

CANCELLED 28.06.2017

REFER MOSP 3 SECTION 13

AIRWORTHINESS ADVICE NOTICE

APPLICABILITY: This AN applies to all sailplanes that do not have specified tolerances for leak testing of their pitot and static systems published by the manufacturer.

SUBJECT: Leak Testing of Pitot and Static Systems.

BACKGROUND: Basic Sailplane Engineering (BSE) contains information on leak testing of pitot and static pressure systems. This AN revises the leak tolerances for testing these systems and specifies when the test is to be carried out.

DOCUMENTATION: Not applicable

ACTION REQUIRED: **Pitot Systems**

To ensure the entire pitot system is tested apply positive pressure to the pitot head sufficient to make the Airspeed Indicator (ASI) read 120 kts. Pressure is to be maintained for at least 30 seconds and any drop in the ASI reading noted. If the ASI reading drops to zero before the 30 seconds have elapsed, the system is unserviceable, and must be repaired by finding and fixing the leak(s).

Providing the ASI can be made to read two-thirds of FSD for a few seconds, any leaks exceeding the tolerance listed above can be signed off in the Maintenance Release as a Minor Defect, to be fixed at the next Annual Inspection.

It is preferred that no leaks exist in the pitot system

SIGNED:


CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

**THE GLIDING FEDERATION
OF AUSTRALIA**

GFA AN 169	ISSUE: 1	21 April 2011	Page 2 of 2
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ACTION REQUIRED: Static Pressure System

The static system is to be tested as follows:

To ensure that the entire static system is tested, seal all but one static port with electrical insulation tape or similar (but not porous tape);

Using the manometer, slowly apply a vacuum to the remaining (open) static port sufficient to make the ASI read approximately two-thirds of Full Scale Deflection (FSD). That is, if the ASI goes to 150 kts, apply sufficient vacuum to cause the ASI to read 100 kts.

Monitor any drop in the ASI reading. If the ASI drops below half of the value set above (e.g. drops below 50 kts) in 30 seconds, then the system is unserviceable, and must be repaired by finding and fixing the leak(s).

It is preferred that no leaks exist in the system.

During the above process, the altimeter should also be monitored. If the altimeter does not display an increase in altitude when the vacuum is applied, then the connections to the altimeter need to be checked. Repeat the test until both the ASI and altimeter indicate an increase when vacuum is applied to the static port. The altimeter is to be connected to the static pressure line in order to reduce Position Error (PE)

Maintenance Tips:

The pitot and static pressure systems are to be leak tested whenever the pressure lines are opened. That is, if a pressure line is disconnected to remove or replace an instrument, or to gain access to an area, or for any other reason, that pressure system needs to be tested for leaks after the line has been re-connected

Apply pressure or vacuum to the pressure lines slowly to avoid damaging the instruments

Never use sealants to fix leaks in pressure lines or connections. Many silicone sealants produce acetic acid as they cure, and this can cause damage to instruments.