B.G.A. Technical Committee

Technical Newsheet T.N.S. 1/82

Part I — Airworthiness "AGGRO". The 1982 (Blue) Compendium of Mandatory modifications and Inspections is enclosed herewith. (Please destroy all previous issues). Please add the following items to the Blue list:-

1.1 Blanik - Upper Body Restraint, attachment points cracked. Cracks have been responsible for the premature failure of top harnesses on a Blanik, in severe deceleration (accident) occurence in Australia.
a) Inspect/Repair all attachment points.
b) Secure nylon type top straps, so that they cannot become detached by sliding through the top buckles. (Particularly applies where ejector seat type straps have replaced original manufacturers type of harnesses.)

1.2 Blanik - Dive Brake Lever jammed in slots in cockpit side cover plates. Check that in no configuration of either cockpit lever, jamming clevis pin/washer assembly can occur. (GFA Australia sketch attached).

1.3 T.61 Falke. Forward Tailplane Bracket - cracked. T.I. No. 102/T61 herewith, amplifies inspection/replacement. Ref. TNS/12/81.

1.4 SF 28A. Tandem Falke. Rear Stick installation. AD/81-237 herewith, requires action to ensure full forward deflection of controls. (Ref. also Scheibe T/Note 770-12.)

1.5 ASW 19/20 Canopy Jettison/Locking Controls. To avoid confusion which may result in canopy becoming detached in flight, check that labelling is unambiguous, and that Jettison Knob (red) has not been accidently withdrawn. Very soft wire locking may be used to secure the Jettison Knob.

Part II General

2.1 D.I.Y. Construction Kits. Some of the kits imported from U.S.A. are overpromoted, under engineered, and require a great deal of time initiative, and engineering capability, before they can meet minimum "safe" standards of airworthiness. Please report difficulties to C.T.O., so that others can be warned/ advised of the problems.

/2 .....

Part III.

3.0 Tugs and Motor Gliders.

3.1 PA-18 (Series) Cubs. Lift-Strut Fork End Fittings. AD/81-25-05 has been issued additional to AD/80-22-05, and you should consult your maintenance engineer. If he is now as confused as the rest of us, he should consult either the local CAA office, or CSE Service Department (08675-4321). (BGA have written to CAA complaining about this type of FAA activity).

3.2 PA 18 (Series) Cubs. Undercarriage Structural failures. Two cases are now on record of fatigue failures at one or more of the critical joints in PA-18 undercarriage assemblies. Since PREVENTION is better than a costly out-of-service accident, it is strongly recommended that critical areas are stripped of paint inspected, and reprotected, at frequent intervals.

3.3 Stamo Crank-case - "Metallock" crack repairs. "Cold" repairs to cracked crank cases can be carried out by a firm in Oakham (Rutland). Contact Ken Ballington (0283-63054) who has experience of such repairs.

3.4 Under Inflated Tyres degrade Take-off Performance. Rolling drag of all vehicles increases dramatically as tyres become flat! Accident Report to SOCATA TOBAGO is attached. Applies to Tugs/Motor Gliders/Gliders etc.

3.5 Contaminated Fuel in Tug causes accident. Extract from AIB Bulletin tells a very sorry story. The message is clear, whether Mogas or Avgas, contamination of either is dangerous! Tug managers please re-appraise your fuel handling arrangements.

3.6 Tow-Rope Strength limitations. Fatal (Structural) failure to Schweitzer SGS1-26C in USA has been attributed to the use of a tow rope having a tested breaking strengh of 2350 lbs. (NTSB Accident Report). For correct strength refer to Flight Manual.

3.7 Light Aircraft Maintenance Scheme (LAMS) "Pilot Certified maintenance and defect rectification" (Tugs and Motor-Gliders)

Because of misunderstandings as well as mismanagement (TNS 4/8/81 and 6/7/81) CAA request widest circulation of above information Leaflet (AD/IL/0084/1-7) enclosed herewith.

/3 .....

Please draw attention of Tug managers/owners/ operators to the correct procedures contained therein.

50 hour inspections even if carried out by PPL owner/operators are important to the maintenance of airworthiness, to the detection of premature deterioration, and are a legal requirement.

(CAIP Leaflet BL/1-15 also refers)

3.8. Motor Gliders C of A renewals BGA/CAA Approval Ref. DAI/8378/73 has now been extended to include one nominated Tug Maintenance facility. To further extend our approval to re-instate the renewal of Motor Glider C of A's for 3 years, the BGA need to submit to CAA, a list of clubs/ Workshops facilities which will be likely to undertake such renewals:- therefore please complete the following details as soon as possible and return to BGA Office.

