BGA ENGINEERING NEWS

Issue 5, March 2001.

Happy New Year, I hope you have all recovered from the excesses of the festive season.

The BGA Annual Conference and AGM have just passed. It was nice to meet some of you whom I have only spoken on the phone to so far. I hope those who managed to attend had an enjoyable and informative time.

Various presentations were given on the future of the BGA and the involvement of the various sub committees. John Bradley, Chairman of the technical committee gave an outline of our future plans and stressed that in addition to meeting our CAA and airworthiness commitments to the members we would regulate with "a light touch" as far as possible.
David Roberts in his presentation hoped that we would not over regulate, let me assure him and everyone that we will try our very best to achieve those aims while maintaining and improving the standards of airworthiness of the BGA fleet. Our record to date has been good, but it was felt that it would be beneficial to formalise the requirements for becoming a BGA inspector and to clarify the privileges that can be exercised. We hope to publish the full proposals and include with the next TNS to all inspectors and we will welcome your views on them. The world is changing and there is more emphasis on accountability and peoples attitudes. Hence some of the reasons for the changes implemented and proposed.
Attached to this newsletter you will find a summary of the proposed changes.

Glider Modifications

The Technical Committee discussed this subject at length and it has been decided to clarify the situation and set some guidelines.
From the accident statistics the BGA has a good record, with one or two exceptions, on accidents involving a non-airworthy mod. This is not the whole picture though as a quite a number are corrected before they become a statistic.
To address this we will give guidelines on what constitutes a major or minor modification and then will publish a set of "code of practice" guidelines on the type of modification that are mostly carried out. These will include: Battery installation, Instrument or radio fit, oxygen systems etc. etc. Normally these will not require individual approval if the mod is within the guidelines. The guidelines will be published in the new BGA AMP manual that is being produced.

A minor clarification will be required in the BGA Exposition.

BGA AMP Manual

A new manual titled "BGA Airworthiness Maintenance Procedures Manual" is in the process of being produced.

This manual will be intended for all inspectors new and established and will contain guidance on a wide range of subjects from how to apply for a C of A to a heavy landing checks. New inspectors will find the manual very useful others will only need to refer to it occasionally. As this manual will not need CAA approval contributions can be accepted from anyone, but please wait until you have seen it. The manual will be loose leaf and amenable.
It is intended to support the BGA exposition.

Air Tests

The Technical committee has withdrawn the requirement for Self Sustaining Sailplanes (Turbos) to have an air test as part of the C of A renewal. This airtest did not prove necessary as no performance claims are made for self sistainers. This will ease some of the problems when completing the annual C of A renewal.

Jim Hammerton CTO.

British Gliding Association

Notice of Proposed Changes

These changes to the BGA Technical Procedures Manual will effect the appointment of BGA Glider inspectors, Existing BGA inspectors and the process for C of A renewal of CAA (G) registered Motor Gliders, Self Launching Sailplanes and the maintenance certification of Gliders.

1, The BGA Technical Procedures Manual is being replaced by the BGA Airworthiness Exposition and BGA Airworthiness Maintenance Procedures Manual. The Exposition is before the CAA for approval and is required for CAA B1 approval.
2, CAA B1 approval is required primarily for the appointment and authorisation of BGA Motor Glider and Tug inspectors.
3, New inspector categories are being introduced to provide an entry level inspector rating and to formalise the requirements for becoming an inspector. Also the CAA require changes to the way in which the C of A renewals for "G" registered aircraft are handled

New ratings and brief outline of privileges;

Glider Inspector (Entry Level) –	Maintenance certification, C of A inspections minor repairs to Glider, Motor Glider and SSS airframes.
Wooden Structure Repair -	Repairs to Glider, Motor Glider and SSS wooden airframes (not including jigging, alignment or spars)
Metal Airframe Repair -	As for wood
Composite Airframe repair -	As for wood
Self Sustainer Sailplane Engine -	Maintenance certification, C of A inspections on SSS engines and systems.
Powered Sailplane and Motor glider inspector –	Maintenance certification of CAA registered motor glider & SSS engines and systems.
Tug Maintenance Approval -	Maintenance of BGA registered tugs.
Local Special M3 Chief Engineer Approval –	Make recommendations for CAA C of A renewal to the BGA and issue Certificates of Fitness for Flight under "A" conditions.
Senior Inspector -	Certify major repair to airframes on endorsements held.

