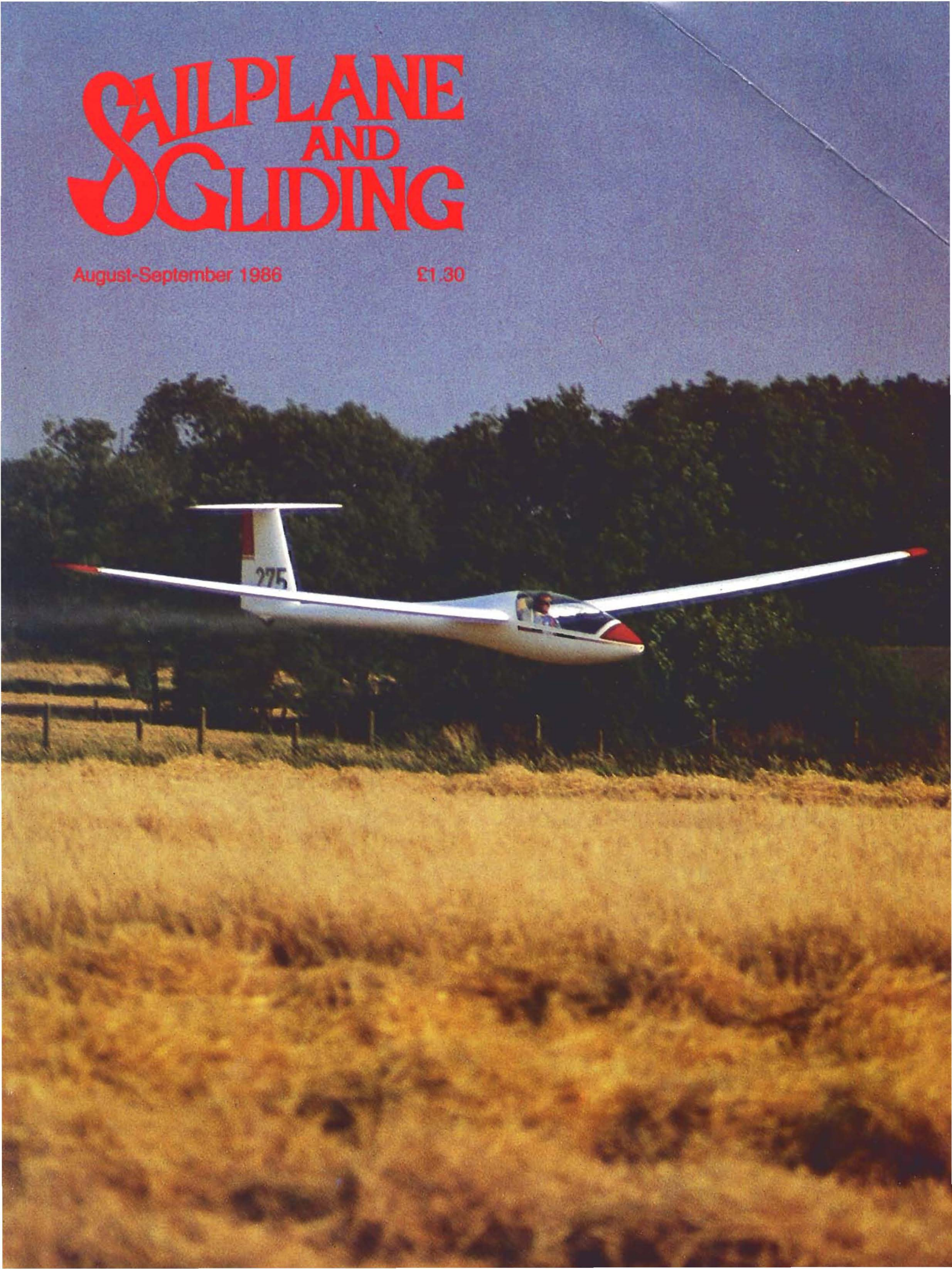
SAILPLANE AND GLIDING

August-September 1986 £1.30



Wish you were here...



Should you have the misfortune to take a dip with a Libelle instead of a Li-Lo, you could very well wish we were there!

Mowbray Vale do have something of a reputation for helping people out of the sticky (not to mention wet) situations in which they find themselves – and you just wouldn't believe some of the situations our clients end up in!

So, if you're thinking about insurance for your glider (or car, boat or house), why not take the plunge?

Ring carol Taylor or Stephen Hill on Thirsk (0845) 23018 – 24hr. Ansaphone Service

Or write to

MOWBRAY VALE INSURANCE

8 Castlegate, Thirsk, North Yorkshire, YO7 1HL Telex 587470

Represented at Lloyds

Magazine of the
British Gliding Association

Kimberley House, Vaughan Way
Leicester, LE1 4SG
Tel Leicester 0533 531051

August-September 1986
Volume XXXVII No. 4

EDITOR
Gillian Bryce-Smith
281 Queen Edith's Way, Cambridge, CB1 4NH
Tel 0223 247725

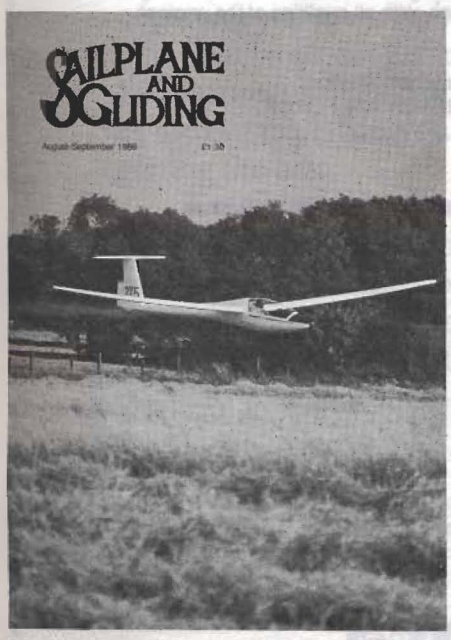
CONSULTANT EDITOR
Rika Harwood
66 Maisemore Gardens, Emsworth, Hants, PO10 7JX
Tel 0243 374580

SUBSCRIPTIONS
Bev Russell
BGA Office

COMMITTEE
R. Q. Barrett (Chairman)

ADVERTISING MANAGER
Helen Richie
Cheiron Press Ltd
7 Amersham Hill, High Wycombe, Bucks, HP13 6Q
Tel 0494 442423

PUBLISHER
British Gliding Association
(Barry Rolfe, BGA Administrator)



Cover: How low can you fly? Brian Spreckley, the new 15M Champion, finishes first in his LS-4 and wins the last day in the 1985 Standard Nationals at Husbands Bosworth last August in which he came second overall. Photo: Neil Jones.

SAILPLANE AND GLIDING

162 "NEXT TIME. . . ." T. J. Wills

164 GLIDE AID '86 P. Brice

165 FEAR OF FLYING A. W. F. Edwards

166 UP AND RUNNING!! J. S. Williamson

167 GOODBYE 284 M. J. Evans

168 CONFIDENCE W. G. Scull

169 INDECISION C. E. Morris

170 TAIL FEATHERS Platypus

172 THE BRITISH TEAM SQUAD B. B. C. Watson

173 HIGHER LAUNCHES H. G. Peters

175 TRAVELLER'S TALE F. Humblet

176 THE ULF-1 FOOT LAUNCHED GLIDER D. Reich

177 NEW SAILPLANES A. T. Lansdown, J. M. Bishop

178 LOOKING BACK W. E. Malpas

179 BOOK REVIEW J. S. Williamson

180 GLIDING AND UK AIRSPACE C. J. Nicholas

182 BGA & GENERAL NEWS FROM THE SECRETARY'S DESK B. Rolfe

184 WHY DON'T EAGLES NEED SUNGLASSES? L. Sebald

185 YOUR LETTERS A. E. Gee (reply by R. B. Stratton), P. Stratten, A. Etchells

186 CLUB NEWS

196 OVERSEAS NEWS J. M. Bishop

Leicester Printers Ltd · The Church Gate Press · Leicester

London Sailplanes Ltd

Major repair specialists in glass & carbon fibre reinforced plastics, steel tube & wood.

- ★ A. SCHLEICHER GLIDERS AND SPARES: SOLE U.K. Agents
- ★ TOST WHEELS, TYRES (inc. 400 x 4), WEAK LINKS, RELEASE HOOKS (new and factory exchange units)
- ★ PRINTA NEOGENE DOPES AND PAINTS: Main stockists
- ★ Agent for WINTER INSTRUMENTS. Most other instruments and radios available
- ★ MATERIALS FOR REPAIRS AND REBUILDS
- ★ GLI FINNISH BIRCH PLY in a range of thicknesses from 0.8 to 6.0mm
- ★ GERMAN STEEL TUBE for GLIDERS: Complete range
- ★ INSTRUMENT CALIBRATION AND REPAIRS

And hundreds of other items available from stock — All at competitive prices

'phone us - or call at:

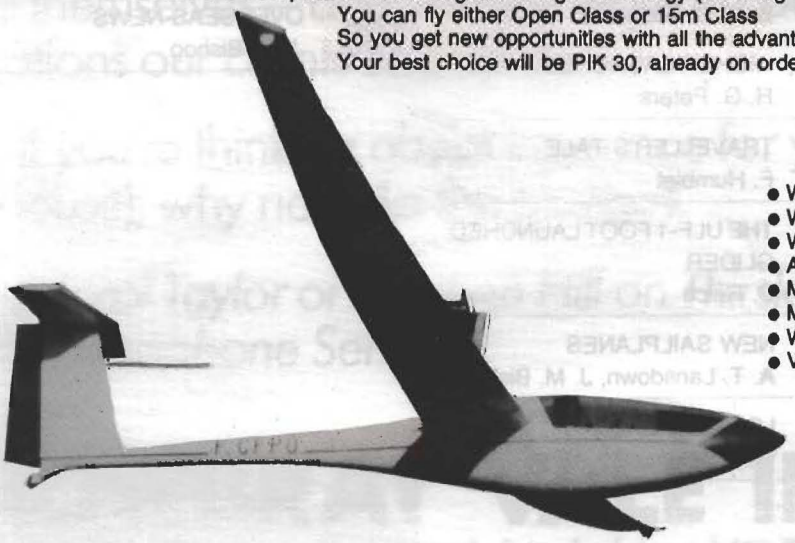
LONDON SAILPLANES LIMITED
Tring Road, Dunstable, Beds. LU6 2JP
Telephone: Dunstable (0582) 62068

Open Monday to Saturday: 9.00 - 1.00 and 2.00 - 5.00

THE PIK 30 HIGH PERFORMANCE SAILPLANE with retractable power plant

NEW — BY SIREN-FRANCE

SIREN has now in production a new improved version of the very well known motor glider PIK 20E 2 F.
The 17m span PIK 30 is going to become your best choice. It will offer you top performance, with all qualities of the original PIK 20E and the best price for a motor glider of high technology (including carbon fibre).
You can fly either Open Class or 15m Class
So you get new opportunities with all the advantages of the auxiliary engine
Your best choice will be PIK 30, already on order for THE FRENCH AIR FORCE



TECHNICAL DATA OF THE 17 m

• Wing Span	=17 m
• Wing Area	=10,63 m² (114,4 sq.ft.)
• Wing Loading	=36/43 (7.42 to 8,86 lb/sq.ft.)
• Aspect Ratio	=27,2
• Maximum L/D	=45 at 110 Km/h
• Min Sink	=0,54 m/s
• Weight Max.	=460 Kg
• VNE	=260 Km/h

ELECTRIM SAILPLANES

THRUXTON RACING CIRCUIT, THRUXTON, ANDOVER, HANTS
Telephone: Weyhill 2089 STD 0264-77

Grob & Tost.



Representing famous names carries a lot of responsibility. So when we were appointed Licenced Repair Agents by Grob and awarded an exclusive spare parts franchise for their gliders, motor gliders and light aircraft, it was a time for celebration, reflection and considerable investment.

Similarly, being stockists for Tost launch equipment and exclusive agents for their winches, gave us a bit of a lift.

Having the bits and the responsibility is now a pleasure and if you ever have a forced landing, it's comforting to reflect that Chiltern can take care of the problems of getting your aircraft back to base or into our fully-equipped workshops.

Our large stock of parts, repair material and accessories then comes into play. Whether you repair it yourself or use our expertise, you can be sure that you're getting the best.

Every repair by Chiltern is backed by a customer protection policy with full product liability cover – a mark of confidence in their products and our workmanship.

A telephone call will bring our recovery trailer to your aid and all the backing you need.

CHILTERN SAILPLANES LIMITED

Licenced to repair all Grob products.
Sole Concessionaires for spare parts for gliders, motor gliders and light aircraft.

GROB

Booker Airfield, Nr. Marlow, Bucks, SL7 3DR.
0494 445854 (works) or 0865 890517 (outside office hours).
Access and Barclaycard accepted with pleasure.
Grob demonstration and sales – Tel: 0491 37184

Make Insurance problems just plane sailing . . .



CONSULT THE AVIATION INSURANCE SPECIALISTS

FOR A COMPETITIVE QUOTATION CONTACT: JON SALMON

GLIDERS, SAILPLANES,
AND POWERED AIRCRAFT
FACILITIES AT LLOYD'S

Member of B.I.B.A.

LOWNDES LAMBERT
AVIATION LIMITED
Lowndes Lambert House, 53 Eastcheap
London, EC3P 3HL
Tel (01) 283-2000 Telex 8814631

Send for our programme. Information in German and English

We fly throughout Europe!

Glider pilots of Europe visit us!

Oerlinghausen – North Germany
Ab-initio training in gliding and motorgliding, winch and aerotow, aerobatics.

Aosta – North Italy
January to April: instruction in mountain flying, wave flying over Mont Blanc and Matterhorn.

Fuentemilanos – Central Spain
June to September: Cross-country and wave flying in a thermal paradise. Participate in your own or fly our glass-fibre gliders.

SEGELFLUGSCHULE OERLINGHAUSEN

Segelflugschule Oerlinghausen, Flugplatz, D-4811 Oerlinghausen — Tel: 0049-5202-72323

AB-INITIO TO DIAMOND BADGE

Enjoy motor gliding from Enstone in our newly expanded fleet



A Janus CM and a PIK 20E have joined our two Grob 109s, so now you can: learn to fly *ab-initio* and collect your SLMGPPL* in the Grobs; convert from Bronze and Silver Certificates to SLMGPPL; learn basic gliding techniques, field selection and navigation; develop advanced soaring techniques in the Janus CM, and go for cross-country soaring flights and Badge attempts in the PIK 20E and the Janus.

Complete beginners are welcome. Courses planned to suit your timetable and budget. Friendly club atmosphere. Seven days a week operation throughout the year.

No membership subscription. Tuition by CAA-approved instructors. Book flying by the hour. Pay only for flying. All aircraft available for private hire.

*Self Launching Motor Glider Private Pilot's Licence

Give us a ring, or, better still, come to see us:

OXFORDSHIRE SPORTFLYING CLUB, ENSTONE AERODROME, CHURCH ENSTONE, OXFORDSHIRE OX7 4NP Tel: 060 872 208

McLEAN AVIATION

THE AERODROME, RUFFORTH,
YORK YO2 3QA. 0904-83653

★ ★ ★

Sole UK factory approved repair agent for Glaser-Dirks (DG) Sailplanes and Powered sailplanes

★ ★ ★

FOR SALE

ASW 20 – Complete, with instruments and glass fibre trailer **£18,000**
Bijave – 2 seater with instruments and open trailer ..... **Offers**
Kestrel 19 – Complete outfit ..... **Offers**

★ ★ ★

SOLE UK AGENTS FOR O/K CLOCKWORK BAROGRAPHS
PLEASE ASK FOR DETAILS

★ ★ ★

DG Powered Sailplanes UK

Telephone: **Bob McLean 0904 83653**
John Ellis 0765 89431

Don't be left on the ground with a compromise

TRY the DG-400 *Self-launching* Sailplane



Interested?
Please ask for a trial flight or demonstration.

43hp Roxax engine – 750fpm climb – retracts completely to give 45:1LD
Carbon-fibre wing – 15/17m as standard

For D-G New Sailplanes telephone: **0347-810255 (Austin Aviation – Ansaphone)**
IN CASE OF DIFFICULTY CONTACT McLEAN AVIATION

NARROMINE SOARING CENTRE

TRY SOME REAL SOARING IN AUSTRALIA AT NARROMINE SOARING CENTRE.

We are a full time operation with glider hire service, towing and training available.

You can exclusively hire one of our well maintained and fully equipped sailplanes from our fleet of: RF-5B motorglider, 2 Blaniks, K-21, IS-29, 2 Hornets, Cirrus 75, ASW-19B, Mosquito, Mini-Nimbus, LS-3A17 and Ventus B.

Experience our summer soaring conditions and complete flights of 300-500-750 and even 1000km. Our terrain is flat and easy for any outlandings. You'll receive expert assistance and hassle free flying at the Narromine Soaring Centre.

Proprietors John and Stephen O'Donnell.

Enquiries to

PO BOX 77, NARROMINE 2821, AUSTRALIA

Phone **(068) 891856** *or* **(068) 892065 (A.H.)**

Civil Aviation Authority

CHART UPDATE

The following revised charts have been published by the Civil Aviation Authority:-

1:500,000 – NORTHERN ENGLAND AND NORTHERN IRELAND – 2171AB – EDITION 10

1:250,000 – SOUTH EAST ENGLAND – Sheet 17 – EDITION 12

Previous editions of these charts are now obsolete.

You can purchase the latest editions of all quarter and half million aeronautical charts of the United Kingdom - either in person or by post - from:-

THE CAA CHART ROOM
THIRD FLOOR CAA HOUSE
KINGSWAY LONDON WC2B 6TE
Tel: 01-379 7311 ext 2569

and from the following accredited chart agents:-

AOPA
50a, Cambridge St
London SW 1V 4QQ
Tel:- 01-834 5631

AIRTOUR INTERNATIONAL
Elstree Aerodrome
Herts WD6 3AW
Tel:- 01-953 4870
Open Saturdays

BRITISH AIRWAYS – AERAD
AERAD House
Heathrow Airport
Middlesex TW6 2JA
Tel:- 01-562 0795

EDWARD STANFORD LTD
12-14 Long Acre
London WC2E 9LP
Tel:- 01-836 1321
Open Saturdays

AIRPLAN FLIGHT EQUIPMENT
14, Cumber Drive
Wilmslow
Cheshire SK9 6DZ
Tel:- 0625 528035
Open Saturdays

BGA
Kimberley House
Vaughan Way
Leicester LE1 4SE
Tel:- 0533 531051

They are also stocked by most Flying Clubs and Schools.

DON'T FLY WITH AN OUT OF DATE CHART

CAA

CAMBRIDGE A name you can trust

FOR THE WIDEST RANGE OF VARIOMETERS, FLIGHT DIRECTORS AND NAV COMPUTERS

CVS SERIES
Prices from **£220** *plus VAT*



- ★ 2 sizes 80mm or 57mm
- ★ Scale change
- ★ Damping Switch
- ★ Will operate either:
  Audio (AU20) or
  Audio, Director, Averager (CMP150), or
  Audio, Director, Averager, Nav (C Nav 50)

CAV 50
£230 *plus VAT*



- ★ 80mm
- ★ Integral Audio
- ★ Scale Change
- ★ Damping Switch
- ★ Averager

(This vario will NOT operate CMP150 or C Nav 50)

M Nav 50
£810 *plus VAT*



- ★ Complete system
- ★ Dual scale, dual damped vario
- ★ Speed Director
- ★ Averager
- ★ Audio
- ★ Distance and Glide Computer etc



C NAV 50
£782 *plus VAT*

- ★ As M Nav 50 but no vario
- ★ Operates from standard Cambridge varios (except CAV 50)

Cambridge Aero Instruments

Cambridge Aero Instruments, Inc.
6A Dunham Road, Billerica, Massachusetts 01821
Tel. (617) 275-0889; Telex 948503
Access & Visa Accepted

Contact your local Cambridge Dealer.

RD Aviation Limited
Telex 265871
MONREF G
(Quote MAG 10189)

John Delafield,
Cotswold House,
Mill Street, Islip,
Oxon OX5 2SY
Tel: Kidlington (08675) 2357

Dickie Feakes,
11 The Poplars,
Launton,
Bicester, Oxon OX6 0DW
Tel: Bicester (0869) 245052

GQ Defence Parachute Division

Top Quality BRITISH PARACHUTES by GQ DEFENCE

Not imports

GQ 850



Weight 6.35kg
£598 inc. VAT
(bag included)

- ★ 1.8 sec deployment
- ★ 18 fps descent at 200lb
- ★ Colours (as available) red, blue, olive drab, black
- ★ Meets TS023c

GQ 350



Weight 7kg
£646.30 inc. VAT
(bag included)

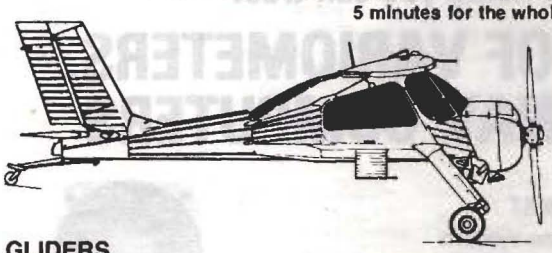
Manufactured by:
GQ Defence *Parachute Division*
Stadium Works
Portugal Road
Woking
Surrey GU21 5JE
Tel: Woking (04862) 61321

Distributed by:
RD Aviation Ltd.
Cotswold House
Mill Street
Islip
Oxon OX5 2SY
Tel: 08675-2357/0869-245052

or 11 The Poplars
Launton
Nr Bicester
Oxon OX6 0DW
Telex: 265871 MONREF G. Quote MAG 10189

PZL-WILGA

4 minutes to tow a glider to 1000m
1 minute to descend from 1000m
5 minutes for the whole towing operation



MAY BE BOUGHT, HIRED OR LEASED

SZD-50 PUCHACZ

Two-seater all glass-fibre training glider
GLIDE ANGLE 1:30
FULLY AEROBATIC



GLIDERS
MOTOR GLIDERS
LIGHT AIRCRAFT
AGRICULTURAL A/C
HELICOPTERS
ENGINES
INSTRUMENTS
SPARE PARTS



JANTAR STD 3 SZD-48-3
Glide ANGLE 1:40

NEW
15 METRE CLUB GLASS
SZD 51-1 JUNIOR



FROM FIRST SOLO UP TO DIAMONDS

ANGLO-POLISH **SAILPLANES LTD**

Wycombe Air Park · Booker · Marlow · Bucks
(0628) 39690 (0494) 40911 Telex: 848341 CHACOM G

PEGASUS 101 CLUB TRAINER

A SIMPLIFIED VERSION OF THE HIGHLY SUCCESSFUL PEGASUS 101 STD, AT THE VERY ATTRACTIVE PRICE OF 122,000 FRANCS EX WORKS ★ PLUS UNBEATABLE DEFERRED PAYMENT TERMS

SUITABLE FOR FIRST SOLO OR EXPERIENCED PILOTS

GLIDE ANGLE 40:1 (WHY SETTLE FOR LESS?)

STURDY SPRUNG UNDERCARRIAGE WITH FIXED 500 x 5 MAINWHEEL

EXCELLENT GROUND CLEARANCE AND HANDLING

ACCOMMODATES PILOTS UP TO 6' 6" and 250 LB

SUPERB IN FLIGHT HANDLING AND DOCILE STALL

POWERFUL DOUBLE PADDLE AIRBRAKES FOR EXCELLENT APPROACH CONTROL

AUTOMATIC CONNECTING ELEVATOR AND FRONT TOW HOOK AS STANDARD



INTERESTED? FOR FURTHER DETAILS OR TEST FLIGHTS OF THE PEGASUS RANGE OF SINGLE SEATERS OR MARIANNE TWO SEATERS

Ring Steve White on 0494 36888 or Alister Kay on 02406 2491, or write to

NINE FOUR AVIATION LTD

2 Hazlewood Cottage, Horns Lane
Marlow, Bucks SL7 3DU

SOUTHDOWN AERO SERVICES LTD

SPECIALIST GLIDER REPAIRERS SINCE 1954

NOW APPOINTED OFFICIAL REPAIR AGENTS BY
ROLLANDEN SCHNEIDER GmbH

FOR THEIR LS RANGE OF GLIDERS

REPAIRS AND C OF A INSPECTIONS UNDERTAKEN
ON ALL MAKES AND TYPES

THERMAL EQUIPMENT LTD

WINTER AND SECONDHAND AIRCRAFT INSTRUMENTS

SOUTHDOWN AEROSTRUCTURE LTD

CAA approved to build the GRP microlight PIPSTRELLE 2C

LASHAM AIRFIELD, ALTON, HANTS GU34 5SR

Telephone HERRIARD (0256 83) 359

The World's No. 1

LS-6

1st & 2nd: Rieti
1st: British National
etc etc

or Standard Class **L-S4**
Now with **improved** performance
Early Delivery

SPECIAL OFFER

SPECIAL LOW PRICE



Details from:

SPEEDSOARING

6 LASHLAKE RD, THAME, OXON
084421 4132 or 08692 42691
24 HOUR ANSWERING SERVICE

'NEXT TIME...'



Justin before his flight.

While the rest of the world were running for Sport Aid at the end of May, Justin Wills flew his LS-6 a sponsored 835km across the English Channel on May 29, breaking his UK straight distance record by 123km and achieving a speed of 104km/h. He took off at 0930 from the Ouse GC's site at Rufforth, Yorkshire and at 1730 landed west of Dijon, the town twinned with York.

When I ended my article on crossing the Channel in 1976 (see S&G, October 1976, p194) with these words I had no idea it would take ten years to repeat the exercise. In the interval I made seven further attempts, six from Doncaster and one from North Hill. On three occasions I did not even bother to rig (in one case it snowed solidly the whole day!), on another three I landed near Dover, and once at Duxford. Perhaps the latter was the most interesting as I had launched into wave at 8 am, climbed to 14000ft over Doncaster and then descended through solid overcast to land after 200km at 10.30am.

Throughout I kept a fairly careful watch on the weather and believe I only missed about four other "possible" days. In the meantime three flights of over 750km were flown round closed circuits, which shows that successful straight distance flights require very particular conditions.

Galvanised into reviewing everything and redrawing various course lines

By the beginning of 1986 my special pack of cross Channel maps and documents were getting pretty dusty, but the invitation to give a talk on the subject at the BGA Conference at Harrogate galvanised me into reviewing everything and redrawing various course lines. This preparation was to prove vitally important. In particular the three alternative routes I planned from Cap Gris Nez showing the respective distances achieved proved extremely useful.

On Sunday, May 25 I woke to the usual dismal grey sky and phoned Tim Macfadyen to commiserate. He mentioned in passing that a frost was forecast for Wednesday night, which was a possible indication of a good day on Thursday. I collapsed back into bed thinking gloomily of my work schedule. I turned on the radio to be regaled with accounts of a million healthy joggers all over the world running for Africa. Almost incapable of jogging myself, I mentioned to Gillian that if only a distance flight could be achieved during the following week we could link it to Sport Aid. The idea was born.

By late on Wednesday, May 28 a whole series of lucky events had occurred: Mike Garrod had been available to monitor the weather and provide vital encouragement; I had managed to get the next day off, and had caught the evening train to High Wycombe with seconds to spare; the Doncaster club had suffered a misfortune with their tugs, but the Ouse GC at Rufforth had stepped in, and Bob McLean had offered us overnight accommodation nearby; finally, our drive to York had gone smoothly and we were in bed by 11.30pm.

At 7.30am next morning I spoke to Mike Garrod again. He confirmed that the unstable trough over Britain the previous day had moved away to the east, and pressure had already risen by 6mb. The isobars were virtually straight and the wind was expected to be 330°/18kt at 5000ft down to Paris, veering more northerly thereafter due to the pressure rising from the west.

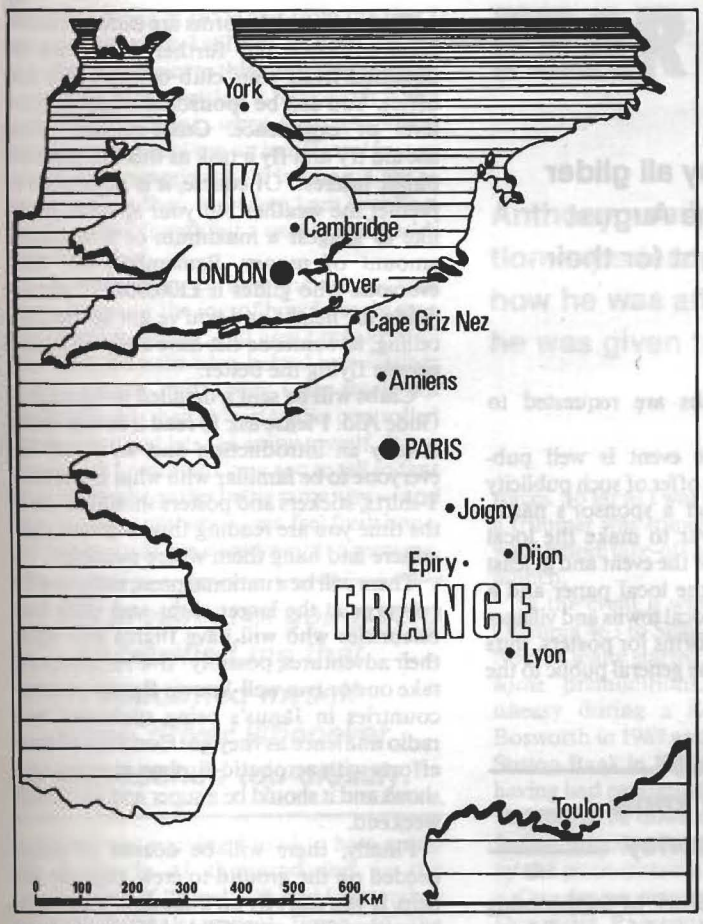
We started rigging at 8am and thanks to the excellent layout at Rufforth were ready an hour later. Already the sky was showing signs of overconvecting and I took off at 9.30, just in front of a sizeable shower bearing down from the Yorkshire moors. After releasing at 3500ft north-east of Tadcaster I set off downwind and for the first 45 minutes made excellent progress dolphining along between 1800ft and cloudbase at 2300ft. However, the clouds had now spread out extensively and I resorted to flying towards sunny patches, and on three occasions getting down to 1100ft before connecting, despite flying very cautiously (even retracing my steps on one occasion) and taking a couple of short cloud climbs between Grantham and Peterborough.