---

1. Club/Workshop Location .....

   Address .....

   .....

   Contact Telephone Number .....

2. Name of BGA Inspector(s) .....

   .....

   Or CAA Licenced Engineer(s) .....

   .....

   (Quote BGA/CAA Inspection Numbers) .....

   .....

3. Types of Motor Glider .....

   .....

4.0. B.G.A. (1982) Price List:-

(a)	BGA Inspector Fee (including insurance)		£8.50	
(b)	Glider CAA Renewal/Issue		£13.80	
(c)	Motor Glider CAA Renewal (Ref. CAA Notice No. 25)	Typical	£144.00	For 3 years
(d)	Glider Log Books		£5.45	
(e)	BGA Technical Procedure Manual(Gliders)		90p	
(f)	BGA Technical Procedure Manual (Tugs)		90p	
(g)	Standard Repairs to Gliders		£3.40	
(h)	Winch and Auto-Tow Equipment		90p	
(j)	Tug Managers Advisory Package		90p	
(k)	BGA Form 267 (Blocks)		£3.40	

(Prices include Postage & Packing)

Happy New Year.

January 1982

R.B. Stratton
Chief Technical Officer

15. AIRCRAFT CRASHED ON TAKE-OFF (Grossly under Inflated Tyres) !!

Aircraft : Socata TB10 Tobago, Resistration G-BHMN (Applicable to TB9 Tampico)
Date : September 1981
Notifiable Accident at Netherthorpe

The aircraft with four people on board attempted to take-off from runway 24 (wind 270/4-5kts). The weight with nearly full tanks was just below the maximum. The runway (482 metres take-off run) was uphill by about 2%, and the aircraft did not accelerate beyond about 50-55 kts, but the pilot continued the take-off in the hope of clearing the boundary fence. The first impact with the fence threw the aircraft into the air, it slid across a field, a road and into a second field where it burst into flames as a result of the rupture of the left hand fuel tank. The pilot opened his door shortly after coming to rest, and climbed out but the door slammed shut again. The front seat occupant was then unable to open either door. He attacked the right hand door and managed to open it after fracturing the latch attachment, while the rear seat passengers managed to push out the left-hand window and escape.

CAA Comment:
Fire damage was too severe to enable the reasons for the door jamming to be established, but the problem has been recognised by the manufacturer and 1981 aircraft from serial number 186 onwards have a revised latching mechanism. The UK agent has written to the manufacturer to see whether the pre-1981 aircraft can be modified to the new standard. As an interim measure CAA Additional Directive (No 001-10-81) dated 14 October 1981 requires fitment of a placard to both doors and rear windows stating 'IN EMERGENCY KICK OUT'.

A further contributory factor to the accident was grossly under-inflated tyres, the main wheels being at 19 psi (33 psi was correct pressure) and the nose tyre at 23 psi (45 psi correct). The required tyre and oleo pressures were placarded on each wheel spat in psi and bar, a total of eight values. It is felt that this practice could lead to misinterpretation.

BUILDING 130, WIRRAWAY ROAD, ESSENDON AIRPORT, VICTORIA 3041.

LET
KUNOVICE - 18
ISSUE 1
Date 26.11.1981
Sheet 1 of 1

INS 1/1/82

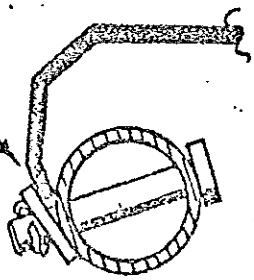
AIRWORTHINESS DIRECTIVE
GLIDERS/POWERED SAILPLANES

TYPES AFFECTED: Blanik L-13 All Serial numbers.

SUBJECT: Jambing of dive brake controls.

BACKGROUND: This A.D. has been issued following an incident involving Blanik pilot (solo) being unable to extend the dive brakes during an approach and landing.

The jambing was caused by the pilot's handle in the rear cockpit becoming wedged on the alloy fairing covering the control rods as shown:-



This jambing condition is created by pushing the pilots lever (front or back) down too far when completing the cockpit check.

AIRCRAFT DIVISION

TECHNICAL INSTRUCTION

TNS 12/80.

T.I. No.102/T61 Issue 1

TITLE

T61 'FALKE' (MOTOR GLIDER) FORWARD TAILPLANE BRACKET

CLASSIFICATION CAA MANDATORY

COMPLIANCE Inspection to be completed before next flight and annually thereafter.

