

SAILPLANE & GLIDING

October-November 1992

E2-10



Nationals

Skywatch

Berlin Airshow

Tail Feathers

ANGLO-POLISH SAILPLANES

THE BEST RANGE OF SAILPLANES YOU CAN BUY

Look what's available now

SZD 55

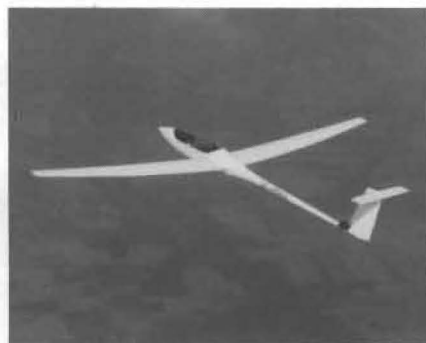


The SZD 55 is fast becoming established as the best standard class glider in the world. Richard Johnson's independent flight test for 'Soaring' magazine said the following: "... All three flights showed an L/D of about 43 ...", "... all three flights showed a sink rate of less than 100 fpm at 37.5 kts ...", "... the SZD 55 is nicely co-ordinated with excellent pitch and yaw control." "Overall the SZD 55 appears to be one of the best new sailplane designs of recent years."

Convinced yet? Contact us for more information and a demonstration flight. Early deliveries available.

SZD 56

This SZD 56 is currently being test flown, and is confidently expected to be the best 15m flapped glider yet, with a best



L/D in the high forties. An empty weight of 370 lbs (yes lbs not kilos) combined with a very high aspect ratio wing makes substantial performance gains possible all across the speed range. It is hoped that production will start in 1993, no firm price quotation is available yet. £500 returnable deposit secures a place in the UK delivery queue. For more details give us a call.

SZD 59



Ever fancy a small span high roll-rate fully aerobatic (+7, -5g) glider? But you also want a high

performance soaring glider and can't afford both. Now you can at 13.22 metres span you have a fully aerobatic sailplane with a reasonable (around 35:L/D) soaring performance. Plug in the tip extensions and your 16.5 metre gliders' 40+ L/D enables you to stay with the best modern standard class gliders. All for only £22,000 + VAT delivered UK with instruments! £2,000 returnable deposit now secures a place for next year delivery. Demonstrator should be available around the end of the year.

SZD JUNIOR

Needs no introduction, the best club glider ever built, suitable for early solo or diamond cross-countries. Delivery normally ex-stock. Call us for a demonstration or more details.

SZD PUCHACZ

The best selling two seater in the UK last year. Approximately half of the sales are clubs buying a second Puchacz because they liked the first one so much. That says it all. The Puchacz is the best value for money and best all round trainer you can buy. Call us for a demonstration anytime.

ANGLO-POLISH SAILPLANES

Wycombe Air Park, Booker, Marlow, Bucks
0628 39690 or Chris Rollings 0582 861096



Magazine of the
British Gliding Association
Kimberley House, Vaughan Way
Leicester, LE1 4SG
Tel Leicester 0533 531051

October-November 1992
Volume XLIII No. 5

EDITOR

Gillian Bryce-Smith
281 Queen Edith's Way, Cambridge, CB1 4NH
Tel 0223 247725 Fax 0223 413793

CONSULTANT EDITOR

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

SUBSCRIPTIONS

Bev Russell, BGA Office

COMMITTEE

A. W. F. Edwards (Chairman), M. Bird, M. F. Cuming,
B. Rolfe, B. F. R. Smyth

ADVERTISING MANAGER

Helen Ritchie
Cheiron Press Ltd

Hillview, Heathfield Road, High Wycombe
Bucks HP12 4DQ
Tel 0494 442423 Fax 0494 442423

ADVERTISING COPY DATES

To make it easier for our advertisers we are listing the advertising copy dates. Editorial material is needed considerably earlier.

Issue	Display	Classified
Dec/Jan	Oct 23	Nov 4
Feb/Mar	Dec 18	Jan 2

Please note: If advertising copy has not been received by the due date, any space booked will automatically be cancelled and a cancellation fee may be incurred.

S&G Annual Subscription: Send £19.00 (to include the Yearbook) or £15.50 for just the magazine to the BGA.

PUBLISHER
British Gliding Association
(Barry Rolfe, BGA Administrator)



Cover: Tony Hutchings took this intriguing photograph of Wilder Binder's 26 metre ASH-25 with its winglets. See also p269.