'. . . a clear area and the possibility of crossing the Channel suddenly became real.'

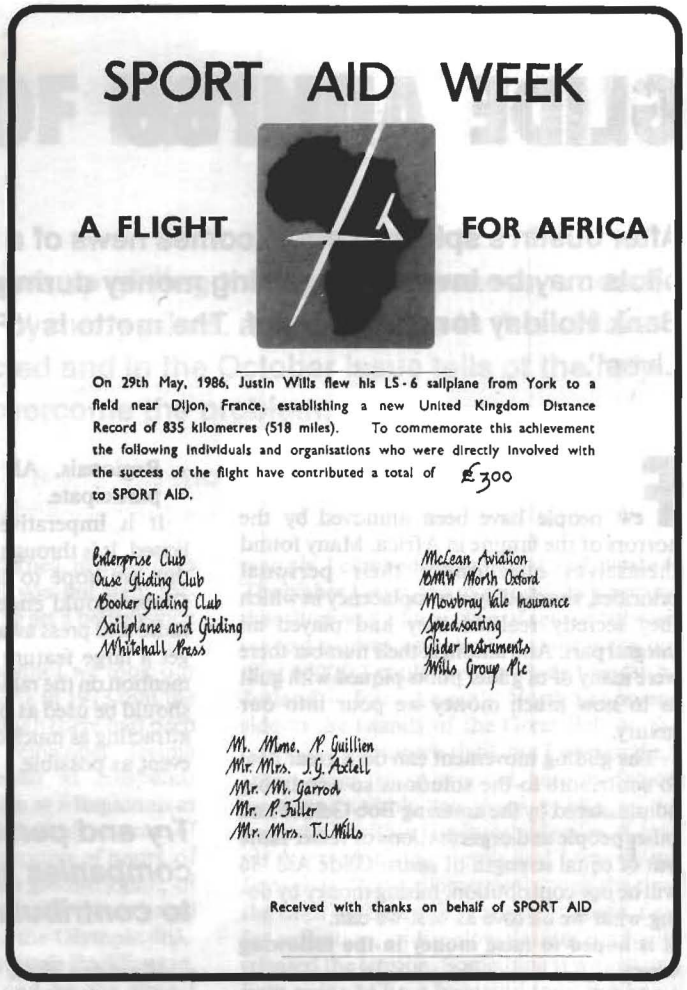
Nonetheless, thanks to the 15kt following wind, progress remained reasonable and by deviating to the east of Cambridge I found a clear slot which took me to Chelmsford, well clear of the London TMA. Conditions became rather scrappy crossing the Thames estuary, but improved again at Maidstone where cloudbase proved to have risen above 4000ft. Directly to the east was a huge area of showers, but I noticed a clear area near Folkestone and the possibility of crossing the Channel suddenly became real.

Pushing as fast as I dared I reached a cloud three miles offshore at 2000ft and began to climb slowly. I soon realised that I was too late but most fortunately another good cloud had built directly over the coast which took me promptly to 5500ft. The view towards France was obscured by my earlier cloud, so I began to follow one of Townsend Thoresen's ferries, until I realised it was heading north-east to Ostend. I hastily turned on to 155° and enjoyed the view for the next 15 minutes in smooth air.

I reached Cap Gris Nez at 2700ft and five miles later flew under the first French cumulus. Conditions ahead looked excellent and I began to speed up considerably. Perhaps



A map showing the area Justin covered.



The certificate presented to those directly involved.

the most exciting moment came at 2pm when I passed the 500km mark exactly on the 155° course line on my map, with some five hours to go, and remembered Mike Garrod's advice "If you can get to France conditions will progressively improve".

Half an hour later visions of 1200km evaporated. Ahead lay a huge area of over development and heavy showers. Soon I found myself struggling east of Paris, confined on one side by an enormous storm and on the other by controlled airspace. Cloud was forming at several different levels and the lift became increasingly broken and erratic. I managed to find another sunny slot running south and drifted down the Yonne to near Joigny. It was obvious that conditions were deteriorating further and I must have caught up yesterday's trough, as the wind was still 330°. I finally got well and truly involved in a great amorphous mass of cloud and I followed the line of towering convection until cloud and rain completely barred the route ahead. I set off towards the airfield of Autun, but the sight of hills disappearing into cloud forced me to turn south-west, away from the line on my map, and glide it out to a field full of buttercups, south of Epiry. By good luck the farmer, Philippe Guillien, saw me land and took me immediately to his home nearby. Thanks to him we phoned my position back to Gillian, and sorted out the local Gendarmerie — a task that took four hours. Apparently it had been raining there the whole day.

Next day Gillian reached me with the trailer, and after another night with the Guilliens we returned to England discussing the post-event sponsorship for Sport Aid.

Next time . . .

* * *

Flight details: Distance 835km, duration 8hrs 5min. Documents carried: passport, C42, C of A, gliding certificate, insurance certificate and 250fr.

PETERBOROUGH AIRCRAFT Co. Ltd.

NEW SAILPLANES – JUNIOR, PUCHACZ, JANTAR

SPARES FOR SZD SAILPLANES

MATERIALS – SPRUCE, PINE, PLYWOOD, FABRIC, DOPE, PAINTS, PERSPEX, ETC.

TRAILERS – ALLOY OR WOOD

AIRCRAFT FOR SALE –

ASTIR CS77 WITH TRAILER – **£8500.00**

KA7 WITH NEW CANOPY – **£4600.00**

S/H WOODEN KESTREL TRAILER – **£250**

Contact:

PETERBOROUGH AIRCRAFT Co. Ltd.

73 High Street, Maxey, Market Deeping or *Tel:* **0780 347506**

GLIDE AID '86

After Justin's splendid effort comes news of a way all glider pilots may be involved in raising money during the August Bank Holiday for famine relief. The motto is "Flight for their Lives".

Few people have been unmoved by the horrors of the famine in Africa. Many found themselves questioning their personal priorities, shocked by a complacency in which they secretly realised they had played an integral part. And amongst their number there were many of us glider pilots piqued with guilt as to how much money we pour into our luxury.

The gliding movement can do a great deal to contribute to the solutions so admirably administered by the amazing Bob Geldof and other people and organisations of lesser fame but of equal strength of heart. Glide Aid '86 will be our contribution, raising money by doing what we all love as best we can.

It is hoped to raise money in the following ways:

1. Industrial sponsorship of this nation-wide event.
2. Personal sponsorship of pilots by other pilots, family and friends for distance, height gain and duration flights.
3. Contribution of club revenue for trial lessons over that period.
4. Other personal pledges from within the movement and outside it. Glide Aid '86 will take place over the August Bank Holiday (August 23–26) thus coinciding with the Standard Nationals at Dunstable, the Inter-Club League final and the Enstone Regionals. All clubs are requested to participate.

It is imperative the event is well publicised. It is through the offer of such publicity that we hope to attract a sponsor's name. Clubs should endeavour to make the local radio and press aware of the event and at least get a large feature in the local paper and a mention on the radio. Local towns and villages should be used as platforms for posters, thus attracting as much of the general public to the event as possible.

Try and persuade companies you know to contribute money

If we can show evidence of forthcoming massive publicity it should be possible to attract a large industrial sponsor who would contribute a lump sum in return for its name being printed on publicity items. This would be a tremendous boost and anyone with any good contacts should get in touch with the Glide Aid office (see details at the end of the article). Try and persuade companies you know to contribute money but contact the office before offering any advertising to them as we may be bound by one major sponsor. The motto for Glide Aid '86 is "Flight for their lives."

The sponsorship forms are enclosed in this issue of S&G and further forms can be obtained from your club or the Glide Aid office. You can be sponsored whatever your level of experience. Cross-country pilots should try and fly a task as this will generate public interest. Of course, it is impossible to predict the weather but your sponsor might like to suggest a maximum or a minimum amount of money. Remember, £10 from everyone who glides is £100,000! If you are going for height and you've got to the day's ceiling, let someone else have a go — the more people flying the better.

Clubs will be sent a detailed prospectus of Glide Aid. Please ask to read it as this article is only an introduction and we would like everyone to be familiar with what is available. T-shirts, stickers and posters should be out by the time you are reading this — please wear, adhere and hang them where possible!

There will be a national press, radio and TV coverage at the larger clubs and visits from celebrities who will have flights and report their adventures, possibly "live". It is hoped to take one or two well-known figures on cross-countries in Janus's being sponsored by a radio audience as they go. Combine all these efforts with aerobatic displays at various airshows and it should be a super and worthwhile weekend.

Finally, there will be dozens of people needed on the ground to crew, organise and help. If you can't fly on these days, **please** offer your services to your Glide Aid representative at your club or alternatively your CFI. All help will be much appreciated. Good luck and have a great time.

Glide Aid '86 is based at Booker GC. All correspondence should be addressed to: Glide Aid '86 c/o Booker Gliding Club, Wycombe Air Park, Marlow, Bucks SL7 3DR. Tel. 0494 29263/442501.

Glide Aid '86 is a part of Sport Aid and run with the full approval of the BGA. Its committee includes Tim Scott, Paul Brice, Nikki Campbell, Brian Spreckley and Jeff Warren.

AMF ENTERPRISES
(PROP A. M. FLEMING)



'YOU'VE GOT TO HAVE STYLE'

Without doubt the most established and experienced glider trailer manufacturers in the UK. The Biggest by being the best for Quality and Service. Over 160 built to date.

Selected for Ministry of Defence, R.A.F. Air Cadets Contract

"42 AMF Trailers at '85 Lasham Comps"

"PROBABLY THE BEST TRAILERS OF ALL TIME!"

ADD Auto Reverse and GRP, self colour mudguards now standard.
ALSO GRP Locking DV Panels, solo towing gear, trestles and our superb range of fittings to order.

NEWS Our continued development has now proven our new Bonding/sealing system which means no more loose rivets. Even less maintenance at no extra cost.

Call in, ring or write for details

MEMBURY AIRFIELD, LAMBOURN, BERKS 0488 72224

ANTHONY EDWARDS

FEAR OF FLYING

Anthony nearly gave up gliding through nervousness, a condition experienced by many pilots, and describes in this article how he was affected and in the October issue tells of the help he was given to overcome the problem.

I started flying in 1955, and from the first I was a nervous pilot. I still am. Perhaps it is the fate of us academics to think our way through life instead of just letting it happen. It is the same with the flying: when I am scraping a hillside, poised between an indifferent bungy launch and a marginal field landing, I am as happy as a sandboy, but when I am over East Anglia at 5000ft without a care in the world, I am miserable.

This is the story of how the misery very nearly overcame the joy, of how I nearly gave up gliding altogether, and how I managed to come back from the edge, helped by a number of kind people, until today I can fly, if not wholly relaxed, then at least with a controlled nervousness that lets me enjoy myself. It is a story which I promised long ago to tell so that other pilots who suffer in the same way — and there are many of them — can feel fresh hope, and take some of the steps towards a recovery.

'... the prospect of going solo so terrified me that I appointed myself winch driver whenever it approached too closely.'

When I was training I used to hate going over a couple of thousand feet in the Cambridge T-21 "Bluebell", and I remember refusing thermals several times, to the annoyance of the instructors. I should have gone solo at the Mynd Camp in March 1956, but the prospect so terrified me that I appointed myself winch driver whenever it approached too closely. Back in Cambridge, however, I soon went solo in the Prefect, and in the ensuing fortnight managed to fly 24 circuits from the winch. Let my first S & G article ("A Beginner's Approach", August 1957, p.211") take up the story:

> "After my C it was another 20 circuits before I stayed up again, and my strongest impression of this and following thermal flights is the mounting horror as each 1000ft passed by. 1000ft was, to me, a luxury; 2000 was the gateway to another world (and still is); at 3000 I began to feel distinctly unsafe, and if I was still going up at this height, every further foot was viewed with the greatest suspicion and alarm. An incident which I shall not forget is how, on my first thermal flight proper, I had to stretch out the fingers of my right hand with my left at the top of the thermal, so tightly had I been gripping the stick!"

If any of my instructors read that, they should have seen there was going to be trouble before long. I can recall never using the trimmer, since I used to clutch the stick so tightly that I was quite indifferent to stick forces. So far as I was concerned, in those days a trimmer was something you put right forward before take-off so as to get a better winch launch.

In the event it was not until we took our Olympia 463 to Scandinavia in 1973 that the trouble really started, though there had been some premonitions. I remember feeling uneasy during a Regionals at Husbands Bosworth in 1967 and again at a Regionals at Sutton Bank in 1970. The feeling was one of having had enough after a couple of hours, of wanting to be down on the ground again, of feeling insecure. It was probably exacerbated by the pitch-instability of the Olympia 463.

One day we were set a triangle Pocklington, Doncaster Racecourse, and by the time I reached Doncaster I was so exhausted and miserable that I decided to land. I flew due north to clear the town, and the very act of stopping the interminable circling settled me down again, so I elected to continue straight and level until I was forced to choose a field. It turned out that this took me along a gentle wave which was unrecognised by the other competitors, and gave me second place for the day! So there were some compensations.

But it was in 1973 that the odd twinge of unease developed into a distinct disease. On June 16 I declared a 300km triangle in Jutland, starting from Aarhus. It was a superb day (I think the first Danish 500km triangles were done on that day), but after a couple of hours of slow progress I could not stand the feeling of insecurity any more. Clutching the stick as I used to in the old Prefect, I drove the 463 the few kilometres to Arnborg, in the middle of Jutland, the Danish National Gliding Centre. I took an hour or two's rest on the ground (letting the 463 be flown by some friendly Danes), during which it slowly dawned on me that Aarhus was only 90km away and my crew would much rather I flew back than disturb their afternoon on the beach.

Psychologists insist that one can overcome one's phobias by exposure, so I bought myself an aerotow. Pulling off in the clear Scandinavian air, I climbed and climbed and climbed. The higher I went, the more obvious it became that there was a huge slice of sea air between me and Aarhus, so I climbed some more, until at 6500ft I could see the whole breadth of Jutland — from the sunlit North Sea on one side to the islands of the Great Belt on the other. It was a superb sight, but I was terrified. I have never felt so exposed, before or since, up there in orbit, ten times as high as the nearest hill within five hundred miles. A couple more agonising climbs and I was on my final glide, thirty kilometres through the clear flat calm of the sea air. Time for thought, time for reflection, as the slow descent gradually released the tension. Something is wrong, and I am going to have to attend to it. but how?

We took the glider on to Sweden, but my longest flight there was half an hour, and then on to the beautiful Norwegian site of Notodden, where I managed a little gentle hill soaring, all the time wondering what the cure for my illness might be. Back in England I tried some aerobatic sessions, but with no noticeable effect. The 1974 season was not too bad, until in August I was in the middle of East Anglia on a cross-country and felt so miserable that once again I succumbed to the urge to get down on the ground. It was an excellent day, with no difficulty about staying up, but the constant buffeting was too much for me. I landed in a field.

'... I felt so miserable that once again I succumbed to the urge to get down on the ground.'

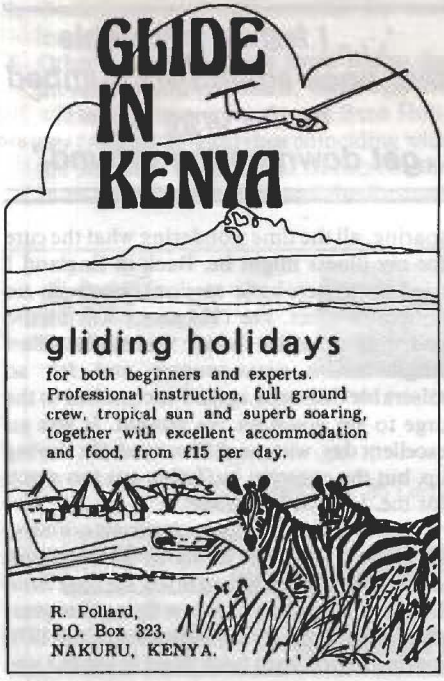
1975 was terrible. Only one cross-country, an abortive attempt to fly to Sutton Bank which ended in a field just down the road from Duxford. Less than 15 hours flying that year, all of it unhappy. By the beginning of the 1976 soaring season each brief flight in the 463 was

a challenge. I would set myself little tasks of height and duration and distance. Since I had in early years taken the 463 to 16 400ft, stayed up for seven hours, and flown her the 300km from Cambridge to Exeter, my new achievements were modest indeed: by the end of June I had been up to 3500ft, stayed aloft for two hours, and flown an O/R of 32kms!

Those who have not suffered as I was suffering cannot imagine the satisfaction of flying the 16km to Bassingbourn and the 16km back again. I felt ready for a real cross-country again, and decided that the best plan would be to fly 100km straight downwind one day, to make for a short sweet flight.

At the end of June in that scorched summer of 1976 the right conditions came along: a strong NE wind, clear blue sky, and visibility such as I have never experienced before or since, not even in Scandinavia. I declared Bicester, and from the top of my first thermal at 5500ft, with all England spread out beneath me, I only needed three more climbs. There was a moment as I passed Cranfield when the urge to land nearly overcame me, but I suppressed it. Minutes later I was on the final glide.

Perhaps I was over the worst, but who could tell? Fortunately at that very moment I was put in touch with the RAF Institute of Aviation Medicine at Farnborough through the kindness of AVM Reggie Bullen, whom we in Caius (my Cambridge college) had just appointed Bursar. Down at Farnborough they were indeed able to tell, as I shall recount in the second half of this article. From now on it was to prove downhill nearly all the way.



UP AND RUNNING!!

Are you an inexperienced pilot with ambitions? John looks at ways to help you realise those dreams

Each year a new crop of pilots graduate into the limbo of post-solo; last year's post-solos become this year's Silver C aspirants; some of the newly fledged Silvers strive to discover how good they really are — they turn tentatively towards competition flying. Each in his own way wants to get up, and start running.

Many will fall by the wayside, victims of inertia, circumstances, or perhaps short-sighted management. What can be done to help them? The ladder exists but the first rungs may seem inaccessible to some. Except for a fortunate few the initial steps must lie within the organisation of the individual's own club.

* * *

Active Training

More or less for ever the BGA syllabus of training has virtually stopped at the first solo. True, a Bronze check was brought in some years back, but this is often no more than a perfunctory check of basic proficiency in handling skills and spot landings. Any self-respecting club recognised that the bare Bronze badge skills are nothing like enough to safely commit a novice to his first cross-country — not, at least, into countryside without a preponderance of large, flattish fields and no airspace complications. All too often, however, the club flying hierarchy is no better qualified than to assume that the bare minimum is officially considered to be adequate. It isn't! We must do more. Improve our training; encourage two-seater training in cross-country techniques; develop a breed of instructors who can specialise in this training; insist on our instructors flying cross-country each year, at least on a closed circuit task.

This implies a universal policy of active training. Most clubs will already know that this makes sense but perhaps feel trapped on a treadmill of basic training and trial lessons — the big money-spinners! And of course it doesn't make sense if the instructors themselves aren't competent to teach the necessary skills. So we need to tackle the problem from both ends.

We must first train and motivate the instructors; we must then make the post-solo pilots aware of what **could** *be done, and clamour for their right to be trained to the proper level.*

The first step was almost taken eight years ago when the BGA coaching operation expanded briefly into instructor task weeks. A dozen or so instructors went away each year with a better understanding of what could be done with really only a very little training, and with the example of what "pressing on" really means. That early start soon expanded into advanced courses and cross-country courses for all-comers, until today most takers are the post-solo pilots who recognise the shortcomings of their own club system, howsoever well-meaning. Again, most go away much more aware of what is possible, and keen to do more on their own. Most of them are private owners and thus not reliant on club aircraft for their cross-country opportunities. But the limited BGA effort should not be squandered on only a few enlightened pilots who come forward in response to the advertisements, much as we enjoy teaching them!

The BGA effort must be focussed one step higher — on the instructors who can then develop the training skills in **all** the clubs, for **all** *the club members.*

The answer to what they are missing might be simple

Next is the problem of awareness at the grass-roots as to what they might be missing! Here the answer might be quite simple. A new page in every pilot's book, listing exercises and lessons culled from a realistic outline syllabus — the sort of thing which already exists at some of the major clubs — would trigger the pilot to seek — to demand! — a chance to learn those lessons.

Other club initiatives

Once active training has been established a number of initiatives can blossom. Task weeks; regular weekend task setting and briefing; mini triangles; a "standard" triangle; soaring courses; spot landing contests. All these can be helpful in developing an atmosphere of get-up-and-go! They may not all be within the scope of every club but, little by little, they can be introduced and foster an outward looking atmosphere.

Most of the options mentioned have been developed at one club or another. On a mid-

Mini-triangles develop TP skills and task weeks are fun

May Saturday at Lasham more than seventy pilots attended the 0930 task briefing. The duty task setter briefed on the weather, set the task and outlined the airspace problems, including a couple of NOTAMS. At Booker most pilots soon tackle the Didcot-Bicester 100km triangle, and press to join the Ton-Up (100km/h) Club. Many of them, having completed a rapid 300 or 400km flight may "wind-down" with Didcot-Bicester yet again! Mini-triangles develop TP skills; task weeks are fun for all and tend to get the club trailers fettled out of necessity!

One easy option which several clubs have seized on is to set up a soaring course at their site, to be run by one of the national coaches for their own club members. This at least points to what might be achieved. At one ridge site a two-seater syndicate were reluctant to go cross-country because "it was difficult to derig". One day half a dozen pilots, including the two-seater, were despatched onto the ridge which patently was not working well enough to allow them to land back on top. They had instructions to scratch away and eventually land in the escape field below. None had seen more than a solitary occasional unfortunate in that field before. That day we had five all at the same time! The two-seater syndicate were so enthused that they contrived out-landings that week in the other two escape fields and then set off on their first real cross-country. Now they are hard to stop! They are up, and running!

Inter-Club League

One of the best initiatives in recent times was the Inter-Club League. Credit for this splendid institution must go largely to Brian Spreckley. Not all clubs are represented and those that are not should seriously try to get in on the act. Briefly, each League comprises three or four clubs within a region, each of which hosts the others once per year for a task flying weekend. The full spectrum of pilots can be coped with. Novices may be those barely off the Bronze badge checks. George Lee once represented his club as the "pundit", flying a Sky sailplane, almost as old as himself. He won his day! Handicapping and a simple scoring system are used so no one need feel over-awed. The top club in each league then represents the others in a National final, usually in August. The interchange of ideas, the socialising, the friendship and rivalries which develop amongst the clubs are what our sport should be about.

Ladder competitions

Another worth while feature are the national and club ladder competitions. Again, a simple scoring method gives pilots the chance to see their successes measured against their club colleagues, and against the top pilots around the country. Of course not all the pilots take the trouble to enter but those clubs which promote the idea appoint a ladder secretary and will have taken a step in the right direction for their members.

Squad Training

Squad training is one breeding ground for pilots hopeful of a place one day in the national team squad. The latter are the sixteen or so pilots culled from recent top Nationals placings, from whom the actual British team will in due course be selected. Squad training aims to identify and motivate potential members of this squad by helping them to success in their first Regionals contest. Selection to the scheme is by personal achievement at club level — back to that club environment again!

Initially aimed at the under-25s, the age limit has been varied over the years according to demand and is no longer set at any particular level. The other two criteria are more telling however. To demonstrate basic ability, and perhaps determination, a candidate should have progressed from Bronze to Silver C within a year. But this, too, is not a hard and fast rule. Additionally, evidence of two or more closed circuit tasks on a self initiative basis is asked for. Once selected the pilot is sponsored for most of the cost involved in the two year training phase by a generous Sports Council grant.

The training starts with attendance by up to twenty pilots per year on courses designed to teach specific competition skills, as well as to improve the soaring and decision skills so necessary for anyone wishing to increase their cross-country speeds. Gliders range from old wood to new glass! No one need feel excluded. A certain amount of competitive task flying is included so that six pilots may be selected for the next phase — a place in a two-seater Regionals entry. From the six, four are selected for a sponsored Regionals entry on their own the following year.

* * *

I have tried here to examine the situation in which all too many pilots find themselves and to suggest ways of improving their lot. Some new initiatives are being taken by the BGA : some remedies already exist but are not always apparent to the newly fledged pilot: significant changes are needed at club level.

If it all happens you can look forward to being able to

Get Up, and Run!

GOODBYE 284

Mike Evans had to bale out of his Kestrel 19 (No. 284) on June 4 when the rudder actuator failed and he was faced with the situation we all dread. (See BGA News.) Here are his brief thoughts on what it felt like.

My first reaction is this can't be happening to me. Just off tow and there's a clunk. The air noise changes and the glider begins to sideslip. The ASI is going backwards and the nose is dropping despite my pulling back on the stick.

I'll have to get out — but what about my lovely glider? A moment's hesitation, then I release the canopy, undo the harness and start to climb out. A short, violent shaking at the tail and something breaks off — the rudder.

No more hesitation now. Just a look round, check the 'chute handle, over the back of the port wing and away. A bit of a struggle to pull the handle right out, then "whoomph" as the 'chute opens and I'm suspended in mid air. Above, the glider stalls steeply.

I pull on the left bunch of lines to turn slowly into wind. Prepare for landing, but suddenly the ground rushes at me, my feet shoot away and my backside hits the ground — hard. Very painful. Happily, I'm not badly damaged but must spend several days on my back.

* * *

NB. Mike was detained in hospital overnight and suffered a crushed vertebra but is recovering. Learning to land properly with a parachute does not come easily. As for the glider, it was badly damaged when it hit the ground. Both wings were broken but amazingly the fuselage, including the forward section of the canopy and the fin and tailplane, was virtually undamaged.

* * *

PS. Since recording my thoughts at the time of the incident, I have now looked at the broken pieces and talked to many people about the cause of the rudder failure. It appears that the lower rudder hinge failed in fatigue in a brittle area around the pintle weld. This type of incipient failure is extremely difficulty to detect. Visual inspection, even with a powerful magnifier, will not reveal it. Normal proprietary crack testing technique is unlikely to detect it either. I do hope my good fortune in getting out safely will not lessen the urgency in detecting other cracked hinges of this type in our ageing glider fleet before someone really gets hurt.

CONFIDENCE

However competent a pilot may be, if he lacks confidence then he may be an accident "looking for somewhere to happen". Establishing whether an individual is confident or not may be quite difficult; in this article Bill, BGA director of operations, considers some of the factors involved.

As a student pilot gains experience he should, logically, gain confidence. But it is not as simple as that. A number of factors will influence whether any one student is as confident as he might be; these include:

- his own assessment of progress will depend on the extent of his or her own self-criticism — too much confidence will always be limited;
- the attitude of the instructor — whether encouraging or *super-critical;*
- the success the student has with some "critical" exercises such as stalling, spinning and cable breaks.

Each of these factors will influence in some degree the student's confidence. Best results will be achieved by encouraging the student to be constructively self-critical; for the instructor to be fair in his criticism and, more importantly, giving praise when it is due and, finally, making sure that the student is really competent at the "critical" exercises.

The 'System'. In bigger clubs, and even in some smaller ones, problems arise due to the number of different instructors with whom any one student flies. The consequences should be obvious. Unless a student is fairly well-known to an instructor (in terms of ability) then getting sent solo can be a problem and there is a point beyond which the student loses confidence. On the face of it a student who is held back from going solo will be more skilful but without the confidence to go with the skill his own self-doubt may be his undoing.

The philosophy for first solo may range from "send them off as soon as possible" to "hold them back until they can cope with anything"; the former, used with discretion, is undoubtedly the way to build confidence. It is interesting to note that in some clubs with virtually all training on aerotow *ab-initios* are taking 35 to 40 flights to solo when once upon a time it didn't need many more winch launches.

Continuity of training may be limited for the individual by domestic or financial factors but flying on an irregular basis is not the best way to consolidate training and gain the confidence that should go with it. On recent analysis of the experience of a pilot (who had been involved in an accident) showed 59 launches to solo in 21 days spread over 10 months which, I suspect, may be typical. How much better if there had been a concentrated period of training — say a five-day course — at the beginning or near to solo.

The 'Critical' Exercises. Although many inexperienced pilots may not be confident about stalling and spinning this is not, currently, a major cause of accidents. Far more critical is the failed launch. A problem with failed launch/cable break training is a lack of demonstrations in the formal teaching sequence of demonstration/students' attempts/correction of faults. More usually a student is allowed to have a go on the basis that he has experience of stall recovery and negative *g* approach and landing and circuit planning. If he tries and succeeds then well and good but if he fails it may do untold harm to his confidence. How else can you explain a student who is thought to be competent failing to cope with a relatively easy cable break?

At critical heights (which is variable from site to site) then I believe the teaching sequence should at the very least include a demonstration of the planning/judgment phase — even if the student has coped with the recovery. The instructor may reasonably hand over to the student for the approach and landing if he can cope with that.

After Solo. A critical stage in the fledgling pilot's progress is often immediately after solo. Imagine this scenario; a typical student in his mid-forties has fulfilled a long-held ambition in going solo. After one solo flight late on a Sunday evening he tells his tale to non-gliding friends at the pub and again to colleagues at work. By the middle of the week he has had time to reflect and by the following weekend is convinced of the folly of it all — given his responsibilities! Much to his wife's surprise he actually agrees to go shopping on Saturday and on Sunday it rains. (What a relief!)