OBJECTIVE To ensure structural integrity of the tailplane forward attachment bracket. Part number T61-30-09

JUSTIFICATION Cracks on the fitting have occurred in Area 'B' shown on diagram, the cause of which cannot be established.

APPLICABILITY Slingsby T61 'Falke' motor gliders and all variants, including spares held in stores.

CONSEQUENTIAL LIMITATIONS

If cracking is found the part must be discarded immediately and scrapped.

ACTION If there is any paint on the bracket it should be completely removed.

Visually examine (using a x 5 magnification) the bracket for cracks in area 'B' shown in the sketch below.

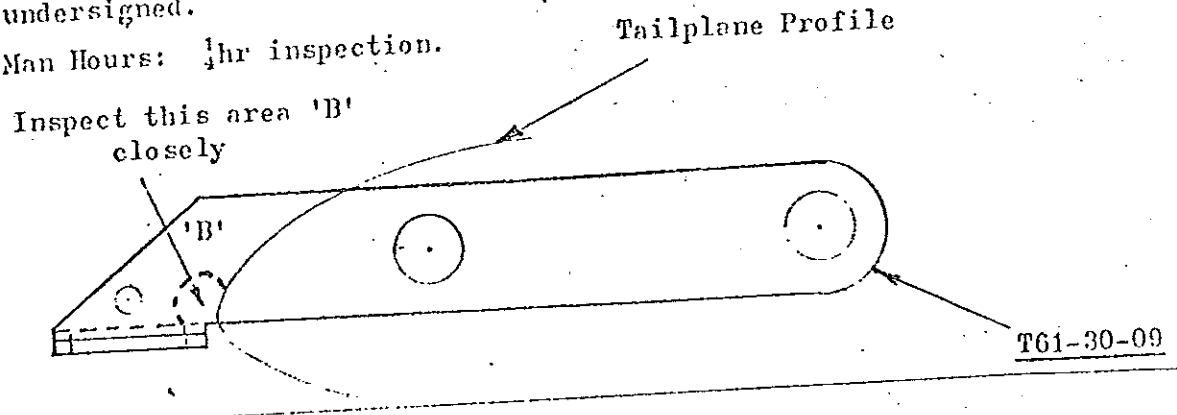
Should any sign of cracking be found then the existing part must be discarded and scrapped.

Undamaged parts may be returned to service.

Annotate aircraft log book showing compliance of this TI.

If the fitting shows any signs of damage this must be reported to the undersigned.

Man Hours: ½hr inspection.



PARTS REQUIRED

If inspection reveals a defective bracket, a replacement T61-30-09 Issue 4 (one off) bracket may be obtained from SEL.

ISSUED BY: B. Mellers

B. Mellers Chief Engineer/Aircraft Division.
for and on behalf of SLINGSBY ENGINEERING LIMITED
Kirkbymoorside, York YO6 6EZ, England. Tel.0751 31751 Telex 57911

Date 4.12.81

Page 1 of 1

TNS 1/82

No: 15/81 (Contaminated Fuel) Ref: EW/G81/09/05

Aircraft:	Auster J5L Eaglet G-ANWX (T to C)
Date and time (GMT):	12 September 1981 at 1305 hrs
Location:	Ingleby Arncliffe, Yorkshire
Type of flight:	Private
Persons on board:	Crew - 1 Passengers - Nil
Injuries:	Crew - Nil Passengers - N/A
Nature of damage:	Port undercarriage leg and propeller damaged
Commander's Licence:	Private Pilot's Licence
Commander's total flying experience:	800 hours 200 hours on powered aircraft (of which 140 hours were on type)

Following the refitting of an overhauled engine the pilot flew one circuit during which the aircraft performed normally. The aircraft was then accepted and the pilot took-off again on a flight to Carlton airstrip. The pilot reports that the flight proceeded normally for about 20 minutes, when he experienced a sudden loss of power. He changed fuel tanks, selected hot air to the carburettor and checked the magnetos; however the engine did not respond and a field was selected for a forced landing. During the final stages of the approach no power at all was available from the engine, and the aircraft undershot the selected field by about 30 yards. It went through a hedge sustaining damage to the undercarriage and propeller.

Previous to these flights the aircraft had not been flown for approximately two years. Technical examination revealed that the aircraft's fuel system was heavily contaminated with foreign matter, and also contained a significant quantity of water. The fuel system had not been flushed out when the overhauled engine was refitted.