Their will be "Grand father" rights for existing inspectors and any case of difficulty will be assessed sympathetically on a case by case basis.

4, "G" Registration aircraft only:
It is a CAA requirement that all aircraft operating on the LAMS maintenance schedule – all self launching sailplanes and motor gliders – to have the Star Check (C of A renewal) carried out at an approved M3 facility.
A Local Special M3 Chief Engineer will be appointed at each BGA M3 site.
Only recommendations for C of A renewal from a BGA Local Special M3 Chief Engineer (or the CTO) will be accepted by the BGA.

It is planned to distribute the full proposals for the inspector ratings accompanying the next TNS issue for comment.

BGA Technical Committee, March 2001.

British Gliding Association – Technical Committee

Technical News Sheet 01/02/01

Part 1 Airworthiness issues (all categories)

1.1 BGA Airworthiness Compendium 2001, (Yellow cover) is enclosed with this issue. The compendium contains Airworthiness Directives, Mandatory Modifications and Inspections and defects found during inspector's experience.
Please refer to this document in respect of each type, at the time of the Annual or C of A renewal inspection if not more often.

1.2 Centrair Alliance 34 and SF34B
Following satisfactory results of the inspections required in BGA inspection 007/08/2000 Issue 1, the BGA temporary flight restrictions have been lifted. BGA 007/08/2000 issue 1 is cancelled.

1.3 Centrair Pegase 101
Reported by North Yorkshire Sailplanes.
Jamming of the air brakes can occur if the paddle mounting bolt tails are too long. Apply simulated air loads to check operation. Details enclosed.

1.4 DG 500/22 ELAN TN348/15 LBA AD 2001-079 (Mandatory)
Lubrication of ball bearings and articulated rod in the cockpit area can lead to rough operation or jamming. Details enclosed. (Sent to owners)

1.5 DG 500M TN843/16 LBA AD 2001-080 (Mandatory)
Lubrication of ball bearings and articulated rod in the cockpit area can lead to rough operation or jamming. Details enclosed.

1.6 LS6 TB6037 LBA AD 2000-082 (Mandatory)
Flight controls – Jamming of the air brakes in the extended position.
Details enclosed (Sent to owners)

1.7 Duo Discus
Reported by Tim Macfadyen
Canopy opened in flight due to loss of friction in canopy securing latches.
Details enclosed.

1.8 Discus (all)
Reported by Tim Macfadyen
Canopy opened in flight due to loss of friction in canopy securing latches.
Details enclosed.

1.9 Ventus (all)
Reported by Tim Macfadyen
Canopy opened in flight due to loss of friction in canopy securing latches.
Details enclosed.

1.10 Ka 13 (applicable to other Schleicher types)

Reported by Southdown Gliding Club
Air brakes jammed open in flight. Operating arm attachment bolt to paddle fouling wing box due to incorrectly positioned clearance slot.

1.11 ASW 19b

Reported by North Yorkshire Sailplanes.
Jamming of the air brakes can occur if the paddle mounting bolt tails are too long. Apply simulated air loads to check operation. Details enclosed.

1.12 K7

Reported by Staffordshire Gliding Club
Airbrakes jammed open in flight due to the control rod stop plate had jumped past its stop tube. Ensure tubes are not distorted, bent or excessive play on levers, cranks or bearings does not minimise stop engagement.

1.13 PW5

Reported by Burn Gliding Club
During winch launch the seat back peg jumped out of its location. Ensure adequate location of peg and mountings are not excessively worn.

1.14 Stemme S10v and S10VT

SB A31-10-051 LBA AD 1999-224/5 (Mandatory)
Variable pitch propeller – Propeller fork 10AP-V08 of propellers 10AP-V and 11AP-V / project 14-006. Details enclosed.

1.15 Valentin Mistral-c TN329-013 LBA AD 2001-089 (Mandatory)
Ailerons – Residual momentum of ailerons. Details enclosed.