Maybe such a person would never have become a committed glider pilot but the chances of getting him hooked would have been much increased with a positive effort to consolidate the solo experience. More than one flight in the first instance and an enthusiastic instructor saying "can you come to the club on Wednesday evening" and encouraging him to come the following weekend as well would have gone a long way towards getting him established as a solo pilot. The critical point is enough solo flights for the student to really believe in himself.

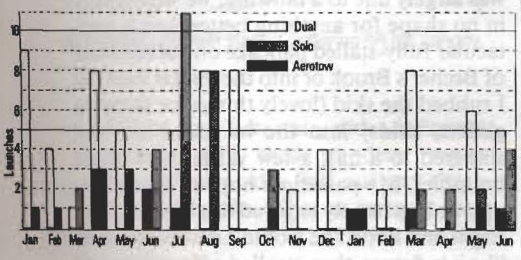
'Think back to your own experience and to certain landmarks in your logbook.'

. . . and Later. I believe there are other critical points at later stages of experience which have a bearing on confidence. Think back to your own experience and to certain landmarks in your logbook; more solo launches than dual, more solo time on single-seaters than two-seaters, more solo hours than dual, etc. As a result we feel more confident and, hopefully, this is reflected in ability and achievement. The corollary is that taking a long time to reach these critical points may mean failing to become confident. For example the pilot's experience given earlier had no concentrated period of training. After solo he was slow to establish himself as a regular solo flier as the following table shows:

Flying Launches per Month and Cumulative Totals

Month	Days	Dual	Cumul	Solo	Cumul
Jan	3	9	59	1	1
Feb	2	4	63	1	2
March	1	1	64	2	4
April	5	8(3a/t)	72	3(1a/t)	7
May	2	5	77	3	10
June	2	2(2a/t)	79	4	14
July	4	5(1a/t)	84	1	25
August	4	8	92	8	33
Sept	4	8	100	0	33
Oct	2	0	100	3(1a/t)	36

The most interesting point in this summary is that it was 10 months after solo before the pilot was 'off checks'; in a further 29 flying days he had 41 dual and 36 solo launches. In the following four months he flew on five days and made nine dual and one solo launch and never really established himself as a solo pilot. This situation becomes much more obvious in the following histogram which shows the situation more clearly than any logbook ever could;



The significance of all this is whether a pilot is confident or not, but the indications in this case — and I'm sure, many others — is that many do lack confidence and for good reasons.

A Solution? Whether a closer check on a pilot's progress could provide a better guide for a training programme is a matter for speculation but there is nothing to be lost in trying. For example:

- Try to limit the number of instructors any student flies with and, preferably, have one instructor as his mentor.
- If any student does not fly regularly (say on at least four occasions a month) then encourage them to take a week's or a weekend course towards the end of their dual training, especially if they didn't at the beginning.
- Make a concerted effort immediately after solo to complete several further solo flights — say 10 to 15 — so that solo flying becomes the norm rather than the exception.
- After a layoff — over the winter perhaps — retrain rather than just letting the student "get back into practice". After all, he has probably forgotten most of what he learned!
- Launch failure/cable break training should include much more in the way of demonstrations before students' attempts and testing.

Our responsibility as instructors is to our students. It is up to us all to consider the implications of the training for the students' confidence and ways in which we can increase their belief in themselves.

INDECISION

Could this happen to you? Christopher tells a familiar story

On Sunday, May 11, I crashed the Heron GC's Astir 77. Not a very popular thing to do, even if I am the secretary of the Royal Navy Gliding and Soaring Association. The accident was caused by a series of mistakes, interspersed with bouts of sheer stupidity and the blame lies squarely at my feet. I should like to describe what I think happened in the hope that it terrifies me from doing the same again and that others may learn from my experience (a hackneyed phrase I know but appropriate).

I am 36 (pushing 37) and have been around naval gliding for 12 years. I reached the dizzy heights of Silver C just over a year after going solo — there was no stopping me — then Their Lordships and my family intervened and that was that. After more than a decade I have not cracked 150 hours. Still this year was going to be better; I managed a week at Easter and several weekends — double figures this year already.

The day in question was windy and did not bode well (even to my often over-optimistic eye) so when I arrived at Yeovilton I was not surprised to find very little activity, only the Capstan was in use. Conditions did improve, however, and the Astir was dragged out and rigged. Being a gentleman (and a visitor) I let one of the club members take it for the first hour, thinking that he would be back by 1330 and I could have the aircraft for the remainder of the day, and so it seemed as I pulled off from the tug at 1400.

The sky was booming and for once I was able to centre in every thermal I found. Cloudbase was 4000ft and I took one climb at a steady 6kt right up to it, then I was forced upwind and climbed ahead of the cloud up to 4500ft — I am told that there was wave around and that was what I climbed the last bit in. So far so good but now to the cock-ups.

Having been blown downwind a little I decided to leave the cloud street I had been working and push up and across wind to the next one, a sensible move and after travelling about 10 miles overland I had only lost 100ft. I watched Westland's Airfield pass below and filed a mental note of its existence so deep in my mind that when I needed to recall it nothing came. Then the sink appeared and if I thought that I had been going up quickly it was nothing compared to the rate at which I was now descending.

The correct thing to do would have been to turn for home which was well within reach, but no, there was no one waiting for the aircraft, there must be lift under that black stuff ahead and if there wasn't I would land out, no problem. I have landed out before, in fact I have been in 11 fields (never was good at soaring). What I didn't consider was the fact that, on later examination of my logbook, it was 1979 when I last completed this evolution. A further point of note, I had had the opportunity to do some landing practice at Easter in a Grob 109 but financial limitations had caused me to elect to soar rather than chug around fields.

Inevitably there was no lift under the black stuff — or perhaps I had talked myself into landing out — so I selected a field at about 1500ft. If I had looked anywhere other than straight down I would have seen the airfield at Westland's two or three miles downwind and well within reach. I considered my field to be into wind, (it was in fact crosswind), with vehicular access, of good surface and without crops or animals. As I positioned myself for a circuit I spotted another field with a completely clear approach — the original had trees on the approach — and slightly longer. This field was in a different direction but what was the problem, I could handle a crosswind — of 20 kt?? I was now too low to do a full circuit so a base leg was initiated, at which point I spotted the telephone wires obstructing my nice clear approach. No problem I would tighten in the base leg, it was a long(ish) field, and come in over the wires.

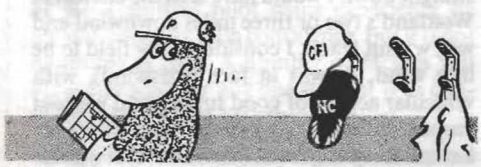
As I turned finals I at last realised that I was trying to land downwind in 20kt that had been north of west when I took off but had backed to south-west over the last hour. I was now too high and too close, covering the ground at 70kt. I tried to drop the glider into the field but it rapidly became obvious that I was more likely to be done for breaking and entering the house at the far end. A small field on the left at the far end of my original landing ground offered a last chance and I took it. I executed a flat turn to try to land crosswind but by now I was very low and had to pull up over the very substantial hedge. I cleared the hedge and then my brain went into overload and I failed to kick the drift off as the aircraft literally fell into the field. The undercarriage disintegrated, my head smashed through the canopy and the tail plane tore off its fittings.

On the plus side I have been instrumental in further swelling the "Ralph Jones Benevolent Fund" and I hope that I have learnt a lot. I was uninjured apart from a few bruises but, without being overly dramatic, I could easily have died; that thought certainly concentrates my mind — I hope it does yours.

TAIL FEATHERS

Faint Praise

When John Everett, formerly the beady-eyed CFI at Dunstable, changed hats and became the beady-eyed national coach in the 1960s, he made a practice of visiting the various clubs



He changed hats and became the beady-eyed national coach.

with the BGA's beautiful new Capstan. After a trip with me he remarked to Roger Barrett, "If anyone else flew like Platypus they wouldn't be able to stay up at all!

To this day I have not been able to work out whether that was a savage indictment or a generous compliment. I have learnt my lesson, however. I never fly with CFI's or national coaches. This is mutual, by the way.

When ignorance is bliss, 'tis folly to be wise

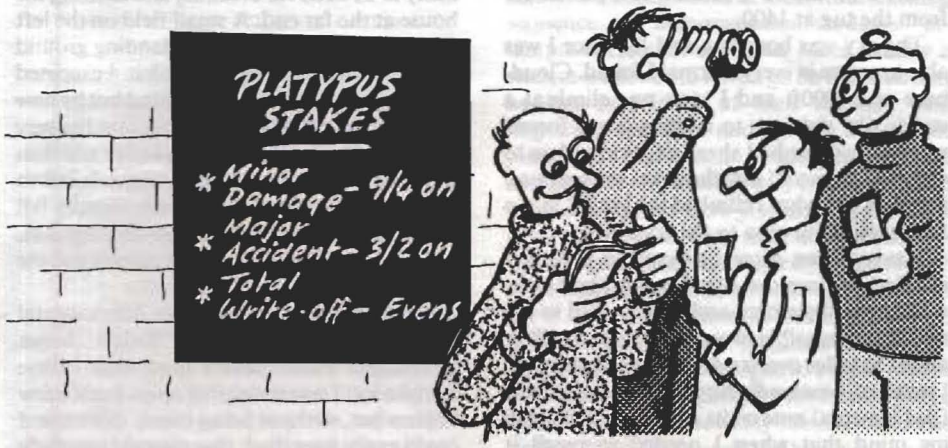
Talking about Capstans, I once had a share in one, and it was the most enjoyable machine for friendly local soaring ever invented. On a good day it could do creditable cross-countries too, but only in light winds, since its penetration was pretty miserable (about 8:1 at 70kt if you were daft enough to push the stick forward and about 24:1 at max L/D, I can safely say now that I have sold my share).

The first flight a relation of mine ever did in a glider was with me in this Capstan. I was determined to give him a taste of cross-country soaring, and set out boldly for the Fens. To cut a saga down to manageable length, we were returning by way of Bedford and ran under three plausible clouds, each of them all talk and no action, pretentious windbags which refused to suck. I began to have doubts about my infallibility, which doubts I concealed from my passenger in light banter about the lovely, and progressively more detailed, scenery.

'My passenger chatted happily on, not noticing how his pilot had suddenly gone quiet.'

At 500ft over the M1, about three miles from the club, I ran into zero sink which tempted me onwards, spurning the few remaining safe landing fields. Outside the club bar betting money was changing hands on our chances of making it home. My passenger chatted happily on, not noticing how his pilot had suddenly gone all quiet. The only way to cross the Tring Road telephone wires was to dive sharply and pull up over them. Then, sustained by pure ground-effect, we chased our shadow over the undulating contours of the last two fields, and faced only the great boundary hedge, the last obstacle to our triumphant arrival before a cheering throng.

But then for some unaccountable reason a momentary spasm of common sense seized



Outside the club bar betting money was changing hands.

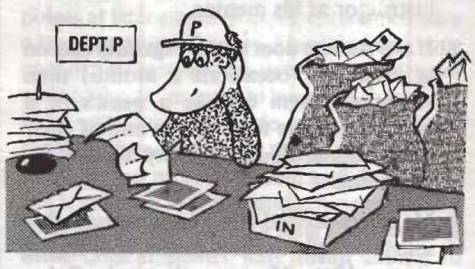
We were clearly in no shape for anything better than a spectacular full-stalled pancake

me: I glanced at the ASI, which read 38kt. My apparently high groundspeed at nought feet was largely due to a tailwind: we were clearly in no shape for anything better than a spectacular fully-stalled pancake on the otherside of Becher's Brook or into the thicket itself. So I rubbed the skid (lovely things for stopping gliders, skids) into the harrowed soil and slithered to a halt a few yards short of the brambles. My passenger hopped lightly out, said he had hugely enjoyed this typical glider flight and hoped he would have many others like it in future, then strolled off to the bar *via* a hole in the hedge (doubtless made by a more determined pilot than me). I staggered after him, when I had got my breath back and some strength in the knees.

Of course, I do sometimes wonder what would have happened if it had been a competition . . .

Queueing up for Ps

The following extracts from our fanmail indicate the worldwide interest in solving the



Some extracts from our fanmail.

Problem of the Epoch:

- Dr Hendrik van den Berg of Goldfields Gliding Club, Welkom, South Africa, has sent me a very simple-looking bag used by paraplegics. The walls of the bag absorb about half a litre of fluid, forming a gel which does not leak and can easily be disposed of. He says "it can then be thrown out of the window". It might depend on how densely populated the country is, however.
- Colin W. Tootil of Ontario, Canada, observes that in his syndicate PIK 20D the pee-tube was just in front of the hook. "The towhook was no match for the deadly



No problem until rain started pattering on his canopy.

fluid", he says. Take note, glider designers, especially with these modern super-winches that rapidly find out any shortcomings in hooks. What an embarrassing explanation to have to put in an accident report!

- Mr "Please Do Not Print My Name" of Scotland found no problem on his five hours attempt — until rain started pattering on his canopy, whereupon auto-suggestion triggered an urge which forced him to a desperate solution. He flew out from a busy ridge (used by 15 other gliders) and wrestled with his straps till he had removed his sweatshirt, in the hope of using it to absorb his breakfast coffee. This relief proved shortlived, since he had drunk more coffee than the garment was capable of absorbing. Yecchh! The CFI was not pleased, but Mr PDNPMN fails to mention whether he pressed on and got his five hours. He must have done, after all that misery. Besides, you'd hang around for an hour or so praying for the stuff to evaporate before you faced your friends, wouldn't you? At least he didn't dump his sweatshirt out of the clear vision panel.

To Boldly Go Splitting Infinitives

- Outer space has worse problems, there being no uphill or downhill. Mike Isherwood of York sends me an extract from Mike Collins' **Carrying the Fire**, which details the 20 separate steps in the Gemini 7 official Chemical Urine Volume Measuring System Operating Procedure (CUVMS) fifteen of which are incomprehensible and the other five are unprintable.

Coming back from the farmhouse after a field landing Mike (Isherwood, not Collins) had the shock of seeing an inquisitive woman sniff at the contents of his CUVMS (a hot water bottle) to find out what glider pilots drank in flight. Unfortunately he does not tell us what she then did or said.



Updating cockpit checks is great the Platypus way.

- Piggy of Lasham points out that the usual thin pee-piping freezes up in wave (which I suppose causes the fluid to back up on one with alarming suddenness) and he recommends instead using a pretested plastic bag inside another, a method invented in 1945 when free-dropping rice in Burma — and recently rediscovered by the RAF in Ethiopia.
- M.J. Wilshere of Watford simply recommends flying a K-8, which does not pose the angle of dangle problems of the modern contest ship. I think that is a bit drastic, frankly. He also suggests modifying cockpit checks to read "CB SIT CB PB", the last being for Polybag. Updating our cockpit checks is a great idea, but I can think of a heap of other things that I would incorporate first, such as food and drink, a paperback to pass the time while waiting for the trailer to arrive, reading-specs for maps etc.
- To Graham Frankland of Derby & Lancs: Thanks, Graham I'll let you know. It was considerate of you to use a plain envelope, by the way.
- To Mary Meagher of Booker: Mary, is there *anything* that makes you blush?

It's my column, so I will have the last word. In Platypus's very unhumble opinion *(No, it's my magazine, and I will have the last word: this correspondence is now closed, ED.)*

Tail Feather's Nom de plume

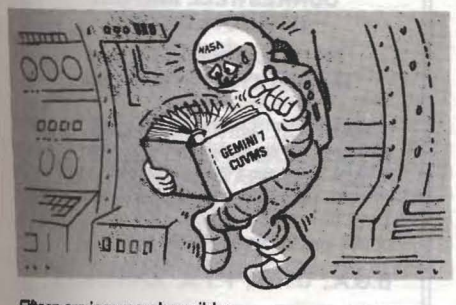
Rhoda Partridge wants to know why this column does not bear my real name. (See the last issue, p116.) Well, I suppose one reason is that if I drop off my perch or just get tired out the editor could recruit someone like Rhoda to write it instead and the readers would be none the wiser; it's a bit like the Archers on BBC, where the audience doesn't mind if the real live actors fall under a bus, but get hysterical if a fictional character is killed off.

The Platypus is a strange beast that doesn't know if it's a bird or a mammal or a water-creature. That's how it originated in S&G, symbolising our earthbound desire to inhabit other elements.
(What a load of codswallop. ED.)

Not just a pretty face

I saw a TV programme the other day showing that this inoffensive little creature, if provoked, packs enough venom in a concealed rear claw to do in a rabbit, or even a partridge. Amazing; you'd never believe it just looking at him. But you have been warned.





Fifteen are incomprehensible.

THE BRITISH TEAM SQUAD

Ben, the British team manager, sets the scene for the next World Championships and tells of last minute uncertainties

This year the British team squad has a special relevance for the World Championships in Benalla, near Melbourne, Australia, in January 1987. There will be just 11 days between the counting of the votes for the team and getting the gliders to Tilbury for shipment — a desperately tight timetable especially since six pilots of the squad do not at present have gliders.

Under the rules for team selection the voting papers cannot be sent out to squad members until after the last Nationals of the preceding year; that is to say August 26, the day after the end of the Standard Class Nationals at Dunstable. The voting papers must be returned by September 5 and the glider trailers must be at North Weald airfield by September 17 to have their wooden floors fumigated by Rentokil in order to satisfy the Australian Agricultural Department, before driving onto the Polish Ocean Line Ro-Ro ship at Tilbury.

The result of all this is that every member of the squad must be regarded as a potential member of the team for Benalla and should prepare his glider for shipment at short notice in September.

Constructive discussion on team flying

Another result is that the squad have been meeting together and taking decisions collectively on matters normally left to the team pilots. This has been beneficial in making use of a wide spectrum of experienced opinion and giving more point to being a member of the squad. For example we had a very constructive discussion on team flying, *ie* pairs, threesomes or even four pilots flying together within a Class. Those pilots who flew Austraglide, the pre-Worlds, this January were impressed by the success of the Germans' team flying. Discussions of this topic is easier in a larger group when no one knows for sure whether he will be competing and when the Championships' tensions are absent.

We have been told that there will be six pilots per nation. We have decided to enter as many pilots as we can because of the mutual support created by other pilots within the same Class. The number of pilots per Class is to be limited to three.

The budget looks horrendous with a total of £70 786. The bulk of this is of course the return freight for the gliders and return airfares for the pilots and crews. We hope to receive a grant from the Sports Council for 75% of these items. However, even so there is a gap of £9000 odd to be bridged. The pilots' contribution is £700 each and may well be more. The entry fees were budgeted at US $750 per pilot and have now turned out to be US $1000. We are running a World team fund lottery again which will be included in your copy of S&G. Please give generously! Many thanks to Lasham and Booker for donating courses as the main prizes.

Finally, here are the British team squad pilots in alphabetical order. Make your own order of merit for selection of a team of six and two reserves and then see how it compares with the squad votes in September! Remember that the results of the Nationals this summer and the European Championships in Mengen, W. Germany in June will also be relevant.

John Cardiff: *Winner of the 1983 and 1984 15 Metre Nationals; British team 1972 World Championships and 1984 European Championships.*
Andy Davis: *Winner of the 1978, 1980, 1982 and 1984 Standard Nationals and 1978 Euroglide. British team 1981, 1983, 1985 World Championships.*
John Delafield: *Winner of the 1978 and 1981 Open Class Nationals; British team 1978 World Championships; 8th in 1986 Austraglide Standard Class.*
Bernie Fitchett: *Winner of the 1985 15 Metre Nationals, the 1978 and 1979 Open Class Nationals and Euroglide 1975, 1976 and 1977. British team at World Championships from 1972–83, 4th on three occasions.*
Brian Forrest: *Winner of 1985 Standard Nationals in a Libelle.*
Chris Garton: *Winner of 1978 Euroglide; 2nd in 15M Nationals 1978, 1979 and 1983 and in 1983 Open Class Nationals; 9th in 1984 15M European Championships; 5th in 1984 New Zealand Nationals; holder of UK 600km triangle speed record plus the goal and return distance record.*
Ken Hartley: *Winner of 1985 Open Class Nationals.*
Ralph Jones: *Winner of 1973, 1975, 1980, 1983, 1984 Open Class Nationals; British team 1976 and 1985 World Championships; 6th in 1986 Austraglide 15M Class; holder of UK 100, 200, 300, 400 and 500km triangle speed records.*
Alister Kay: *3rd in Standard Class, 4th in 15M 1983 Nationals; 3rd in Standard and Open 1984 Nationals; 2nd in Open and 4th in 15M Class 1985 Nationals.*
Ted Lysakowski: *8th in 15M, 9th in Standard and 11th in Open Class 1985 Nationals; British team 1982 European Championships; pre-Worlds 1981, 1984.*
Chris Rollings: *Winner 1976 Euroglide and 1977 Sport Class Nationals; 4th Standard Class and 5th Open Class 1984 Nationals; 5th 1985 Open Class Nationals; holder of UK 750km triangle speed and triangular distance records.*
Brian Spreckley: *Winner of 1980, 1983 Standard Class Nationals, 2nd 1985 Standard Class Nationals; winner 1979 Euroglide; 6th in 1981 World Championships; 1986 Austraglide; holder UK 200km triangle speed record, 15M Class.*
Mike Throssell: *6th in Standard, 11th 15M Class and 19th Open Class 1985 Nationals.*
David Watt: *Winner of 1979 and 1981 15M Nationals and 1978 Euroglide; 3rd 1984 15M Nationals; 2nd 1985 15M Nationals; 5th in 1986 Austraglide 15M Class; holder UK 400km 15M triangle speed record.*
Martyn Wells: *Winner 1982 15M Nationals; 1977 Sport Class Nationals; 2nd in 1983 Standard Class Nationals; British team 1983 and 1985 World Championships coming 8th at Rieti; 1986 Austraglide.*
Justin Wills: *Winner of 1972 Norwegian Nationals, 1977 Euroglide, 1977 French International Mountain Championship, 1979 US Standard Class Nationals, 10th in 1985 World Championships; 6th in 1986 Austraglide 15M Class. Holder of UK 400 and 100km goal speed records and the straight distance record; 300km goal and 100km triangle speed records for Standard Class; British National two-seater gain of height and absolute altitude.*

NEW!

from JSW SOARING

Flight planning folding ruler:
- miles & kilometres
- turn point template
- metric conversions
- cross-country check list

Only £2.50

Also JSW Calculators ..... £5.50 & £9
'Dolphin' Vario conversions .... £30 & £48
Vario test kits £2.50
Soaring Game (48K Spectrum) £8
+ tubes, connectors, valves etc. for fastidious fettlers!

c/o LASHAM GLIDING SOCIETY, LASHAM AIRFIELD, ALTON, HANTS.

BRIAN WEARE

GLIDER WORKS
DUNKESWELL AIRPORT
HONITON, DEVON

Tels: Luppitt 338 (9-6 pm)
Honiton 41041 (after 6 pm)

MAJOR OR MINOR REPAIRS ON WOOD, GLASS-FIBRE, OR METAL. ALSO RESPRAYS GLIDERS AND LIGHT AIRCRAFT

C of A OVERHAULS

B.G.A., C.A.A., P.F.A. APPROVALS

HIGHER LAUNCHES

Safely, economically and even serenely

Most clubs have runways of less than 1000 yards so to get launches in the 1500–2000ft range they have to be steep. This requires more powerful engines. Is maximising the height obtained by a winch launch safe for the average pilot or is it just for the skilled, the brave, the foolhardy, Germans or pilots with all four traits?

At the BGA's conference at Harrogate one workshop discussed launching. Dick Stratton's contribution on aerotowing catalogued the escalating cost and concluded that the only path to solvency was for the group to sort out winch design and launch techniques. Mike Bird expressed horror at the thought of everyone being subject to nerve-racking blast-offs.

For several years the RAFGSA and several civilian clubs had seen the theoretical advantage of torque control. This simply means that the winch driver controls the load in the cable and the pilot his speed. (See John Gibson's article in S&G, August 1985, p170.)

For a constant load the glider behaves as in free flight. The speed will decrease if the nose is raised and increase if it is lowered. Here speed control is simplified by reference to the horizon. On the wire the horizon has been rotated upwards — the more powerful the engine the higher the "false" horizon.

The too fast launch

If a pilot cannot stop the speed rising to the upper limit a simple tail wag will ask the winch driver to ease the power as at present. The lower load on the cable will result in a decrease in speed — provided an adequate angle of climb is restored after signalling.

The too slow launch

Easing the stick forward will restore speed. If the angle of climb is now too shallow, rock the wings (as the speed is now normal the manoeuvre is safe). The winch driver will increase the available energy allowing a steeper climb. The pilot is responsible for his speed. The responsibility is two-fold. First the angle of the climb must only be increased when the speed allows. Secondly the angle must be increased sufficiently to limit the speed.

Deutz told us that Bosch had designed a fuel pump with a single torque control lever. The load in the cable could be held constant over a wide range of engine revs. One was ordered and installed at the end of February. There were no load sensors or electronics. The lever linked to the mechanical governor controlled the amount of fuel delivered to the engine by the fuel rack. Now when the combined forces generated by the glider exceed that in the cable the engine must slow down and *vice versa*. Giving the pilot control of the speed is logical — he has the ASI.

Pilots quickly expressed enthusiasm. They could control their speed within a few knots with light stick loads but some winch drivers were unhappy.

We had started off by offering two thirds power while pilots got used to the system. A launch well controlled by the pilot was perceived too slow by the driver. Old habits die hard so the lever was pushed steadily forward to the stop.

The pilot resisted by pulling back and of course the engine failed to accelerate. The driver thought something was wrong and an engineer pontificated that "the damned thing was hopelessly overgeared". In fact the pilot had been given the first optimum launch because the participants had applied the correct principles to incorrect observations. The glider had flown at the best glide angle and comfortably absorbed the maximum load available — 1100lb.

The speed for the best glide angle is for the greatly increased wing loading during the winch launch. The total weight is the sum of the weight of the glider, the pilot, the cable and the load in the cable. At full power the K-13 needs 55kt.

The old weak link limit of 1000lb prevented the utilisation of this energy. The manufacturer's minimum of 1800lb takes it well away from practical fatigue problems.

'A load measurer would be an asset as many clubs operating towcars will testify.'

It is difficult to see how a club can function properly on less than three weak links and the launch should ideally operate at two thirds the weak link value. A load measurer would be an asset as many clubs operating towcars will testify. With our new system the position of the lever comes to the same thing.

Wind speed does not affect the assumptions and as predicted the load needs to be halved at the top. John Gibson said "in an ideal world the load in the cable should be at least equal the weight of the glider plus pilot, though substantially larger loads are usable."

That said, there is no robot pumping out maximum loads which demand pilots to haul back into ever steeper climbs. A struggling engine denotes more power required while easily rising engine/revs means ease back. The driver senses the load that the pilot prefers: the art of winch driving has not been buried by technology.

One bonus of moving to torque control has been the absence to date of the large bow in the cable and billowing cable threatening evil when the pilot over reacts to the winch driver throttling back. This is not surprising as the engine will accelerate as soon as the pilot eases the load.

At a safe height even the faint hearted are happy to climb steeply to convert all the energy offered into height. Concern is frequently expressed about attaining a steep climb close to the ground.

A glider with adequate speed can recover from launch failure at any height. The problem is that on a breezy day an 1100lb pull will accelerate a horizontal two-seater to 70kt in seconds. The speed can be contained by steepening the climb rapidly. The continentals seem happy to teach their pilots the necessary skills but the price of error is unacceptable.

The simple solution is to offer about two thirds of the optimum load to give the pilot a little more time to attain a speed controlling climb and then feed in the extra. This does need to be reduced further on a windy day.

For this most critical phase a load indicator is not helpful because initially it will only record the lower load — that generated by the horizontal glider. The position of the control lever is ideal as it demonstrates the load that the engine is pulling.

Other Control Systems

The standard diesel with its speed controlled by moving the governor setting was used on our old winch and at first on Supacat. A practical disadvantage of this system is that a small increase in the climb angle can result in an increase in speed as the governor keeps the cable speed constant.

A further increase will cause deceleration when the energy demands exceeds that available. It was the intention of the designer, David Clayton, that pilots used this for primary control — the winch driver was only there to help. For 25 years the club opted for the practice of the pilot adopting a reasonable angle of climb with the driver adjusting the speed by eyeball helped by the occasional signal from the pilot.

The bigger engine necessitated a stiffer fluid coupling. With the winch driver in charge of the speed a much greater sensitivity was required. Launches were abandoned as too fast or too slow. Over-reaction led to over-flying and the dangers of the bowed cable and flaying parachute mentioned above that has also been experienced by other clubs increasing the power.

A small number of members were born with a gift for giving great launches, some achieved great launches with practice but increasing numbers were declining the chance to have such great responsibility thrust upon them. Some of the early difficulties were the result of pilots' reluctance to climb more steeply to absorb the available energy. They were comfortable at the old climb angles so always got too fast.

On the continent and in Dunstable's van Gelder a torque converter is used. As the pilot slows the cable by climbing more steeply the torque converter produces the higher cable tension — a neat solution. The driver has to determine the energy required by the conditions. The control lever is used to obtain the optimum revs for the initial part of the climb. Subsequent adjustment is by eyeball.

Dunstable are well pleased with the benefits of more than doubling the power of the winch

engine. It is difficult to believe that optimum load and speed can be given to all gliders in all conditions. The torque converter means rapid starts for lighter gliders and wrongly increases the load at the top.

Other fuels

The petrol engine seems to offer no advantage with speed and torque linked so all the advantages are with the diesel with its inexpensive easy to handle fuel. Any diesel can be converted to torque control or a new pump purchased for around £1000.

