BRITISH GLIDING ASSOCIATION

TECHNICAL COMMITTEE

TNS 6/7/81

1. AIRWORTHINESS AGGRO (Please add to 1981 Pink Pages)

1.1. ASW 19/20. Control Surface Hinge-pins - Locking. The method of locking the aileron hinge-pins (which may accidentally be omitted - TNS 4/5/81), applies also to FLAPS and ELEVATORS. (Tony Killingray).

1.2. ASW 19/20. Rudder Pedal "S" Bend cable guide - welding cracked. Failure at this point could cause loss of Rudder Control. (Mailed to OWNERS 11/6/81).

1.3. ASK 21 - Rudder Pedal TOE STRAPS. Tech. Note 5A required rigid steel straps to be fitted, and flexible straps to be deleted, to prevent jamming of rudder pedals. Tech. Note 5B requires amendment to Flight Manual Check List. (Ref. TNS 2/3/81).

1.4. LS1/LS3/LS4 A/D 81-112 and Tech. Bulletin 41/3026/4004. "Ground connection between control stick and C.G. release might be interrupted by the Landing Gear Drive". (Bonding lead may become damaged).

1.5. LS4 - AIRBRAKE - (cannot always be retracted beyond 200 Km/h.) Tech. Bulletin NR. 4005 (herewith), requires enlarging of the cut-out of the upper airbrake blade on the inner side, according to DWNG 4005-2.

1.6. Blanik - Cracks at Frame 13. (forward of the FIN). Inspection required and repair as necessary. (Reported by Chalky White - Nympsfield).

1.7. Motor-Glider Engines (Limbach). Slick Magneto Failures. Limbach service letter 15 (enclosed) requires inspection of coils for cracks. (Failures in the U.K. have been reported. Therefore there is a need to ACTION this service letter).

2. GENERAL MATTERS

2.1. G.R.P. Gliders - extention of Safe-Life. (ASW 15/15B, JANUS/JANUS B, and Standard Cirrus). Subject to compliance with relevant A/D and Tech. Notes Safe "Life" may be extended from 3000 to 6000 flight hours.

3. TUGS AND MOTOR GLIDERS

3.1. Limbach Engines (Slick Magnetos) Coil Failures. (Please refer to 1.7.).

3.2. CARB/Induction Fuel Drains. An engine fire has occurred to a Limbach installation, due to failure of the drains to clear accumulated surplus fuel, on start up.

3.3. Throttle Spindle Failure (Due to excessive wear). G.A.S.I.L. 6/81 reports a case of engine failure after take-off to a light aircraft fitted with typical MARVEL-Schlebler carburettor, due to fatigue-failure of the brass butterfly shaft.

MAGNETO FAILURES.

Ref.: SLICK magnetos Model 4230 with the following serial No.s:

9050000 - 9059999
9060000 - 9069999
9070000 - 9079999
9080000 - 9089999
9090000 - 9099999
9100000 - 9109999
9110000 - 9119999
9120000 - 9129999
0010000 - 0019999
0020000 - 0029999
0030000 - 0039999
0040000 - 0049999

Affected: SPORTAVIA LIMBACH SL 1700 E, E I, LIMBACH SL 1700 EA, EA I, EB, EB I, EC, EC I and LIMBACH L 2000 EO 1, EA 1, EB 1, EC 1.

Background: There have been magneto malfunctions reported recently that have resulted from a circumferential crack in the orange potting compound of the magneto coil. The crack is observable as emanating from the high voltage output post of the coil.

Compliance: The coil must be visually inspected within the next 25 hours of service, or no later than June 30th, 1981.

Instructions: Proceed as per SLICK Service Bulletin 1-81 and the new blue SLICK Maintenance and Overhaul Instructiones.

All magnetos inspected and/or serviced as per SLICK Service Bulletin must have the letter "C" stamped into the metal name plate following the last digit of the magneto serial number.

Note: The SLICK Service Bulletin 1-81 and the Maintenance and Overhaul Instruction can be obtained from all SLICK Distributors or from LIMBACH-MOTORENBAU.