1.16 Valentin Tiafun 17E SB-KOCO 05/818 Issue 2
LBA AD 2000-392/2 (Mandatory)
Wings – Inspection and if necessary replacement of central bolt of wing locking mechanisms; inspection of telescopic rods. Details enclosed.

1.17 Rotax Engines 914F Series

TI DAI MSB36-70 and DAI SI36-003
AD No 103 (Mandatory)
Inspection for possible cracks in different engine parts. Details enclosed.

Part 2 Modifications

2.1 Piper Pawnee.

Deeside Gliding Club have incorporated a Schweizer replacement wing cluster to eliminate the 2yr repetitive inspection required in AD 95-12-01 and only requires a 6 yr. Dye penetrant inspection.
The modification is CAA approved. Details from Mark Recht – Tug Master, Deeside Gliding Club by e-mail pawnee@soaring.org.uk or web site www.pawnee.soaring.org.uk

Part 3 General Matters

3.1 SZD Spares

Due to the continuing problems of obtaining spares for SZD gliders I have one contact: Henryk Mynarski, 13, Bociania Str, Bielsko-Biata, 43-316, Poland. Tel: 0048 33 866 20 80 e-mail wirkk@bb.onet.pl

(CTO Note:
If anyone has additional contacts I will be happy to publish them.)

3.2 Self Sustainer Sailplanes (Turbos)

The Technical Committee has removed the requirement for an air test at C of A renewal. A revised 267(T) will be issued in due course but please continue to use the old form but disregard the flight test section in the interim.

3.3 Glider Weight Increases

The technical Committee has agreed and set guidelines for weight increases to BGA registered gliders. A copy of the guidelines is attached to this TNS. Applications for weight increases already applied for will be reviewed in due course.
In accordance with rule 2.4 existing weight increases should be reviewed at the next C of A renewal to see if it complies with the guidelines set.

Jim Hammerton
Chief Technical Officer

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NORTH YORKSHIRE SAILPLANES

Telephone: 01845 577341 *24hr Ansaphone Service* *Fax: 01845 577646*
Unit M, Alanbrooke Industrial Park, Topcliffe, Thirsk, North Yorkshire YO7 3SE

Mr J Hammerton
British Gliding Association
Kimberly House
Vaughan Way
Leicester
LE1 3SE

1st February 2001

Reference: CENTRAIR PEGASE 101 BGA 4084.

Dear Jim

The owner of the above glider told me that during a decent at high speed using full airbrake he tried to close the airbrakes, but found they jammed during retraction and would only close fully as the speed was reduced.

During the CofA inspection we looked into the problem and found the following. If the airbrake top paddle was pushed back to simulate airflow at speed and then retracted the bottom of the top paddle would jam on top of the lower paddle mounting bolt.

The bolt ends varied in length between 1mm to 3mm. These were ground back flush with the locking nuts and the system tested again. The result was that with great force the top paddle would make contact with the operating arms, but because of its design no jamming could occur.

We have inspected further Pegase and ASW 19b airbrakes since and observe that the same problem could occur, we have ground back the excess bolt ends on the gliders as mentioned above.

If you need to ask me any questions on the above matter please give me a call at work, but I believe this needs including in your next addition of tech notes.

Yours sincerely

Derek Taylor

VAT Registration No. 664 7135 22

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Airworthiness Directive 2001-079

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Glaser Dirks

Effective Date: March 08, 2001

Affected:

Kind of aeronautical product:	Sailplane
Manufacturer:	DG-Flugzeugbau, Bruchsal, Germany
Type:	DG-500/22 ELAN
Model:	all
Serial numbers affected:	all
German Type Certificate No.:	348

Subject/Reason:
Ball bearings and articulated rod ends in the cockpit area.
If lubrication tasks on the ball bearings and the articulated rod ends in the cockpit area are not performed properly, this may lead to rough operation or to jamming of the bearing/articulated rod connections.

Aft control stick
Damage to or incorrect length of the retaining cables of the aft head rest may cause blocking of the aft control stick.