SAILPLANE & GLIDING

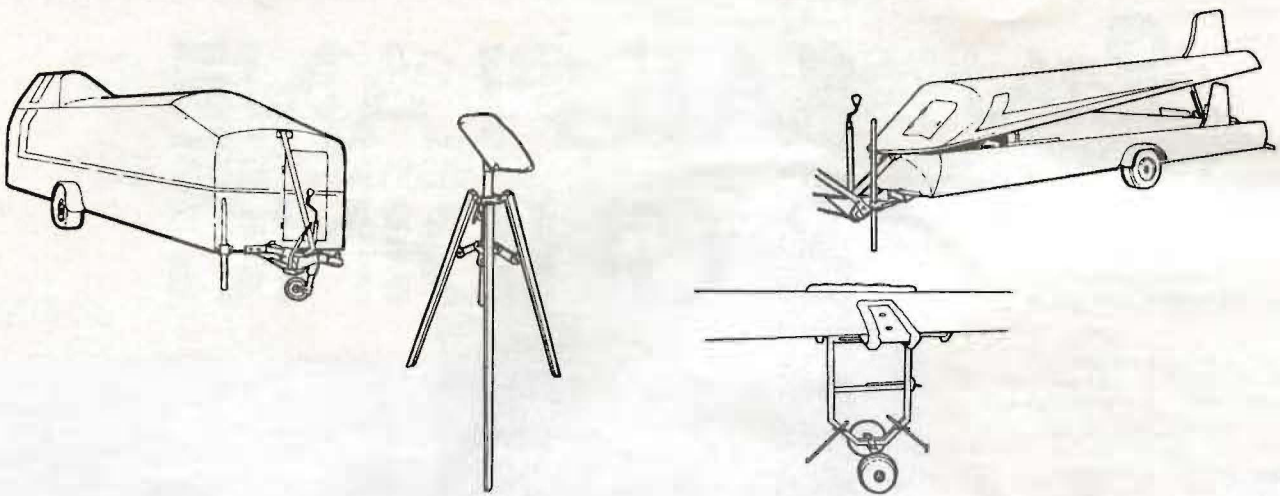
- | | | | |
|------------|---|------------|--|
| | YOUR LETTERS
Jane Lawrence, Tricia Pearson
(reply by M. F. Cuming),
R. Grimes, D. B. James,
C. J. Chapman, E. Greenwell,
J. L. Rolls (reply by B. Rolfe),
B. Bennett | 268 | HELLO TO BERLIN
R. R. Rodwell |
| 245 | | 270 | ROLEX 15 METRE CLASS NATIONALS
Helen Evans & N. Wall |
| 249 | BOOK REVIEW
W. A. H. Kahn | 273 | FINAL RESULTS |
| 250 | TAIL FEATHERS
Platypus | 274 | WEAR TO FLY 2
G. H. Crawshaw |
| 251 | TRAVELS WITH PLATYPUS
Chamois | 275 | GIRLS BE WARNED
Gliding "Widow" of 4 |
| 252 | OVERSEAS NATIONALS
D. S. Watt | | BGA & GENERAL NEWS OBITUARIES
C. E. Wallington by
J. S. Williamson;
J. E. Evans by
E. G. Shephard & J. H. Welsh |
| 254 | FINAL RESULTS | 276 | |
| | WHAT'S NEW IN THE SPORTING CODE
R. McIntyre | 277 | BGA ACCIDENT SUMMARY |
| 255 | | 280 | GLIDING CERTIFICATES |
| 256 | SKYWATCH
T. A. M. Bradbury | | STANDARD CLASS NATIONALS
A. Evans |
| 260 | LET'S GO FOR PLANNING
R. Yerburch | 281 | |
| 262 | THE FIRST UK ASW-20 TOP
W. B. Andrews | 283 | FINAL RESULTS |
| 263 | THE AMF CHEVRON 2-32
A. D. Piggott | 284 | CLUB NEWS |
| 266 | S&G CLASSIC
G. H. Stephenson & Ann Welch | 295 | SOMETHING SPECIAL
A. Bushby
A REPORT FROM THE PAST |
| | | 296 | WAY OFF TRACK
Penguin |



Member of the
Royal Aero Club and the
Fédération Aéronautique
Internationale



Leicester Printers Ltd, Leicester.



*The Droopsnoot and the GT2000 come fully fitted
 Custom built for you and your glider
 Solo Rigging and Trestles Solo Tow Out*

AMF ENTERPRISES

Membury Airfield, Lambourn, Berks. • Tel/Fax 0488 72224



CAMBRIDGE

*Used by Winners of all 3 Classes – UK Nationals 1992
 Used by Winners of all 3 Classes – World Championships 1991*

Announces its GPS Interface



= Unbeatable Performance

Most models of S-Nav and L-Nav can now be upgraded to operate in conjunction with a Garmin GPS 100 or GPS 55. You get full GPS capability from your Garmin plus spot-on distance and height information from your S- or L-Nav. Extend your existing Cambridge system – no need to re-equip! • See RD Aviation Ltd Winter 1992/3 Catalogue for prices

CAMBRIDGE – The choice of Champions – the leader in innovative technology

Manufactured by:

CAMBRIDGE AERO INSTRUMENTS

WARREN-SUGARBUSH AIRPORT
 RR BOX 109-3 WARREN, VERMONT 05674
 PHONE: (802) 496-7755 FAX (802) 496-6235

ALL CAMBRIDGE PRODUCTS CARRY A FULL 2-YEAR WARRANTY.

Represented by:

RD Aviation Ltd.

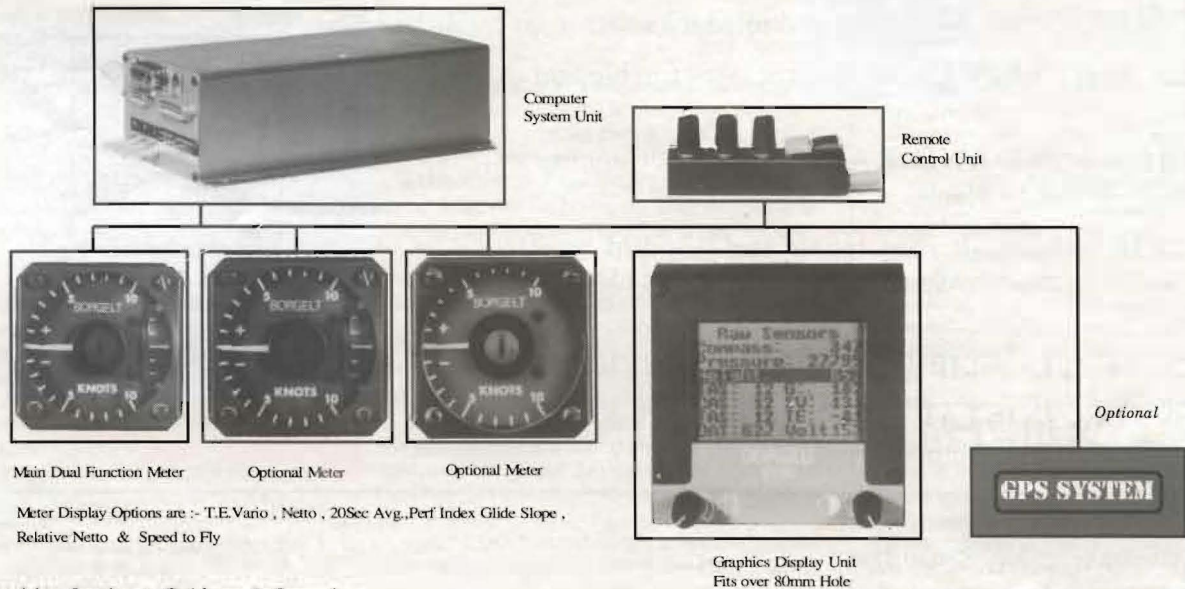
25 Bankside, Kidlington,
 OXON OX5 1JE, UK

Tel: 0865-841441 Fax 0865-842495

BORGELT B-100 FMC

A GPS LINKED SOARING SYSTEM

Single Seat & Two Seater Versions



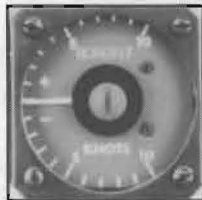
A Precision Soaring & Guidance Information System featuring :-

- 61x41mm Graphics/Data Screen
- Easy to Use with On-Screen Help
- Uses proven Borgelt Press. Trans. Technology
- Drives up to 5 Pilot Configured Analogue Meters
- On board U.K. Turning Point Library
- Electronic G-Meter sensing Cruise/Climb
- Remote Programming unit for ease of use in Flight
- Remote Compass Interface for Area Navigation
- Transfer Data to and from Personal Computer

B-100 GPS - 5 Channel , compact and lightweight _____ £ 925.00

Load in Task Information directly from the Turning Point Database on the ground or in the air and make POST flying and all tasks quick and easy.

