



JABATAN PENERBANGAN AWAM
DEPARTMENT OF CIVIL AVIATION
MALAYSIA

FLIGHT TEST SCHEDULE FOR AMATEUR-BUILT AIRCRAFT
No. M18, Issue 1, August 2000

1. **INTRODUCTION**

This schedule is applicable to all amateur-built aircraft (kit or plans-built) qualifying for the **initial issue** and **annual renewal** of the **Permit to Fly**. This schedule is to be completed by recording the values in the spaces indicated or placing a tick (✓) against the appropriate box.

2. **GENERAL**

Aircraft Type Registration
Flight Date Pilot
Observer

3. **LOADING**

The aircraft is to be loaded to **maximum take-off weight** and the c.g. position recorded:

Take-off Weight CG position
(actual) (actual)

4. **CHECK**

- 4.1 Permit to Fly valid / Flight Test Authorization (FTA) issued.
4.2 Seat belt and shoulder harness secured.
4.3 Valid third party insurance (if any).

5. **GROUND CHECKS**

- 5.1 Check flying and trimming controls for backlash, friction and correct functioning:-

Satisfactory Unsatisfactory

- 5.2 Check instruments for correct functioning:-

Satisfactory Unsatisfactory

- 5.3 Set altimeter to field elevation mb and record outside air temp: °C

- 5.4 Check engine controls for correct functioning:-

Satisfactory Unsatisfactory

- 5.5 **Engine Run:-**

Magneto test RPM:

No. 1 magneto off, RPM drop: No. 2 magneto off, RPM drop:

Max. Power Check. Run the engine up to full throttle and record:-

Engine RPM: Oil pressure: Oil temperature:

- 5.6 Check both ground and air communication frequencies for proper operation.

Satisfactory Unsatisfactory

6. **TAXYING**

During taxiing the undercarriage must be checked for ease of ground manoeuvring and freedom from binding. Brakes should be checked for satisfactory functioning:-

Satisfactory Unsatisfactory

7. **TAKE-OFF**

The take-off is to be made with full power and flaps (if fitted) at take-off position. As soon as possible after unstick, record:-

Unstick speed (IAS) Engine RPM

Oil Pressure Oil Temperature

Record any unusual handling or functioning characteristics on take-off: _____

8. **CLIMB**

For the purpose of checking the climb, the time taken for **500 feet** to **1500 feet** should be recorded. Before commencing each climb, the airspeed should be allowed to settle to the appropriate climbing speed. Power should then be increased gradually to maximum climbing power and the aircraft eased into the climb, endeavoring to maintain climbing speed. Care must be taken to ensure that the aircraft has settled in the climb and the **airspeed should be kept within ± 3 MPH**. The climb should not be carried out near cloud or turbulent air and a steady heading should be maintained.

Set altimeter to **1013 mb** (29.92 in. Hg) and record outside air temperature: °C

Before climb, record:-

During climb, record:-

Fuel Contents:

Climb speed used (IAS):

Weight:

Engine RPM in climb:

Time from **500 ft.** to **1,500 ft.** secs.

9. **HANDLING**

9.1 **Stalls.** Aircraft should be stalled by pulling the control column gently back so as to reduce the speed at a rate of not exceeding **1 MPH per second** until the aircraft stalls, the aircraft having been trimmed to approximately 40% above the stalling speed. Record:-

Stall speed, power off, flaps up: Natural buffet speed:

Behavior at stall, degree and order of nose or wing drop and any other abnormal characteristics during stall or recovery: _____

9.2 **Lateral and Directional Stability.** The aircraft is to be flown at normal **approach speed, power off with full flaps.** **Medium rudder sideslips** are to be carried out to port and starboard. The aileron and rudder controls are then to be released in turn and the ability for the down wing to rise and the nose to swing into the turn are to be checked respectively. The test is then to be repeated with the engine at full power:-

Power On: Satisfactory Unsatisfactory

Power Off: Satisfactory Unsatisfactory

Caution: To be carried at altitude **1,000 feet AGL and above.**

- 9.2 **Maximum Speed Test.** This test to be made in **smooth air conditions**. The aircraft is to be tested to **maximum level speed** of _____ plus additional **15 MPH**.

Record speed achieved: Record engine RPM:

Check any unusual behavior of aircraft and whether control forces appear normal:

Satisfactory Unsatisfactory

Do controls record a degree of self-centering to small movements? Yes No

- 8.4 **Simulated Baulked Landing.** Set the aircraft in the approach configuration and record behavior in simulated overshoot.

Engine RPM Oil Pressure Oil Temperature

Trim Changes Throttle Response

9. **FUNCTIONING**

During the flight, satisfactory functioning of the following items shall be checked.

- 9.1 **Control.** A general check of controls in flight for points such as friction, backlash, heaviness and trim shall be made. The aircraft should be trimmed for hands-off flight at cruising speed.

Satisfactory Unsatisfactory

- 9.2 **Flaps.** Flaps shall be lowered and raised at the maximum speed specified on the cockpit placard or Pilot Operating Handbook and the ease of the operation checked.

Satisfactory Unsatisfactory

- 9.3 **Radio.** Check radio transmit / receive at **5 nm** distance from Station _____ (specify the ground station used).

Satisfactory Unsatisfactory

10. **CERTIFICATION**

I hereby certify that I have carried out all the tests specified in Flight Test Schedule No. **M18, Issue 1, August 2000** on aircraft registration **9M** - _____ and that the characteristics recorded above are carefully and truthfully recorded. In my opinion the aircraft flies satisfactorily and shows no unsafe or abnormal characteristics and has recorded _____ hours total flight time.

The following rectifications / adjustments have been made as a result of the test flight:

(Use separate sheets if necessary)

Signed: _____

Pilot: _____

Licence No. _____

Date: _____

Special Note for First Flight of Series Aircraft Built by Amateur Constructors Only.

1. **First flight** to be approximately **ten (10) minutes** duration after which the aircraft should be inspected at all main attachment points and engine installation. Repeat this flight until satisfied that the aircraft is flying satisfactorily enough to undertake the test flight under this Flight Test Schedule.
2. Before commencing the flight test as per the attached Flight Test Schedule, the aircraft must be flown **not less than 5 hours total flying time** and must include at least **fifteen (15) satisfactory landings**. During this total period, one flight of at least two (2) hours duration or maximum safe endurance whichever is the shorter, must be made.