Action:
Lubrication of the ball bearings and articulated rod ends located below the access panels in the cockpits as well as checks of the retaining cables of the aft head rest for proper condition and correct length in accordance with the specifications of the Technical Information.

We expressly point out that nos. 2 and 4 of the manufacturer's Technical Information are not subject of this AD. The accomplishment of those items is to be considered a recommendation given by the manufacturer.
The actions must be done in accordance with the Technical Note of the manufacturer.

Compliance:
Actions to be accomplished not later than March 31, 2001.

Technical publication of the manufacturer:
DG-Flugzeugbau Technical Note No. 348/15 dated January 26, 2001 which becomes herewith part of this AD and may be obtained from Messrs.:

DG-Flugzeugbau
Postbox 41 20
D- 76625 Bruchsal
Federal Republic of Germany
Phone: ++ 49 7257 890 Fax: ++ 49 7257 8922

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

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Instructions about Available Legal Remedies:
An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

Enquiries regarding this Airworthiness Directive should be referred to Mr.Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

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Airworthiness Directive 2001-080

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Glaser Dirks

Effective Date: March 08, 2001

Affected:

Kind of aeronautical product:	Powered Sailplane
Manufacturer:	DG-Flugzeugbau, Bruchsal, Germany
Type:	DG-500M
Model:	all
Serial numbers affected:	all
German Type Certificate No.:	843

Subject/Reason:
Ball bearings and articulated rod ends in the cockpit area.
If lubrication tasks on the ball bearings and the articulated rod ends in the cockpit area are not performed properly, this may lead to rough operation or to jamming of the bearing/articulated rod connections.

Aft control stick
Damage to or incorrect length of the retaining cables of the aft head rest may cause blocking of the aft control stick.

Action:
Lubrication of the ball bearings and articulated rod ends located below the access panels in the cockpits as well as checks of the retaining cables of the aft head rest for proper condition and correct length in accordance with the specifications of the Technical Information.

We expressly point out that nos. 2, 4 and 5 of the manufacturer's Technical Information are not subject of this AD. The accomplishment of those items is to be considered a recommendation given by the manufacturer.
The actions must be done in accordance with the Technical Note of the manufacturer.

Compliance:
Actions to be accomplished not later than March 31, 2001.

Technical publication of the manufacturer:
DG-Flugzeugbau Technical Note No. 843/16 dated January 26, 2001 which becomes herewith part of this AD and may be obtained from Messrs.:

DG-Flugzeugbau
Postbox 41 20
D- 76625 Bruchsal
Federal Republic of Germany
Phone: ++ 49 7257 890 Fax: ++ 49 7257 8922

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

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Instructions about Available Legal Remedies:
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Enquiries regarding this Airworthiness Directive should be referred to Mr.Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

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Airworthiness Directive

2000-082

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Rolladen-Schneider

Effective Date: March 09, 2000

Affected:

Kind of aeronautical product:	Sailplane
Manufacturer:	Rolladen-Schneider, Egelsbach, Germany
Type:	LS 6
Models affected:	all
Serial numbers affected:	all
German Type Certificate No.:	357

Subject:
Flight Controls - Jamming of the air brakes in extended position

Reason:
It has been reported, that in some cases, corroded air brake lever bearings were found. The reason of the corrosion is collection of water in the air brake boxes which has not been removed after the flight. Long time corrosion on the air brake lever bearings may lead to excessive play. Excessive play in the air brake retention mechanism can result in operation problems during landing approaches.

Action:
1. Check the lower end of the air brake levers for corrosion.
2. Check the air brakes for signs of jamming/locking during retracting under load.
3. Add and exchange pages into Maintenance and Flight Manual.
4. Replacement of bearings, if corrosion or jamming in the retraction mechanism has been established.

The actions must be performed in accordance with the Technical Note of the manufacturer.

Note: The actions 1 up to 3 can be performed by the owner of the aircraft.

Compliance:
The Technical Note must be applicated before the next flight.