We are well pleased with the decision to buy a professional winch with its dependability generating the money to pay the cost. Innovation by skilled designers is just a bonus.

The price of the best launch available? Just £1.50 is amongst the lowest for a civilian club. Perhaps somebody at North Hill does understand the economics of a gliding club.

Many thanks to Nick Jones, David Clayton and John Fielden who have taught me to understand the dynamics of winching. Thanks also to Dick Stratton, John Gibson and Wing Commander John Charlett-Green for patiently answering my letters. The article is my interpretation of their advice.

* * *

NB. When asked to comment on optimising launch heights John Gibson replied: In a launch at constant cable load the glider lift varies. For the K-13 at 1100lb load = its weight, the lift starts at about 1.4*g* and increases at the top to 2*g*. If the speed is constant it will not be flying at best L/D lift coefficient all the time, nor is it necessary. The minimum speed possible is obviously 1.2 times increasing to 1.5 times the stall speed, *ie* about 40 to 50kt for the K-13 . If the cable load is eased off towards the end then only some 45kt is actually needed. Of course, this is too near the stall but another 5kt covers this.

In normal flight the minimum power speed is not at best L/D but at minimum sink. Similarly in the launch, flying faster than needed may give the lowest glider drag but not the lowest power requirement. The cable drag is very significant and this is greatly reduced by flying slowly. The lift that can be generated at 57kt is about 3*g*, which would actually allow a cable load of twice the glider weight with an initial climb angle of over 60°, *ie* 2200lbs.

WIND SPEED AND DIRECTION INDICATORS

- Hand held models from £21.95
- Clubhouse equipment from £199.00

Prices inc. VAT

- Other meteorological equipment supplied inc. weather facsimile

Call

Weather Systems
1 St Andrews Close, Bradfield
Berks RG7 6BL
0734 744762 (until 9.00pm)
for further information

Neogene Paints

Your specialist paint manufacturer

C664 High Tautening Dope To C/E DTD 753

C665 Aluminium Surfacer To C/E DTD 753

C666 Scheme "Z" Type Enamels For Unsupported Fabrics

C667 Scheme "Z" Type Thinners

C668 Low Tautening Dope To C/E DTD 751

C965 Fabric Adhesive

C966 Fabric Adhesive Thinner

C762 Transparent N/C Non Tautening Dope

The above have been selected from our range of Aircraft Finishes.

Colour Matching Service

Large or small quantities supplied

Consult our Technical Advisory Service:

Printa Inks and Paints Limited,
Neogene Works, 65 Alfred Road,
London W2 5HQ.
Telephone 01 289 2271

Neogene Paints (Scotland) Limited,
45 Lanark Road, Edinburgh EH14 1TL
Telephone 031 443 8793

Make sure of getting your copy of S&G by taking out a subscription. Details on p190.

Now available . . .



THE WORLD'S VINTAGE SAILPLANES 1908-45

by Martin Simons

Hard bound, 176 pages, quality paper, 248 beautiful black and white photos plus 65 colour plates and nearly 100 finely detailed scale drawings. A magnificent collection of rare information on these classic old-timers.

A SPECIAL CONCESSION OFFER FROM THE PUBLISHERS ONLY is available to all Sailplane and Gliding readers who send us 2 International Reply Coupons. (Ask at your Post Office.) We will airmail you a free colour brochure, supply all details of our special offer, and tell you how to order. Write today!

Published by:

KOOKABURRA TECHNICAL PUBLICATIONS Pty Ltd,
PO Box 648 Dandenong 3175,
Victoria, Australia

Publishers of superior quality Aviation reference works since 1963.

C OF A OVERHAULS

TO ALL TYPES OF SAILPLANES BY BGA INSPECTOR

JOHN SMOKER

9 ANSON WAY
BICESTER, OXON
Tel: Bicester 0869 245422

RESTORATIONS

and repairs to wooden gliders of all ages a speciality

SKIDS

Laminated ash skids for most of the popular gliders supplied from stock.
Others made to order

FABRIC

Ceconite Fabric any Quantity supplied

DART 15

FOR SALE

Francis Humblet visits Harris Hill, Elmira, the American glider pilot's Mecca.

In 1929 a group of German glider pilots touring the US came upon a hilly region near Elmira, 300 miles west of New York, which reminded them of their beloved Wasserkuppe, The American gliding movement was quick to cash in on this realisation and made Harris Hill an active centre with gliders being launched in every wind direction. Eventually an airfield was built on top of the hill and is still active with its gliding club and "sailplane ride" advertised without fear of prosecution. In September 1980 the National Soaring Museum was built next to the airfield.

I was fortunate enough to be in the States this Easter with my out of work crew (having sold my glider recently) who suggested that for once we should do something different. So it was decided to see Niagara Falls and stop at Elmira on the way back (really meaning we could have a quick look at the Falls on the way to Elmira!).

Our first stop at Elmira was at the Schweizer Aircraft Corporation factory, the leading American glider manufacturer. Twenty years ago in my student days I had met Stuart Schweizer, a son of one of the founders, and been invited to visit the family business sometime. Better late than never! Stuart, now company president in rotation with his brother Paul and cousin Leslie, just to confuse cousin Sally who looks after the gliding activities, was away. Paul and Sally made us welcome, giving us some interesting facts and figures about the business in relation to gliding.

The company was started by three brothers whose father came from Switzerland. From designing and flying their first home-built glider in 1929, they eventually decided to go all the way and in 1939 settled in Elmira.

With the war clouds over Europe and the known success of the German glider-borne troops, the American government was quick to start building up their glider forces at Harris Hill. The Schweizer brothers, innovators of the all-metal glider, were thrown into the war effort with the manufacture of 200 training gliders. Some of these machines are still flown by enthusiasts and appear regularly at vintage rallies.

Most famous is probably the 1-23

New types were developed after the war and total production, spanning 15 models, exceeded 2000 gliders. The most famous is probably the 1-23, flown by Paul Bickle in 1961 for the world altitude record which he held until this year. Incidentally, the type designation is simply one numeral for the number of "places" followed by a hyphen, then the design number. Current models are the 2–33 basic trainer, the high performance 1–35 and a club machine called the Sprite.

Surprisingly, gliders account for only 1% of their turnover. These all-metal gliders only take half the man hours of an equivalent glass ship to produce but allowance for a heavy insurance premium must be included in the retail price to cover the dreaded Manufacturer's Liability laws currently in vogue in America. Put simply, the pilot who buys a glider and bends it by sheer incompetence, and hurts himself in the process, could sue the company for having built the glider.

The bulk of their business has come from subcontracting work from other aircraft manufacturers such as Boeing 757 wingtips. In fact, they have always built the Grumman Ag Cat crop-sprayer and now sell it as a Schweizer aircraft. They intend to develop their existing models and would like to see an increase in their gliding activity.

Sally took us round the gliding training school which unfortunately was closed until May. Soaring conditions are good and there is regular wave up to 12 000ft. The school shares the Cheming county airport with all sorts of commercial and private flying. Launch costs are higher than in the UK but include all the professional services like glider pushers!

We were welcomed at the National Soaring Museum by Bill Gallagher, the curator of education, who is an active glider pilot. The museum has a large display area overlooked by a balcony on one side allowing a closer view of the gliders — Minimoa and Daglings — soaring for posterity under the ceiling.

The museum owns more gliders than it has space in which to display them but so that all the gliders and exhibits can be seen at some time or another, this living museum changes its main theme annually. The 1985 exhibit focus was devoted to William Hawley Bowlus and US soaring sites and clubs.

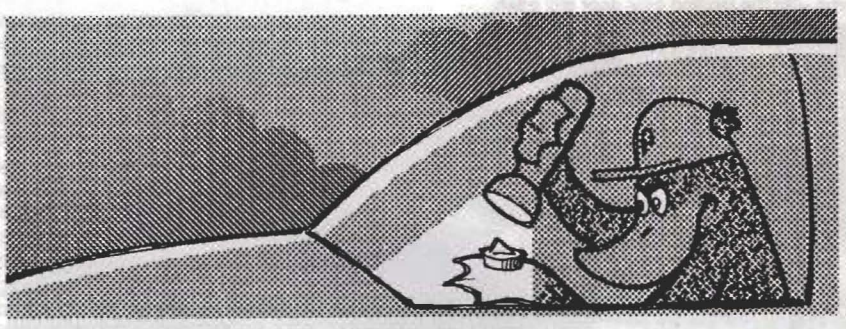
Bowlus, who died in 1969, is remembered for his revolutionary glider designs and record breaking flights in the 1930s. The 1939 Super Bowlus had all the features of a modern sailplane and was far more advanced than contemporary British gliders. He was also involved in military glider designs and was responsible for the Ranger moon probe landing gear and the Bumble Bee aircraft.

There wasn't enough time to look at all the sideshows and many interesting video films, so I have a good excuse to go back one summer and fly from Harris Hill.

The museum is open every day from 10am to 5pm. Tel (607) 734 3128.

BGA MAIL ORDER

In the dark about gliding facts and figures? The best way to throw some light on your problem is to look in the BRITISH SOARING YEARBOOK. Get the new edition of the official B.G.A. publication and you'll find all the answers. Don't stay in the gloom – order a copy of the BRITISH SOARING YEARBOOK now for £3.00 including postage and packing.



Order these items from

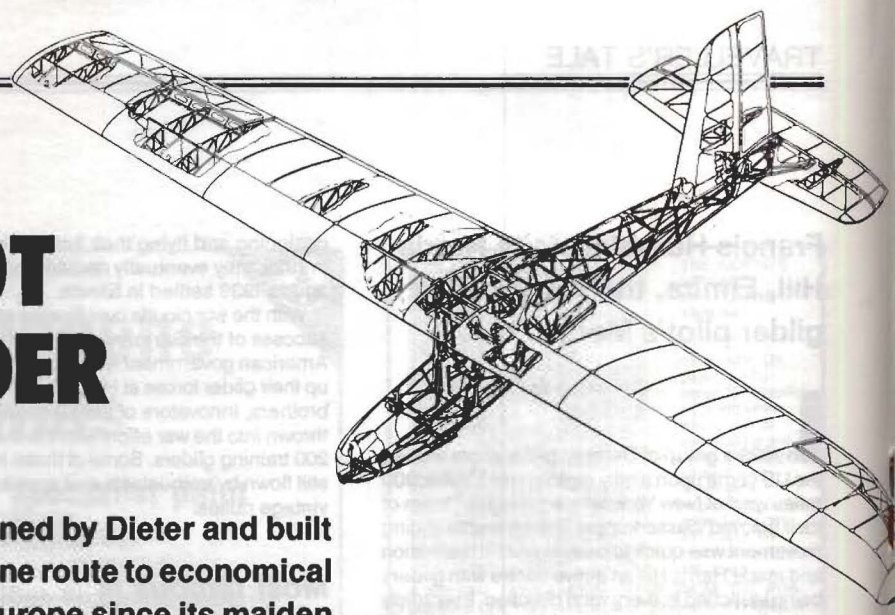
BRITISH GLIDING ASSOCIATION

SALES DEPT., FREEPOST, LEICESTER LE1 7ZB

or ask us to send you our complete sales list

Telephone 0533 531051

DIETER REICH



THE ULF-1 FOOT LAUNCHED GLIDER

The ULF-1 foot-launched sailplane, designed by Dieter and built by Heiner Neumann of West Germany, is one route to economical soaring which is gaining acceptance in Europe since its maiden flight in 1977.

This 10m span sailplane has full three-axis aerodynamic control and was especially designed for ridge soaring and marginal thermals. Many flying hours have been accumulated by different pilots on a number of ULF-1s with the prototype amassing more than 100 hours from 150 foot-launches.

More then 140 sets of plans have been sold all over the world and 40 are believed to be under construction with ten in operation in West Germany. In 1985 the longest flight lasted six hours and the maximum distance flown was 120km, both pilots starting their flights with a foot-launch.

In July 1980, the ULF-1 design received an airworthiness certificate issued by the German authorities after all required calculations and tests had been proved by the designers. In 1983 the Australian authorities gave approval for it to be built and flown in Australia. As far as we know, it is one of the best performing foot-launched aircraft to date and the only one to be certified by an official authority.

Operation

Since ULF-1 is an ultralight glider with an empty weight of 46kg (approximately 100lbs), the aircraft can be foot-launched from slopes of more than 15° even at low wind speeds. The pilot supports the weight of the aircraft on shoulder straps and uses the side stick for lateral control. The self-launch is very simple and does not require any special skill. As the pilot starts the take-off ground run, the elevator stick should be in a slight nose down position to lift the horizontal tail. The moment the pilot feels a pronounced seat pressure, the control stick is pulled back until the aircraft lifts off. After take-off the pilot retracts his legs and puts them on rudder pedals. A sliding slat-type construction behind the pilot's back can be released in flight to form a seat.

Because of its low sink speed (0.8m/s at max take-off weight) and its good manoeuvrability, it is sensitive to marginal conditions. The best L/D of 16:1 is at around 55km/h. To reduce aerodynamic drag, hinged doors have been fixed to the front superstructure of the fuselage. They are kept open during take-off and closed manually after lift-off. For record breaking flights we recommend a closed perspex windscreen.

We estimate that both measures, the "landing gear doors" and the windshield, may well improve the L/D by 10 to 15%, resulting in an L/D of 18, which seems to be the upper limit for the ULF. Since the glide performance is also at a relatively high speed, the average cross-country cruising speed, including time for circling, can be doubled compared with conventional hang gliders.

The ULF-1 is landed on a nose skid below the pilot's seat. It is acceptable to use cartows in calm air and possible to aerotow behind an ultralight, though this has not been tested. We are experimenting with a winch tow release unit attached close to the C of G which opens up the flat lands to ULF-1 cross-country soaring.

The prototype with the landing gear door still open.



Construction

The ULF-1 is specially suited for home-builders. The basic construction materials are spruce, birch plywood and balsa wood. The airframe is covered with doped fabric. For hinges and fasteners etc glass-fibre cloth with epoxy resin, aluminium and steel sheet are used with steel tubes for the control stick, control parts on the cockpit area and rudder drive.

The materials cost about £1000 and the aircraft can be built in under 1000 hours. For road transport, the two-piece wing can be detached and the horizontal tail removed. The glider can be reassembled in less than six minutes.

Handling qualities

The three axis aerodynamic control greatly reduces the workload and frees one of the pilot's hands.

Dynamic pull-ups to about 20° result in a smooth nose down movement after the wing has stalled. Loss of height will be minimal with the stick in the nose up position. In turbulent air and close to the stall speed, there is a possibility of a wing dropping but recovery is achieved by using opposite rudder. The loss of height will be less than 30ft.

Glider pilots will have no problem flying the ULF-1, but normal hang gliding experience isn't sufficient and some solo flights on conventional gliders are recommended.

ULF soaring week

Last August six pilots met on the Wasserkuppe to fly their ULFs and changes had been made to some of the gliders. A few had "landing gear doors", closed manually after foot retraction, and one was equipped with a special ballistic recovery system for both pilot and aircraft, located immediately behind the bulkhead and activated by a mechanical spring release.

The plans

A set of 30 blueprints, including a cutaway drawing and a construction and flight manual (in English), are available from Dieter Reich or Heiner Neumann at Anechostrasse 16, D-8000 München 82, West Germany. They cost DM 360.00, which at the time of writing is about £107.



At this angle it looks decidedly comical but the results aren't to be laughted at.

NEW SAILPLANES



The MG-1 on its maiden flight.

MG-1 motor glider

The first motor glider designed and built in India, the MG-1, was unveiled to the press at Safdarjung Airport, New Delhi on March 29. It gave a lively demonstration in the hands of Sqd Ldr S.H. Apte.

The layout is conventional, a side-by-side two-seater with a tail wheel undercarriage, low set tailplane and high aspect ratio cantilever wing. The construction is traditional rather than conventional, with a fuselage of fabric covered welded tube and wood and ply wings. The main spar is of box construction with laminated spruce flanges and the wings are plywood covered back to the rear spar. The fin is of sheet metal construction while the tailplane and the control surfaces are fabric and ply covered. The only use of glass-fibre is in the engine cowling and fairings which are of glass-fibre and aluminium sheet.

It is stressed for −2.65 to +5.3 and is designed to meet OSTIV requirements in the "Utility" category.

The engine is a 100hp RR Continental 0-200-A with a two-bladed Hoffman variable-pitch feathering propeller. An electric starter is fitted for in-flight restarting, and its reliability is suggested by the low pass which the pilot made with the engine stopped and propeller feathered.

The choice of materials has obviously limited the degree of streamlining which could be achieved, but the designers have clearly done a very creditable job in providing a two-seater with a 16.5m span and a wing loading of only 34-35 kg/sq m (7lbs/sq ft). The low wing loading is probably a very desirable feature in the hot Indian climate. Min sink speed is 3.3ft/sec at 49kt. This gives a glide ratio of 1:25, which would presumably be improved at a slightly higher speed. The max level speed of 98kt is low in comparison with modern glass equivalents. However, the landing speeds of modern glass motor gliders are also high, some say too high. Compared with, for example, the Hoffman Dimona the low stalling speed of 34kt, coupled with its slightly larger main wheels, would give the MG-1 considerable advantage for a training machine in reducing wear and tear on both airframe and aircrew. The cockpit is reasonably roomy, and the controls are conveniently placed.

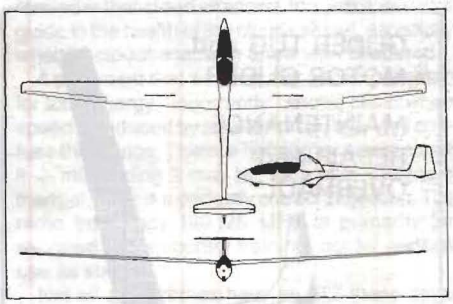
It was not possible to arrange a demonstration flight because of the Indian regulation which requires a security clearance (and about 6–8 weeks) before even receiving dual instruction. In the hands of an expert test pilot it showed a short take-off run and good rate of climb, even in the warmth of Delhi, and that can't have been entirely due to pilot skill. The limited manoeuvres possible in the restricted airspace were smooth and crisp, and control at low speeds appeared to be positive.

It is hoped that the MG-1 will be produced by Hindustan Aeronautics Ltd and a production price of about £21 500 is anticipated.

The MG-1 is the tenth aircraft type to be designed by the R & D Organisation of the Civil Aviation Department. Previous designs have included two powered light aircraft and seven gliders, four of which have gone into production.

(Report and photography by A.R. Lansdown)

Marianne



Two prototypes of the new French GRP two-seater, Marianne, have been flying since December 1985 (see the February cover of S&G). Michael Battarel test flew the second prototype in March and his main comments were:

- General appearance and finish of a high standard, despite bulky mainwheel fairing.
- Front canopy hinged at front, integral with the instrument panel (of Pegasus). Rear canopy side-hinged.

- Rear cockpit is a bit short for tall pilots but there are plans to excavate recesses in the cockpit floor to improve the comfort.
- Controls quite light and well-balanced, both in terms of effort required and the amount of deflection demanded.
- Very positive ailerons. Little adverse yaw.
- No detailed performance evaluation carried out as yet, but in a comparison flight from 2000m with a Pegasus 101A (fixed u/c) the Marianne had approximately the same glide angle at best gliding speed (the Marianne had no mainwheel fairing during the test).
- Certification should be completed by the end of 1986.
- Planned rate of production from January 87: 12 aircraft per month.
- Versions are planned with a retractable wheel (and no nose wheel), and with a 60hp Volkswagen engine.

Main features of Marianne

Wing: Two-part, double trapezoid; 3 dihedral; no sweep at leading edge; no flaps or waterballast; upper surface double paddle brakes.
Tailplane: T-tail; sandwich construction elevator with automatic connection.
Fuselage: Single control jettisons both cockpit canopies; seat backs adjustable in flight; rudder pedals adjustable in front cockpit; aerotow and winch hooks fitted; spring-loaded trim; quick manual fittings for ailerons and airbrakes.

Technical data

Length (m) 9	Span (m) 18.55
Aspect ratio 20	Wing area (m²) 17.18
Empty weight (kg) 400	Max AUW (kg) 615
Wing loading (kg/m²) 25 to 35	
Calculated performance data:	
Glide angle 1:40	
Min sink (m/sec) 0.65	
Sink at 160km/h (m/sec) 1.85	
Max permitted load factors:	
At manoeuvring speed (170km/h) +5.3 −2.65	
At VNE (250km/h) +4 −1.5	

(Translated by Max Bishop from Aviasport)

GLIDER TUG and
MOTOR GLIDER

MAINTENANCE
REPAIR and
OVERHAUL



GR0B G109B
INSTRUCTION
and HIRE

**Bowker Air
Services Ltd.
Rush Green (0438)
Hitchin, Herts. 355051**

LOOKING BACK

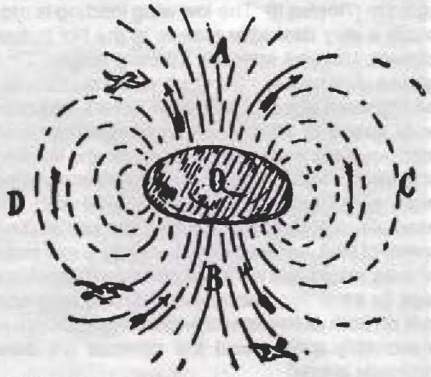
ALPHONSE PÉNAUD (1850-1880)

This is the first of a series of articles about the people and the events which in various ways contributed to the present character and quality of gliding

Alphonse Pénaud devoted ten years of his short life to the pursuit of aviation. He stands out among his contemporaries in his fine intelligence and patient research, a pioneer not only of soaring flight, but of aviation in general more than thirty years before sustained flight was demonstrated publicly.

The son of an admiral, he was destined for the French navy, but a serious illness during his teens left him badly crippled in his legs. Inspired by the siege of Paris in 1870, when balloons and airships were very much in the air, he joined the *Societé Française de la Navigation Aerienne*, which held weekly meetings and published one of the earliest magazines devoted to aeronautics, *L'Aeronaute*. His fellow members, mostly "lighter-than-air" people, were quickly impressed by this young man and he was soon elected a member of the committee and the society's librarian. He was thus at the hub of aeronautical thought and progress from 1870 to 1880.

He used his position to publicise the work of others both at home and abroad. In so doing he was distinctly unusual; aeronautical literature of the 19th century is stuffed with hundreds of impossible projects by people who were working on their own, oblivious of what had gone before. As an example, he was responsible for making the work of Sir George Cayley known in France through translations published in *L'Aeronaute*.

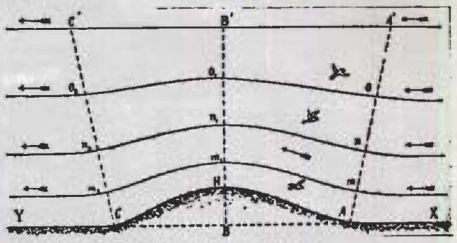


Air flow around a thermal.

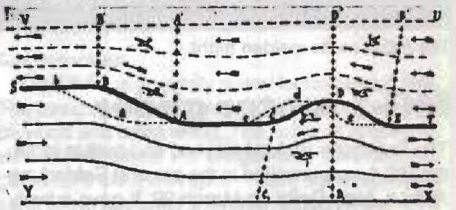
He patiently studied the flight of birds, as many others had done, but he was the first to describe clearly the exploitation of vertical air movement by birds. It must be true that for thousands of years many seafaring men and mountain dwellers instinctively understood ridge soaring by birds. However, in describing and analysing this phenomenon in print Pénaud had been preceded only by Ferdinand d'Esterno, who in 1864 published a short pamphlet on the subject. (D'Esterno predicted long soaring flights by fixed wing gliders along mountains.)



Alphonse Pénaud



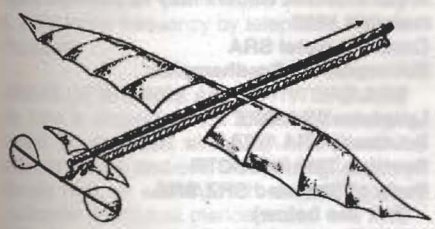
Lift created by opposing air currents.



Ridge soaring by birds. These drawings by Pénaud, illustrating ridge lift and soaring, were published in *L'Aeronaute* in 1875.

Pénaud went much further in his analysis and also described the circulation of air around cumulus clouds. He was the first to suggest that thermals are a common phenomenon. He even flirted with the idea of lee-waves but did not formalise a theory. All this was remarkable at a time when most experts on bird flight flatly denied the possibility of soaring flight on wings which remained outstretched.

Most of his colleagues were engaged in the design of bigger and better dirigible balloons and the search for lightweight engines, which they considered the key to both lighter-than-air and heavier-than-air flight. Therefore, this part of Pénaud's work was largely ignored at the time. It was not forgotten, however, and among many who were later inpressed and no doubt influenced were Wilbur and Orville Wright. They possessed a copy of **Progress in Flying Machines** (1895) by Octave Chanute, which contained many references to Pénaud's articles in *L'Aeronaute*. The Wrights' correspondence indicates that the book did not lie idle on the shelf.

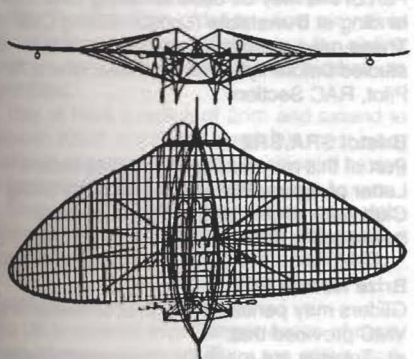


The Planophor.

Pénaud's one and only flight was in 1873, in a balloon, accompanied by fellow members of the SFNA committee. It was a scientific flight which ended unhappily with a 3km cross-country drag in high winds, and Pénaud was injured. This experience further confirmed him in his emphasis on aeroplanes, although he acknowledged the part being played by balloons in discovering the nature of the atmosphere.

Before going on to full-scale designs, Pénaud first decided to investigate heavier-than-air flight by constructing working models demonstrating the helicopter, the aeroplane and the ornithopter. He succeeded admirably with these home-made toys, to the delight of his audiences, and his lectures to the SFNA were punctuated by flights of these devices around the hall. To this activity he contributed something entirely new, the twisted elastic band motor, which most of us have used at some time. If his toys had been patentable and if the patents had been enforceable, he could have made a fortune, because they were widely copied and sold by toy manufacturers.

More important, his toy aeroplane was designed to be inherently stable in roll and pitch, something only approached before by Sir George Cayley's glider. In 1874 Pénaud's planophor, as he called his toy aeroplane, was described in detail to the Aeronautical Society of Great Britain and more recently, in 1960, held by Charles Gibb-Smith of the London Science Museum and the Washington Smithsonian Museum to be "one of the most important ancestors" of the modern aeroplane.



The full-size aeroplane design.



William, who started gliding at Nympsfield in 1963, has 3000hrs, all three Diamonds and was the first British pilot to gain the FAI 1000km diploma. Since 1970 most of his flying has been in France and the USA. He has competed in many European and USA competitions and has now retired to France where he flies a Ventus at the Angers Club.

Next Pénaud designed a full-size aeroplane. In partnership with an able mechanic, Paul Gauchot, he registered a patent in 1876. Here he brought together all the know-how he had acquired from his practical toys with his own original ideas. Many of the features of his projected aeroplane were to reappear one by one forty to fifty years later. The plane was an amphibious flying-wing with twin tractor air-screws. They envisaged either metal or wood for the wing covers, retractable wheels, shock absorbers of rubber or compressed air, a waterproof fuselage, floats for the wingtips, variable-thread air-screws, elevator and rudder controlled by a single lever in the cockpit, instruments indicating pitch, bank and airspeed, trim by springs, rear skid, thick profile wing and a catapult launch system: everything, in fact, except ailerons and engine, although they favoured the idea of hydrocarbon fuelled internal combustion, which was not yet available. Unlike most of the aeronautical projects of the 19th century, this was a practicable, realisable aeroplane, but lacking finance they never built it.

Pénaud was among the very small minority of people who realised that to build an aeroplane was one problem, but it was also necessary to learn to fly it. Lighter and more powerful engines might get you into the air, but what do you do when you get there? For these people, d'Esterno, Pénaud, Mouillard, Lilienthal, Chanute, the Wright brothers — the best route was first to learn to fly in a glider, at low altitude or over water, and then to think about adding an engine. This proved to be the right route to follow.

Weighed down by physical disability, continual illness and lack of financial support for his aeroplane, Pénaud took his own life at the age of 30, depriving the world of a major aeronautical genius already on the right track towards the elusive goal of sustained flight in gliders and aeroplanes. If he had held on, we might have got there sooner.

BOOK REVIEW

The Complete Soaring Guide by ANN WELCH, published by Adam and Charles Black and available from the BGA at £12.50 plus £1.00 p&p.

A beautifully illustrated guide, of exceptional value to anyone seriously thinking of taking up gliding, or who is nearing the cross-country stage of his or her own flying.

The text is written with the clarity and simplicity that characterises all of Ann's books — it includes, for example, what is, for this reviewer at least, the best explanation of induced drag ever accomplished, in the space of a single paragraph!

There are more than 140 excellent photographs, almost all taken by Ann herself. Their international flavour will remind the wistful British reader that there are brighter skies elsewhere, and will appeal equally to a world wide readership.

The book is well presented in three major sections — sailplane and its ancillary equipment; learning to fly; and soaring, in all its aspects, from first attempts to an introduction to competition flying.

In the presence of so much splendid material it may seem ungracious to quibble over style and minor inaccuracies, but an honest reviewer should not let them pass.

Each step of flying training is described almost as a direct instruction to the reader, who might be excused for thinking that learning to fly is a DIY activity and that he will be required to plan his own way forward, take the initiative and devise his own air exercises. He is rarely reminded that, at least until he is solo, there will always be an instructor monitoring his progress and planning his exercises for him.