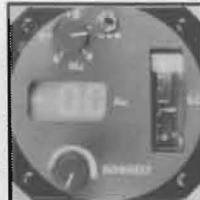
THE BORGELT B-20 SERIES VARIO RANGE



B-21 Vario - £237.50

B-20 Audio Pack needed when purchased without B-24. £ 58.00

Pressure Transducer Technology
Electronic Gust Filter
2 Speed Response
RFI protected
Altitude Compensated 22,000ft
58mm Instrument Face
Available as Repeater Unit for 2 seater applications



B-24 Averager / Netto / Speed Command/Audio
£349.75

Full Time Digital Averager
Full Time Speed Command
4 Tone Cruise/Climb Audio
Customised Glider Polar
Dynamic Audio Quiet Band
Auto Drift Compensation
80mm Standard Instrument
Real Time Netto to B-21



B-25 Final Glide/Nav
Computer £425.00

9 Turning Point Capability
Easy to Program and use
Head/Tail Wind Compensation
Bug Polar Compensation
Clear LCD Readout
EPROM containing Polar
Dual Polar for tipped Gliders
80mm Standard Instrument

*Flite Lines Marketing 32 Brislington Hill , Brislington , Bristol BS4 5BD U.K.
Tele: (0) 272-413655 or Fax: (0) 272-721923*

All prices exclude VAT and p&p

The Complete Glider Service

▶ SPARES ▶ INSTRUMENTS ▶ PARTS ▶ MATERIALS ▶ SERVICE

HIGH QUALITY MAJOR REPAIRS: in all materials. Schleicher gliders a speciality.

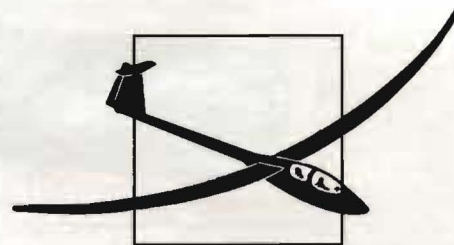
TOST: Wheels, tyres, weak links and release hooks.

DOPES AND PAINTS: Main stockists for Neogene products.

INSTRUMENTS AND RADIOS: Winter agents – most other makes available.

MATERIALS: For all your repair and re-build needs: GL1 Finnish birch ply, German steel tube, glass cloth and ceconite.

INSTRUMENT CALIBRATION AND SERVICING COUNTER, POSTAL AND CARRIER SALES SERVICE: All items competitively priced.



London Sailplanes Limited

Open Monday to Friday 9am to 5pm
Saturday 9am to 4pm

Tring Road, Dunstable, Beds LU6 2JP
Dunstable (0582) 662068

The Sabre range of oxygen equipment for gliders



◀ A.I.R. 2.4 glider mask set

1. 630 litre 2000 psi
2. 630 litre portable
3. 540 litre 3000 psi
4. 370 litre 2000 psi
5. 540 or 370 litre portable
6. 230 litre 2000 psi
7. 230 litre portable



Exclusively distributed by

RD AVIATION LIMITED

Unit 25, Bankside, Kidlington
Oxford OX5 1JE
Telephone (0865) 841441 (24 hours)
Fax (0865) 842495 (24 hours)

We are open to callers:
Monday-Friday 0930-1830 hrs.
Saturday 1030-1230 hrs.
Other times by appointment please.



CAN ANYONE HELP?

Dear Editor,

Can anyone offer help with a frustrating psychological problem I am currently suffering from with gliding? Whenever I even contemplate flying solo I become almost completely incapacitated with nerves – breathless, nauseous and quite panicky – much worse than the usual apprehension which most early solo pilots feel.

I started gliding in July 1990 and did my first solo after three months of weekend flying. I have only managed two more solos since, in spite of about 140 launches and 62hrs spent happily roaming the skies P2 – including numerous successful check flights with such excellent instructors as Chris Rollings, Bernie Morris and other Booker luminaries, all of whom have assured me that my flying is absolutely fine. Because of a back injury and consequent operation I did very little gliding between December 1990 and April 1992, but quickly got back into it, flying regularly over the past two or three months.

I became engaged to my pre-solo instructor last year, so my initial group of friends were mainly Booker instructors and cross-country pilots of quite a high standard. Recently, though, I've made a number of friends on my own level – but now I'm getting left behind as they achieve their Bronzes and even flights towards Silver. I feel quite a lot of pressure to catch up with them, which doesn't help. People tell me that it doesn't matter if I never fly solo again, but I would be disappointed to have missed out on what is obviously an extremely rewarding part of gliding.

I love flying, and feel very much at home in gliders when there is a safety pilot aboard, but have to rely on finding someone who is willing to give up a good day in their own glider to fly with me. My fiancé is very supportive, but having never had this problem himself is at a loss to know what to suggest.

I'd love to hear from any pilots who have successfully conquered a similar psychological

obstacle – or indeed to find out what any luminaries from the BGA might have to say on the subject.

JANE LAWRENCE, *Chalfont St Peter, Bucks*

LEARNING TO GLIDE IN A WEEK

Dear Editor,

I would like to add another dimension to the debate on learning to glide in a week (see the April issue, p88), albeit from a relatively inexperienced perspective.

Most of us have learnt to fly over a period of months not weeks, taking our turn on a list and probably getting three launches a day at most. We learnt to stand around all day on an inhospitable airfield, not flying because the cables had metamorphosed into a bird's nest, the tractor wouldn't start or a miniscule oil leak had grounded the tug.

My questions are: Who is being attracted to Mike Cuming's "do it the easy way" course at The Gliding Centre at Hinton-in-the-Hedges? Is the picture they are taking away of the gliding movement realistic? Are the Centre's graduate pilots going home to join a club and continue their training?

