips for satisfactory distribution of fluid.

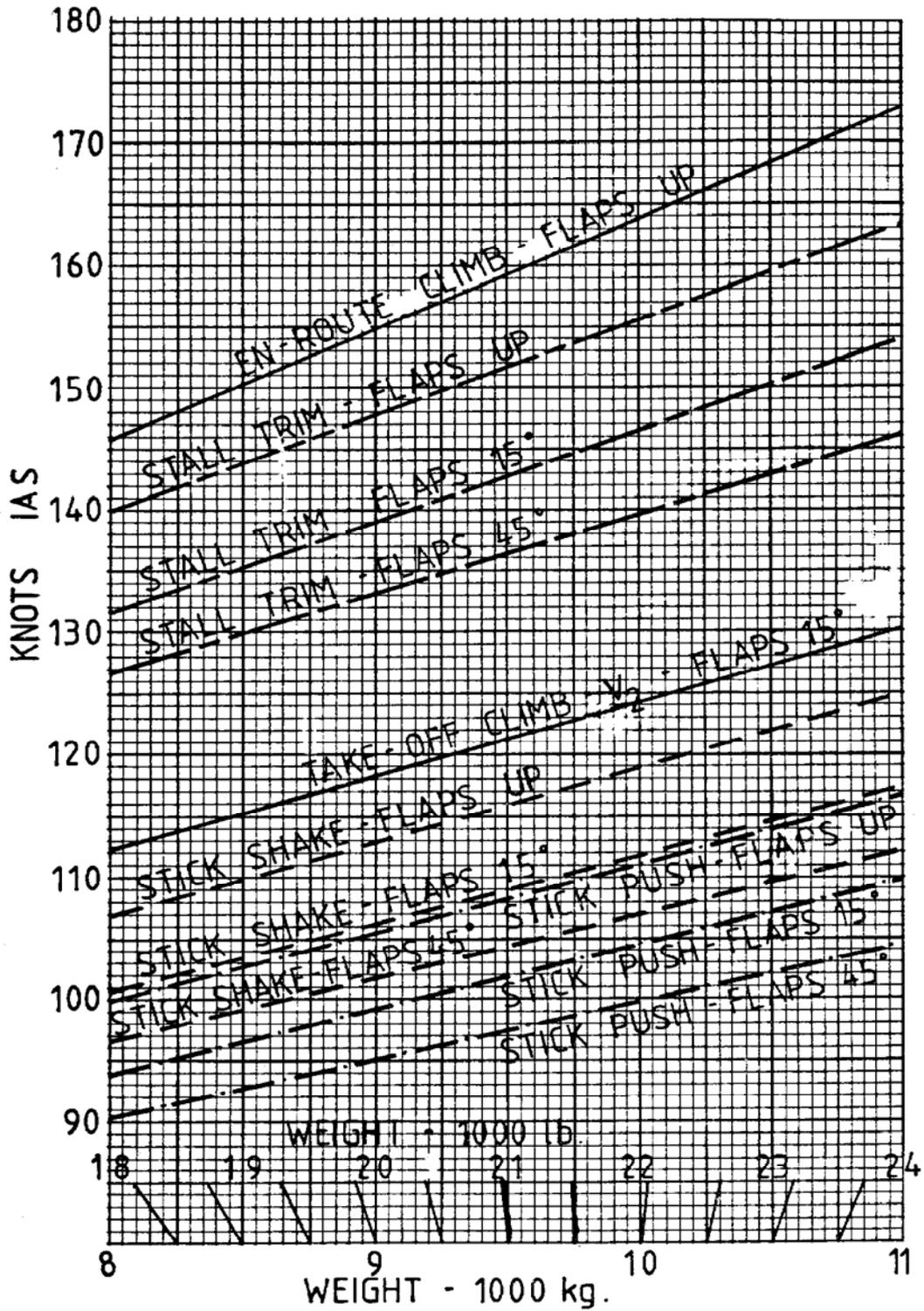
SAT/UNSAT

External and internal placarding.

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.



Note: all stall speeds corrected for 15,000 feet and C.G of 25% S.M.C.

GRAPH OF STANDARD SPEEDS