Technical publication of the manufacturer:
Rolladen-Schneider Technical Bulletin No. 6037 Edition 14.Sep.99 which becomes herewith part of this AD and may be obtained from Messrs.:

Rolladen-Schneider
Flugzeugbau GmbH
Mühlstrasse 10

D- 63329 Egelsbach
Federal Republic of Germany
Phone: ++ 49 6103 204126
Fax: ++ 49 6103 45526

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

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Enquiries regarding this Airworthiness Directive should be referred to Mr.Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

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Rolladen-Schneider Flugzeugbau GmbH LBA-No. EB-4 / I-B16	Technical Bulletin No. 6037	LS6	Page 1 of 1 Edition 14.Sep.99

Subject: Jamming of air brakes in extended position.

Effectivity: **All LS6 models, all serial numbers.**
(Versions LS6, LS6-a, LS6-b, LS6-c, LS6-c18 and LS6-18w)

Accomplishment: Before next flight

Reason: Contrary to procedures outlined in Flight Manual, water entering air brake boxes is not always removed. Long time corrosion at bearings may result in such excessive play, that **retracting of air brakes in flight is impossible**

Material and Instructions:
1. Check air brake levers in wing for corrosion at lower end.
2. Check air brake levers for play in flight direction when fully extended.
3. With existing play, check retracting under load: Apply about 25 kg <55 lbs> to the rear at each lever (this corresponds approximately to flight load at 200 km/h <108 Kt., 124 mph>.

4a. When under this load jamming on wing occurs, bearings must be replaced according to repair instruction „Air Brake Levers„ immediately.

4b. With corrosion existent, but no play, bearings must be changed within 6 months.

5. This inspection must be repeated at each third annual inspection.

Weight and Balance: Not affected.

Remarks: Accomplishment by national authority approved repair station.

Accomplishment must be entered into TB-AD-Accomplishment List in Maintenance Manual. Update of List for Repetitive Inspections with 1 line: „Air brake levers / check for corrosion + play / every 3 years„. Both entries must be signed by inspector.

LBA-approved:

Prepared:	Verified:

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1.8
1.9

Duo Discus, Discus 2 and Ventus 2 canopy catches

A Duo Discus canopy recently came open after 3 hours of flight in very turbulent conditions in New Zealand. A similar incident has occurred in Australia with a Discus 2. The Ventus 2 has the same type of canopy latch. None of these latches have springs to keep them closed, they rely on friction.

Owners are strongly recommended to frequently check the canopy lock mechanism bolts for tightness, to maintain the friction in the system. A spring to pull the handle to the closed position could be a good idea.

Tim Macfadyen 6 Feb 2001

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Airworthiness Directive 1999-224/5

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Stemme

Effective Date: March 22, 2001

Affected:

Kind of aeronautical product:	Powered Sailplanes
Manufacturer:	Stemme, Berlin, Germany
Type:	Stemme S 10
Models affected:	Stemme S 10-V and –VT
Serial numbers affected:	S10-V: 14-001 up to 14-030 and 14-012M up to 14-063M S10-VT: 11-001 up to 11-037
German Type Certificate No.:	846

Subject:
Variable Pitch Propeller – Propeller fork 10AP-V08 of propellers 10AP-V and 11AP-V / Project-No. 14-006

Reason:
Loss of one propeller blade including propeller fork during flight operation due to a fracture of the propeller fork at the end of its threaded fastening pin.

That fracture of the propeller fork may be caused by the stress which occurred during a ground contact of the propeller or a similar incident such as impact stop.

Putting out of operation of the propeller forks P/N 10AP-V08 on the occasion of the conversion of the propellers 10AP-V and 11AP-V to the design with the new forks P/N 10AP-V88.

Action:
The propellers 10AP-V and 11AP-V must be converted to the design with the new forks P/N 10AP-V88 (for both propellers).
Modification of the gearbox suspensions of the propeller 10AP-V and spacer tubes of the gearbox suspensions.
Perform an extra dynamic propeller balancing.

Note:
With publication of this Airworthiness Directive the requirement for revision of the appropriate service manual mentioned under the item 7 "Associated Documents" is no longer required.
The Technical Bulletin No. A31-10-001 as amended and approved by the LBA is to be applied.

Compliance:
The actions must be done before the next flight, if not already has been done.