I would recommend Mike's advanced cross-country training course to anyone feeling stuck as I was. The site is ideally suited to Bronze/Silver leg attempts and field landing practice, the instructors combine enthusiasm and patience to push or pull you as far as you want to go and the natives are friendly.

Perhaps the real and exploitable gap in the market is a centre for excellence for the committed solo glider pilot whose home club affords limited possibilities.

TRICIA PEARSON, *Surrey Hills GC*

Mike Cuming replies: The customers who are attracted to our courses vary very widely but they do include a lot of stuck-in-the-rut club members. I shall send in a comprehensive report at the end of the season but the evidence so far is that the courses are working well.

A SATISFIED CUSTOMER

Dear Editor,

As one who, sadly, is far from being a teenager readily absorbing information and, even more sadly, is far from taking to gliding like a "duck to water", I would like to give a customer reaction to Ken Stewart's letter in the August issue, p185.

My learning has been painfully slow and seriously interrupted by the need to remain in gainful employment. Having reached (just about) solo I had had an enforced lay-off for six months, or so, when Mike Cuming's article appeared. It seemed that he was offering the kind of intensive training that I felt I needed in order to get back to solo and I enrolled for one of his early courses.

As far as I was concerned, the course lived up to the claims made for it. The system, operated with the single cable winch where the cable is brought to the glider, rather than vice versa, meant that with a precise landing a 1500ft launch could be achieved while with poor positional control launch height might be down to 800ft. In either event, however, waiting time was minimal.

The single area of gliding in which I claim to be an authority is that of instruction/instructors. My comments here are certainly not intended to be denigratory of the (very numerous) others with whom I have previously flown, but the standard of instruction, and of interest in the student's progress, was as high as I have experienced anywhere else and could certainly not fairly be described as cramming. On each of the four days flying was possible, the problem I encountered was of student fatigue not instructor fatigue.

Retrospectively viewed, I got more than I expected from my week at Hinton and I would suspect that there is no quicker route to learning the basics of gliding in the UK. The complete beginner will not, however, learn very much about ground handling nor will he develop the necessary philosophic approach to cope with a 15min wait for a tractor retrieve

SOUTHDOWN AERO SERVICES LTD.

SPECIALIST GLIDER REPAIRERS SINCE 1954

Repairs and major overhauls undertaken on all glider types and most PFA aircraft

Main agents for 'Aerolene' light heat shrink fabric

LASHAM AIRFIELD, ALTON, HANTS GU34 5SR

Telephone HERRIARD 0256 381359



Competitive Efficiency matched with Experience & Reliability

Insurance Advisers to the British Gliding Association
Contact: Chris Durrant 0603 660202 ext 7703



Sedgwick Aviation Limited

Victoria House, Queens Road, Norwich NR1 3QQ
Telephone 0603-660202. Telex 882131. Facsimile 0603-760826
A Lloyd's Broker acting as agent of SG Services Limited

from a far corner of the airfield only to find, on reaching the launch point, that the sixth cable has just gone but the cable retrieve tractor has not. More seriously, he will not get experience of such situations as landing simultaneously with other aircraft on a crowded field. On balance, therefore, the Hinton courses cannot be regarded as a substitute for the more usual club learning experience but they can, very usefully, augment it. It has been my assumption that that is how Mike views his operation.
ROGER GRIMES, *Halton, Nr Aylesbury*

GPS AND GLIDING

Dear Editor,

With reference to Julian Fack's article in the June issue, p130, it is likely that selective availability is made available to all in the next few years because many Congress men are pilots, and having spent many billions it is wasteful to degrade its performance. In the precision mode the error is half a metre with updates every second; this can be degraded by ionospheric factors to an error of 15m, but it is intended to set up a network of beacons at 70 mile spacing so that the half metre error will be maintained all the time. It will be interesting to see in five or ten years what use glider pilots have made of GPS.

Commercial aircraft will no longer use airways but fly direct to their destination and save a lot of fuel, so it will be incumbent for gliders to keep out of their way, or at least

declare their position by some kind of transponder, but since most commercial aircraft climb and descend fairly steeply there may be a freeing of airspace for gliding. I think the main application for gliders will be for thermal soaring, since it will be relatively simple to give the pilot a display which plots his circling track (correcting for wind drift) while colouring the track on the display in varying tones of red to green to indicate rate of climb. The pilot could then more readily decide where the best lift was and how best to stay within it.

There will be applications in straight flight depending on the ingenuity of the programmer to work out final glides, measure glider performance, etc, but for the money, thermal soaring will be the best bet. Curiously I don't think it will lead to a lot of records being broken, but it will make it easier for the average pilot to make flights which at present are only achieved by the more experienced pilots, and for them they can make big flights with less effort and concentration since the avionics will do most of the mental arithmetic.

BRENNIG JAMES, *Marlow Common, Bucks.*

COMMENTS ON THE JUNE ISSUE

Dear Editor,

It would be very useful to have a booklet of photographs of crops, like those of the "Get off my land" series, taken both from the ground and from the air, at various times of the year. When heading for the gliding club, I stop and

look at various nearby fields on the way. Having made a mental note of those of interest, I have another look at them from the air during the aerotow and when established in the first thermal. It is also very useful if you have some aerial photos, taken early in the year, of the fields surrounding your club. You can note any fields with unrecognised crops and have a look at them on the way home. It is not too difficult to keep up to date on the appearance of pasture and various crops in this way.

It can be quite difficult to distinguish between ripe standing corn and cleared long stubble. Both are golden and show the parallel dark tyre marks left by spraying. I look for the golden parallel tracks of crushed stubble left by tractors and combine harvesters, especially near the gateways.

In general, barley has the shortest straw, wheat comes next and oats should definitely be avoided — it can grow to well over shoulder height. The dwarf varieties of barley may be only about 2½ ft high and there are some short straw varieties of wheat. Barley generally matures first followed by wheat and then oats, but all show seasonal, altitude and local variations. Crops on hilltops may be two weeks behind those in the valleys.

While, in general, I share Mr Fack's enthusiasm for new technology, my feelings about GPS Satellite Navigation in gliders are rather mixed. One of the skills **required** of a glider pilot is that of **visual** navigation. While GPS could help with training, it must not be allowed to become a necessary prop, particularly in critical situations. Batteries and electronics can both fail and the pilot should anyway know where he is with respect to the underlying terrain.