TNS/1/82

Airworthiness Directive

81-237 Scheibe

Date of issue:
5. November 1981

Affected sailplane:
German Type Certificate No.770
SF 28 A "Tandem-Falke"
all Serial numbers

Subject:
Controlstick for the rear seat

Reason:
Due to incorrect installation of the rear stick the elevator cannot fully deflected in nose down direction (stick forward).

Action and compliance:
Action to be accomplished in accordance with technical information prior to the next flight.

Technical publication of the manufacturer:
Scheibe Technical Information No.770-12 of October 13, 1981 which becomes herewith part of this AD and may be obtained from Messrs. Scheibe Flugzeugbau GmbH, Aug.-Pfaltz-Str.23, D-8060 Dachau, West Germany.

Accomplishment and log book entry:
Action to be accomplished by an approved service station and to be checked and entered in the sailplane's log by a licensed inspector.

TNS/1/82

Civil Aviation Authority

Airworthiness Division

AIRWORTHINESS INFORMATION LEAFLET

Ref AD/IL/0084/1-7

Date 5 November 1981

Author's Initials HACT

This Leaflet will not necessarily be kept up to date by reissues.

SUBJECT TITLE LIGHT AIRCRAFT MAINTENANCE SCHEME - PILOT MAINTENANCE AND DEFECT RECTIFICATION.

PURPOSE This leaflet provides information on pilot certified maintenance and defect rectification permitted under the terms of the Light Aircraft Maintenance Scheme.

REFERENCES Air Navigation Order 1980 as amended.
Air Navigation (General) Regulations 1981 as amended.
Light Aircraft Maintenance Schedule REF CAA/LAMS/FW.1978.
Airworthiness Notice No.63.

It will be recalled that the Light Aircraft Maintenance Scheme (LAMS) was introduced on 1 April 1978, after which date aircraft not exceeding 2730 kg maximum total weight authorised, had their Certificates of Airworthiness (C of A) endorsed at the time they were issued or renewed, to require maintenance to be carried out to an approved schedule that was directly related to the C of A Category.

It is stressed that these maintenance requirements are related to the C of A Category as endorsed on the C of A for the particular aircraft and not the use to which the aircraft is put. To further illustrate this point, if an aircraft is in the Public Transport (Passenger) Category but used for private operation only, the Public Transport maintenance standard continues to apply and an owner or operator of an aircraft in this situation should clearly take steps to have its C of A re-categorised if he wishes to take advantage of the less demanding maintenance requirements of the Private Category.

MAINTENANCE

Scheduled maintenance that may be certified by a licensed pilot is limited to those aircraft that are the subject of a C of A in the Private Category, and reference to the Light Aircraft Maintenance Schedule

(Fixed Wing) Ref: CAA/LAMS/FW/1978 will confirm (on page 6-3 para 1.4.2) that provided he is the owner or operator of the aircraft, a licensed pilot may certify a 50 Hour Check only. It should be noted however, that this provision is limited to fixed wing aircraft.

Maintenance to the Light Aircraft Maintenance Schedule is based on work being required after the aircraft has flown a total of 50 hours, 100 hours and after an elapsed time of twelve months, all of which are calculated from the C of A issue or renewal date whichever is the latest. These work packages, normally referred to as Checks, are repeated at the periods quoted for a total of three years when the C of A will become due for renewal and the cycle recommenced.

In order to help all those concerned with the maintenance of these aircraft, Aircraft, Engine and Propeller Log Books (CAP 398,399 and 400 respectively) make provision for a running record to be kept of checks completed, together with date and hours flown at the time they were completed. From the above information it is a simple task to deduce the hours flown and/or date when the next check will become due. (Ref.Fig 1). A pilot wishing to certify that a 50 Hour Check has been carried out in accordance with the maintenance schedule should do so in Part A of the log books referred to above. In this connection it should be noted that Column 7, headed Signature and Authority and Date, can only be signed by those persons holding the authority to issue a Certificate of Compliance, the wording of which heads each page of Part A of the log books. It follows that the licensed pilot is not authorised to sign in that column and should sign under the details of the work carried out in Column 6. (Ref.Fig 2). Implicit in this certification is the fact that the licensed pilot certifying the work had available the information essential to complete the task, including manufacturers' maintenance publications, Service Bulletins, Airworthiness Directives and had an understanding of these publications. Implicit also is the fact that he possessed the necessary skills, together with tools and any special equipment required to carry out the particular tasks.

