COMMONWEALTH OF AUSTRALIA DEPARTMENT OF TRANSPORT

AIRWORTHINESS ADVISORY NOTICE GLIDERS:

GFA/AN31 SCHWEIZER 1 (S.L.-102-10)

GLIDER TYPE AFFECTED: SGS 1-35 SerialNos 2 to 35

There have been two cases of flap buzz or flutter at speeds of about 60 to 70 m.p.h. In both cases it stopped by applying a small amount of flap, either positive or negative flap. It appears that at this speed range the flap is not subject to any damping airload at O degrees flap position. It appears from the owners reports that the flap free play was .250 or more. This was free play with light hand pressure at trailing edge of the flap at the fuselage. More firm pressure will show more free play due to the tolerance in the fuselage flap control. To ensure that the fuselage free play does not affect this, we are enclosing the attached rework Engineering Change Order No. 35-264. Check your aircraft using the light pressure, about 2 to 3 lbs. and if your free play exceeds .125 please advise us. If the free play approaches 3/16" do not fly until rework is accomplished as per our instructions. We have as yet not determined what is causing the free play. It may be unfavourable accumulation of tolerances or excessive wear in the system. Both aircraft mentioned above have accumulated some time but not a large amount of time. The major sources of free play are probably the clearance in the torque tube horn to the torque tube and the attachment of the push rod to the flap horn. If there is excessive play try to determine in what area it exists. You will be advised of any modifications if this proves necessary. The prototype has several hundred hours of service use and has not shown this problem, though it shows about 3/16" free play in

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one wing.

Douglas Lyon

CHIEF TECHNICAL OFFICER AIRWORTHINESS GLIDING FEDERATION OF AUSTRALIA

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