GFA AN 119
(ISSUE 1)

AIRWORTHINESS ADVICE NOTICE
FLIGHT TESTING AMATEUR BUILT SAILPLANES

SUBJECT: Flight Testing to determine general sailplane handling of a Type Approved Amateur Built aircraft.

BACKGROUND: To allow a certificate of Airworthiness to be issued for an Amateur Built sailplane which is of a Type which already has Type Certification each sailplane must be tested to ensure it exhibits good handling and is similar to the aircraft on which the Type Acceptance was based.

FLIGHT DATA:

Type: _____ VH- _____ Test Number: _____

Pilot: _____ Place: _____ Date: _____

Gross weight: _____ CG Position: _____

Temperature: _____ Air pressure: _____

TAKE OFF (AEROTOW):

Wind strength: _____

Wind direction: _____

Runway direction: _____

Runway surface: _____

a) Rudder Control: _____

_____

b) Aileron Control: _____

_____

c) Elevator Control: _____

_____

SIGNED: _____
CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:
THE GLIDING FEDERATION OF AUSTRALIA

AEROTOW:

To be flown in high and low tow to V_T.

Assessment: _____

_____

_____

_____

_____

Operation of cable release: _____

_____

_____

_____

_____

Release at V_T: _____

_____

_____

TAKEOFF (WINCH):

Wind Strength: _____

Wind direction: _____

Runway direction: _____

Runway Surface: _____

a) Rudder Control: _____

_____

b) Aileron Control: _____

_____

c) Elevator Control (is the rotation normal): _____

_____

_____

_____

DIVE TO V_{NE}

Starting at the highest speed already flown the speed should be increased by 10 kts. Stabilise the speed and check the sailplane for general controllability, vibration, snatching of controls etc. If all checks out OK then give the control column a tap in both pitch and roll directions and observe for any tendency to flutter. The feet should be removed from the rudder and a rudder pedal gently tapped.

Repeat until V_{NE} is reached. Near V_{NE} the speed should be increased in 5 kt increments.

Comment: _____

_____

_____

_____

_____

Any indications of flutter: _____

_____

_____

Is the sailplane fully controllable up to V_{NE}: _____

_____

_____

_____

_____

_____

STALL EVALUATION:

Fly with a level attitude. Trim at about 45 kts and reduce speed at 1 kt per second.

Was stall limited by up stop? _____

Type of stall warning: _____

_____

Speed at start of stall warning: _____

Did a wing drop, which wing dropped the most: _____

_____

Was it possible to control roll and yaw by unreversed use of aileron and rudder up to the time the aircraft pitched or entered a high descent rate with the nose high and the stick on the rear stop.

_____

_____

_____

_____

Run	Condition (flaps, dive brakes etc.)	IAS at stall (kts)
1		
2		
3		
4		
5		
6		

Stall characteristics in 30° bank: _____

_____

_____

_____

_____

_____

SPINNING (ONLY FOR TYPES PERMITTED INTENTIONAL SPINS)

Enter the spin from the nose low position (See the Instructors Handbook Part 2 page 35).

Comment on spin entry: _____

_____

_____

_____

Did the sailplane self recover (enter a spiral dive): _____

_____

_____

_____

Did the standard recovery action work (See the Instructors Handbook Part 2 page 35).

_____

_____

_____

_____

TURNING FLIGHT:

Does the sailplane tend to stay in the turn or does the turn tighten or flatten out.

_____

_____

_____

Measure the time to reverse a turn from +45° to -45°.

_____

SIDESLIPPING:

Perform a sideslip in both directions.

Rudder effectiveness: _____

Aileron effectiveness: _____

Open dive brakes during slip: _____

Recovery: _____

DIVEBRAKE ACTION:

Fly at 1.3 times the stall speed and extend the dive brakes fully. Measure the time to descend 500 ft.

1.3 x _____ (stall speed) = _____ kts

Time to descend 500 ft: _____

Pilot load at circuit speed: _____

Pilot load at max dive brake speed: _____

Pitch change when divebrakes are extended: _____

Dive brake effectiveness: _____

Did dive brakes snatch out: _____

STABILITY:

Trim at 1.5 x Stall Speed. Increase speed by 10 kts and gently release the control column.

Describe behaviour: _____

_____

_____

LANDING SEQUENCE:

Wind strength: _____

Wind direction: _____

Runway direction: _____

Runway Surface: _____

Perform a normal approach (1.5 x stall speed plus 0.5 x wind speed)

Record approach speed: _____

Controllability on approach: _____

_____

_____

Flare and touchdown: _____

_____

_____

Ground roll and braking: _____

_____

_____

_____

OTHER COMMENTS:

_____

_____

_____