3.8. Progress with MOGAS. THE B.G.A. "Airedale" has now flown 150 hours on B.S. 4040 "4 Star".

An AG-Operator has tested a 260 h.p. Lycoming on "referenced" MOGAS, to a C.A.A. agreed test schedule and has established a "knock" rating only by advancing the ignition from 25° to 40°. Results satisfactory.

A large flying school has test-bedded a Lycoming 160 also on "referenced" MOGAS, to C.A.A. schedule - results satisfactory. ("Referenced" Mogas fuel means a special"brew" covering the worst features of B.S. 4040 e.g. high aromatic content/low octane rating).

3.9. Dirty Fuel causes Engine Malfunctions. Three cases have now been reported of fuel pump malfunction (Gypsy) due to dirty fuel fouling the filters and the non-return valves, in the pumps. In one case, both sand and water were drained off. It is most improbable that the fuel left the vendors pumps in this condition. Therefore, the contamination was engineered into the systems by poor standards of handling by the operating gliding club. Please check your storage systems and fit sump drains to refuelling devices.

3.10. Fuel Tank Sump Drains should also be installed in all aircraft (where possible) and sampled on each daily inspection. (Applicable especially to Austers and Chipmunks, which do not have such drains, but can be so modified).

R. B. STRATTON
CHIEF TECHNICAL OFFICER

3.4. SF.25E/T.61. Falkes. G.A.S.I.L. 6/81 extracts (herewith) include two accidents.

3.5. Exhaust System Failures - cause Anoxia/Fires/Engine Failure. G.A.S.I.L. 6/81. Reports three cases of exhaust system failures (heat exchanges/pipes etc.), causing anoxia or engine fires. (In one case the pilot of a PA 31 Navajo fell asleep for more than an hour on a flight from Liverpool to NORWICH!) In another case, a Jodel ditched when exhaust gases were injested by the induction system (TNS 4/5/81). A PA 18 - 150 exhaust muffler failed after 200 hours since new (glider-towing). Therefore, there is a need to make detailed inspections of such systems at frequent intervals, and to repair only in accordance with approved repair schemes. (C.A.A. Notice 40 refers).

3.6. Airworthiness Mis-Management - Log books/Scheduled Inspections etc. A recent syndicated-owned motor glider offerred for C of A renewal to the B.G.A. disclosed the following deficiencies:-

(1) No Schedule Maintenance (SO/100/Annual Inspections - Lams) recorded in Log Book over 3 year period.

(2) Flight Manual - missing.

(3) Certificate of Airworthiness - missing.

(4) Flying Hours - not recorded in log books.

In respect of all the above items, a definitive degree of non-compliance with the Air Navigation Order existed which would have invalidated both the C of A and the insurance. (The B.G.A. may prefer not to recommend such cases to the C.A.A. for renewal in the future).

3.7. The cost of NOT STAYING LEGAL Herewith extract from G.A.S.I.L.

. STAY LEGAL (G.A.S.I.L.)

In a recent 12 month period a number of court cases were brought against pilots who broke the law, some of which received considerable newspaper coverage, whereas others received little publicity.

(a) Ten cases of Low Flying resulted in pilots paying out fines and costs ranging from £20 to £1650, the average being £270. Low flying over a nature reserve cost the pilot £350.

(b) Three cases of Dangerous Flying cost pilots an average of £230.

(c) Being drunk in charge of an aircraft warranted 6 months jail.

(d) Penetration of an SRZ cost the pilot £200.

(e) False log book entries resulted in a £1250 fine.

(f) Instructional flight without a licence cost the pilot £1100, and flying without a licence cost another pilot £40.

(g) Unauthorised dropping of articles cost the pilot £100.