In the soaring section the paragraphs on cloud recognition might have been enhanced by the reminder that cloud shadows, too, are a valuable guide to the health of the clouds ahead, especially when at cloudbase, with one's view obscured.

A statement that a variometer uncompensated for total energy "incorrectly" shows climb when speed is reduced by several knots, may well confuse the novice. There is nothing incorrect about it — misleading it may be, for a pilot seeking a thermal, but it is a perfectly correct indication. The radio frequency 130.125 MHz is primarily for escorted cross-country training, not for general use as stated.

Not all aerodromes have an ATZ these days, although this doesn't detract from Ann's common sense advice for pilots arriving at a strange site. One or two caption errors, too. The ASW-22 that isn't; a Discus masquerading as a Ventus Turbo; fuselage and tail dollies transposed. Finally, a proof reading slip has allowed the omission of a miles/kilometres conversion table.

To sum up, then, an excellent book and very good value, especially as an introduction to the sport, and for early soaring and cross-country advice.

JOHN WILLIAMSON

CHRIS NICHOLAS

GLIDING AND UK AIRSPACE

This article by the chairman of the BGA Airspace Committee outlines the current airspace situation as it affects glider pilots. Although intended for use as a reference guide, the article is not in itself an authoritative document and in case of doubt in sensitive areas, the UK Air Pilot should be consulted.

AERODROME TRAFFIC ZONE (ATZ)

Since April 26 1985, ATZs have existed only at Government aerodromes, licensed aerodromes with two-way air/ground radio and aerodromes with an Air Traffic Control unit or Aerodrome Flight Information Service unit. Aircraft shall take off, fly or land in an ATZ only with permission.

The definition of an ATZ is currently the airspace extending from the surface to a height of 2000ft above the level of the aerodrome and within a distance of 1½nm of its boundary. (Proposals are in hand to revise the definition – small aerodromes would have ATZs of 2nm radius, larger aerodromes 2½ or 3nm radius.)

At airfields without ATZs, including most gliding sites regardless of how busy they are, an itinerant aircraft may legally penetrate the airspace near and over the airfield, providing the pilot conforms to the traffic pattern or keeps clear of the circuit airspace, and observes the normal rules of good airmanship to avoid collisions.

Some airfields are designated "Prior Permission Required" (PPR). This usually means a telephone call, but full details are set out in the AGA section of the **UK Air Pilot.** All military airfields are effectively PPR and should be avoided.

MILITARY AERODROME TRAFFIC ZONES (MATZ)

A standard MATZ comprises the airspace within 5nm radius of the centre of the airfield extending from the surface to 3000ft above airfield elevation. In addition there is a projecting stub 5nm long and 4nm wide extending from 1000ft to 3000ft above airfield elevation, aligned with the approach to the main runway, although in some MATZs the stub may be absent or smaller.

The rules applicable to the penetration of a MATZ are not compulsory for civil aircraft, but inside every MATZ there is an ATZ (see above.)

CONTROLLED AIRSPACE

Controlled Airspace is either notified for Rule 21 of the Rules of the Air and Air Traffic Control Regulations or it is not. Rule 21 makes Airspace subject to permanent instrument Flight Rules regardless of weather conditions. This involves the filing of flight plans, pilots holding instrument ratings, carriage of certain radio equipment, etc. (Nevertheless, some Rule 21 SRZ/SRAs may be accessible on a discretionary basis, depending on Air Traffic Control, for pilots who are able to use 720 channel radios for contact.)

If it is not notified for Rule 21 it means that VMC flights are not subject to these requirements and therefore gliders flying in VMC are permitted. Controlled Airspace sometimes occupies the same volume of sky as Special Rules Airspace (peculiar to the UK). In such circumstances the special rules relate only to the requirement for pilots to communicate with the controlling authority, and usually gliders do not have exemption from this requirement.

AIRSPACE ABOVE FLIGHT LEVEL 245

The entire country is controlled above FL 245 but none of the rules are applicable to gliders.

VISUAL METEOROLOGICAL CONDITIONS (VMC)

To comply with VMC within Controlled Airspace, or above 3000ft outside Controlled Airspace, or above 3000ft within Special Rules Airspace, a pilot must remain at least 1000ft vertically and at least 1nm horizontally from cloud in a flight visibility of at least 5nm, as interpreted by the pilot.

Bearing in mind that modern military and civil jet aircraft travel very fast and are capable of high rates of climb and descent and notwithstanding the minimum criteria stated below, it is prudent to exercise the greatest care when flying where such traffic is known to exist.

AIRWAYS

Airways are Rule 21, but an exception is made for gliders. The relevant paragraph in the **Air Pilot** states: "Gliders may cross an Airway, except a Purple Airway (see below), in VMC, by day, without compliance with any of the requirements . . ." Note that the manner of crossing is not specified.

Some control areas may be treated as if they were airways, currently Daventry and Worthing.

Purple Airspace is established from time to time, to protect Royal Flights in fixed wing aircraft, within which ATC apply special procedures. Full details are promulgated by special NOTAM and it is important that gliding clubs receive this information, because gliders are not permitted to fly in Purple Airspace.

CONTROL ZONES/AREAS (CTR/CTA), SPECIAL RULES ZONES/AREAS (SRZ/SRA), AND TERMINAL CONTROL AREAS (TMA)

The Rules are complex, but the following tables are a simplified guide.

Areas in which Gliders may fly provided they maintain VMC

Cross Channel SRA
Bournemouth/Southampton SRA/SRZ
Lyneham SRA/SRZ
Southend SRA/SRZ
Scottish TMA/SRA/CTR
Parts of Stansted SRZ/SRA (but see below)
Leeds/Bradford SRA/SRZ
East Midlands SRA/SRZ
Aberdeen SRA/SRZ
Newcastle SRA/SRZ
Manchester TMA
Tees-side SRA/SRZ

Areas in which Gliders may not fly, regardless of the weather

Heathrow CTR
Gatwick CTR/SRZ/SRA
London TMA
Birmingham CTR/SRZ/SRA
Cardiff CTR/SRZ/SRA
Blackpool SRZ
Manchester CTR (except for a small portion up to 1250ft agl)
Stansted SRA, only the portion between Stansted and Luton between 3500ft amsl and FL 65.
Prestwick SRZ
Manston SRZ
Glasgow SRZ
Liverpool SRZ

Luton SRZ/SRA
Bristol SRA/SRZ
Brize Norton SRZ
Edinburgh SRZ
} But see below.

Areas in which Gliders may fly provided certain rules are followed

Luton SRA
Part of this may be used for taking off or landing at **Dunstable** (London Gliding Club). These rules are complicated and should be studied before flying into the area: refer to Air Pilot, RAC Section.

Bristol SRA/SRZ
Part of this may be used for gliding under a Letter of Agreement with the Mendips Gliding Club, with whom contact should be made before using the airspace.

Brize Norton SRZ
Gliders may penetrate the SRZ at weekends in VMC provided that.

a) Transits are made for cross-country record attempts on triangular routes which cannot

be arranged to avoid the SRZ.

b) On the day of the proposed flight the pilot must contact the ATC Watch Supervisor on Carterton 842551 and pass an approximate Zone Boundary ETA. At this time, but not later, ATC may refuse permission for operational or safety reasons.

c) The pilot must call Brize Norton on 130.4 MHz before penetration. In the absence of any reply the pilot may continue, assuming responsibility for lookout and separation within the ATZ, while listening out on 130.4 MHz.

Edinburgh SRZ/SRA

Transits are available to gliders contacting Edinburgh on 130.4 MHz. It will be necessary to activate the frequency by telephone before departure.

AREAS OF INTENSE AIR ACTIVITY (AIAA)

An AIAA is airspace which is not otherwise protected by regulated airspace, but where the intensity of civil and/or military flying is exceptionally high, or within which aircraft regularly participate in unusual manoeuvres.

Twelve AIAA's are currently listed, and shown on the 1:500 000 topographical charts used by most glider pilots.

Gliders may penetrate these areas, but in view of the hazards, a sharp lookout is advisable.

UPPER HEYFORD MANDATORY RADIO AREA (UHMRA)

A trial UHMRA was established in April 1986, whose rules supersede the previous Radar Advisory Service Zone (RASZ)

The UHMRA may be penetrated by gliders at weekends and on UK and USA public holidays without formalities. On normal weekdays, however, gliders from outside the UHMRA may only use this airspace after establishing radio contact on 128.55MHz, must listen out during transit, and must call again on landing within or leaving the UHMRA.

Gliders based within the UHMRA are covered by special procedures defined in Letters of Agreement within the clubs concerned.

PROHIBITED AREAS

Apart from certain security areas in Northern Ireland, the Prohibited Areas comprise the Atomic Energy Establishments at:

Winfrith Calder/Windscale (Sellafield) Aldermaston Capenhurst

Harwell, Springfields and **Dounreay** are classed as "Restricted" in order to allow aircraft to land at adjacent major airfields, but for gliding purposes they should also be considered as "prohibited."

They all have a radius of 2nm and extend to between 2000ft and 2500ft amsl. It is most inadvisable to place oneself in the position of having to land within a Prohibited Area.

Short term Prohibited Areas may be established anywhere from time to time: information about these can be obtained from NOTAMS.

DANGER AREAS

The UK is covered with Danger Areas of many types, shapes and sizes. They are active part-time, permanently or when notified by NOTAM. Full details will be found in the **Air Pilot,** RAC Section; the Chart of UK Airspace Restrictions is also useful.

Some glider pilots express the view that a Danger Area is not a Prohibited Area, so it would not be illegal to penetrate it. The following two points should be considered:

The **Air Pilot** lists only the type of activity most likely to be encountered, but in practice various hazards may be encountered in one area simultaneously.

Many Danger Areas contain areas over which flight is prohibited at times within the period of activity of the Danger Area by reason of bye-laws made under the Military Lands Act 1892 and associated legislation.

It is also worth noting that the **Air Pilot** does not list Danger Areas with upper limits 500ft or less above the local surface, to which prohibiting bye-laws may also apply.

Glider pilots should therefore regard all Danger Areas as prohibited during notified hours.

HAZARDOUS AREAS

Other types of hazard include Free Fall Parachute sites. The airspace is contained in a circle of 1½nm radius from the centre of the drop zone up to a maximum of Flight Level 120.

It may not be apparent to a glider pilot, observing the drop zone in flight, whether or not there is parachuting in progress: parachutists normally free-fall down to 2000ft agl and are extremely difficult to see. Beware!

HIGH INTENSITY RADIO TRANSMISSION AREAS

Within these areas there are powerful radio emissions which may cause interference with glider radios and electronic variometers.

In particular, Fylingdales is so powerful that prolonged exposure could be injurous to health.

Details are in the **Air Pilot,** RAC Section.

RESTRICTION AREA – RAF SCAMPTON

In addition to the Atomic Energy Restricted Areas mentioned above, the other significant Restricted Area is at Scampton to protect Red Arrows display training. The area is a circle of 5nm radius extending to 9500ft amsl, active when Scampton is open (Monday-Friday 0830-1700 (winter), 0730-1600) (summer) and when otherwise notified by NOTAM.

Gliders may not enter this airspace except by permission from ATC Scampton (telephone Lincoln (0522) 730421 ext 314/330) or ATC Waddington (telephone Lincoln (0522) 720271 ext 451/452) or Waddington Approach on 127.35 MHz.

MILITARY LOW FLYING SYSTEM

Low flying by high performance military aircraft takes place in most parts of the UK up to 2000ft agl, with the greatest concentration between 250ft and 500ft. A chart is available denoting the system (see References).

All gliding sites are notified to the military authorities and all Club CFIs by now have a supply of forms for reporting any dangerous infringement of their ATZ to the Ministry of Defence.

THE AIRMISS SYSTEM

Glider pilots are accustomed to flying in close proximity to each other and may not appreciate that it can be quite alarming for the pilot of a powered aircraft to suddenly encounter a glider at close quarters. The reluctance of most glider pilots to report Air Misses is generally not shared by the powered fraternity: this usually results in extra work for the Airspace Committee! The Air Miss System is generally helpful and glider pilots should take advantage of it whenever appropriate. Full details are in the **Air Pilot,** RAC Section, but generally the procedure can be activated by a telephone call to the nearest airfield with an ATC service on the day of the incident.

REFERENCES

The airspace situation is complicated and changing all the time. The following publications collectively provide a thorough and up to date information on UK Airspace.

Laws and Rules for Glider Pilots (BGA)
UK Air Pilot, RAC Section
NOTAMS
General Aviation Flight Guide
Air Navigation Order 1985
Rules of the Air and Air Traffic Control Regulations 1985
— Available as C.A.P 393 from Her Majesty's Stationery Office

Aeronautical Information Circulars, available FREE from: Aeronautical Information Service (AIS 2c), Tolcarne Drive, Pinner, Middx. HA5 2DU.

Chart of U.K. Airspace Restrictions
Chart of U.K. AIAA's and Military Low Flying System
— both FREE from: The Superintendent, MOD (PE) Central Stores Department, Aston Down, Stroud, Glos. GL6 8HT.

This article was first printed in the 1986-87 British Soaring Yearbook.

PROBLEMS:
CROSSWINDS TOO STRONG TODAY?
NOT GLIDING MONDAY TO FRIDAY?

SOLUTION:
NO PROBLEM, KEEP FLYING ALL YEAR ROUND WITH THE FUN ALTERNATIVE

★ ★ KITES ★ ★

All manner of kites for all sorts of wind conditions. From 'Codys' and 'Crystals' to 'Marconies' and 'Malays' to 'Stunters' and 'Stratoscoops' (Stratoscoop?!) to something called a Yakko. Intrigued?

Then phone Ipswich (0473) 832410 anytime for a free illustrated mail order leaflet, or simply write to:

Kites in Action

ELM HOUSE, PAPER MILL LANE, BRAMFORD, IPSWICH, SUFFOLK, IP8 4DD

FROM THE SECRETARY'S DESK

Barry Rolfe, BGA administrator



As I write this copy the England soccer team have just struggled to a draw with Morocco in the World Cup and I feel sure that our British gliding team will give a much better account of our sport at the World Championships in Australia next January. The cost of sending a fully equipped team halfway around the globe is expensive but we are receiving generous financial assistance towards the travel costs from the Sports Council. Team members will be making considerable personal contributions to the fund but we still need to make up the deficit from members' pockets. Please give generously by individual donations and by supporting the Team Lottery for which tickets are enclosed with this magazine.

We have now completed our *"magnum opus"* or five year development plan on the future of the BGA and it has been submitted to the Sports Council as part of our case for financial aid for the association during that period. If any clubs would like to have a copy of the BGA plan then please apply to me and I will send you one. We have also published the **British Soaring Yearbook 1986/87** recently and I would hope that this will make more interesting reading for you containing as it does a veritable cornucopia of gliding facts, feats and figures — copies are available from our shop at £3 each including p&p.

As I am sure you are aware, we had a considerable fright earlier this year when a member club was prosecuted for a breach of the Air Navigation Order. The interpretation of the current law by the Civil Aviation Authority meant that what had been considered normal operations at all gliding clubs could be regarded as illegal in certain respects and the words "hire and reward" echoed around the corridors of Kimberley House rather like the spectre of the bogeyman. We are extremely lucky that Christopher Simpson, one of our vice-presidents and BGA solicitor, gave up an immense amount of his time on our behalf in negotiating with the CAA over amendments required to the law as it stands in order to enable clubs to continue to function at all. In the meantime an exemption order has been issued which allows our clubs to continue flying whilst negotiations are completed which it is hoped will so amend the next issue of the ANO that clubs no longer run the risk of incurring prosecution whilst following normal and reasonable practices.

The legal rumblings first came to general notice at the Annual Conference in Harrogate this year but did not detract from an excellent weekend hosted by the Yorkshire Gliding Club. The penalty for success is that we have asked them to repeat the exercise in 1987 and the Old Swan Hotel has been booked again for February 28—March 1 next year.

June saw the retirement of John Morris after five years as chairman of our Instructors' Committee and his replacement by Bernie Morris from Booker (no, it isn't compulsory to be called Morris before you get the job!). Our grateful thanks to Johnny for his hard working stint in this sometimes controversial post and we are delighted that he will continue as a senior regional examiner.

1362KM ▲ FOR UK PILOT

British glider pilot Robbie Robertson, formerly of Bristol & Gloucestershire GC, was involved in a remarkable 1362km triangle team flight along the Appalachian ridges in the USA on the same day that Tom Knauff claimed a world triangular distance record for the same task. The details came from Alan Sands who was at Ridge Soaring, Pennsylvania on May 2 when these remarkable flights were achieved, having broken a record himself some days earlier.

Four pilots, John Seymore, Karl Striedieck, Roy McMaster (all flying ASW-20s) and Robbie (Ventus), completed the task in 12hrs with TPs at Gate City, Tennessee and Tamplin, Virginia which Tom (Nimbus 3) managed in 10½hrs. This should give Robbie the British national triangular distance record.

On April 23 Alan, flying a Nimbus 3, declared Chilhowee, Tennessee, a distance of 859km, took his photographs and then landed at Calhoun, Georgia, making it a 945km flight. Alan is claiming the British national goal distance record for the 9hr flight which was just short of the British national straight distance record of 949.7km, held by Karla Karel for a flight in Australia.

15M NATIONAL RESULTS

Three Booker pilots were in the top four placings of the 15 Metre Nationals, held at Nympsfield from June 7-15. Brian Spreckley (LS-6) won with 4496pts; Justin Wills (LS-6) 2nd, 4462pts; G. Garton (Ventus B and from Lasham) 3rd, 4409pts and Bernie Fitchett (ASW-20) 4th, 4365pts.

There were six contest days with a 310km task set on Wednesday, June 11.

A full report will be in the next issue.

NATIONAL LADDERS

The new National Ladder steward, Ed Johnston, says that despite the poor spring some have been able to make the most of the few good days, A.S. Pierre flew a 440km and N. Gaunt, both of Yorkshire, achieved a 20 000ft height gain, R. Pentecost (Cotswold) flew at more than 84km/h round a triangle he measured at 400 08km and D. Roddy (Wolds) managed a super 240km in a K-7.

OPEN LADDER

Leading pilot	*Club*	*Pts*	*Flts*
1. R.C. Stoddart	Yorkshire	5085	4
2. A.P. Hatton	Yorkshire	4982	4
3. R. Pentecost	Cotswold	4311	2
4. T.E. Macfadyen	Cotswold	3785	3
5. F.J. Sheppard	Booker	3510	2
6. N. Gaunt	Yorkshire	2954	3

CLUB LADDER

Leading pilot	*Club*	*Pts*	*Flts*
1. D. Taylor	Yorkshire	2110	2
2. B. Shaw	Yorkshire	1150	1
3. A. Beaumont	Yorkshire	930	2
4. J. Andrews	Yorkshire	900	1
5. P. Holland	Yorkshire	800	1
6. T. Milner	Wolds	747	2

INTER-CLUB LEAGUE

The Inter-Club League final will be held at the Southdown GC's site at Parham for three days from August 23--25, which is over the Bank Holiday.

AN AWARD FOR TED



At the Royal Aero Club's annual awards ceremony on May 1, at the RAF museum at Hendon, Ted Warner was presented with a Bronze medal by the president, HRH Prince Andrew. It was the only award made to someone in the gliding movement this year.

The citation referred to Ted's long service with the Cambridge University GC as ground engineer, instructor and CFI, his test flying with the BGA, the hundreds of students and other club members whom he has introduced to gliding and the respect in which he is held for his encouragement, skill and hard work over the years. The award is well deserved and sets the seal on a fine career. Congratulations Ted!
John Deakin, *Cambridge University GC*

FATALITY AT MILFIELD

The Borders GC pilot of a K-6CR, David Harvey, died when his glider crashed while soaring on Newton Tors near Milfield on June 4. The conditions are reported as hill lift

supplemented by thermal activity but it is not certain how the glider came to crash since the ridge is out of sight of the airfield.

* * *

FATALITY AT DUNSTABLE

Richard Jennings, the pilot of a K-6E, was killed when his glider crashed at Dunstable on May 24. The glider was on final approach when, at the height of approximately 100ft, it was seen to go into a progressively steepening dive. The glider had been flown for an hour or so and inspection of the wreckage did not reveal anything wrong with the control connections. There were no contributary medical factors. Accidents Investigation Branch (Dept of Transport) has authorised the BGA to investigate the accident.

* * *

KESTREL EMERGENCY

The pilot of a Kestrel 19, Mike Evans, had an emergency when the rudder fell off his glider near Lasham on June 4. At 2000ft and unable to control the glider he baled out. Apart from a heavy landing and slight damage to his back the pilot was otherwise unhurt. (See Mike's account on p167.)

The failure of the rudder has been the subject of a technical note to all owners; the components are also being examined by AIB. It appears that the fault, failure of the weld in the horse-shoe shaped drive to the rudder, can only be positively identified by the "Magnaflux" test. The similar component in the first Lasham glider inspected, a Mosquito, was near to failure.

W.G. Scull *director of operations*

WARNING TO K-6E OWNERS

In a recent fatal accident the **spring trim** lower attachment bracket on a K-6E was found to have cracked and may have failed totally prior to the impact. All such trim systems should be inspected as soon as possible and recorded in the logbooks.

* * *

Retracting gear warning devices may cause more damage to both airframes and occupants than they prevent if spurious warnings are generated on final approach which result in serious mismanagement of the aeroplane.

R.B. Stratton, *BGA chief technical officer*

POLICY ON WEAK LINKS

With the acquisition of higher powered launching equipment, heavier two-seater gliders and stronger cable, it was inevitable that the BGA policy on weak link rating had to be revised if more productive launching was to be realised. At a BGA Technical Committee meeting in May a recommendation by Dick Stratton, BGA chief technical officer, that the UK should adopt the European system as typified by the Tost range of colour coded weak links was endorsed. It was further agreed the weak link rating should not exceed that approved for each type of glider in its type certificate, flight manual or C of A.

The exception was that it will be acceptable for the older types of UK gliders certificated to BCAR Section E to uprate the weak link from the traditional 1000lbs to 1100lbs (500kp) equating with the Tost "white" link.

Whether Tost type weak links are used or not, it is essential to adopt the following colour code:

	kp	lbs
Tost No.1 Black	(1000)	= 2200
Tost No. 2 Brown	(850)	= 1870
Tost No. 3 Red	(750)	= 1650
Tost No. 4 Blue	(600)	= 1320
Tost No. 5 White	(500)	= 1100
Tost No. 6 Yellow	(400)	= 880
Tost No. 7 Green	(300)	= 660

It is not, of course intended that all seven variants should be required. In most cases brown, red and white will meet all requirements.

It is also strongly recommended that the approved weak link rating for each type be identified on a placard in the cockpit and colour coded adjacent to the hook(s).

THERMAL TURN INDICATOR

The Australian company, Rompax (Pty), have now developed the thermal turn indicator to production standard and it will be available shortly for the UK market through RD Aviation Ltd. The manufacturer claims that the equipment can assist a pilot to quickly locate the core of a thermal, thus saving time on a cross-country race, and it can also help in locating lines of energy that lie close to track whilst in straight flight.

The unit is supplied in a comprehensive, easy to fit, kit comprising: the main unit, housing the left-right LED, audio, and controls and requiring only a 57mm panel cut-out; sensor unit, which fits over the spar (tongue and fork type) and the remote LEDs, for fitment as required by the pilot for a "head up" indication which augments the audio comand.

The equipment uses a strain gauge system to measure differential wing bending plus a compensating strain gauge to remove the bending inputs from use of aileron.

SITE HUNTING IN THE CLWYD HILLS



During Easter a party from the Shropshire Soaring Group, operating from Sleap airfield, and the Midland GC went site prospecting in the Clwyd Valley, aptly described by Vic Carr as "a magical place". Our photograph, taken by Peter Foster, is of Vic (Kestrel 19) about to be aerotowed from the Llandegla airstrip, not far from Ruthin, North Wales during the attempt to evaluate the site kindly offered by Gwyn Edwards, a farmer and aviator. Hans Wiesenthal (Ventus), in the foreground, is waiting to be launched.

Almost continuous showers ruined the four day attempt but Vic said that they know from experience of flying over this area that the Clwyd Hills, running away to the north in the photograph, are very soarable with a good opportunity of wave. Many flights originating from other sites have exceeded 20 000ft in recent years and in early May, Vic was at 13 000ft in the area, having taken off from Sleap.

Bill Crease also soared these hills from the late 1940s and on one occasion exceeded 10 000ft in an Oly 2B. He used a car bungy launch from Clwyd Gate, approximately four miles north of this site.

GLIDING CERTIFICATES

DIAMOND DISTANCE

No.	Name	Club	1986
1/319	C.D. Marsh	Booker (in Australia)	11.2
1/320	P.A. Johnson	London (in Australia)	17.1

DIAMOND GOAL

No.	Name	Club	1986
2/1471	Brenda Snook	Heron (in Australia)	27.2
2/1472	J.P. Willsher	Four Counties (in France)	17.7.85
2/1473	P.A. Johnson	London (in Australia)	17.1
2/1474	Jane Nash	Odiham	26.4
2/1475	B.J. Barnfather	Bicester	26.4

DIAMOND HEIGHT

No.	Name	Club	1986
3/716	D.P. Taylor	Yorkshire	15.12.85
3/717	J.C. Kingerlee	Enstone Eagles	12.1
3/718	D.E. McAlvin	Bicester	1.10.85
3/719	I.M. Pettman	Two Rivers	13.4
3/720	E. Preston	Derby & Lancs	29.4
3/721	E.D. Herbert	Derby & Lancs	1.5
3/722	I.P.J. Carmichael	Derby & Lancs	1.5
3/723	P.G. Myers	Blackpool & Fylde	1.5
3/724	K.L. Fixter	Blackpool & Fylde	1.5

GOLD BADGE

No.	Name	Club	1986
1143	D.E. McAlvin	Bicester	1.10.85
1144	S.R. Lynn	London	11.4
1145	Ruth Housden	Cotswold	23.3
1146	D. Latimer	Aquila	23.3
1147	A.J. Wray	Heron	4.3
1148	Jane Nash	Odiham	26.4
1149	A.J. Queen	Clevelands	18.1
1150	M.G. Thick	London	15.3

GOLD HEIGHT

Name	Club	1986
J.S. Hall	SGU	25.3
E.J. Higgins	Cotswold	25.3
D.E. McAlvin	Bicester	1.10.85
I. Whitmore	Derby & Lancs	11.4
S.R. Lynn	London	11.4
Ruth Housden	Cotswold	23.3
D. Latimer	Aquila	23.3
A.J. Wray	Heron	4.3
I.M. Pettman	Two Rivers	13.4
G. Prestwich	Derby & Lancs	29.4
E. Preston	Derby & Lancs	29.4
J.B. Ranson	London	29.4
I.P.J. Carmichael	Derby & Lancs	1.5
B.A. Wright	Booker	7.10.85
A.J. Queen	Clevelands	18.1
M.G. Thick	London	15.3

GOLD DISTANCE

Name	Club	1986
Brenda Snook	Heron (in Australia)	27.2
J.P. Willsher	Four Counties (in France)	17.7.85
P.A. Johnson	London (in Australia)	17.1
Jane Nash	Odiham	26.4
B.J. Barnfather	Bicester	26.4

SILVER BADGE

No.	Name	Club	1986
7154	M. Hammond	Anglia	25.3
7155	T.L. Sadler	Chilterns	26.3
7156	S.M.L. Young	Highland	30.3
7157	L.R. Matthews	East Sussex	2.4
7158	A.J. Cooke	Culdrose	3.4
7159	J. Smith	Devon & Somerset	20.4
7160	S.R. Wilkinson	Portsmouth Naval	20.4
7161	Susan Gildea	Humber	26.4
7162	S.A. Hall	Four Counties	26.4
7163	C.D. Ward	Newcastle & Teesside	26.4
7164	J.E. Haunton	Newark & Notts	26.4
7165	R.J.G. Lindon	Essex	26.4
7166	G.H. Broadhead	Ouse	26.4
7167	Sarah Deck	Wyvern	26.4
7168	R.D.J. Mayo	Cotswold	27.4
7169	P.H. White	Southdown	27.4
7170	A.D. Dean	Midland	29.4
7171	P.W. Copland	SGU	29.4
7172	P. Mason	Phoenix	4.5
7173	P.J. Harvey	London	12.3
7174	H. Stevenson	SGU	11.5
7175	N.W. Johnston	SGU	11.5
7176	N. Backes	Midland	15.5

WHY DON'T EAGLES NEED SUNGLASSES?

Because "see and be seen" is so very important to flight safety, we must all seriously consider the protection and enhancement of our eyesight.

Human beings, living at the bottom of a natural filtering layer of atmosphere, have (like most creatures of forest origin) developed no built-in means of selectively removing harmful solar radiation before it reaches the eye. Direct sunlight is very damaging to human eyes and may cause cataracts, conjunctivitis, photokeratitis (corneal sunburn), photophthalmia, snowblindness, solar retinitis and night blindness (loss of rhodopsin). It also contributes to senile macular degeneration and other retinal diseases. Man must therefore protect his eyes when he is in harsh sunlight such as when flying, over water and desert, and over snow or ice. Most current "sun-glasses" just reduce the light level at all wavelengths.

Eagles and hawks, on the other hand, evolved in the presence of direct sunlight. Nature has provided a protective filter in the form of a film of oil in their eyes. But in order to hunt successfully from above, these natural eye filters allow only the harmless but useful visible light to pass. Thus, hawks and eagles have extraordinary eye-sight, even under dimly lit conditions. Scientific studies of these factors have led to the development of a means to produce filters that can be applied to glasses which approximate the same spectral light-pass band and transmissivity as the eagle's eyes, plus about one-half magnitude improvement for retina safety.