Note:
For the purpose of the accomplishment of this AD one (1) ferry flight will be permitted; for this ferry flight the following conditions have to be met:

1. Proper condition and unrestricted functioning of the components concerned.
2. The ferry flight may be conducted only under visual flight conditions and with the minimum flight crew required for this flight.
3. Passengers, company staff members not required to conduct the flight and goods may not be carried.
4. The aircraft may not be flown over congested areas and assemblies of persons.
5. Prior to the flight, the pilot is to be informed about this exemption.
6. The conduct of the ferry flight is to be reported in writing to the Luftfahrt-Bundesamt stating a) the name of the pilot, b) the date of the flight, c) the time of departure and arrival and the AD number.

Technical publication of the manufacturer:
Stemme Service Bulletin No. A 31-10-051, Amendment-Index 05.c dated December 15, 1999 which becomes herewith part of this AD and may be obtained from Messrs.

Stemme GmbH & Co. KG

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

Flugplatzstraße 2, Nr. 7

D-15344 Strausberg
Federal Republic of Germany

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

Note:
This AD supersedes the AD-No. 1999-224/4 dated December 10, 1999.

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Instructions about Available Legal Remedies:
An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

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Airworthiness Directive 2001-089

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Valentin Flugzeugbau

Effective Date: February 23, 2001

Affected:

Kind of aeronautical product:	Sailplane
Manufacturer:	Valentin Flugzeugbau, Germany
Type:	mistral-c
Models affected:	mistral-c
Serial numbers affected:	all
German Type Certificate No.:	329

Subject:
Ailerons - Residual momentum of ailerons

Reason:
Recently inspections have shown, that the residual momentum of the ailerons are not in their normal limits.

Action:
Measure the residual momentum of the ailerons according with the instructions given in the Maintenance Manual. If the momentum of the ailerons are not in limit, perform a repair in accordance with the instructions given in the Operational Instructions.

Compliance:
Before the next flight.

Technical publication:
Eichelsdörfer Technical Note No. 329-013 dated February 08, 2001 which becomes herewith part of this AD can be obtained from Messrs.:

Eichelsdörfer GmbH
Hafenstr. 6

D-96052 Bamberg
Federal Republik of Germany

Phone: ++ 49 951 61413
Fax: ++ 49 951 67772

Accomplishment and log book entry:
Action to be accomplished by the owner of the aircraft or an approved service station and to be checked and entered in the log book by a licensed inspector.

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of this prescribed actions, the immediate compliance with this AD is to be directed.

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Airworthiness Directive 2000-392/2

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Valentin Flugzeugbau

Effective Date: February 22, 2001

Affected:

Kind of aeronautical product:	Powered Sailplane
Manufacturer:	Valentin Flugzeugbau, Germany
Type:	Taifun 17 E
Models affected:	Taifun 17 E
Serial numbers affected:	all
German Type Certificate No.:	818

Subject:
Wings - Inspection and if necessary replacement of central bolt of wing locking mechanism; Inspection of telescopic rods

Reason:
Central bolts incorporating modification „a" had been installed by manufacturer Valentin Flugzeugbau in some Taifun 17 E. During an inspection of a Taifun 17 E cracks were found on one of this central bolts.
During the inspection of central bolts carried out by the type supporter several central bolts were found to have been mounted by manufacturer in wrong direction (narrow side of cone to the top) .

Action / Compliance:

1. Before the next flight:
   Determination of installation direction of central bolt and find out modification status of central bolts by weighing.

2. Before the next flight:
   Visual inspection for cracks with magnifying glass. Central bolts with cracks have to be replaced before further flight.

3. Before the next flight:
   Inspection of telescopic rods and their locking mechanisms for any damage, deformation and mechanical tightness. Defective telescopic rods have to be repaired before further flight.

4. Not later than March 31, 2001:
   Replacement of the central bolt modification „a" by a central bolt in accordance with F1-1373-drawing date November 24, 1982 or modification „b" dated January 12, 2001.

The actions must performed in accordance with the instructions given in the Service Bulletin.