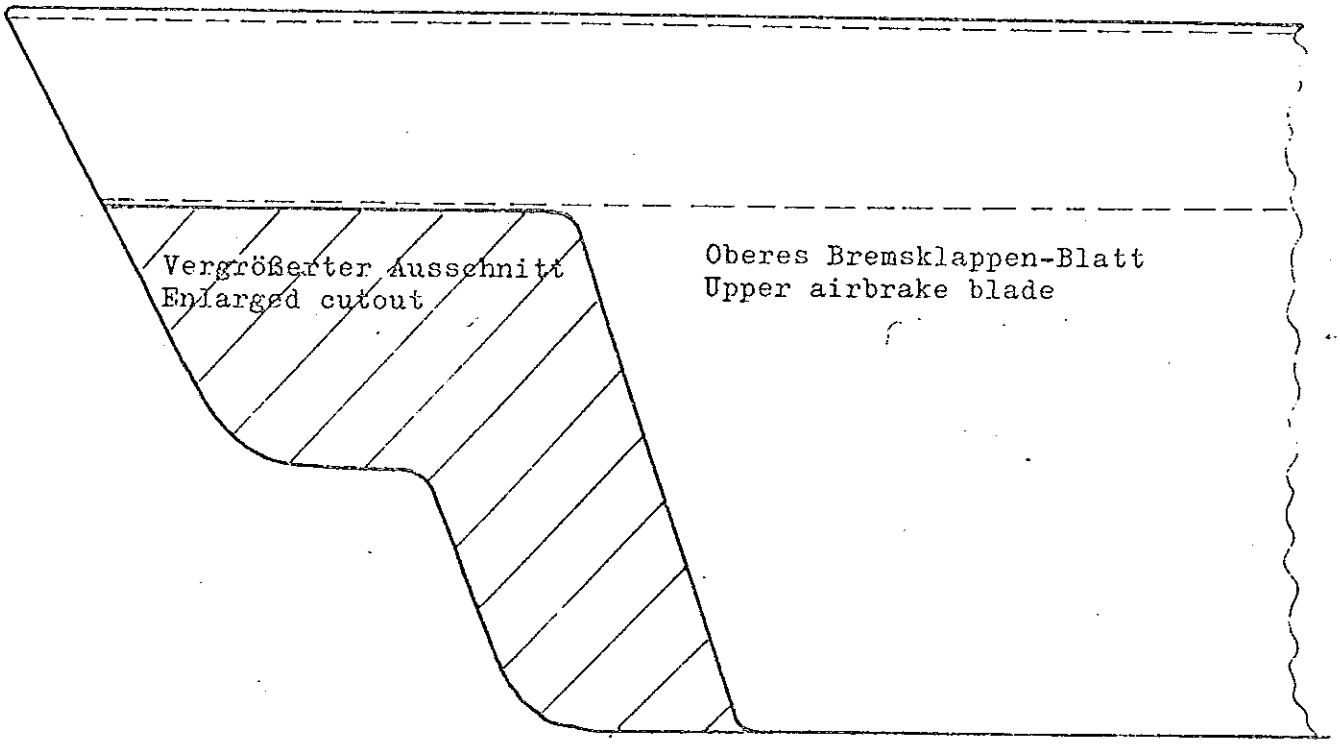
(h) An unauthorised flight cost the pilot £400.

The above cases are comparatively rare, it being more usual for the CAA to take action by Licence Variation (13 cases) and by use of Warning Letters (a staggering 143 cases).

Mit Hilfe der unten angeführten Zeichnung wird die Form des Ausschnitts an beiden Bremsklappen innen mit einem Bleistift angezeichnet und mit einer Metallsäge ausgeschnitten. Die Schnittkanten werden nachträglich mit einer Feile geglättet.

According to the drawing below the contour of the cutout is marked by a lead pencil and is cut out by a metal saw. The cutting edges are smoothed by a file.

Linkes Bremsklappenblatt
Left airbrake blade



Rolladen Schneider Flugzeugbau GmbH	Technische Mitteilung Technical Bulletin	NR. 4005 No.	Blatt/Page Ausg./Ed. 4 .81

Gegenstand : Bremsklappen LS4 AIRBRAKES

Betroffen : Segelflugzeugtyp LS4

Werk-Nummer: 4000-4004, 4006-4013, 4015-4018, 4020-4028, 4031, 4033-4035, 4037-4040, 4042, 4045, 4047, 4048, 4050, 4053, 4061-4063, 4068, 4075-4077, 4081-4083, 4085, 4086, 4088, 4099, 4106.

