CHECK FLIGHT CERTIFICATE

DORNIER 228 - 200 **CFS 237 Issue 1**

Date:	Crew:	Observer:	Registration:

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	-70	-70	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.
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

DORNIER 228 – 200 **CFS 237, Issue 1**

Registration	
Flight Date	

1. INTRODUCTION

This schedule is applicable to the Dorner 228 – 200. 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 check 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 to be unsafe or undesirable must be recorded.

The data contained in this schedule is correct at the time of issue, but might not be in agreement with subsequent Pilots' Operating Handbook amendments. In case of conflict the current Pilots' Operating Handbook is overriding and the CAA should be informed of any such conflict.

MINIMUM CREW

The minimum crew for this check flight is one pilot and one flight 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 Dornier 228 - 200 aircraft.

PASSENGERS

Commanders are reminded that it is illegal to carry passengers on a check flight made under 'A' or 'B' Conditions, except where they are required to perform duties in the aircraft in connection with the flight. 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.

CHECK FLIGHT 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.

It is recommended that the tests are made in the sequence given. The results are to be written in ink in the spaces provided.

Operator/ Maintenance Organisation:		Registration:	
		Flight Date:	
		Pilot:	
Aerodrome:		Observer:	

Aerodrome Altitude:		Ground Temp:		QFE:	

2. LOADING

The aircraft is to be loaded with full fuel and any necessary ballast to achieve a take-off weight and cg within the Flight Manual limitations.

Take-off Weight:	Kg/lb	CG Position:	

3. PRE-FLIGHT INFORMATION

Total Airframe Hours:		**ENGINE**	**LEFT**	**RIGHT**
		SERIAL NO.		
		HOURS RUN:		

4. GROUND TESTS

Check all flying controls and trimmers for full travel, freedom of movement and correct functioning.	SATIS/UNSATIS
Carry out full pre-flight checks on autopilot (if fitted).	SATIS/UNSATIS

5. TAXYING

Check operation of parking brake (including lock and release).	SATIS/UNSATIS
Check brakes (including freedom from binding and normal ability to hold aircraft at high engine powers).	SATIS/UNSATIS
Check taxying (including nosewheel steering/differential braking).	SATIS/UNSATIS

6. TAKE-OFF

Carry out a normal take-off; Note any unusual characteristics:

7. CLIMB PERFORMANCE

At not below 3000 ft above terrain, at 110 knots.

Using precautionary shut down procedure.

Shut down No. 2 engine; Note time to feather from moving condition lever to Feather: _____ Secs

Carry out a 5 minute single engined en route climb, clear of cloud and turbulence, with:

- Flaps up; gear up
- No. 2 engine feathered
- No. 1 engine at Maximum Continuous Power
- Anti-ice off
- Altimeter set to 1013 mbar
- Engine speed levers high
- 105 knots

Note at start of climb:

Fuel consumed: _____ lbs Aircraft Weight: _____ lbs

Record: The altitude, ASI and OAT every half minute and the operative engine instrument readings after about 3 minutes:

TIME (MINUTES)	ALTITUDE (FEET)	ISA (KNOTS)	OAT (°C)
0			
½			
1			
1 ½			
2			
2 ½			
* 3			
3 ½			
4			
4 ½			
5			

TRIMMER SETTINGS

RUDDER	
ELEVATOR	
AILERON	

WEATHER CONDITIONS

*** See Page 7**

Note at end of climb:

Fuel consumed:	lbs	Aircraft Weight:	lbs

* After 3 minutes **record** No. 1 engine readings:	**TORQUE**	%
	RPM	
	ITT	ºC
	OIL PRESSURE	PSI
	OIL TEMP	ºC
	FUEL FLOW	lb/hr

Restart the No. 2 engine. **Record** time to relight:	secs
Maximum ITT:	ºC

8. CRUISE

With a typical high cruise power, trim the aircraft accurately in level flight and record the following:

Indicated altitude:	ft	IAS	kts	OAT	ºC

Trimmer Settings:	Rudder:		Elevator:		Aileron:	

ENGINE	TORQUE lb-ft	RPM	ITT ºC	OIL PRESS. PSI	OIL TEMP. ºC	FUEL FLOW lb/hr
LEFT						
RIGHT						

Check all flying controls for break-out loads, centering, backlash, weight and response. **Note anything abnormal:**

9. Engine relight; at not below 3000 ft.
Using precautionary engine shut down procedure, shut down No. 1 engine.
Note time to feather from moving condition to Feather.

Restart No. 1 engine.

Record:	Time to Relight:	secs
	Maximum ITT:	ºC

MAXIMUM SPEED CHECK (Smooth Air Only)

From a trimmed cruise condition, increase speed to 215 knots, and gently throttle back. **Check the following:**

Any unusual behaviour:	
Control forces & response over small angles:	
Engine and propeller behaviour:	
Throttle alignment:	

10. STALLS AND FLAP FUNCTIONING

To be performed clear of cloud, recommended starting altitude for each stall not below 5000 feet above terrain. Trim at the trim speed given at P.10. there should be a minimum of 5 knots between warning and stall.

Stall the aircraft with flaps up, max RPM, throttles at idle:

Aircraft Weight	Trim Speed	Elevator Trim	Scheduled Stall	Achieved		Behaviour
				Warning	Stall	
lb	knots	-	knots	knots	knots	

At 150 knots, time flaps up to 1	secs

Stall the aircraft with flaps 1, throttles at idle:

Aircraft Weight	Trim Speed	Elevator Trim	Scheduled Stall	Achieved		Behaviour
				Warning	Stall	
lb	knots	-	knots	knots	knots	

At 130 knots, time flaps 1 to 2	secs
Check gear audio warning uncancellable:	SATIS/UNSATIS
Time gear down at 130 knots	secs

Stall the aircraft with flaps 2, throttles at idle:

Aircraft Weight	Trim Speed	Elevator Trim	Scheduled Stall	Achieved		Behaviour
				Warning	Stall	
lb	knots	-	knots	knots	knots	

At 110 knots, time flaps 2 to 1	secs
At 120 knots, time flaps 1 to up:	secs
At 160 knots, time gear up:	secs

11. SYSTEMS FUNCTIONING

A AUTOPILOT (if fitted)

Check for smooth engagement and dis-engagement, and general functioning in flight.	SATIS/UNSATIS
Check satisfactory ability to overpower autopilot.	SATIS/UNSATIS

B ANTI-ICING / DE-ICING EQUIPMENT (if fitted)

Check functioning of power plant anti icing:	SATIS/UNSATIS	
Note: Ammeter readings for propeller de-icer:		
Check functioning of airframe de-icing. Visual check of wing boot inflation and correct Indication of airframe de-ice light.	SATIS/UNSATIS	

C ELECTRICAL SYSTEM

Check electrical equipment for satisfactory operation.	SATIS/UNSATIS

D INSTRUMENTS

Check all instruments for satisfactory operation.	SATIS/UNSATIS

E HEATER/AIR CONDITIONING

Check cockpit heating and ventilation and air conditioning (if applicable) for correct operation.	SATIS/UNSATIS

12. LANDING

Carry out a normal full flap landing. **Record any unusual characteristics:**

13. AFTER LANDING

Check placards for presence, accuracy and legibility:	SATIS/UNSATIS
Check all external and internal lighting is available:	SATIS/UNSATIS

STALL SPEEDS

KNOTS IAS

WEIGHT LBS	FLAPS					
	UP		1		2	
	TRIM	STALL	TRIM	STALL	TRIM	STALL
12500	112	80	104	74	92	66
12000	111	79	102	73	91	65
11500	108	77	101	72	90	64
11000	105	75	98	70	87	62
10500	104	74	95	68	85	61