Technical publication:
KORFF + Co. KG Service Bulletin No. SB-KOCO 05/818 Issue 02 dated January 16, 2001 which becomes herewith part of this AD can be obtained from Messrs.:

KORFF + Co. KG
Unternehmensbereich Luftfahrt
Dieselstrasse 6

D-63128 Dietzenbach
Federal Republik of Germany

Phone / Fax: ++ 49 6074 / 4006-33

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

Accomplishment and log book entry:
Action to be accomplished by the owner of the aircraft or an approved service station and to be checked and entered in the log book by a licensed inspector.

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed.

Instructions about Available Legal Remedies:
An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

TNS 01/02/01 1·17

AUSTRO CONTROL

AIRWORTHINESS DIRECTIVE

No. 103

Special inspection on aircraft with Rotax 914 F engines installed

1. Applicability: Rotax 914 F-Series engines
installed, but not limited to aircraft type Diamond HK 36 TTS (all Serial Numbers); Diamond HK 36 TTC (all Serial Numbers); Diamond HK 36 TTC-ECO (all Serial Numbers); Diamond DV 22 (Serial No. 22001 and 22002) and Diamond DA 40-V1 (Serial No. 40001)

2. Subject: Inspection for possible cracks in different engine parts

3. Reason: During the operation of powered sailplanes of type Diamond HK 36 TTC cracks in certain engine parts were noted.
As these cracks can not be limited to HK 36 TTC, all aircraft with Rotax 914 F engines are to be inspected.

4. Action: A detailed visual inspection of the following engine parts have to be carried out within the compliance time.

   a) crankcase in the aera below the cylinder
   b) ring-engine mount at the welding points
   c) exhaust stack (exhaust tubes between cylinder-head and exhaust)

   The technical informations of Diamond Aircraft Ind., DAI MSB36-70 and DAI SI36-003 are herewith part of this AD

5. Compliance:
   a) initial inspection within 10 flight hours, but not later than 31 March 2001 and thereafter at each regular maintenance inspection period until a modification has been approved by the manufacturer
   b) initial inspection within 10 flight hours, but not later than 31 March 2001 and thereafter at each regular maintenance inspection period until a modification has been approved by the manufacturer
   c) initial inspection within 10 flight hours, but not later than 31 March 2001 and thereafter every 50 flight hours until a modification has been approved by the manufacturer

   If a crack is found during this inspections, the affected part must be repaired according the manufacturers instructions or renewed.

6. Accomplishment: The required action has to be accomplished by the manufacturer or by a licensed/qualified person. An entry into the aircraft Log has to be done.

7. Effective Date: 15 February 2001

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Kto. Nr. 90.005.503

TNS 01/02/01 5.5

Cockpit load increases - BGA Technical Committee rules

The BGA CTO (and occasionally the Technical Committee) have for many years cleared cockpit loads above the original certified limits. It is unclear what criteria have been used for deciding acceptable limits. This note is intended to define the BGA rules on this subject.

1. Rules

1.1 No glider may ever be allowed to fly with the C of G outside the certified in-flight limits.

1.2 The maximum design seat load, commonly 110 KG (242 lb), must never be exceeded.

1.3 Increases may only be issued for Gliders and Self-Sustainers, not for any self-launchers, motor-gliders or Tugs.

2 The procedure for granting an increase is as follows: -

2.1 The glider shall be weighed and a cockpit load limitations calculated. Note; Accurate calibrated weighing equipment must be used.

2.2 With the written permission of the BGA CTO the glider's maximum AUW (without water) may be increased by up to 3% and the maximum weight of non lifting components may be increased by up to 5%. As a result of these increases the cockpit load(s) may be increased but only within rules 1.1 and 1.2 above. The glider must be placarded as non-aerobatic when flown at the increased weight. On pre 1945 designs all increases require special permission of the Technical Committee.

2.3 Cockpit loads may only be increased further or aerobatics permitted with the written permission of the Technical Committee. The Technical Committee will not normally approve such changes without the approval of the manufacturer. It is rare to obtain such approval.