It is unfortunate that GPS gives latitude and longitude, whereas the quarter million scale maps are overprinted with the National Grid!! Have you ever tried to completely unfold a map in the cockpit? Either this conversion should be provided or the maps should be overprinted with latitude and longitude.

GPS could be of considerable help when wave flying, but if clouds do close in under you, you do also need to know that there is sufficient clear air underneath them for the approach and landing. Artificial aids to navigation have not been allowed in competition flying so far. Taking a photograph of the TP is fairly cheap and simple. Quite a lot of work would need to be done to properly access the utility of GPS for gliders.

I seem to remember that powered aircraft are supposed to give way to gliders, so perhaps it was the military jets with all their high tech equipment, mentioned by Mr Fack, that should not have been flying where they were? Commercial collision avoidance systems require quite large lateral and height separations. If gliders had to carry a transponder, you might not be allowed to share the same thermal, let alone fly the other side of the same circle! If **you** would be happy to rely entirely on some distant computer for your safety, you have a **lot** more **faith** in computers than I have. Anyway, the number of calculations required by a collision avoidance system go up roughly with the square of the number of aircraft. A couple of



ATTENTION GLIDER PILOTS ATTENTION

**IF YOU REALLY WANNA MOTOR
GET CONVERTED**

**For the best deal in residential conversion courses
Ring Sue on 0280 705749 for details**

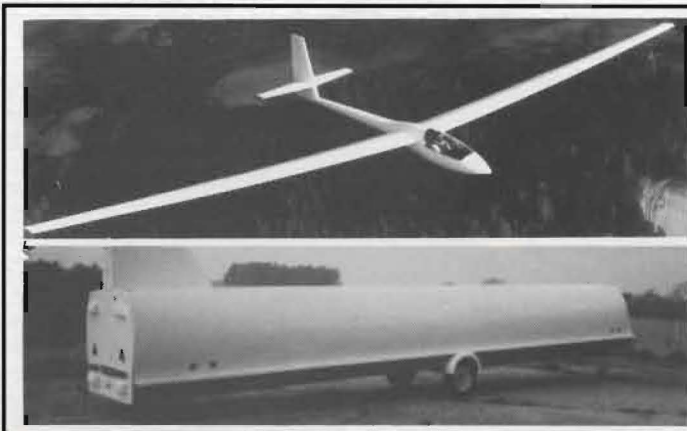
As well as the necessary Flying Training, Ground School, Examinations and Flight Tests, 1st Class Accommodation & Food — We now offer...

FREE FLYING TIME

That's right! If you need an extra few hours of flying,
we will not charge you a penny more

SLMG to PPL(A) Cost £850.00 inc VAT

SILVER(C) to PPL(A) Cost £1450.00 inc VAT



LAK-12

From Lithuania – a new sailplane for the Western market:

20.5m span – 2 piece wing – flaps.
 Fibreglass & carbon fibre construction.
 Max L/D 48:1 Tail dolly etc.
 Fully instrumented 42 gallons water ballast Rigging aids
 Empty weight: 820lb Superb fibreglass trailer Full C of A granted

Ideal for cross-country minded individuals and clubs

Inclusive Price: UK mainland £18000 (approx) for complete new outfit. Delivery 2-4 weeks.

Demonstrator available, contact agents:

BALTIC SAILPLANES Ltd.

Baltic Sailplanes Ltd., 46 The Woodlands, Market Harborough,
 Leicestershire LE16 7BW
 Tel: 0858 467723; 0536 85552 (office hours); 0536 81777 (evenings)
 Fax: 0858 467137

(NB: LAK 17 (15-17m flapped). UK Demonstrator expected soon)
 Send now for Technical Data Sheet. GET YOUR NAME ON THE LIST SOON!

ROGER TARGETT

Sailplane Services

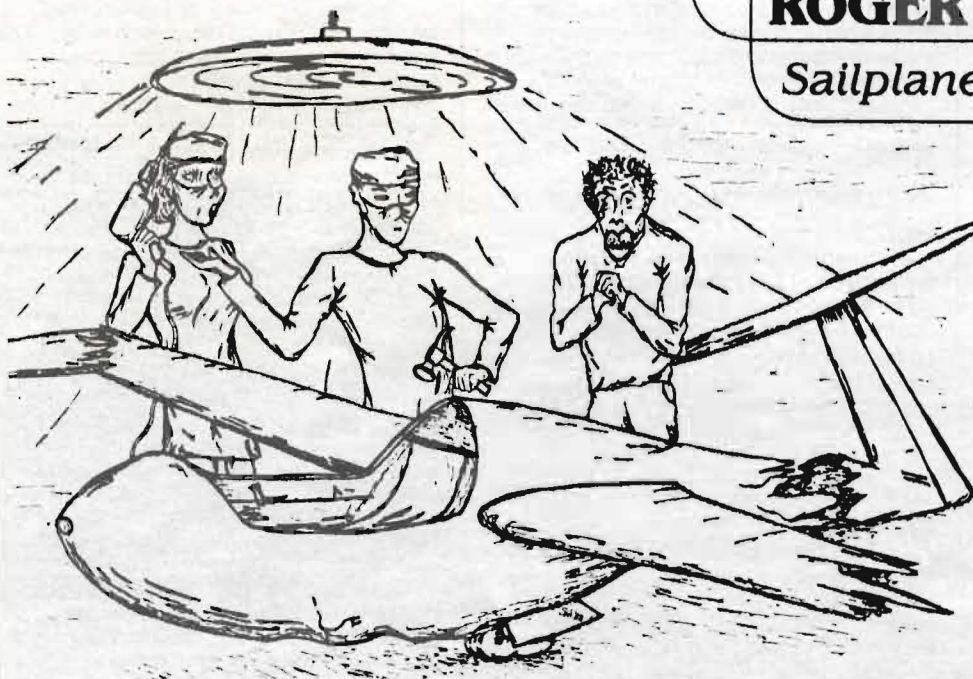


Sick Glider?

Then let us make it better!

Phone:
 Portable
 (0850) 769060
 Workshop
 (0453) 860861
 Home
 (0453) 860447

or call in to our workshop
 at the Bristol &
 Gloucester Gliding Club.