Part C of the log books referred to above provides ready reference to any special work that has been carried out and that may need to be repeated at set intervals. (Ref.Fig 3). As this work is of importance to airworthiness and may well be mandatory for the continued validity of the C of A, it is most important that Part C is checked before scheduled maintenance is certified. If, as a result of this check on the contents of Part C, it is found that work is outstanding then the services of an appropriately licensed AME or a person holding an authority issued by the CAA for the purpose, will be needed to certify the work as this falls outside the scope of pilot maintenance.

DEFECT RECTIFICATION

Turning now to the rectification of defects that may be certified by a licensed pilot. Regulation 16 of the Air Navigation (General) Regulations lists prescribed repairs and replacements that may be carried out by a licensed pilot, where the aircraft is not engaged in public transport, without a Certificate of Compliance having been issued. It is stressed that this Regulation applies to aircraft having a C of A in the Private

Category only and that any work which has to be carried out on the aircraft that is in excess of this list of items necessitates a Certificate of Compliance being issued by an appropriately licensed AME or a person authorised by the CAA for the purpose.

The way in which this work should be certified by a licensed pilot in respect of an aircraft having a C of A in the Private Category would be as shown in Fig.2.

Again implicit in this certification is the fact that the licensed pilot certifying the work had available the information essential to complete that task, including manufacturers' maintenance publications, Service Bulletins, Airworthiness Directives and had an understanding of these publications. Implicit also is the fact that he possessed the necessary skills, together with tools and any special equipment required to carry out the particular tasks.

GENERAL

Pilots certifying maintenance under the terms of the Light Aircraft Maintenance Schedule or an approved equivalent, and defect rectifications in accordance with Regulation 16, are reminded that if flying or engine controls are broken down, or adjusted, then it is necessary that the system is inspected completely by two LAMEs or holders of an authorisation issued by the CAA for the purpose and that a Certificate of Compliance is issued accordingly. (Ref.Fig.2). Also, attention is drawn to the fact that if a fuel system is disturbed for other than filter cleaning then there is a requirement for fuel flow testing to be carried out, which once again will require a Certificate of Compliance to be signed by the persons referred to above and as a result falls outside the scope of pilot certification.

Owners and operators are reminded that they are the maintenance managers of their aircraft and that they must make suitable arrangements for all continuing airworthiness requirements to be met. They should also understand that if they fail to do so then, apart from any airworthiness hazards that may result, they could also incur unnecessary expense at the time the Star Check is completed. It is appreciated that not all owners and operators of aircraft would consider themselves competent to meet this responsibility themselves, in which case they are recommended to delegate the task to a maintenance organisation of their choice.

The Authority is of the opinion that if an owner/operator can enter into a suitable agreement with a maintenance organisation which is mutually acceptable and is on-going, then the chances are that the arrangement is likely to produce the cheapest maintenance and C of A renewals consistent with an acceptable level of safety. Clearly, if the aircraft is taken from one organisation to another, then there must be an element of added work involved in the new organisation becoming familiar with the particular aircraft and the maintenance pattern to which it has been exposed.

As an ideal situation, the CAA feels that a pilot wishing to certify maintenance and defect rectification, within the scope of the Light Aircraft Maintenance Schedule and Regulation 16, should do so with the

co-operation of his maintenance organisation so that they can give him guidance and be knowledgeable of the work that he has carried out. Failure to do this, or to maintain adequate records of the work that is carried out, can only result in additional expense at the time when the aircraft becomes due for its C of A renewal, because clearly there must be additional investigatory work carried out before the recommendation can be made for the C of A renewal, which otherwise would not have been necessary.

C OF A RENEWAL

NOT EXCEEDING 50 HRS SINCE PREVIOUS 50 HR CHECK

ANNUAL INSPECTION OUT OF PHASE ANTICIPATED - SEE LAMS 5/1 NOTE 2

50 HR CHECK OWNER/OPERATOR CAN BE SIGNATORY (SEE LAMS 6/3. 1.4.2(a))

100 HR INSPECTIONS CANNOT BE CERTIFICATED BY OWNER/ OPERATOR OF AIRCRAFT

C OF A RENEWAL ONLY BY BCAR A8-15 COMPANY (NOMINATED LAE)