Last summer I started evaluating a pair of frequency-selective glasses that are designed to be responsive to the light frequencies that eagles and hawks use.

Everything sharp — No eyestrain

I have found them to be most effective. Other air traffic is now easy to spot, including some traffic I can't even see with other glasses. And clouds, especially on hazy days, are clear, crisp, and deeper than I have ever seen them before. It is almost like seeing a 3-D movie for the first time. Everything is in extremely sharp focus and there is no eyestrain or squinting. I have been perfectly relaxed without eye fatigue and my eyes have been fully protected.

When you first try these filtered glasses, they seem so bright that they will knock your socks off. Actually, all of the ultraviolet and high-energy blue photons have been filtered out and the harmless remaining visible light from about 510nm up, green through red, is allowed to pass with only about 2.4db (43%) attenuation. Thus you are able to see everything, light or dark, and your eyes remain fully protected.

Chromatic aberration, a condition which occurs because human eyes cannot focus sharply on blue and red light simultaneously, is gone since the blue light has been filtered out. This allows a vast improvement in being able to see very small objects with great detail from extended distances. Even small birds, insects, and dust in thermals become more distinct. Also to be noted is the fact that these glasses preserve most of your night vision when entering a dark cockpit or room.

When selecting flight glasses, I recommend that you consider how they might fit when you are wearing an oxygen mask. The shape of the glasses can be important.

For reference and more information, one supplier who offers selective filtration glasses is Suntiger. The UK agents are Alan Purnell and George Coppen who can be contacted at Lasham.

* * *

Note for UK pilots. Alan Purnell is wholly converted to using these glasses to help identification of thermals and to see other gliders more clearly and Derek Piggott, who normally flies without any glasses, was so impressed he has bought a pair.

This article has been reprinted by kind permission of Les Sebald and *Soaring*.

Correction: In the February issue, a letter from Brennig James, p37, stated that a new fibre, Spectrum 900, has been developed by DSM Chemicals of Holland. In fact DSM have developed Dyneema and Allied has been granted a license to produce and market a comparable high performance polyethylene fibre, Spectra 900, in the USA.

Cotswold Gliders
(Prop. T. Cox)
C. of A. inspections and overhauls to all types
Major or minor repairs in glass, metal and wood
Kestrel/Libelle aileron drive rebuilds a speciality
Wiring and rewiring of complete glider electrical systems
Trailers manufactured or repaired
Write or phone
TONY COX
18 Stanton Harcourt Road, Witney, Oxon OX8 6LD
0993 74892 (evenings)

YOUR LETTERS

READING VERSUS REPAIRING?

Dear Editor,

In his "very short answer" (last issue, p141) to my letter in the April issue, p91, Mr Stratton seems to have overdone the brevity. Could we ask him to reveal the name/nature of the *"non-elastic"* strop material he recommends and to offer some advice on where the weak link should be located or do we have to buy one of the "monster" winches he refers to in order to discover its secrets?

Instant answers are all very well (if they are adequate) but anyone who has done even a modest repair on a glider they have dented knows that the longest written article or letter requires little time and effort to read in comparison with the repair! Inquiries and hospital costs (or worse) should be added to the comparison as appropriate.

TONY GEE, *Godalming, Surrey.*

Dick Stratton replies: Get on your bike Tony and see what other people are doing. Go to Dunstable and if necessary even Germany. That's the way we are all going to learn.

DICK IS RIGHT

Dear Editor,

Dick Stratton's very short answer to the inflating cable parachute problem is quite correct. We have been using, along with every other club in Germany, 25ft long cable strops sheathed in flexible plastic hose for years with obvious problem free results.

PETER STRATTEN, *Two Rivers GC*

KENYA

Dear Editor,

Max Bacon's article in the April issue, p79, about the facilities for gliding at Njoro, nicely describes the geography of the site, the prospects for good gliding and the costs when you get there. I recall the excellent one-hour of gliding there which cost me around £130. No, I didn't prang the glider! I just had to pay the taxi to get me from Nairobi to Njoro.

The 100 or so miles does not look far on the map. The roads are tarmac, fairly straight and pass through a most beautiful part of Africa, alongside the spectacular Rift Valley. The Nairobi taxis would generally fetch around £500 each at an English car auction (if the purchaser knows nothing about cars). So a quote of 2500/– return, which was about £110 in September 1985, seemed a bit steep, but one just *has* to get to the site, doesn't one? The car which actually arrived to take us would probably not have reached a reserve price of £500, but it did at least go; I had no other transport as I could not face driving a hire car through the, to me, strange Land, the pot holes and the police checks.

Several slow climbs behind smelly diesel lorries or buses took the edge off the view, especially as it was raining at the time. An "exhilarating drive" at 80 mph behind wonky steering gave me a different aspect to contemplate, whilst losing some of the height so slowly gained behind the lorries. It had stopped raining and we were now well clear of Nairobi and heading up to the White Highlands. I saw a lot of lovely country, passed a lot of police checks and paid out 30/– fines (bribes?). My navigation got the driver to within two miles of the site, then his animated conversation with a local garage owner set us off on the wrong road. A near U-turn ten miles up the road brought us back to the airfield.

Richard Pollard gave me a friendly welcome (he seemed a bit surprised that I had actually found him).

An 800ft winch launch in a K-13 (tail wind at the time) seemed to signal the start of a very short check flight, but a disconcertingly tight thermal of 1kt became 4kt. This thermal stopped at 11000ft (sounds a lot but the site was ony 4000ft below). Time to enjoy the magnificent views, but this was a poor vis day — you only see about 30 miles. The pink fringe to Lake Nakuru is caused by flamingos — thousands of them. I think that I quickly learned the rules of soaring on that day; if there is a good cloud it marks a "dead" thermal, all good thermals are tight and rough and the local kites know where the thermals are.

After nearly an hour of learning and enjoying, I started to wonder about the taxi driver; perhaps he was calling up reasons for being paid overtime. So we landed.

A good meal and a beer in the country club and we were on our way back. Gliding is a lot safer than motoring! Who parked that bus in the ditch? Why do I have to push when I am paying?

A very good day! Who cares about the cost? I must go back for longer, and in the dry season (but I will drive).

A ETCHELLS, *Inkberrow, Worcs.*

"SOARING"

The official monthly journal of the Soaring Society of America. The only US periodical devoted entirely to the sport.



For subscription send $25 US by international money order or international cashier's cheque payable to the S.S.A. at PO Box 66071, Los Angeles, CA 90066

SPECIALIST SYSTEMS LTD

32 FERNHILL LANE, CAMBERLEY, SURREY, GU17 9HA
0276 33706/65876
Telex 966676 PMFAB G

TR720 720cx hand held tx/rx £454.25

IC-A2 720cx hand held 5 watts PEP £454.25

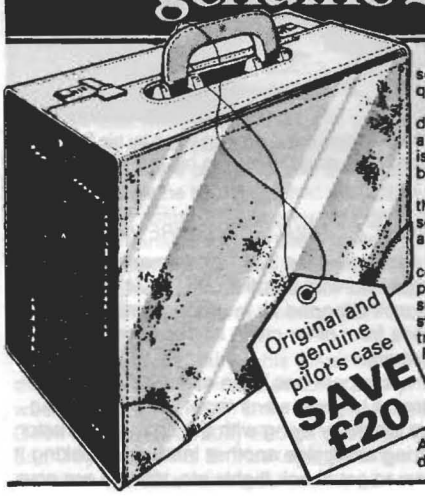
CAA approved LA329

GL72A 720cx panel mount £523.25

VEHICLE RADIOS etc.
Please phone for details

Prices include VAT

Genuine Pilot's Case with a genuine £20 discount!



Today's airline pilots will settle for nothing but the best in quality and durability.

This superb Pilot's Case is designed to fit snugly under an airline seat (18" × 7½" × 13") and is available in black, burgundy or brown.

Meticulously stitched in 5mm thick pure leather the case sports solid brass combination locks and ball feet.

The interior has three lined compartments and the side panels have been cleverly supported so that the case will stand up to the most robust treatment.

Follow the pilots this year – and we'll save you £20 into the bargain!

NO QUIBBLE MONEY-BACK GUARANTEE!

Allow up to 14 days for delivery.

To: Cheiron Press Ltd., 7 Amersham Hill High Wycombe, Bucks HP13 6NQ

Please send me .... Pilot's Case(s) in Black/Burgundy/Brown* at £59.95 plus £2.55 P.P. & insur. (*Please delete.)

I enclose cheque/P.O. for £

made payable to: CHEIRON PRESS LTD

NAME

ADDRESS

POST CODE

CLUB NEWS

Copy and photographs for the October–November issue of S&G should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, telephone 0223 247725, to arrive not later than August 12 and for the December–January issue to arrive not later than October 7.

GILLIAN BRYCE-SMITH
June 11

ANGUS (Arbroath)

We have had a recent boost in new members attributed to the circulation of vouchers for trial instruction flights and posters promoting the club.

We have a replacement bus to improve launch point facilities and Doug Rodger has sorted out our radio equipment problems. Our next social event is a barbecue in mid August.

M.K.

BATH & WILTS (Keevil Airfield)

Although missing from these pages for the last few issues, we are alive and kicking despite having lost a number of senior members through general dissatisfaction with restrictions imposed by our landlords. Our committee continues to search for a site of our own, having just narrowly missed a superb opportunity.

As part of our campaign to attract new members we have a number of ten day courses condensed into five complete weekends.

We had a successful expedition to the Black Mountains GC at Whitsun and our thanks to John Bally and his superb team for their welcome.

T.K.

BICESTER (RAFGSA Centre)

Congratulations to Bruce Barnfather on finding Melton Mowbray and obtaining the first 300km of the year. Also to all new solo pilots, especially Jeff Ling who gained his Bronze leg on his third solo.

The weather wasn't very favourable for the practice Comps week though most people enjoyed themselves, especially Ted Richards who flew the K-18, beating all the Astirs.

Sadly, we say goodbye to Jeremy Beringer, posted to Detmold as CFI, but welcome Alfie Bass and shortly Jed Edyvean, both posted to Brize Norton.

The Talgarth expedition saw a mixture of weather with Don Rankin achieving his Gold height and Steve Hymers climbing to 20 000ft.

The Inter-Club League Booker leg was plagued by bad weather but two days flying in windy conditions were managed on the Bicester leg.

Finally, best wishes from us all to Jackie Hymers for a speedy recovery from a recent gliding accident.

C. & G.

BLACK MOUNTAINS (Talgarth)

Exceptionally poor spring weather has meant that visiting expeditions have generally not done as well as in previous years. Wave climbs during April included 20 000ft on the 9th and 16 700ft on the 30th. The best height in May was 13 500ft.

The Caravan Enforcement Order appeal was on June 3 and we hope the outcome will be as successful as our earlier campaign against the National Park planners.

W.D.M.

BLACKPOOL & FYLDE (Chipping)

The score so far this spring is Feshiebridge 3: Burn 4. In March a party visited Feshiebridge for a week and Dave Brown gained Silver height reaching 7000ft whilst Paul Myers and Ken Fixter achieved 21 500 and 23 400ft respectively, Ken's being a site record.

In May another party visited Burn for a week and Mike Brooks, Jim Gibson, Brian Lomas and Dave Woods all flew a 50km to Sutton Bank. Our thanks to both clubs for putting up with us so graciously.

Meanwhile, back on the ranch we hosted the Vintage Glider Club rally and could proudly boast the only Harbinger in the world flying over our field.

V.H.

(BORDERS (Airfield)



Ashley Fleming being congratulated by his instructor, Jim Hogarth, on going solo on his 16th birthday.

BRISTOL & GLOUCESTERSHIRE (Nympsfield)

We celebrated the 30th anniversary of flying at Nympsfield with a buffet on May 24 which was very well attended by founder members, friends from other clubs and our present members.

The car-park has been extended and flattened to great advantage. We are enjoying more weekday flying with the course instructor working alongside another instructor, making it easier to get check flights etc. Visitors are now even more welcome, especially if they contact us in advance.

The better weather is encouraging cross-countries and our club fleet is looking resplendent after some repainting.

M.B.

BUCKMINSTER (Saltby Airfield)

We had a poor start to the season but Noel Butler and Dave Housley have gone solo, Jim Airey has his assistant instructor rating and Bob Thompson his full rating.

Our new syndicate are wearing out their K-6E rapidly — Doug Upson has his Bronze C, Russell Cheetham Silver height and duration and Gary Keall made his first field landing (in March!).

We recently hosted the Inter-Club Leage with one contest day, but the Dunstable weekend was a wash out.

Our new twin drum winch is operational and living up to expectations. Its 11 litre diesel gives launches to 1300ft in light winds and over 1999ft in stronger winds.

R.N.C.

BURN (Burn Airfield)

There were several good wave flights in May, Martin Ellis going to 17 000ft, passing the Falke at 12 000ft. Keith Dudley went the furthest in his PIK 20E and says he didn't use his engine!

Spring thermals have been disappointing but the local power station is a good fall back. The weekday training courses are in full swing and we are pleased to have many of our Blackpool friends over for a week. Both tugs going u/s was a bit embarrassing but the super new winch built by Bill Shaw, John Bourne etc saved the day by giving almost the same height as a standard aerotow.

Membership continues to grow and we are reviewing our training facilities. Members of RAF squadrons that used the airfield during the war keep dropping in from all parts of the world and are delighted to see the airfield in use again and are always welcome.

J.A.S.

CHANNEL (Waldershare Park, Nr Dover)

We now have real flushing loos on the site thanks to much hard work by Dick Lukehurst and Colin Harwood.

Our open days in May were very successful due mainly to much hard work and enthusiasm of members, a lot of sunshine and the support of our local scout group who lent us and rigged marquees and equipment.

In June, our expedition to the Long Mynd was very rewarding with 11 members picking up a total of ten Bronze legs and five duration flights. Our thanks to the Midland GC for such a good week. Congratulations to Colin Harwood on completing his Bronze C.

L.S.

CHILTERNS (RAF Halton)

The season started well with Richard Coppinger, Gerry Conroy and Ralph Seddon

going solo. Congratulations also to Roger Ellwood-Wade (Bronze C), Trev Sadler (Silver C), Les Fellows (SLMG PPL and full Cat), Q. Oswell (full Cat) and Mick Willsher (PPL).

We replaced our K-7 with an Acro in May. Another intensive course has been a tremendous success thanks to the efforts of John, Oscar, Terry and Les.

Both winches are serviceable, statistics are better than for many years and there are plans for a longest day "bash" with spot landings and a barbecue.

T.S.

CLEVELANDS (RAF Dishforth)

At last our wave has returned giving Diamond height to George Brinder and Gold to Richard Hill. The same wave took Leigh Hood (LS-4) on an O/R to Penrith and Polly Watson (Acro) to Carlisle and back.

We say thank you and farewell to Tom Eagles on his posting and welcome Dave Stewart as CFI. Steve Olender has become a full Cat instructor

P.W.

COTSWOLD (Aston Down)

We are now operational seven days a week in summer and visitors are very welcome. Food and drink are available in the clubhouse every flying day.

Groups from N Wales and Mendip GCs have visited us and returned home with various Silver distances and heights despite disappointing weather.

L.M.B.

COVENTRY (Husbands Bosworth)

The task week at the end of May was a success with five contest days and £2400 worth of beer drunk. The flying was mainly downwind to the nearest field with the two-seaters keeping up the tradition of landing in fields on most days. Claude Woodhouse was the winner again with the Two-seater Class won by Chris Thomas and team. Stuart Cooper and Norman James (Tutor) won the Vintage Class with flights of 65 and 72km. It ended with a fancy dress theme — a Robin Hood party. We thank the Blackpool and Fylde GC for their participation.

Stuart Cooper took over from Chris Thomas as chairman at the April AGM. Our thanks to Chris for all his hard work. Jim Jesty is our new deputy tug master.

Two-day courses have been introduced and a six-week Wednesday evening winch course was fully subscribed within two days of being advertised.

D.L.S.

CRANWELL (RAFGSA)

We managed two competition days during our Bank Holiday weekend Fun Comp and a lot of cross-country flying. Liam McErlean flew Silver distance with a downwind dash to Strubby while Sue Hutchings got her distance in April.

Three members are off to Portmoak for a week's flying. Our motor glider is looking very smart after its refurbishment.

Our newsletter got off to a good start with interesting articles and after distribution far and wide we hope it will encourage more people to take up gliding.

S.J.H.

CRUSADERS (Kingsfield, Cyprus)

We welcome our new CFI, Tim Dickinson, transferred to us from Chilterns GC, and to AVO, standing down as CFI, thanks for everything. Sadly we are soon to lose our DCFI and resident glider repair expert, Dick Parker. We thank him for his endless hours of hard work. Congratulations to Andy Leigh, Phil Crossley and Mark O'Connell on going solo. Steve Tipper has just returned from a gliding course at Bicester while Costas is there now on an instructors' course.

We are hoping to expand our fleet with a Motor Falke whilst a replacement is being sought for our Blanik. Our outside bar and patio is open for the summer with many barbecues to look forward to.

P.M.J.

DARTMOOR (Brentor)

We started flying this season on April 27 and have doubled the width of our runway. We will never be brilliant pilots but my goodness we will be brilliant road engineers!

F.G.M.

DEESIDE (Aboyne Airfield)

Our tug fleet has been increased with the addition of a Pawnee bought with the aid of a generous grant from the Scottish Sports Council. It was "officially" launched by Wg Cdr Roddy McDonald (SSC) on the first morning of our amazing task week at the end of May.

The task week weather was indifferent, like the rest of the year, with only one Gold height, a handful of 5hrs and no one did better than 270km. There were five soaring days with Chris Marren winning the top award followed by Willy Stephen and defending champion Ben Watson.

We sadly say farewell to Blackjack and Susie, Reba (treasurer) and Alan Coombs and Chris Marren, experienced people who will be missed by us but who will be our recruiting agents around the world.

L.E.N.T.

DEVON & SOMERSET (North Hill)

Our first task week has arrived with yet another Atlantic low and visitors from Usk and Perranporth share our grumbles this week.

Congratulations to Ian Mitchell and Colin Watt on their assistant instructor ratings. Colin, with Simon Minson, logged over 40hrs in the Astir on a week's expedition to Sutton Bank while an expedition with a DG-100, LS-4 and Libelle is sampling Alpine soaring from Zell-am-See.

Jonathan Smith gained his Silver height and distance on April 1 and his duration on April 20 when Ron Jones (K-18), Dave Farmer (K-6) and Geoff Darragh (PIK 20B) also gained their 5hrs and Guy Adams his Bronze legs. Ron flew to Salisbury for Silver distance on May 15 while Bill Evans, a Whirlwind pilot with innumerable power hours and types, added 5hrs in the K-6 to his logbook.

Chris Heide has completed his Bronze C and Martin Hopwood and Peter Hill have soloed, Peter having converted from power with considerable ease. Well done all.

Preparations for Competition Enterprise are well in hand. The second task week (August 11-16) may still have space for you — give us a ring this weekend.

I.D.K.

DORSET (Old Sarum)

John Martin flew Silver distance to Lasham in the K-6CR in early May. On May 16 a new, young and vigorous committee was appointed, led by Steve Nicholls, chairman, and Hugh Stewart, secretary. Dennis Neale stays on as CFI. Our thanks to Dennis for his hard work and to the outgoing committee.

The winch "Lofty" Bigwood is building should soon be ready. Julie Green, one of our youngest members, passed her driving test and had her first solo powered flight on the same day. We have two new syndicates with a K-6E and a Vega.

If planning to visit us by air, we only operate at the weekends as Old Sarum is within the constraints of Boscombe Down. Gliders must always keep to the south of the airfield while in the circuit and landing. (Powered aircraft fly a circuit to the north.) There is a lot of powered flying at weekends so exercise caution.

F.T.S.

EAGLE (Detmold)

At our AGM Andy Harkins was appointed CFI and Dave Campbell DCFI. After an abysmal winter, which snowed in and then waterlogged the airfield, we are back in full swing.

Congratulations to Mike Heelis and Dave Campbell on becoming full Cats and Ross Skingley, Dave Braine, Allan Tribe and Geoff Mc Vey on becoming assistant Cats.

We ran a successful cross-country week in March and a mountain flying expedition to the Austrian Alps during May. Congratulations to Mac Thompson on his Bronze C and Dennis Brunneye on going solo.

D.M.C.

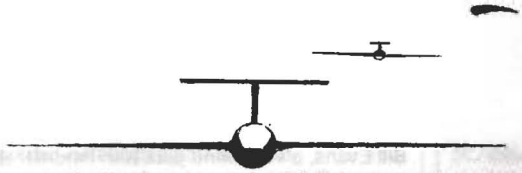
EAST SUSSEX (Ringmer)

Fred Head, a founder member, was elected vice-president at our AGM in April with Christine Vandenberghe as vice-chairman. Fred Bishop was returned with a majority vote as CFI with the other committee members.

Will Greenwood gained his 5hrs at Talgarth. The BGA Twin Astir came for two weeks in April and gave many members a chance to fly a glass ship. John Morris showed its real potential with an O/R to Parham in about 40min.

Mike Garnett has an interesting programme for our open day in June with a hot air balloon and many other attractions and members have worked hard to get sponsorship from local industry to cover the cost.

A T-21 that arrived in a very tatty state has



NEGUS

37 THE LEYS UPPER HEYFORD
OXON. OX5 3LU
Tel: 086 982 2142

★ COME AND INSPECT OUR NEW PREMISES AT SHENINGTON
★ QUALITY YOU CAN BE SURE OF
★ MOTOR GLIDER & LIGHT AIRCRAFT ENGINE OVERHAULS

Sailplane Repairs & C's of A *(All Types)*
Composite Fabrications
M. L. ALLFORD
D.E.M., T.Eng., M.I.M.G.Tech.E.

LAUNCHING YOU INTO THE 21st CENTURY!

The practical experience of 25 years and 150,000 Launches have gone into the design and manufacture of this new winch. Keep your launch costs to a minimum— enquire about the reliable Supacat Winch.

Supacat Ltd. ☎ (0823) 680379
Holcombe House, Hemyock, Devon EX15 3PX

SUPACAT

RELIABLE, LOW COST LAUNCHES



THE REPAIR SPECIALISTS — SPEEDWELL SAILPLANES — **NOW IN OUR 25th YEAR**

WE REPAIR: GLASS — STEEL — ALLOY — WOOD

LLOYD'S APPROVED

TUG AIRCRAFT REPAIRS AND RE-COVERS

VINTAGE AIRCRAFT REBUILDS

FULLY QUALIFIED STAFF

RAPID SERVICE

SHEPLEY LANE, HAWK GREEN, MARPLE, CHESHIRE SK6 7JW Tel. 061-427 2488



a complete range of airband radio equipment

TR720 hand-held transceiver (**£454.00** inc VAT) CAA APPROVED, 118 to 135.975 MHz (receive and transmit), 108 to 117.975 MHz (NAV BAND receive only), no need for crystals, retains three frequencies in memory, supplied complete with nicad battery, mains charger, helical whip aerial.

R532 scanning receiver (**£209.76** inc VAT), frequency range 110 to 139 MHz, one hundred memory channels, 12V DC operation (a mains power unit is available for home use), an optional rechargeable nicad pack and soft case make the R532 truly portable.

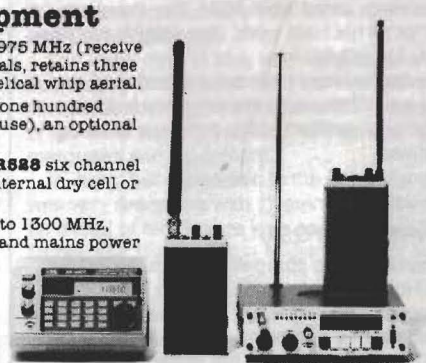
R537S two channel plus tunable from 118 to 136 MHz (**£64.89** inc VAT) and **R528** six channel scanning (**£108.75** inc VAT) pocket portables, crystal controlled, operate on internal dry cell or nicad battery.

AR2002 (receiver **£435.00** inc VAT), frequency range 25 to 550 MHz and 800 to 1300 MHz, narrow band FM, wide band FM and AM (supplied with simple telescopic aerial and mains power supply).

Please send for further details to:

LOWE ELECTRONICS LIMITED
Chesterfield Road, Matlock, Derbyshire DE4 5LE
Telephone 0629 2817, 2430, 4057, 4995 Telex 377482 LOWLEC G
Shops in Glasgow 041 945 2626, Darlington 0325 486121, Cambridge 0223 311230, Cardiff 0222 464154, London 01 429 3256, Bournemouth 0202 577760.

Sole importer and distributor for AOR and SIGNAL equipment



been given a face lift and its owners hope to have it flying this month.

J.S.

ENSTONE EAGLES (Enstone Airfield)

Negotiations to enable us to continue flying here are proceeding and we hope the outcome will be successful as much midnight oil has been burnt to assess our potential and decide future flying operations. So far we haven't had any problems over the Upper Heyford zone.

Our short introductory courses are very successful and even with the weather restrictions our flying has doubled compared with the same period last year. Greg Burton, our first course member to join as a full member, has gone solo with several others hard on his heels.

The spring open weekend went well, in spite of poor weather, with 100 instructional flights and several short course members recruited.

R.J.P-B.

ESSEX (North Weald)

The poor weather early in the season meant our Inter-Club League meeting at Dunstable having to be re-run in June.

Crossing the Thames, Robert Lindon flew his K-6 to Ringmer in April for Silver distance. Pirat 526 syndicate partners, Jeff Baker and Bill Pottinger, completed their Silver Cs with duration flights on the same day. Chris Law gained height and duration at the Long Mynd. On May 16 Guy Corbett flew a 500km O/R to Leeds and yours truly (Paul Butcher) a 300km triangle.

Due to our airfield being closed some weekends, we have been flying from local fields as well as invading other clubs. We thank all our hosts for their hospitality.

Peter Molloy is now joint DCFI. Kent GC pilots are reminded that the Essex/Kent Lighter trophy is collecting dust in our bar, so come and get it lads!

P.W.B.

INKPEN (Thruxton Airfield)

Our damaged Blanik was back for the start of the season thanks to hard work by a willing few. The unexpected work ruined plans to advance the C of A of our IS-28 out of season.

Congratulations to Ray Godwin on his instructor's rating. With his chairman's hat on he presided over the AGM in May when we reviewed a fairly dismal year. Congratulations also to Barry Lovett on his Bronze C.

Currently the Ventus GC from the Isle of Wight are with us "enjoying" some mixed weather.

I.D.

KENT (Challock)

Our open weekend over the May Bank Holiday proved successful. The trial instruction flights were popular and gave us some new members and holiday course bookings.

On May 17 we celebrated our 30th birthday with a fancy dress flying day and party. The weather, as usual, wasn't kind but photographs were taken by the local press providing some much needed advertising for the club.

We hosted and won the first leg of the south-east section of the Inter-Club League over the late May Bank Holiday with the weather allowing two flying days out of three.

J.W.

LAKES (Walney Airfield)

Peter Craven in two flights from Minden, USA completed his Gold badge and gained Diamond height (31 000ft) and Diamond goal. Roy Jones, flying from Walney, reached Silver height.

Club officers for 1986 are Peter Redshaw, chairman, Dennis Carey, CFI, Dick Redhead, secretary, Peter Lewis, tug/course secretary, Steve Hart, social secretary and Chris Dobson, technical officer.

Our thanks to the Coventry GC for their hospitality to our members during a recent visit. Our residential courses start on June 15 and bookings are coming in well.

M.S.

LASHAM (Lasham Airfield)

An appalling spring meant virtually no cross-countries until April 26 when a dozen 300, one 400 and one 500km flights were recorded. Unfortunately, there have only been three reasonable days since then.

Congratulations to Jill Walker on her Gold distance and to Liz Segal for going solo.

In April Bo Henriksson returned to Sweden after a year as a staff instructor. We wish him well and welcome Malcolm Hook as a senior staff instructor.

Our catering facility now opens in the evenings and is well supported. We have a new K-13 and a Grob 103 Acro, giving us ten two-seaters.

We are looking forward to the International Vintage Glider Rally at Lasham from August 2–9 which should be colourful and entertaining.

A.J.R.

MARCHINGTON (Marchington Airfield)



John and Paul in the Falke.

Pupils on the three day cross-country course run by John Wiliamson found it highly beneficial and it has prompted a new outlook on venturing cross-country. Paul Shelton flew with John in the Falke on its departure to the Long Mynd and enjoyed good soaring over Ironbridge.

Progress continues towards winching from this site with the acquisition of a winch (now undergoing an "MOT') and further landscaping.

Mike Skinner was first of the season round the local 100km triangle in his SIE 3, taking 4hrs on a most unlikely day — full marks for persistence and dedication.

We had disappointing weather for our first course but the pupils still enjoyed it.

P.A.W.



EB75 LOW-PROFILE PARACHUTE

- All-up weight 6.9kg
- IRVIN lightweight 1.24 Canopy
- Contoured, 3-pin side opening pack: Length 550mm; Width 360mm; Depth between 65mm x 80mm
- 3-point quickly adjustable harness
- Full packing and servicing instructions
- Suitable for Aircraft, Gliders and Helicopters

IRVIN

Also available The IRVIN EB62 and EB73

For full details write to:

Sales Department, IRVIN Great Britain Limited, Letchworth, Herts SG6 1EU

Tel: Letchworth (0462) 686262 Telex: 82198

STORCOMM
TWO-WAY RADIO

TR7603 Air Set **TR7804 Vehicle Set**

Each set fitted with all four gliding channels 130.4, 130.125, 130.1 and 129.9.

'Volmet' 128.6 optional on channel 4.

- ★ Full power transmitter with excellent speech quality.
- ★ Highly sensitive and selective receiver works both distant and close range.
- ★ Extremely rugged and reliable.
- ★ Full back-up service and spares available.
- ★ CAA and NATS approved.