EB80: THE GLIDER PILOT PARACHUTE OF THE NINETIES

- Competitive price includes travelling bag
- Designed and built for long-duration comfort
- Clean, contour-styled pack and harness giving snag-free cockpit entry-egress
- State-of-the-art, fast opening canopy with optional steering
- Chosen by the RAF for ATC cadet glider training

For details contact:

Sales Department, IRVIN GREAT BRITAIN LIMITED

Letchworth, Herts SG6 1EU

Tel: (0462) 482000 Fax (0462) 482007 Telex: 82198 (IRVLET G)



thousand gliders airborne over the UK should saturate the system nicely. The Australians who required gliders to have transponders, are now asking for them to be turned off. I don't know the depth of Mr Fack's pocket, but even £250 would make a large hole in one of mine!

I am sorry that Mr Adlard did not include the name, number and station of the cop who gave him a road traffic ticket for landing out. He deserves the publicity! The lazy tripe hound could have called up the station and asked what, if anything, he should do. Isn't knowingly issuing a false document an offence?
CHRIS CHAPMAN, *Petworth, Sussex.*

ANY SUGGESTIONS

Dear Editor,

As a long time subscriber to S&G, I've enjoyed reading about the exploits of British pilots at home and on the Continent. Soon I hope to join them (and others), but I need some advice to make it go smoothly.

In 1994 my wife and I will go to Germany to take delivery of a new motor glider. We'd like to spend about six months travelling around Europe, flying the glider at every opportunity. My problem is how to do this without spending more on the travel than the motor glider!

A small camping vehicle seems like it would be ideal, as it would give us transportation, towing, lodging, and considerable flexibility, potentially at an affordable cost. The question is then, what vehicle and how to get one in (or to) Germany.

A VW van conversion like the Westfalia would be absolutely the smallest we could stand for six months, but with the \$4 cost of fuel and narrow streets of Europe it can't be a big American motor home with an eight litre engine, either.

Some have suggested buying a small motor home here based on the Toyota chassis and shipping it over there (shipping is about \$1000 each way), but we wonder about getting service for such a vehicle, what licensing or insurance requirements might be, and so on.

I'm hoping someone has experience with this sort of trip, but any suggestions or sources of information would be much appreciated!

ERIC GREENWELL, *222 Thayer Drive, Richland, WA 99352, USA*

GLIDING NEEDS PROMOTING

Dear Editor,

Why doesn't the BGA set up a body of professional members who are capable of promoting our clubs to the general public? TV, as we all know, isn't "user friendly" in our gliding circles and the media pay little or no interest in our activities. During these extreme recessionary times most clubs must be suffering with a 25-50% drop in income.

I have seen very little support from the BGA who should set the example of national promotions. The membership after all are their paymasters.

Advertising in the press serves very little purpose due to a tiny UK following, therefore why not concentrate on selected mail shots together with the full list of clubs with each mailing.

At Talgarth we have recently altered our road signs with a motive of a "proper" glider rather than the traditional sign stating "gliding", otherwise nowadays the public think it is either para or hang gliding. And these sports are certainly going from strength to strength - why!
JOHN ROLLS, *Talgarth, Powys*

(The member clubs are the BGA and several times in general meetings they have voted against expending more central funds on national promotion in the belief that recruiting is better served by local promotions. Incidentally, hang gliding has in fact suffered a large decline in membership during the last couple of years. Your obedient and ever so humble servant - Barry Rolfe (BGA administrator).

MY FIRST FIELD LANDING

Dear Editor,

On behalf of all full Cats, may I apologise to Martin Clegg for the negligent approach of the full rated instructor, who appeared to have forgotten about his total responsibility towards a student, that caused him to land out, without the benefit of that final briefing to refresh all he had learnt whilst qualifying for his Bronze badge, thus causing Martin to justifiably conclude his article in the June issue, p175, with an unheard of statement "Never trust a full Cat".

Thank goodness the incident ended happily, and the article usefully reminded us of the need

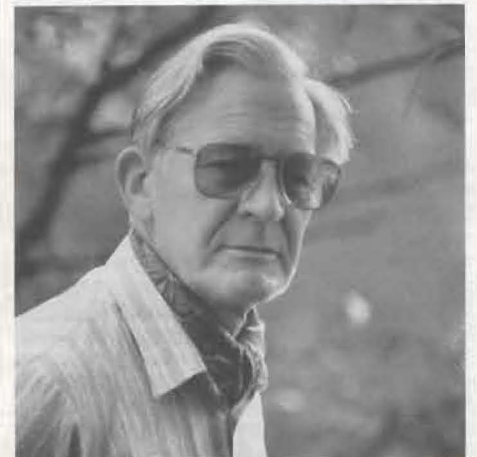
to properly brief pilots if we are about to set them a task, like lead and follow!! This can never be done effectively over the airwaves. Hopefully Martin will look back over his training and remember that some full Cats contributed to his skills, which enabled him to meet the demands made.

BEN BENNETT, *DCFI, Portsmouth Naval GC*

We welcome your letters but please keep them as concise as possible and include your full name and address. We reserve the right to edit and select.

BOOK REVIEW

Combat and Competition by David Ince. Published by Newton Books, PO Box 1999, Swindon, Wilts SN1 1ZA at £15.95 plus £1.25 p&p.



David Ince who is still seen flying an ASW-20 at Lasham - 50 years on from the start of his RAF pilot training.

I have always been fascinated to learn what various forces help to shape the personality and determination of the top gliding competition pilots. This book certainly does that.

David Ince has written his autobiography which explains very graphically his days as a wartime fighter pilot followed by test flying in aircraft and gliders. His pioneering days to help build what is now GEC Marconi Avionics, his battles in Air Transport, British Oxygen and his less than flattering views of our politicians are great reading.

The real bonus are the comprehensive gliding stories. From CFI at the Long Mynd, member of the BGA Council at the time of change, chairman of the BGA Airspace Committee, the long and close work with Elliotts of Newbury and the Olympia 4 series which caused Philip Wills and his "establishment" to be less than friendly and then wonderful reports of competition flying.

Definitely a "must" for any gliding buff keen to learn why, how, where and when!
WALLY KAHN

FLY A SUPER CUB!