2.4 Where an increase has already been granted it should be reviewed at the next C of A. (A TNS note is required). If it falls within the above procedure the increase will normally be approved by the CTO. If an increased cockpit load falls outside this procedure, then either an increase within the procedure can be approved by the CTO or the inspector concerned may apply to the Technical Committee for a further increase.

2.5 A "Flight Manual Amendment" will be raised detailing the approved weight increase and required placards. The amendment will apply equally to aircraft with "Pilot Notes", "Operators Handbooks" or similar documents.

3 The justification for the above policy is as follows: -

3.1 History For many years a 10% increase in cockpit weight has been allowed on most gliders. This equates to approximately a 3% increase in gross (dry) weight and a 5% increase in maximum weight of non-lifting components. The 10% cockpit weight increase results in a slightly different weight for every individual glider due to differences in empty weights. It is now considered desirable to formalise this process and for ease of administration the figures of 3% and 5% will be used.

3.2 Accidents The vast majority of glider accidents are caused by errors made by the pilots. There have been a very few accidents in which "Technical matters" played a part. There are no known accidents in which too high a pilot weight played any part at all. This provides strong circumstantial evidence for small cockpit weight increases.

3.3 V_{RA}- Max rough air speed - There is an argument for a reduction in maximum rough air speed with the 5% increase in fuselage weight. The calculation is as follows. New V_{RA}/old V_{RA} =

√old weight/new weight. This would reduce V_{RA} from 90 knots to 87.8 knots. As this change is within ASI error it is not considered worth applying.

3.4 Winch launch - The increase in wing bending during a winch launch with a 3% increase in cockpit weight is approximately 1% and would result a reduction in max winch launch speed of less than ½ knot. Again this is not worth applying.

3.5 V_{NE} - Calculations have been carried out by the ASW 20 BL designer, Gerhard Waibel, on increasing its cockpit load. These showed that the limiting wing bending case was at V_{RA} not at V_{NE}. Therefore V_{NE} was not affected by a modest cockpit weight increase. It is considered reasonable to assume that this conclusion is applicable to other glider types.

3.6 Aerobatics Gliders have occasionally been broken while performing aerobatics, generally while well outside the flight envelope. As an increased cockpit load adds to the structural loads during aerobatics it is considered prudent to forbid aerobatics with the increased cockpit loads.

3.7 Cloud flying OSTIV and JAR regulations require that for gliders permitted to cloud fly the airbrakes must limit the speed to VNE in a 45° dive at maximum AUW. For gliders that can carry water ballast the cockpit weight increase does not increase the AUW so the airbrake effectiveness is not changed. Where the AUW is increased by 3 % and the airbrake design is absolutely marginal, the limiting speed will occur in a 44° dive instead of 45°. This change is not measurable, so it is considered acceptable to allow gliders to retain their cloud-flying category with a 3% weight increase.

3.8 Crashworthiness, strap strength, strap mounting strength and cockpit strength calculations all relate to the maximum cockpit load. Any increase in cockpit load above the design maximum increases these loads in direct proportion to the cockpit load increase, that is a 10% increase in cockpit load would result in a 10 % increase in the above loads on the structure. An increase in cockpit load above the design maximum is therefore not considered acceptable.

3.9 Undercarriage stiffness Current production gliders, such as the ASW 27 & 28 have their undercarriage stiffness designed to give optimum crash protection. Older types were not so carefully designed. Any increase in AUW, especially fuselage and pilot weight, will increase the maximum G load suffered by a pilot's back for any given rate of decent. A 5% increase in fuselage weight result in nearly a 5% increase in G load, this is barely measurable and not considered to present a problem.

3.10 Pilot size The pilot's ability to bail out, to fit in the cockpit and to operate the controls may be affected by his size, which is clearly related to his weight. As long as the maximum cockpit weight is not exceeded the above will remain within the design limitations.

3.11 ASK 13s and Ka 7s It should be noted that ASK 13s and Ka 7s have been approved to fly at 1162 Max AUW (non-aerobatic) for many years. This is a 10% increase in Max AUW. The seat load limitation of 110 kg (242lb.) applies and the aircraft should be placarded "Non Aerobatic" above 1060 lb. AUW.

BGA Technical Committee, March 2001.