Dringlichkeit: Bis zum 31.7.81

Vorgang : Gelegentlich können die Bremsklappen oberhalb ca. 200 km/h nicht eingefahren werden, weil sich infolge Fertigungstoleranzen das obere Bremsklappen-Blatt auf den Kopf des Antriebsbolzen setzen kann.

Maßnahmen : Vergrößerung des Ausschnitts am oberen Bremsklappen-Blatt innen nach Zeichnung 4005-2

Material : entfällt.

Gewicht + SP-Lagen : entfällt.

Hinweise : Diesbezügliche Änderungs-Anweisung kann vom Hersteller bezogen werden.

Die ordnungsgemäße Ausführung ist vom Halter im Bordbuch zu bescheinigen .

Subject : Airbrake

Effectivity : Sailplane LS4 , S/N 4000-4004, 4006-4013, 4015-4018, 4020-4028 4031, 4033-4035, 4037-4040, 4042, 4045, 4047, 4048, 4050, 4053, 4061-4063, 4068, 4075-4077, 4081-4083, 4085, 4086, 4088, 4099, 4...

Accomplishment: Until 31.7.81

Reason : Sommetimes airbrakes cannot be retracted beyond 200 km/h, because airbrake blade may interfere with the head of the drive bolt caused by manufacturing tolerances.

Intructions : Enlarging the cutout of the upper airbrake blade on the inner side according to drawing 4005-2

Material, weight + balance : not affected

Remarks : Modification instruction may be obtained from the manufaturer.

Appropriate execution of modification should be stated in logbook by operator.

Anerkannt vom Luftfahrt-Bundesamt [signature]

P.T.O →

Erstellt: 4.5.81 [signature]	Ersetzt:	Geprüft: 5.5.81 [signature]

G.A.S.I.L.
No: 6/81

Ref: EW/G81/04/01

Aircraft:	Scheibe SF 25E Motorised Glider G-BFHN
Date and time (GMT):	2 April 1981 approximately 1245 GMT
Location:	Coads Green, between Bodmin and Launceston, Cornwall
Type of flight:	Private - club
Persons on board:	Crew - 1 Passengers - 1
Injuries:	Crew - nil Passengers - nil
Nature of damage:	Extensive - port wing and propeller
Commander's Licence:	PPL (self launching motor gliders)
Commander's total flying experience:	626 hours (of which 229 were on type)

The pilot was demonstrating a field landing in good weather conditions. He selected a grass field which was sufficiently large, into wind, with a slight uphill gradient. The approach was made with the intention of restoring power and overshooting from a low height without touching-down. In the final stages of the approach a wing tip struck the branches of a tree, causing the aircraft to yaw and roll, its main wheel struck a hedge pitching it downwards. It contacted the ground in a nose-down attitude on its main wheel and engine cowling, ground-looping before coming to rest. Both occupants were wearing upper torso restraining harness which held on impact and no-one was injured.

TN 3/12/80.
CAA letter 345.

G.A.S.I.L.

20. INCORRECTLY FITTED WING SEPARATED DURING AEROBATICS

Aircraft : Slingsby T61 Falke (Foreign Registered)
Date : October 1980

Applicable to Scheibe SF25 and possibly other motor gliders and gliders

Both occupants were killed when the right-hand wing separated during aerobatics. It was found that the wing attachment pin (inserted when the wings are attached prior to flight) had not fully penetrated through the bottom of the lower attachment lug. The lowest laminate peeled downwards and the pin slipped from the joint. The pin locking device is on the underside of the upper lug. On 2 November 1980 the manufacturer issued a mandatory Technical Inspection to determine that the pin protrudes from the bottom lug.

CAA Comment:
It was found that the lower lug had been bent downward so that the pin was unable to penetrate fully. This was believed to have been due to the use of force to drive the pin in when not quite lined up, (the very long wings making this a delicate operation) allowing the pin to butt onto the lug and bend it. Operators of all aircraft and gliders with this type of wing fitting should ensure that everything is properly lined up before inserting the pin; force should not be necessary.