CONVERT YOUR SILVER OR BRONZE C TO A PPL
GLIDER TOWING COURSES
TAILWHEEL COURSES



ACCOMMODATION AVAILABLE
FRIENDLY PROFESSIONAL INSTRUCTION
SPECIAL COURSE RATES
MICROLIGHT TRAINING

For more information contact:

MEDWAY FLIGHT TRAINING
FARTHING CORNER AIRFIELD, KENT. TEL: 0634 389757

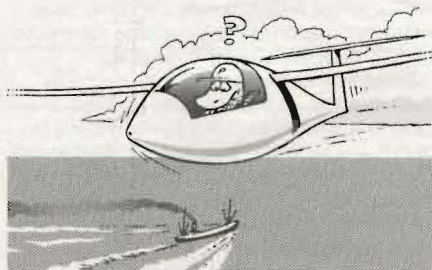
TAIL FEATHERS

Gormless Pilot's Salvation

I love our GPS. Yes, I know navigation by map-reading and intelligent deduction is an essential skill in gliding, and the next generation risks being robbed of a chance to develop that skill, but that's their problem. I've done it the hard way for 35 seasons and now I want the easy life, I've earned it.

The piece by Julian Fack in the June issue, p130, tells you a lot of what you want to know, though as he acknowledges things are moving so fast you will need an update every few months. (The Garmin 55 is the airborne version of the Garmin 50 shown in that issue and is not limited to 90kt. The Garmin 100 also has about 6hrs of battery life before recharging or plugging into the glider's 12 volt system.) In addition to the blessings to the wave flier – being able to relocate the lift or to be able to find one's site despite 100% cloud cover – I like the following:

- The wind component at a given height at a given time can be very precisely estimated, assuming you know how accurate your air speed indicator is. And calibrating your air speed indicator, if you have any doubts about it, is easy: all you do is spend a few minutes one day flying upwind and then downwind at a steady airspeed, then compare the ASI reading with the mean groundspeed on the GPS.



The hardest part of blind-flying.

- It's marvellous for coming out of cloud on the right heading, which I have always found the hardest part of blind-flying, especially if you are the daring sort who flies on a T&S only.
- I like the idea of being able, as you crawl towards the last TP in deteriorating weather and stygian visibility – in other words, on many a contest day in northern Europe – to register instantaneously the position of a freshly

cleared field of wheat with the certainty of being able to find it again if it should be needed. Not to mention the usefulness of having all landable airstrips programmed in be-



Messing about with waterballast.

fore the beginning of a competition. It is no exaggeration to say that the GPS, sensibly used, could pay for itself simply in reduced field-landing damage, let alone the other benefits.

Justin Willis has a remarkable set of printouts from a prototype Cambridge recording GPS – a black box which is primarily designed for the organisers to analyse after the flight rather than for the pilots to use in flight – which shows, with as much resolution of detail as one requires, the track of the glider around the TPs, so that as Julian Fack says in his article, the TP camera becomes redundant. Oh joy! The thing I hate most in Comps, even more than messing about with waterballast, is all the trouble with cameras and camera-brackets and the aerobatics and near misses over the TP and forgetting to wind on the film and having to go round again if you're not sure you pressed the button at the right moment etc, etc. Photography has nothing to do with gliding so, when the time comes, good riddance to it.

“...a spectator sport, in which the punters could watch, and bet on, the progress of the contestants...”

Some years ago I wrote a futuristic piece of nonsense about gliding as a spectator sport, in which the punters could watch, and bet on, the progress of the contestants around the course. The heights and positions of the gliders would be seen as a three-dimensional holographic display, little points of coloured light representing each aircraft. That is just about feasible right now: I'm not quite sure how the hologram would work, but in principle the three-dimensional data can be transmitted, collected and displayed now. Will all the bookies interested please form an orderly queue?

Oh, I nearly forgot the best thing of all: people who steal points from their rivals by sneakily climbing a few hundred feet – did I say hundreds? I've seen 'em take thousands – in prohibited airspace will be speedily brought to book and pilloried.

Then what GPS will really come to stand for is God Punishes Sinners.

Tailpiece: Brain surgeon wipes out memory

In a recent competition in France a famous transplant surgeon and ASH-25 pilot took with him as navigator a famous brain surgeon. (No, I'm not making this up, honest.) One day the navigator managed inadvertently to delete the waypoints, from the GPS, and was seen spending the afternoon – wet and windy and nothing else to do anyway – sitting in the rear cockpit of the glider in a far corner of the field, patiently re-entering all the latitudes and longitudes one at a time. There can be as many as 250 of the damn things, so the sooner the input-process can be automated the better. There will at least one keen customer.

Enterprising competitors

Some years ago during one of those rainy afternoons in the middle of a Nationals the pilots were given their customary opportunity for a whinge-in as a substitute for flying. Wearing my task-setter's hat –



A task-setter's hat.

What, you've never seen a task-setter's hat? Well, it comes only in Extra Large size, it's complete with ear protectors to prevent pilots from trying to bend your mind, built-in orange shades that make the sky look a lot better than it really is, and most importantly it's really thick to protect against very hard (or very wet) objects accidentally dropped from a great height.

– I asked them how they would like tasks that enabled them to get the best out of the day, but with a possibility that luck or unfairness might creep in. To a man they declared passionately that if there was the slightest risk of unfairness they would rather not fly at all, thank you very much. I found that rather depressing at the time, but it still took years for me to see the light and send in my entry for a contest in which there is no nonsense about fairness, in which held startlines don't exist and in which protests are outlawed.

What a splendid event Competition Enterprise is, what a splendid site Sutton Bank is, and what a splendid combination the two make! But you have to get used to the fact that Enterprise is like no other Comp. My first day in an Enterprise was a disaster owing to a failure to engage the brain. I landed back at 5.30, having fumbled the wave after a derisory little O/R, muttered “Oh well, that's that”, put the glider to bed and headed for the bar. It simply hadn't occurred to me that I could immediately relaunch into the east wind wave which was visibly full of gliders up to 10 000ft. These were to roam around for another three or four hours, covering as much as 400km before darkness herded them home. By the time I realised my mistake I'd grounded myself with

a pint of Yorkshire's best. Blast. Conventional competition tasks aren't like that. They're usually over by opening time. You don't have to think about where to go, when to go, what to do or anything. That's why they are so popular.

Some kilometres are more equal than others



Richard-the-Third mode.