All radios supplied absolutely complete with easy fit connectors and all fittings.

Details information, prices and full Technical Specifications FREE from

GEORGE STOREY *Tel. 09327 84422*
H.T. Communications, P.O. Box 4
SUNBURY ON THAMES, Middlesex, TW16 7TA

SAILPLANE & ENG. SERVICES LTD.

C's of A
REPAIRS TO GLASS-FIBRE
STEEL TUBE & WOODEN A/C

WRITE OR PHONE:

KEN BLAKE
BUXTON 4365

SAILPLANE & ENG. SERVICES LTD.
HOLMFIELD RD., BUXTON, DERBYS.

PERRY'S

WE ARE SPECIALISTS IN WIRE AND FIBRE ROPES/CABLES

Let us try and reduce your running costs by quoting for your requirements of:

Towing Wires/Cables
Advise length, size and construction

Ropes
Advise length, size and type

Galvanised and Stainless Steel Fastenings

Thermal Clothing

Your enquiries will be welcome.

PERRY CLAMPS LIMITED
90 Church Street, Birkenhead
Merseyside L41 5EQ
Tel 051-647 5751 Telex 627826
Contact Antony Sedgwick

PIGGOTTS

Windcones made in Ministry of Defence Hypalon®, also in nylon and cambric.

Landing Marker Sets in bright orange.

National, Advertising Flags and Banners.

Canvas Covers for all requirements.

Flagstaffs supplied and erected in Steel, Aluminium, Fibreglass and Timber — suitable for Windcones. Towing Cable Drogues.

PIGGOTT BROTHERS & CO. LIMITED
Stanford Rivers, Nr. Ongar, Essex CM5 9PJ
Tel 0277 363262

Anglia Sailplanes

C of A Inspections and repairs to all sailplanes and motor gliders.

Phone or write to:

Stu Hoy (BGA Senior Inspector)
The Briars, Pixey Green, Stradbroke
EYE, Suffolk IP21 5NH
Tel: Stradbroke (037984) 306

Gliderwork

C of A OVERHAULS
and REPAIRS

By L. GLOVER senior inspector



Husbands Bosworth Airfield, Near Rugby
Tel. Market Harborough 880375
Lutterworth 57544

Sailplane & Gliding

The magazine can be obtained from most Gliding Clubs in Gt. Britain, alternatively send £9.50 postage included for an annual subscription to the British Gliding Association, Kimberley House, Vaughan Way, Leicester.

Red leather-cloth binders specially designed to take copies of the magazine and gold-blocked with the title on the spine are only available from the B.G.A.

Price £4.25 including post and packing.

OVERSEAS AGENTS

CANADA
T. R. Beasley, Soaring Supplies, PO Box 4851.
St. Laurent, P.Q. Canada, H4L 4Z5.

SOUTH AFRICA
Peter Eich, PO Box 82707, Southdale 2135, Johannesburg, Transvaal.

HOLLAND
Aeropress (Ary Ceelen) P Stockmanslaan 53, 5652 RB Eindhoven

USA and all other Countries
Payable in either Sterling £9.50 or US $15 but International Money Orders preferred, direct to the British Gliding Association.

hoffmann

TWO SEAT GRP MOTOR GLIDER
LOW INTEREST FINANCE
BRITISH C of A
FOLDING WINGS
EXCELLENT PERFORMANCE
THREE POSITION PROPELLER



Contact **Airmark Aviation Ltd,** **48 Crosslands Avenue, Southall, Middx** **Tel 01-574-1603**

MENDIP (Weston-Super-Mare)

We started the season with Graham Taylor, David Nevill and Derek Halkyard completing their 5hrs. Also congratulations to Mark Boothby on his Bronze C — with the return of the K-7 we hope to have many more this summer.

We thank Barry Hogarth for his many years as CFI. As he wants to concentrate on "the pleasures of gliding", he has handed over to Ron Perry but has been since elected chairman.

G.T.

MIDLAND (Long Mynd)

Our holiday courses are running smoothly and are well filled, as are the evening instructional parties. One chap on his first flight was taken to 6000ft in evening wave.

Neil Backes and Barron Taylor have completed their Silver Cs with flights to Bidford and Malvern respectively.

N.B.

NENE VALLEY (RAF Upwood)

We have two new aircraft, an Astir and a K-8. Willie Bolton has his Bronze C and Lee Parker his 5hrs.

Our congratulations to Horace Bryant on becoming CFI of Welland GC. We wish he could have stayed with us full time but thank him for his dedicated service and the self-assurance he gave us. Also, our thanks to Ray Washer, CFI, and instructors Ted Norman, Dave Jourdan and Chris Hook for their unselfish contribution.

We have trial instruction flying evenings every Friday. We are grateful for our Sports Council grant which enabled us to broaden our facilities.

W.A.B.

NEWARK & NOTTS (Winthorpe Airfield)



Our photograph is of Rodger and Julie Starling who were married on June 1. The reception attracted more glider pilots than our AGM! We wish them well. *Photo:* Neil Lancashire Photography.

A poor season so far has produced few gems but congratulations to David Moore on gaining all three Silver C legs in one flight and to John Haunton for a distance flight to complete his Silver C on the same day. Well done also Neil Cross and Rodger Leslie (Silver heights); Mark Bullard (Silver height and distance); Gary Rivers (Silver distance) and to David Redfern, Derek Scaysbrook and Martyn Collier on going solo.

J.H.



Ray Washer, CFI, with Nene Valley's new Astir.

NORFOLK (Tibenham)

We have lots of new aircraft based here — Brendan Sargent and Tony Walsh each have a K-20, Dave Page and CFI, Roy Woodhouse, have Grob motor gliders and 25 members have syndicated a real hot ship — a T-31!

John Gammage and Peter Ryland spent many hours doing up the clubhouse and Jim Carter cleaned up the runway edges with Gerald Nunn's tractor, thereby about doubling the available width. In response to an appeal by the committee, a very solidly built and practical mobile log-keepers' office has appeared. Thank you Robbie.

Jeremy Moore (Dart 15) climbed to 9 500ft on May 28 and we all thought he'd get the Eagle cup for gain of height but then Charles Owles went to 12 000ft, a site record.

M.J.R.L.

NORTHUMBRIA (Currock Hill)

A successful social evening was held to preview a video made of our club. The "temporary" telephone cable laid several years ago between the winch and launch point has, after may hours of digging, been replaced and buried.

Steve Knox has soloed. Roger Winnley and Keith Bell had Bronze flights at Portmoak.

S.M.H.

NORTH WALES (Pen-y-Parc, Nr Holywell)

Ken Payne, chairman for much of the club's existence and CFI from its inception, has resigned from both positions. We are all aware of the debt of gratitude we owe to Ken for his time, effort and dedication. He will be sadly missed. John McCormick is now chairman with Gerald Maddock as vice-chairman and Tony Knight as CFI.

During our recent enjoyable club week at Aston Down, despite indifferent weather, Gerald Maddock completed his Silver C with a 120km O/R; Rory McGough completed his Silver C with a height and distance on the same day and Dave Jones climbed to 5 200ft unencumbered by the weight of a barograph. Our thanks to Ruth Housden, CFI, and her members.

J.J.M.

OXFORD (Weston-on-the-Green)

We have a magnificent new hangar into which we will eventually incorporate our clubroom and workshop. This happily marks the end of months of frosty rigging and torch-lit de-rigging sessions.

The Friday evening trial instruction flights are proving most popular with the hope of increasing our membership.

In April Mark Rowland (Astir CS) gained his 5hrs and Caroline Oakes (K-8) her Silver distance to Aston Down. More recently chairman, Chris Emson, achieved his 300km Gold leg whilst also progressing through the BGA squad training course to the next level of Regionals.

Work continues on our "bus" winch which will increase the launch rate with a third cable. A large syndicate are buying a T-21 — a popular way of increasing the club fleet.

A large expedition of private owners descended upon Talgarth in May. Although not a badge collector's week, there was no lack of fun flying in the Brecon Beacons.

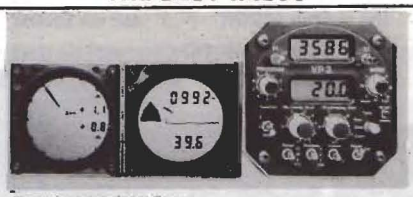
C.S.O.

PEGASUS (RAF Gütersloh)

We have had a healthy flow of *ab-initios* with Graham Budd, Chris Gilmour, Steve Kneebone, Ina and Fedor Krämer, Tony Mitchell, Jerry Porter and Alan Ward going solo. Graham soared to 6 500ft on only his second solo!

Chris Milton and Mark Critchlow have passed their instructors' courses. Plenty of Bronze and Silver legs have been flown, including Silver legs for Tim Gatt and Bob

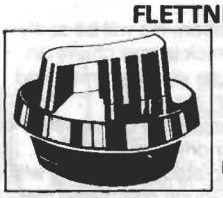
Aero Marketing
ASSOCIATES LTD
WHEN ONLY
THE BEST WILL DO



PESCHGES –
ELECTRONIC VARIOMETER AND NAV COMPUTER SYSTEMS ARE
THE BEST
THE MOST ADVANCED TECHNOLOGY OFFERS YOU

- Excellent accuracy
- Unequalled TE compensation
- Excellent response
- No calibration or altitude errors
- Maximum durability
- Easy installation, only pitot and static needed
- Optional dial LC readout as illustrated

FLETTNER –



THE BEST ROTARY VENTILATOR
Prevent dampness, humidity, and heat build-up in your trailer.

Contact:
TED LYS
54 TOR BRYAN
INGATESTONE
ESSEX CM4 9HN
Tel: (0277) 352418

BOB SZULC
46 GREAVES AVE
WALSALL
Tel: (0922) 30810

EVENINGS

AUSTIN AVIATION
FOR ALL GLASER DIRKS SAILPLANES (11 years on type)

DG-300 – the only Standard Class aircraft with all the following features:

Boundary Layer blowing Turbulators on trailing edge undersurface.

Water Ballast tank in the fin to allow optimum centre of gravity selection.

All controls connect automatically on rigging.

1,157lb max. weight – 420lb or 286lb H_2O bags at choice.

5 x 5.00 mainwheel, well sprung with generous ground clearance.

The best visibility to be found in any glider.

ONLY **DM 46,850**

DG-101G . . . well loved standard class aircraft – check the price DM 37,600

We are planning a new 15/17 metre flapped wing for 1987 – details upon

Some options left for 1986 and 1987. Get your deposit down NOW.

122 Main Street, Stillington, York YO6 1JU
Tel: Easingwold 0347 810255
24hr Ansaphone – Takes 2min message

Club News contributors: We welcome good quality photographs to complement your report. Black and white prints are ideal but we do get reasonable results from sharp colour prints. Please caption.

Edmonds (Bob completing his Silver C) on the Oerlinghausen expedition.

Mick Boydon returned briefly to fly the L-Spatz with considerable success at the Buckeburg Comps. The K-4 has surprised everyone with many good soaring trips.

Al Stacey, who made a tremendous contribution to the club, has been posted home. Our best wishes to him and Linda.

R.C.S.E.

PETERBOROUGH & SPALDING (Crowland Airfield)

The soaring season started well with Richard Browne (much to the disgust of his syndicate) getting his 5hrs while others were getting Silver heights. Kevin Fear finished while Peter Wilson and Richard Kilham started their

ROGER TARGETT
Sailplane Services

The Old Brickyard
Ashton Keynes, Nr. Swindon
Wiltshire SN6 6QR
Tel. Office: Cirencester (0285) 860936
Home: Swindon (0793) 823372
Dursley (0453) 45316

FOR SPECIALIST REPAIRS AND MAINTENANCE

Offering outstanding workmanship, efficiency and service in:

★ All glass, carbon and kevlar repairs
★ Wood and Metal repairs
★ All modifications
★ Motor Glider engine approval
★ C of A Renewals
★ General Maintenance
(including re-finishing and wax polishing)

OXYGEN EQUIPMENT



The Air Apparatus & Valve A.I.R. 24 series oxygen equipment for gliders, comprising a control head and 680 litre oxygen cylinder, is now available for self installation. With all the in-flight oxygen controls situated in the one position, this control head has been developed from the Company's highly successful Domiciliary oxygen unit to Drug Tariff Specification 01B.

The 680 litre cylinder is of British manufacture in aluminium to H.O.A.L. 4 specification and is supplied valved and charged to 2000 p.s.i.

The company also supplies oxygen equipment based on 230- and 680-litre cylinders, and face masks complete with valves and economiser bags.

In the unlikely event of servicing being required, the company operates a 24-hour turn-'round postal system.



NOW AVAILABLE – SLIMLINE 630 CYLINDERS

AIR APPARATUS & VALVE LTD *(NOW KNOWN AS SABRE-AAV LTD.)*
Unit 1, Blackwater Way, Aldershot, Hants. GU12 4DL
Tel: Aldershot (0252) 334581

Bronze Cs. Tony Gent flew 50km to Tibenham to collect Snoopy.

At the AGM the retiring committee were re-elected *en bloc.*

We were pleased to welcome a group from HusBos on the first day of their task week. If you can find us from the air feel free to drop in.

P.N.W.

PHOENIX (RAF Brüggen)

Congratulations to Carl Howcroft and Phil Wright on going solo, Carl also gaining a Bronze leg, to John Gee on his Silver height, Rhod Evans on his 300km Gold distance and Diamond goal and to John Duncan who has his full cat.

P.M.

RATTLESDEN (Rattlesden Airfield)

We are now ten years old and from our meagre pioneering fun beginnings with a T-21 we have progressed to a K-8, K-6CR and two K-7s. Regrettably the number of regular members from the early days can be counted on one hand.

At our anniversary dinner-dance special guests were Derek Piggott, who gave an entertaining speech, Ken Stewart, national coach, and the CO of RAF Wattisham in whose MATZ we fly. The trophy winners were: President's cup (greatest contribution to the club) Peter Neeves; the Cunningham speed trophy (fastest set triangle) Paul Handover; Chairman's cup (most progressive pilot) Richard Gooding and the Numb Bum cup (most outstanding flight) Bob White.

The two Inter-Club League meetings gave us a first in the Intermediate and Novice Classes.

On May 31 and June 1 the last surviving members of the 447th Bomb Group returned to Rattlesden, the B17 base during the last war. After a re-dedication ceremony of their memorial, the B17 "Sally B" in her original Rattlesden markings made several low-level passes, the flight being laid on by the 447th Bomb Group Association of which our chairman, Roger Watts, is a member.

R.W.

SHALBOURNE (Rivar Hill, Nr Hungerford)

April 26 and 27 gave encouragement to those who thought that good weather was just a part of gliding mythology. In addition to some modest but completed tasks. Robin May (K-8) flew 50km into wind to Bicester to complete his Silver C — one of the quickest in the club in recent years. Both Mark Flower and Mark Wooldridge gained Silver heights and Angi Porter completed her Bronze C. It was so good that Silver height was reached a number of times by *ab-initios* in the two-seaters.

Since then we have returned to normal with superb days mid-week. We calculate that flying has only been possible on less than 40% of the weekends and Bank Holidays during 1986 — and then sometimes for only part of a day. Never mind. 1976 started like this.

Some members had an excellent Easter at Portmoak with flying every day though alas no wave. Jonathan Mills reached Gold height (again) at Minden, Nevada, but this time he started at 3000ft amsl.

R.S.

SOUTHDOWN (Parham Airfield)

We had a successful and enjoyable expedition to the Long Mynd in April when Paul White completed his Silver C with a distance flight. Congratulations also to Paul Fritche on going solo, to Dave Firman, Sue Hill and Henry McGuinness on their Bronze legs and to Ian White on his Silver height and duration.

Some members have acquired an Eagle two-seater which promises to give enjoyment to many.

M.C.

STAFFORDSHIRE (Morridge)

The new K-13 has arrived and our grateful thanks to the committee, the Sports Council and the local District Council for making this acquisition possible.

Ted Hobby has gone solo and joined the Olympia 419 syndicate. Andy Chappell, a member of the new Astir syndicate, flew Silver distance to Sturgate on the last day of a very windy May club week.

Against recent trends, we have lost less than 25% of our members and are well on the way to making this up with *ab-initios.*

M.P.

STRATFORD ON AVON (Long Marston Airfield)

It's good to report plenty of activity and enthusiasm amongst our growing membership now we're firmly established back at Long Marston. Site improvements are well in hand. The new winch is performing superbly, thanks in particular to designer/engineer Neil Francis and tow master Gary Beers, who has already built up a strong team of checked out drivers.

Our instructor team is strengthened with Norman Kimberley joining us from the Long Mynd and by the new ratings of Frank Jeynes and Trevor Tibbetts — all under the steadfast guidance of our new CFI, Jim Tyler.

New solo pilot Jeff Gale has completed his Bronze C, the second leg with a 1½hr flight, his first in the K-8. Restoration and rebuild projects include Bob Hatton's EoN Baby, Derek Phillips' K-18 and Mick Forbes/Steve Brown's Pirat.

C.M.

SWINDON (Sandhill Farm)

We have planning permission for airfield operations and can now aerotow as well as winch launch.

We are hoping our newly acquired twin drum Wild winch will soon be in use, which will mean more work for our eight-wheeled Morris 1100 cable retrieve car and an improved launch rate.

Our recent skittles evening was enjoyable and raised much needed funds for all the various projects associated with a new site.

We now have a telephone in our "clubhouse" caravan -0793 783685.

P.M.

TRENT VALLEY (Kirton-in-Lindsey)

Our annual dinner-dance was a great success thanks to the organisers, Georgina James and Roy Dell. We were entertained by guest speaker John Williamson, national coach, who did his homework well!

Cups were awarded to Frank Boughen (achievement), Sandra Williams (Ladies' trophy), Dave Collins (best Bronze C paper), Brian Guest (furthest distance by non-silver C pilot), Steve Slater (highest ladder and Silver C), John Wiliams (best handicap distance and club ladder), Brian Griffin (President's trophy), Mick Ward and Brian Guest (fastest 100km) and Paul Hesltine (Muggins cup).

Congratulations also to Vince Geraghty and Dick Pike on going solo and to Ted Crooks on re-soloing after 14yrs.

L.W.

TWO RIVERS (RAF Laarbruch)



April was disastrous for us with our Grob Acro gutted by a fire caused when the glider was being towed out to the launch point with, it is believed, the brake partially applied. See photograph. Fortunately, because we fly from an operational airfield, the fire services extinguished it quickly enough for a four week repair job to get it flying again. Incidentally two 1.5kg BCF extinguishers didn't make any impression on the fire.

The Sisteron expedition was a success with superb thermals and the occasional wave. Congratulations to Ian Petmen on Diamond height, to Robbo Robinson, Julie Hunt, Paul Timmis and Dave Edwards on their Silver Cs, to R.T.L. who flew 300km, to Barry Elliott who is our only qualified tug pilot and to all our new solo and Bronze C pilots.

We again have a mini comp in August with German and Dutch pilots competing as well as members of the three RAF clubs.

We welcome Phil Hutchinson from Humber GC and say goodbye to R.T.L. who leaves for the UK.

P.J.S.

ULSTER (Bellarena)

Easter got off to a good start with a nine day "camp in" when we were joined by a number of Dublin GC members camping on the site. Even with the inclement weather there were some cross-countries.

We have come to an agreement with our new landlord on an annual basis but have had to move to the field beside Lough Foyle. This was an opportune time to move two fences and

CANOPIES

★

MOST SHAPES AND SIZES IN STOCK

★

GOOD OPTICS

★

FITTING IF REQUIRED

★

BOB REECE, Rematic
School House
Norton, Nr Worcester

Tel Worcester
(0905) 821334

UK EIRE

GROB

SOLE AGENTS

SOARING (OXFORD) LTD
0491-37184

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

G109B Motor Glider

OUTSELLS THE REST:
FIND OUT WHY.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Original Luftwaffe Grey Goatskin flying jackets. £126.50 inc. VAT. Beautiful quality.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

G102 Single Seat Glider

By popular demand, a new production run – ask for details of this sturdy single seater.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

ALL GROB OWNERS:
WE HAVE SPECIAL INSURANCE RATES RING OR WRITE FOR DETAILS

For details and demonstrations of the above, contact the **SOLE UK/EIRE AGENTS:**

JOHN ADAMS
SOARING (OXFORD) LTD
Lower End, Ewelme,
Oxon
0491-37184
Telex 83147 Attn Soaring

fill in rabbit holes etc when all hands were on site during Easter. This has given us a wider run and only 25m shorter.

We have hired a tug pilot for the summer to give us a seven day operation. Anyone interested in courses on soaring our fabulous ridge plus wave are welcome. Contact me on 0232 652213.

Congratulations to Alan Sands for his 859km flight in the USA which should hopefully give him his fourth British national record. (See BGA News.)

B.B.

VECTIS (Isle of Wight Airport, Sandown)

A busy early season has seen some very good flying and we are in our strongest position since our formation. Congratulations to Lesley Tuppen on going solo and our thanks to Inkpen and Dorset GCs for playing host to us for our first expedition to the mainland and to John Kenny, the organiser.

We are well into winch launching, a new and exciting experience for those brought up on aerotowing. We have the pleasure of members of mainland clubs flying with us during their holiday.

A.H.B.

WELLAND (Middleton)

Congratulations to Ray Clarke on his assistant instructor rating and to Keith Tinker on renewing his after a five year lapse, now giving us four instructors.

The (reduced) Sports Council grant has helped buy a K-7, beautifully refurbished by John Edmunds. Our effective recruitment campaign has brought several new members. The private fleet now includes a Dart 17R and SHK.

R.H.S.

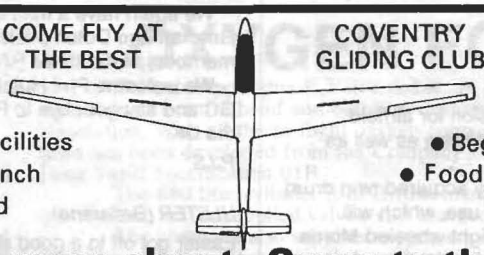
WEST WALES (Templeton Airfield)

We have two new instructors, Alwyn Jenkins, chairman, and Ken Douglas, aircraft engineer.

The season has been slow to start and one of our two-seaters was laid up recently when somebody backed the retrieve vehicle into it. The damage could have been worse, but the inconvenience, financial and otherwise, has been considerable.

COME FLY AT THE BEST

COVENTRY GLIDING CLUB



- Good launch facilities
- Aero tow Winch
- Good field
- Beginners welcome
- Food · Accommodation · Video & TV

☆ Why mess about · Come to the Best ☆

COVENTRY GLIDING CLUB LTD

Husbands Bosworth Airfield, Lutterworth, Leics LE17 6JJ

Tel: (0858) 880429 · (0858) 880521

● WE HAVE THE BEST BAR ANYWHERE ● REAL ALES

CHANNEL GLIDING CLUB



Motor Glider PPLs and Conversions

and

Holiday Gliding Courses for Beginners (£90-£140)

Everyone is welcome at our small friendly club at Waldershare Park, near Dover. Farmhouse Accommodation available. Ring 0304 824888 or 0843 63234 or write for details to:

The Secretary, 22 Masons Rise, Broadstairs, Kent CT10 1AZ

The T-21 flew for the first time this season. We are getting quite a few new members but nobody is getting up any earlier in the morning.

M.J.G.

WOLDS (Pocklington)

First of all, congratulations to Alan Hunter for a new site height record of 16 000ft in wave.

Our very successful dance and (cook it yourself) barbecue on May 16 helped make up for the task week ten days later which was a wash-out due to the weather.

We have opened our two-seater competition (August 11–15) to any two-seater except glass. The expected rush of K-7/10/13s was only partly realised and we have room for a few more. How about coming and having some fun?

Finally, a word of appreciation to the RAF. Our thanks for continuing speedy and efficient responses to our low level penetration complaints. A recent one resulted in the Phantom pilot ringing to apologise a mere 59min after the event.

D.B.

WREKIN (RAF Cosford)

The club's 21st birthday party in March was a great success.

We await the completion of the "beast" winch which Dave Cottle has spent many hours rebuilding and have acquired a Land Rover for cable towing.

Rob Ruscoe came within a stone's thrown of his 300km while Eric Parsons has claimed Silver height.

Ian Tench, deputy chairman, has been posted to Germany and we thank him for all his help on the management side and welcome his successor, John Secker.

J.A.

YORKSHIRE (Sutton Bank)

The early part of the season gave few good thermal soaring opportunities but the frequency and quality of the wave more than compensated for this. There have been dozens of height gains between 12 000ft and 20 000ft with Ian Stromberg attaining the higher figure on three consecutive flights over a two week period. You don't need a hot ship to join in the fun — even the Oly 463 aggregated 57 000ft in just four flights.

The cross-country wave opportunities are being exploited more fully as pilots get to grips with the required techniques. Several thousand kilometres have been flown in wave with Dick Stoddart leading the way with a 380km declared triangle. It's nice to see an increasing number of visitors sharing these conditions.

On the domestic front we now offer full category facilities at all times including weekends. You are welcome to join our Enterprise style task week starting on August 23. It will be cheap and fun and we have had exceptional soaring conditions at that time of year.

P.L.



GLIDER
Stickpins
for lapels, ties, etc.
Also
GLIDER PENDANTS

In 9ct gold at **£24 each**
In Silver at **£10 each**

Supplied in a presentation box. The above price includes post, packaging and insurance. Please allow a maximum of 28 days for delivery.

Cheques payable to:
CRADLEY JEWELLERS
87 High St, Cradley Heath, West Midlands B64 5HA
Tel: (0384) 635808

BLACK MOUNTAINS



GLIDING CLUB
(TALGARTH)

Situated in the Brecon Beacons National Park amongst the highest mountains in South Wales, Talgarth has more soarable days than any other UK gliding club. Longest ridge routes; wave in all wind directions.

In 1985 the Club average flight duration was 1½ hours. Surely the premier location for any soaring course. Courses run from mid March to mid October and include holidays, introductory and advanced mountain flying cross country courses.

Bookings: Secretary, B.M.G.C.
Lower Penylan, Glasbury-on-Wye
Powys HR3 5NT
Tel: 04974-583/0874-711254

Soar the Cotswolds!

Holiday course members and visitors welcome at our scenic club.

Courses from £110 to £145 with accommodation (flying extra). For details write to Bristol and Glos Gliding Club, Nympsfield, Stonehouse, Glos GL10 3TX, or phone 0453 860342.

Open all week April-October

CAMBRIDGE UNIVERSITY GLIDING CLUB
CAMBRIDGE (Marshalls)
DUXFORD

The Name may sound a trifle exclusive, but the Cambridge University Gliding Club is open to everyone.

We winch and aerotow from Duxford all year, mostly at weekends, and aerotow only from Cambridge. We run holiday courses from April to September for beginners and solo pilots.

For general information write to	*For Course details write to*
The Secretary 55 Moorfield Rd Duxford Cambs	Course Secretary 6 Camside Chesterton, Cambridge Tel. Cambridge 67589

KENT GLIDING CLUB

Challock · Ashford · Kent TN25 4DR
Ring: Challock (023 374) 274 or 307

Provides gliding holidays for both the beginner and the more advanced pilot, including professional instruction in club gliders and full accommodation on the airfield.

Provides year-round launching facilities for its members to go soaring in either their own or a club glider.



£160-£200

4 or 5 day holidays courses March-October

(All inclusive of professional instruction, accommodation, meals and VAT)

COME SOAR LIKE AN EAGLE AT DEESIDE



Visiting pilots and expeditions welcome throughout the summer

BOOK EARLY FOR THE

AUTUMN WAVE SEASON

AS NUMBERS MAY BE LIMITED

For more information and details of our summer courses write to

DEESIDE GLIDING CLUB
DINNET, ABOYNE, ABERDEENSHIRE
Tel. 033985 339 or 033985 236

COME
GLIDING
with the
CORNISH GLIDING CLUB
at
Perranporth, Cornwall
Courses from May to September
Under BGA instructors. Beginners welcome.
Trevellas Airfield is only one mile from Perranporth's golden sands, one of Cornwall's favourite family holiday centres.
RUTH B. PHILLIPS
14/14a, KENWYN STREET, TRURO
0872 73892 (day) 087255 2430 (evening)

COTSWOLD GLIDING CLUB
HOLIDAY GLIDING COURSES IN THE PICTURESQUE AND FRIENDLY COTSWOLDS WITH COURSES TAILORED TO SUIT YOUR NEEDS.
FULL DETAILS FROM:
ALEXANDRA PENTECOST
45 THE QUARRY
CAM, DURSLEY
GLOUCESTERSHIRE GL11 6JA
Tel: Dursley 45631

HEREFORDSHIRE GLIDING CLUB
Shobdon Airfield, Nr. Leominster
WINCH BASHING?
Fly high on our all aerotow summer holiday courses
John Warbey
Tel: (098122) 650
New members always welcome

Please send news and exchange copies of journals to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, England

SWEDEN'S DIAMOND FACTORY

Wave conditions throughout most of a two week period during March at Ottsjö, in the western part of Sweden not far from Östersund, resulted in 83 Diamond heights and 225 Gold heights.

There was a stable airflow from the south to the north over the Swedish Alps and northern Scandinavia. The wind was blowing in a channel between a low pressure system over Norway and the Atlantic and a dominating high over eastern Europe. Wave was found in a stable layer up to high levels.

Per Fornander was within a few hundred feet of the Swedish altitude record. Having reached more than 32 000 ft and still climbing, he had to break off due to lack of oxygen.