Check	Date	Total Hours Since Manufacture	Check	Date	Total Hours Since Manufacture	Check	Date	Total Hours Since Manufacture
ANNUAL + STAR	2-10-79	1250:00						
50	5-3-80	1,295:30						
100	12-6-80	1,345:30						
ANNUAL	25-8-80	1,393:30						
50	8-1-81	1,442:40						
100	6-5-81	1,491:30						
50	8-8-81	1,541:10						
ANNUAL	1-10-81	1,566:20						
50	6-2-82	1,614:20						
100	10-5-82	1,664:20						
50	8-9-82	1,711:30						
ANNUAL + STAR	1-10-82	1,436:40						

FIGURE 1

PAGE FROM AIRFRAME LOG BOOK WITH ENTRIES FOR A SAMPLE PRIVATE CATEGORY AIRCRAFT. (NOTE: THIS PAGE IS COL RED GREEN IN ACTUAL LOG BOOK) (PART B)

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Date 1980	No. of Flights	Flight Time		Total Since Manufacture		Engine Cycles	I hereby certify that the inspection/overhaul/repair/replacement/modification specified in Column 6 below has been carried out in accordance with the requirements of British Civil Airworthiness Requirements Chapter A4—3		Signature Authority Date
		h	m	h	m		Particulars of Maintenance and Other Work Carried Out on the Aircraft		
1	2	3		4		5	6		7
Total bf.	220	-	-	608	30	60			
2/11	1	1	20	609	50	61	BATTERY REPLACED. TYPE Z 624/1. SERIA N°. 123. APPROVED CERTIFICATE N°. R 3456 - SIGNAL ELECTRONICS LTD.	John Jones (OWNER) P.P.L/057 2/11/80	
3/11	2	2	00	611	50	63			
6/11	1	-	30	612	20	64			
7/11	4	3	20	615	40	68			
11/11	1	1	10	616	50	69			
12/11	2	3	20	620	10	71			
14/11	3	2	10	622	20	74	50 HR. CHECK HAS BEEN COMPLETED TO MY SATISFACTION AT 622.20 TOTAL AIRFRAME HOURS. MAINTENANCE SCHEDULE REF. CAA/LAMS/FW/1978. AIRFRAME/ENGINE/RADIO.	John Jones (OWNER) P.P.L/057 14/11/80	
18/11	1	1	25	623	45	76			
24/11	2	2	15	626	00	78			
25/11	1	1	10	627	10	79			
27/11	3	2	20	629	30	82			
6/12	2	3	10	632	40	84			
8/12	1	2	05	634	45	85	L/H WING AILERON CONTROL CABLE TENSION ADJUSTED AT T/E TURNBUCKLES 1ST INSPECTION	G. Graham. LAE 53677 CAT. A. 8/12/80	
12/12	2	-	50	635	35	87			
16/12	1	1	00	636	35	88		2ND INSPECTION D. Dunbar. LAE 72561. 8/12/80. CAT. A.	
19/12	2	2	05	638	40	90			
Total cf	249	-	-	638	40	90			

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FIGURE 2

PAGE FROM AIRFRAME LOG BOOK WITH ENTRIES FOR A SAMPLE PRIVATE CATEGORY AIRCRAFT. (NOTE: THIS PAGE IS COLOURED WHITE IN ACTUAL LOG BOOK) (PART A)

TERMINATING - ONE TIME MANDATORY MODIFICATION

RECURRING MANDATORY MODIFICATION

NON MANDATORY ONE TIME MODIFICATION

Modifications, S.Bs and A.Ds		Subject	Date & Hrs. at Compliance	Method of Compliance	One time	Recurring	Next Compliance Due Date/Hrs.	Signature Authority Date
Mandatory CAA AD	Non Mandatory							
1		2	3	4	5	6	7	8
003/08/79	–	SB/22 Pilots' Door Latch. (F.A.A AD 62-2-2 refers)	5-1-80 2360	Modified pins fitted.	✓		N/A.	A.N. Other LAE 56923 5-1-80
004/01/80	–	SB/30 N/wheel Steering. 100 Hr Repeat Inspection	15-2-80 2510	Inspected for wear. Entered in LAMS sched. section II		✓	See Col 4.	A.N. Other LAE 56923 15-2-80
–	SB/40	Aileron attachment brackets.	20-3-80 2600	Para 2.2 replaced.	✓		N/A	A.N. Other LAE. 56923

FIGURE 3

PAGE FROM AIRFRAME LOG BOOK WITH ENTRIES FOR A SAMPLE PRIVATE CATEGORY AIRCRAFT. (NOTE: THIS PAGE IS COLOURED PINK IN ACTUAL LOG BOOK) (PART C)