Wave flying in Sweden is mostly at Pirttivuopio (see S&G, April 1985, p74), close to the highest mountains in Scandinavia, but the annual expedition to Ottsjö is for pilots who want better living conditions. The site is within a day's travel from the middle and western parts of the country, well away from major airspace restrictions and there are good opportunities for cross-country flying in wave. A Danish pilot reached Norwegian airspace and many explored wave systems some distance from base. *(Details from Rolf Algotson, director of flight operations at Ottsjö).*

NIMBUS TD's IMPRESSIVE START

The day after the first flight of the Nimbus TD prototype on May 2, it was flown *hors concours* in the Hahnweide International Contest Open Class at Kirkchheim-Teck, West Germany and achieved the best speeds on all three contest days. In fact on the first day the new two-seater was 10km/h faster than the runner-up.

It was flown on various days by Klaus Holighaus, Walter Eisele and Holger Back with Bruno Gantenbrink as co-pilot on one task.

DUTCH NATIONALS

There were nine contest days for the Dutch Nationals, held at Terlet towards the end of May, with Baer Selen as the Champion.

AKAFLIEG PROJECTS

Amongst the new projects reported at the annual Akaflieg gathering in Stuttgart earlier this year were:

- Esslinger E-14, A Standard Class glider weighing only 130kg. This is achieved by using a "minimal fuselage" in which there is no room for conventional instruments. An airborne computer collects all essential data and displays them on a central liquid crystal display.
- Brunswick SB-13. A tail-less glider with a 15m wing. Performance is said to be better than that of a conventional Standard Class glider.
- Darmstadt D-40. A glider with Fowler flaps that open like the blade of a penknife. The hinge-point is quite near the wingtip so that the flaps extend a long way back at the wing-root, causing problems with the wing/fuselage joint.
- Akaflieg Stuttgart have built a device which enables a viscous mixture of oil and coloured pigment to be deployed on a wing surface in flight and its behaviour in the airflow to be filmed on video.

HOBBIES
(Marjorie Hobby)
UK Agent for the American 'STRONG' 26ft Lo-Po Para-Cushion Back Parachute. Subject to exch. rate (E.G. June £595.00).
Also available for limited period –
Security 850 complete £525
Security 350 with new canopy £615
with 10yr canopy £475
Irvin (24ft canopy) complete ..... POA
part exchange welcome.
Canopy only £178
Bags (for above) £16
Complete price list (inc. Books) from
9 Knoll Road, Fleet
Hants GU13 8PR
Tel: After 6pm 0252 615365
Please ask for Marjorie

SOAR YORKSHIRE SUTTON BANK
For your COURSE! For your EXPEDITION! For your HOLIDAY!
We offer top class accommodation, instruction facilities and opportunities
RIDGE SOARING — 12 miles in suitable conditions
THERMAL SOARING — Club record is 582km from aerotow, 524km from the winch
WAVE SOARING — Club absolute record is 30 200ft. Club record gain is 29 500ft. Both from the winch
Our rates are amongst the best — £8.50 for aerotows to 2000ft. Visit us and stay in our fully licensed residential clubhouse. Full catering available in season. Self catering at other times.
COURSES — April to October Visitors always welcome
YORKSHIRE GLIDING CLUB, SUTTON BANK, THIRSK
Tel: 0845 (Thirsk) 597237

PLANNING AN EXPEDITION OR PERHAPS A WEEKEND AWAY?
VISIT THE ... Wolds Gliding Club
The Airfield, POCKLINGTON
East Yorkshire Y04 2NR
Situated on the edge of the picturesque Yorkshire Wolds within easy reach of the historic City of YORK, the Moors and the scenic Yorkshire coast.
• EXCELLENT LAUNCH FACILITIES (winch/aerotow).
• ON-SITE ACCOMMODATION AVAILABLE.
• COMFORTABLE CLUBHOUSE, BAR & BRIEFING ROOM.
• FLY YOUR GLIDER OR OURS.
Write or give us a ring – 07592 3579

MORE NEWS FROM ZIMBABWE



Ted Deacon presenting Basil Rushforth, chairman of Warren Hills GC, with a signed photograph of the B747 he captains for British Airways.

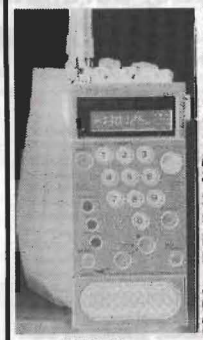
After going some years without hearing from our friends in Zimbabwe, the letter from Harvey Quail of the Midlands GC, printed in the last issue on p141, was followed before publication by news from Mike McGeorge from the Warren Hills GC, sent on to us by Ted Deacon, a BA captain.

Mike writes: "The name of our country has changed but the thermals are the same and this can be verified by our frequent visitors, British Airways, whose crews stay here for more then a few days every week. With the change over from Rhodesia to Zimbabwe six years ago, much water has run under the bridge, and not a few sailplanes with their owners have passed on to greener pastures, or fancier cloud streets, for various reasons. As a result we have seen the depletion of the country's sailplane fleet. This has been the death knell for two of our main clubs, Bulawayo and Bindura.

"Fortunately the Salisbury GC, now known as the Warren Hills GC, acquired some aircraft, mostly vintage, from these clubs, including an H-17, Tutor, Swallow and Cobra. Ted Deacon completed his 5hrs in the Swallow in April. His support for the sport and for ourselves in particular, with his enthusiastic colleagues, has seen us through hard times. A camaraderie exists between us second to none, and with much hard work by Ted it looks as though the British Airways recreation club will acquire a Blanik to be hangared here".

Mike reminds us that the last Rhodesian Nationals was in 1976 but they do have performance camps to try and make the most of their resources and give a feeling of competition.

"We aren't doing too badly," he continues. "Importing aircraft is a dead duck. We have to nurture, conserve and make do with what we have. We don't see any improvement in the near future but I would rather fly my K-6 every weekend in glorious sunny skies than have a hot ship that stays on the deck for most of the year in those bleak, wet, dark days of winter, and even summer, in the land of my birth."

SONY 'AIR 7' SCANNING RECEIVER

★ 4 freq bands, air/public service/FM/AM
★ 10 memories on each band
★ Scanning & priority on selected channels
★ Searching on whole band
★ Very high spec receiver
★ Four-way power supply, mains/battery/nicad
BLACK & WHITE FILM SERVICE
35mm film cassettes – 12 exp £1.15/20 exp £1.40
Processing 126 or 35mm b/w £1.00 +20p pp (returned uncut!)
SAE for further details:
GLIDING SERVICES
40 The Paddocks
Yarnton, Oxford OX5 1TF
or tel: 08675 71090/79135
£245+£2 pp

STATISTICS IN FRANCE

The statistics for 1985, announced at the French Gliding Federation's AGM at the Musée de L'Air, Le Bourget, provide an interesting basis for comparison with our own UK figures (in brackets): Total hours flown: 249 403 (152 995); cross-country kilometres: 2 406 093 (1024 357); first solos: 1068 (?); aerotow launches: 242 288 (18 867); winch launches: 25 170 (288 062); average flight duration: 60min 25sec (23min); average hours flown per glider: 176 (87); average hours flown per pilot: 23 (15); total number of gliders: 1525 (1714): total number of tugs: 200 (104).

NEVERS GLIDING EXHIBITION

An International Gliding Exhibition will be held at Nevers, France from September 19–21. Open to the public free of charge, the exhibition will feature exhibitors from throughout France and many other countries. There will be static displays, a second-hand market and opportunities for flight tests, as well as a range of other attractions and a grand flying display on the closing day. Further information from: Remi Grasset, Aero Club ETP, 57 BD Saint-Germain, 75005 Paris, France.

PYRENEES

The well-known French pilot Jean-Pierre Cartry has been investigating sites in the Pyrenees and is proposing to hold summer camps at Seo de Urgel or Puigcerda in Spain. Anyone interested in exploring this little known area should write to M. Cartry at 117 cours Gambetta, 69003 Lyon, France.

GLIDING FORECASTS

More than a quarter of a million calls were made last year in W. Germany on the recorded gliding forecast telephone numbers. The daily forecast is available from 0800 and is updated at midday if there has been a significant change.

From 1800 the outlook for the following day can be heard. The number is now standardised throughout W. Germany (11506, preceded by the dialling code of the nearest large city). In addition all the regional radio stations broadcast specialised gliding forecasts.

GLIDER AEROBATICS

A course in glider aerobatics will be held at Hockenheim, W. Germany from September 1–7. For further details contact Hans Schäfer, Karltalweg 5a, 6930 Eberbach, W. Germany.

(Translated by Max Bishop from Aviasport and Der Adler).

GLIDER INSTRUMENTS
Repairs and overhauls carried out
Approved for PZL and Winter Instruments
Barograph Calibration centre
Write or phone:
M. G. Hutchinson
'Tanfield'
Shobdon
Nr. Leominster
Herefordshire HR6 9LX
Tel. 056-881-368
(answering machine)

TALK TO THE GROUND *AND* KNOW WHERE YOU ARE!

THE NEW **HAND-HELD HT 830 720 CHANNEL NAV/COM/VOR**

will also receive all VOR frequencies and give an LCD read-out of your present VOR radial.

£425.00+VAT

CAMPBELL DISTRIBUTION LIMITED
Bilton Centre, Coronation Road, Cressex Industrial Estate, High Wycombe, Bucks
Tel: **0494 459535** *Telex* **946240** *ref* **19008300**

CLASSIFIED SECTION

Advertisements, with remittance, should be sent to Cheiron Press Ltd, 7 Amersham Hill, High Wycombe, Bucks. Tel 0494 442423. Rate 35p a word. Minimum £7.00. We can accept black and white photographs at £3.00 extra. Box numbers £2.40 extra. Replies to box numbers should be sent to the same address, the closing date for classified advertisements for the October/ November issue is 2nd September.

FOR SALE

SPORT VEGA T-65C, built 1981, ASI, PZL and Dolphin Alt, T&S, 400hrs only, C of A June 87. £6900 inc VAT. Derbyshire & Lancs GC. 0298 871270.

WINTER BAROGRAPH, full working order. Has achieved several successful badge flights. £175. Tel Blandford (Dorset) 0258 53249 (eves)

MOTOR GLIDER Brasov M-2A. Two-seater retractable VP prop. 1/6 gallons per hr. 26:1 glider. Only 11hrs from new. New C of A. £13500+VAT. 0302 874909.

"MITY" STAINLESS weak links, 900 or 1100lb. Mitier links – up to 2250lb. Aerotow ropes. Winch chutes. Astleys Ltd, Gosford St, Coventry CV1 5DJ. (0203) 20771.



HANG GLIDING Courses, BHGA approved.
Expert tuition, details SAE,
Clough Farmhouse, Boulderclough, Sowerby, W. Yorkshire HX6 1N J
Tel: 0422 834989.

NORTHERN SCHOOL OF HANG GLIDING
Halifax 834989

ASW-20FL. Jan 83. Full instruments. Komet trailer. Wing and fuselage covers. Tow out gear. Tel: Laurie Beer 02406 3384 eves.

PYE WESTMINSTER, 3 gliding channels fitted, 12v/mains PSU, £150. 2 Pye Pocketphones 70's, same 3 channels, spare batteries, charger, £250. May sell separately. Box No. 590.

DITTEL FSG50 £475; Bantam, NiCads, case £120; oxygen system, complete £150; Winter barograph £150; parachute £90. 0256 862652.

KESTREL TRAILER 1985 aluminium, inc fittings £2500. Kestrel tail dolly, towbar, wing dolly, canopy cover; Vega tail dolly; 13" trailer wheel – offers. 0256 862652.

K-6CR, BUILT 1967, imported from new. Exceptional condition, damage-free history. Privately owned only. Good panel, radio, nose and belly hooks. £4500. Excellent trailer neg. Tel: D. Shrimpton (0225) 315082. 48 Langdon Rd, Bath, Avon BA2 1LT.

OLY 463, A/H, T&S, PZL, electric vario, audio, parachute, Dart canopy. C of A May 87. Excellent wooden trailer. Tel: 051 647 9023.

CANOPY DOCTOR
CANOPY REPAIRS, MODS., etc.
Robin Bull, April Cottage, Lower Hopton, Nesscliffe, Salop, SY4 1DL
Tel: **Nesscliffe (074 381) 231**
Nat. Grid Ref. SJ 381 209

1/5 SHARE K-16 motor glider, two-seater (side by side), 16m, 30:1, electric start. Retractable u/c, feathering prop, full panel. 360 radio, VOR, electric DI etc. Just repainted. 54hr engine. New 3 year C of A. Immaculate. Based Lasham. £3250. Tel 0256 882243.

SF-25E SUPER FALKE motor glider. Hangared Enstone, Oxon. 3-position propeller, audio vario, Narco 720 channel radio, VOR. Cross-country soaring and foreign towing group forming. Large or small shares for sale, finance available. 01 864 5021.

K-6CR, VERY pretty 500km machine. Available September, £4000 with trailer, or would sell 1/4 shares at Aston Down. 045 383 2061

NEW MARCONI RC666 compact ground/mobile transceivers with 5 watt output and up to 10 channels. All sets meet CAA/ NATS licensing requirements. Prices from £220+pp. C P Accessories 061 439 8673.

GREENACRE, GRINDLOW
1 mile from Derbyshire & Lancs. Gliding Club
BED & BREAKFAST
Peaceful setting, lovely views. Use of 1 acre garden. Daytime creche for under-5's. Evening babysitting. Disabled welcome.
Tel: Sue Yeoman SRN
0298 872101 till 30 July,
0298 871982 after 31 July

MINI NIMBUS 227
Complete equipe. Trailer, parachute, 720 channel Dittel radio, demand oxygen. PZL and LX 1000 varios, sealed, under carriage warning. No repairs.
£16,000
Contact: **Dickie Feakes 0869 245052**

IS-29D (1975) 550 launches, 330 hrs. Full panel, radio, parachute, barograph, oxygen, trailer and rigging aids. £5500 ono. 061 427 1582.

BLANIK. JUST over 2000hrs and lifted at 5000hrs. Includes basic instruments, trailer and full set of manuals. Genuine offers. (0323) 843460.

DIAMANT 18 – 1/4 share – based Marchington. £1250 plus £20 pcm. 061-427-2839 (eves).

WITTER TOWING BRACKETS **TRUE VALUE IN TOWBARS**
• Independent specialist manufacturer • Britain's top-sellers – fully guaranteed • PLUS! A.A. Seal of Approval
SEE YELLOW PAGES FOR LOCAL SPECIALIST FITTER OR STOCKIST
C. P. Witter Ltd. Chester 43
Tel: 0244 41166 Tlx: 61623 EURBAR G.

ASTIR CS-77, low hrs, fully instrumented, parachute, radio, trailer. Lasham based. ¼ share with original owner, £4600, or whole outfit £9,000. Tel: 0635 298495.

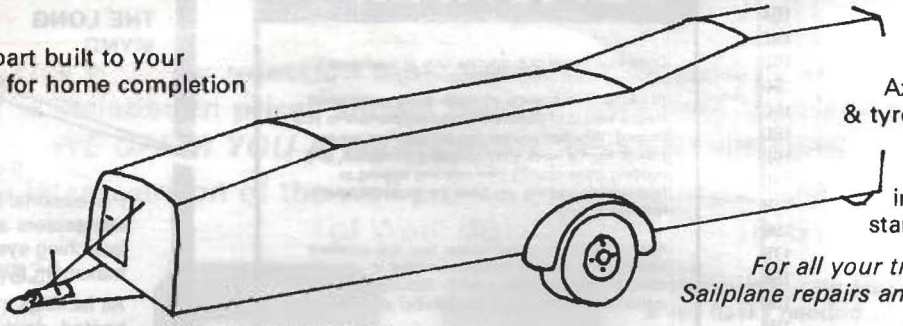
PARACHUTE CANOPY; direction indicators (£199); Gell Cell battery charger (£12); Audio for PZL or Winter vario; parachute. Purnell 0252 615365.



FLY WITH THE EAGLES!
Gliding in the ITALIAN ALPS at Aero Club Valle d'Aosta throughout September & October. Suitable all pilots beginners to experts. 6 day courses. 2 seater course £95. Single seater course £90. Private owners £35 (limited number). *SOMETHING DIFFERENT! UNIQUE OPPORTUNITY.* (Any instructors with a week or two to spare?). *Details from* **Nigel Palmer, 10 Bradley Close, Longlevens, Gloucester GL2 9LA.** *Tel:* **(0452) 414558.**

QUALITY ALUMINIUM TRAILERS AT ECONOMICAL PRICES!

complete or part built to your requirements for home completion



trailer components
Axles, couplings, wheels
& tyres at unbeatable prices

Our hand built trailers include many extras as standard

For all your trailer requirements and Sailplane repairs and maintenance contact

DAVID SCHOFIELD · SCHOFIELD AVIATION · UNIT 6c SOUTH MARSTON INDUSTRIAL ESTATE · SWINDON · WILTSHIRE · TEL: 0793 822300

WANTED

K-4 TRAILER, any "reasonable" condition. Will consider any trailer that can be modified. You may know of one standing unused. 0536 83415.

PIK 20E motor sailplane, with out without trailer. Will collect UK or Europe. Box No 591.

K-8 PORT wing wanted. Whole or damaged. Full details to 0302 786360.

K-18, SHK cobra or similar. Price and particulars to Wolds Gliding Club, Pocklington, YO3 2NR or tel: 07592 3579.

AEROGRAF
The Barograph
- new electronic concept
- no smoking, no sealing, no fuss

Sole UK agent: **SUNSAIL, ANDREW DAVIS**
2 Padstow Close, Macclesfield. 0625 23564

URGENTLY WANTED
STAMMO CRANK CASES
EITHER NEW OR IN VERY GOOD CONDITION
STRATHCLYDE GLIDING CLUB
TEL: 041 779 3039

DART 17R, Cobra or similar. Up to £4500 waiting, anything considered. Tel: Mark Innes after 5.30pm (047283) 722, work (0507) 603861 daytime.

MODELS

MODELS OF any aircraft made to order, gliders a speciality. SAE for leaflet and quote. Miller Aviation Models, Red Cot, New St, Glemsford, Sudbury, Suffolk, CO10 7PY, England. Tel: 0787 280425.

ACCOMMODATION

LOVELY COTTAGE for rent close to Derbyshire & Lancs. Gliding Club. Watch the windsock from your bedroom window! Sleeps 4. Tel (0298) 872101 before July 30 or (0298) 871982 from July 31.

BED AND Breakfast £7: near Sutton Bank. Evening meal by arrangement. Moira & Mike Wood, Buckingham House, Helmsley, N. Yorks (0439) 70613).

PUBLICATIONS

SLOPE SOARING with a radio control model seaplane is a fascinating pastime and a typical phase of aeromodelling. Read about this and other aeromoddelling subjects in *Aeromodeller and Radio Control Models and Electronics*, the world's leading magazines published monthly. Model & Allied Publications Ltd, 13-35 Bridge Street, Hemel Hempstead, Herts.

NEW ZEALAND: "Gliding Kiwi" official Gliding Magazine of the NZ Gliding Association. Printed October and alternate months. Write NZ Gliding Kiwi, Private Bag, Tauranga, New Zealand. £7.00 Sterling for year's subscription (inclusive of postage).



Britain's fastest selling sunglasses

NOW £5 OFF!

Choice of 2 types – all at the amazingly low price of £7.95

Last year a staggering 4 out of 10 sunglass wearers chose Reactolite Rapides.

This year, as an extra bonus, we are offering the readers of this magazine the opportunity to buy direct – a massive saving of £5 on the normal retail price of £12.95.

Both models have beautifully designed frames and genuine, optically ground, Reactolite Rapide lenses – the fastest reacting photochromic glass in the world!

E93 Pilot Shape The 'cut-away' sporting look. Superbly designed and built incorporating soft, flexible nose pads for total comfort and optical quality hinges. Frames available in 3 colours.

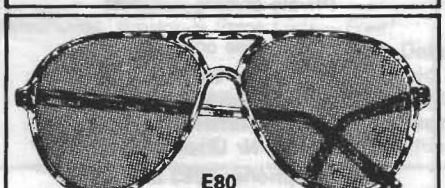
E80 Unisex Top of the fashion range with a beautifully sculptured 'tortoise shell' type plastic frame in brown and crystal.

FREE!
Crushproof case with every pair ordered!





E93
PILOT SHAPE



E80
UNISEX

To: **CHEIRON PRESS LTD**
7 AMERSHAM HILL, HIGH WYCOMBE
BUCKS HP13 6NQ

Please send me the following pair(s) at £7.95 plus 85p P & P & Insur. per pair (* please delete)

	NO REQUIRED
E93 in Gilt/Nickel/Black* frame	☐
E80 in 'Tortoise Shell' frame	☐

I enclose cheque/P.O. for £_____
made payable to **Cheiron Press Ltd**

Name

Address

Post Code

NO QUIBBLE MONEY BACK GUARANTEE!!
Allow up to 14 days for delivery.

ADVERTISERS' INDEX

AMF Enterprises	164
Aero Marketing Associates	192
Air Apparatus & Valve	192
Airmark Aviation	190
Anglia Sailplanes	190
Anglo-Polish Sailplanes	160
Austin Aviation	192
Black Mountains GC	195
Bowker Air Services	178
Bristol & Glos GC	195
BGA	175
CAA	158
Cambridge Aero Instruments	159
Cambridge University GC	195
Channel GC	194
Chiltern Sailplanes	155
Classifieds	198-199
Cornish Gliding & Flying Club	196
Cotswold GC	196
Cotswold Gliders	184
Coventry GC	194
Cradley Jewellers	195
Deeside GC	195
Electrim Sailplanes	154
Glider Instruments	197
Gliderwork	190
HT Communications	190
Herefordshire GC	196
Irvin (GB) Ltd	189
JSW Soaring	172
Kites in Action	181
Kent GC	195
Kookaburra Publications	174
Lasham Gliding Society	200
London GC	200
London Sailplanes	154
Lowe Electronics	188
Lowndes Lambert	156
Marchington GC	200
R L McLean	157
Midland GC	200
Mowbray Vale Insurance	IFC
Narromine Soaring Centre	158
Negus	188
Nine Four Aviation	160
Njoro Country Club	166
Norfolk GC	200
Oxfordshire Sportflying Club	156
Perry Clamps	190
Peterborough Aircraft Co Ltd	163
Piggott Bros & Co	190
Printa Inks & Paints Ltd	174
RD Aviation	IBC
Reactolite Rapide	185, 199
Rematic	194
Sailplane & Engineering Services	190
S & G	190
Sailplane Services	192
Schofield Aviation	199
Scottish Gliding Union	200
Segelflugschule Oerlinghausen	156
J. L. Smoker	174
Soaring Magazine	185
Soaring Oxford	194
Southdown Aero Services	161
Southern Sailplanes	BC
Specialist Systems	185
Speedsoaring	161
Speedwell Sailplanes	188
Supacat Ltd	188
Brian Weare	172
Weather Systems	174
C. P. Witter	198
Yorkshire GC	196

LASHAM

Does your home club operate only at weekends?

At Lasham we operate all week, every week which means we could provide a useful supplement to your training. Whether you are not yet solo and would benefit from a week's consolidated instruction, or a budding cross-country pilot needing soaring or field-landing training, we have the expertise and facilities to help.

Apart from our large two-seater fleet and excellent aerotow and autotow facilities, we have a comprehensive briefing room for lectures or instructional videotapes if bad weather prevents flying.

On-site accommodation for club expeditions is always available by arrangement.

Absolute beginners are of course always welcome — we have a large choice of courses and types of membership to suit your needs.

Lasham Gliding Society
Nr. Alton, Hants
Tel: Herriard (025 683) 322 or 270

MIDLAND GLIDING CLUB
THE LONG MYND



All inclusive 5-day holiday courses.

Professional instructors, modern two-seaters and a unique winch launching system give maximum flying time.

All facilities including centrally heated, double-glazed accommodation on site.

Book early for the best weeks.

The Course Secretary
Midland Gliding Club
Church Stretton
Shropshire SY6 6TA
Tel: Linley (058861) 206

LONDON GLIDING CLUB

Dunstable Downs, Bedfordshire
Telephone: 0582 63419

Situated at the foot of the Chiltern hills, and within easy reach of London and the Midlands by road (just off the M1). The Club has a comprehensive fleet of dual and solo aircraft, reliable launching equipment including tug aircraft. This famous site has plentiful thermals in summer and hill soaring with favourable winds throughout the year. Resident instructors, catering every day (weekends only in winter), licensed bar, accommodation and other facilities. Visitors welcome.

Write for Course brochures or club membership details to the Manager, or ring 0582 63419

NORFOLK GLIDING CLUB

Holiday courses from June to September — beginners to Silver C. Book now!

Motor Glider Courses throughout the year — Bronze or Silver C to PPL (SLMG).

Visiting Aircraft welcome — ideal cross-country site — cheap aerotows and temporary membership.

Friendly club — accommodation on site — licensed bar.

Write to
The Course Secretary, B. L. Owen
64 Chapel Lane
Wymondham, Norfolk NR18 0DN
Tel: Wymondham 605444 Evenings

MARCHINGTON GLIDING CLUB

Situated in the Midlands. Offers holiday courses from April to September 1986.

Good local soaring and cross-country. Courses to suit your requirements. Private owners welcome.

Please contact:

Course Secretary
Marchington Gliding Club
Marchington Airfield, Morton Lane
Marchington, Nr Uttoxeter ST14 8LP
Telephone: 0283 222046

PORTMOAK

IS **THE** PLACE

FOR WAVE — UK altitude record made from here in 1980

FOR RIDGE — our two hills give more soaring opportunities

FOR THERMALS — they're not bad, either!

Holiday courses for all levels.
Good accommodation, catering and bar.
Friendly club atmosphere.
7-day flying with winch and aerotow facilities.
Motor Falke available.

VISITORS ALWAYS WELCOME

SCOTTISH GLIDING UNION
PORTMOAK, SCOTLANDWELL
Nr. KINROSS Tel. 059-284-543

RD Aviation Ltd

Service with Choice

This is only a selection from our extensive stocked range.
VAT is included in prices shown (exports VAT free). Carriage extra
WE OFFER YOU A WIDE CHOICE OF VARIOMETERS

Including the latest version of the well proven computer vario system by Westerboer of West Germany

VW910/920

- ★ For gliders with restricted panel space and limited depth behind panel
- ★ 57mm vario
- ★ 80mm computer/nav
- ★ Additional meter displays available





Nautical miles and knots for UK

- ★ Highly accurate electronic total energy
- ★ No flasks needed
- ★ Integral or remote audio – unambiguous
- ★ 4 leg pre-programme
- ★ Distance count up or down
- ★ Average speed display
- ★ Wind calculation
- ★ Unique final glide height error display

All this capability for **£1253.50**

Also stocked: VW900 57mm compact audio vario **£296.70**
VW711 Audio unit for mechanical vario **£179.40**

As well as CAMBRIDGE, WINTER, RICO, AVIONIC DITTEL

Autumn Wave is only a few weeks away –

fit a 630 litre portable oxygen system (suitable for ASW20, Pegase, DGs, LS4s, etc.)



£272.86
plus: mask & economiser **£39.96**

or a complete system
for permanent installation –
mask included **£257.29**

or for maximum efficiency and for the higher altitudes



A14A – Diluter Demand **£212.75**
with gauge & blinker

Demand Mask **£161.00**

Long Hose **£40.25**

HIRE! 230 litre portables available for hire **£17.50** per week

and some useful odds and ends

- White PVC Tape 19mm x 33m **£1.25**
- White PVC Tape 25mm x 33m **£2.30**
  (pp 40p, 1 roll, 60p 2 rolls)
- Maps ½ million, fablon covered (pp 75p) **£6.50**
- 5" Protractor (pp 50p) **£3.45**
- 10" Ruler, nautical miles (pp 50p) **£2.53**
- Self Adhesive Compass Rose, pack of 10 (pp 30p) **£2.07**
- Track Marker Adhesive, strip – 12 metres (pp 30p) **£3.40**
- Cockpit on/off plastic labels – per sheet (pp 30p) **£2.60**
- In-line water and dust filter (pp 30p) **£1.84**
- Instrument tubing locking rings – pack of 10 (pp 30p) **55p**
- In-line fuse holder with 2 or 5 amp fuse (pp 30p for 2) **58p**
- Panel fuse holder – 20mm with 2 or 5 amp fuse (pp 30p for 2) **£1.15**
- Mini-voltmeter – 10-14 volts (pp 50p) ..... *from* **£6.90**

E and OE

Just one phone call secures our FREE illustrated price list

ALSO STOCKED: INSTRUMENTS, ENGINE INSTRUMENTS, STROBES, BAROGRAPHS, HEADSETS, FLYING GLOVES, ETC. ETC.!

Please add carriage to above prices. All goods supplied under our standard terms of trade. Exports are normally free of VAT

Brochures, Advice & Price Lists – Free!

Dickie Feakes
11 The Poplars
Launton, Bicester
Oxon OX6 0DW
Tel: 0869 245052

Telex
265871
(Quote MAG 10189)
answerback MONREF
or 83138 Telkay G

John Delafield
Cotswold House
Mill Street
Islip, Oxon OX5 2SY
Tel: Kidlington (08675) 2357

YET ANOTHER CLEAN SWEEP –

Schempp-Hirth Gliders take all classes in

EUROPEAN CHAMPIONSHIPS

OPEN –

1st	HOLIGHAUS	Nimbus 3
2nd	BACK SENNE	Nimbus 3D (two-seater)
4th	LHERM	Nimbus 3

15 METRE –

1st	PARÉ	Ventus
2nd	MUSTERS	Ventus A
3rd	NAVAS	Ventus B

STANDARD –

1st	GANTENBRINK	Discus

STOP PRESS
DISCUS
1,2,3,4,5,6,7,8,9,10
IN AMERICAN
STANDARD
CLASS
NATIONALS

UK Agents for these superb gliders:

SOUTHERN SAILPLANES

(R. Jones)

MEMBURY AIRFIELD, LAMBOURN, BERKS. RG16 7TH. *Tel:* **(0488) 71774**