The commonest illusion about Enterprise is that it is anti-competitive in spirit, and that contestants are too gentlemanly to trample their opponents into the dirt if the chance presents itself. *Au contraire*. The variations awarded for kilometres flown in different directions are so arbitrary and so large (a few degrees more to the west and your bonus can be 100%) as to encourage devilish ingenuity in designing your itinerary. It is only when the less cunning pilots struggle back at dusk, quietly pleased with their efforts, that they discover they have been stitched up by some chap who spent an extra 15min devising his point-maximisation strategy. This sort of scheming appeals to me enormously, and next year I will go into Richard-the-Third mode from sun up on day one.

Fair stands the wind . . . or does it?

At Enterprise the possibility of soaring the Channel is always in one's mind, John Fielden having prepared the way with the airspace bureaucrats. Many Enterprisers have in readiness passports, foreign currency and maps of France and even the Low Countries and Germany – so there is much earnest discussion and head-scratching in anticipation of The Great Day. The whole business is meteorologically trickier than I thought, leaving aside airspace problems. If you want to cover any distance on the other side you have to get to Kent by one o'clock, and then you might find that sea air compels you to start the crossing not at the coast but several miles inland. There will be sea breeze effects for even further on the other side, so you need enough altitude to cover twice the 20 miles of the Channel itself in order to arrive at the first usable thermals sufficiently high to work them. Well, with a 20kt tailwind and a modern glider, no problem, you say? Not exactly. In the 1985 Enterprise John Bally, starting from Sutton Bank, just scraped in with 700ft clearance¹ over Cap Gris Nez, having discovered that if the wind is more northerly than 300° it can change to a north-easterly half way across. Something to do with the wind being deflected by the landmass

¹That margin works out at less than one per cent of the width of La Manche measured at its narrowest point. To any one who has watched a J. Bally final glide, it was nothing special.

TRAVELS WITH PLATYPUS

The telegram arrived Saturday morning:

LE BLANC, FRIDAY STOP
LEAVING FOR ALPS SUNDAY STOP
BRING TOOTHBRUSH AND MAPS
STOP

PLATYPUS'

I love the Alps, but what about Platypus? His articles reveal obsessions with deadly sin, with love-hate relationships, pee-tubes, and cross-country gliding of a fairly coarse nature. And not long ago didn't he swear never to go back to the mountains?

What can we make of a "primitive Australian mammal with the muzzle in the shape of a duck's bill; small eyes; webbed feet; and a poison-secreting gland in a hollow spur." (Perhaps that's where he keeps his poison-pen.) However, here was a chance to see if Platypus really lives up to his literary persona.

Sunday morning saw me arrive at Le Blanc, just in time for Brian Spreckley's daily briefing. Shortly afterwards I was strapped into the back-seat of the ASH-25, and we were off in a roughly easterly direction. Roger N promised to leave soon afterwards with car and trailer.

We made steady progress, taking a rather northerly route to avoid the small fields on the flank of the Massif Centrale. By mid-afternoon we were in communication with Dickie F, who was floating around in the neighbourhood of Rôanne. I decided to test Platypus's resolve by hinting that we might join Dickie for the evening in that safe haven. Nothing doing!

An hour later we were attacking Mont Pilat, which separates the urban sprawl of St Etienne from the Rhône Valley. My efforts at ridge soaring in the gentle westerly were pathetic so I beat an ignominious retreat to the airfield of St Chamond and with Roger now underneath, the temptation to land was overpowering. Nothing doing!

Slowly, we made our way back to the summit, and over the top, forgetting in the excitement of the moment to tell Roger that St Chamond was no longer on the cards. He was now cut off from all communication by 5000ft of mountain!

The Rhone Valley looked blue and stable in the evening sunshine, but weak thermals brought us to the airfield at Valence, one of the gateways to the Alps. Platypus was for pressing

of the Kent peninsula. Maybe next year's venue at North Hill in Devon will provide the right conditions. It's a project with which to while away the winter evenings, if nothing else.

The more we discussed the problems of the crossing, the more astonishing seemed Geoffrey Stephenson's 1939 cross Channel flight in the Gull with a glide angle of about 20 at a best speed of 30kt. So I picked an account of that flight and the retrieve – as the *S&G Classic* for this issue. (See p266)

on, but this time I prevailed, on the grounds that the only way of communicating with Roger was to land and telephone!

Next day we flew on to Sisteron, where we made our base, and shortly afterwards found ourselves confronted by the famous Glacier Blanc in the Massif of the Pelvoux. In the narrow valley at the foot of the glacier there is hardly enough room to swing a cat, never mind an ASH-25! Undeterred, Platypus tackled the melting face of the glacier, climbing slowly, dominating first the ice, then the surrounding mountains, and finally the highest peak of the Massif (14000ft). I was beginning to suspect him of deliberately muddying the waters with those webbed feet.

My suspicions were confirmed by the incident of the missing statistics. Returning to Sisteron one evening I inadvertently switched off the Peschges before Platypus had time to recover the flight data. (Distance flown over the ground; distance flown through the air; total height gained; average rate of climb; average speed; per cent time spent circling; etc etc.) A veritable black-box which exposes the pilot's weaknesses; hardly the sort of thing to find favour by a real coarse glider pilot! His explanation, as he entered all the data into a large file, was that if he didn't do it he would get into trouble with his partner who, apparently, is a martinet!



A debriefing.

I had hoped that our short stay in the mountains would not be marred by any crashery, but it was not to be. We floated past no less than three wrecks on the tops of mountains! One occurred almost under our noses when a student from St Auban "landed" on the top of the local ridge. We joined a gaggle of Janus's circling like vultures over a carcass, while a 4WD vehicle carried off the poor student (unhurt) for a debriefing.

I've no doubt that Platypus dines out on these adventures, retold in his own way, but his carefully composed image is permanently dented. Perhaps I will be sued for defamation!

Lssoudun is what the South Africans would call a "top spot". It is about 120 miles south of Paris and takes about seven or eight hours on the road from Calais.

The airfield is a friendly place in every sense of the word. It has three smooth grass runways, good hangarage and excellent camping facilities. Best of all it has unafrightening terrain with no problems for field landings (except for June when there can be a shortage of cut fields).

I can't imagine a better place to fly your first foreign competition or indeed for this year's Overseas Nationals. It is not difficult to see why Brian Spreckley chose to base his European Soaring Club in this area. Brian, who directed the competition, greeted me by saying the weather had been "so good for so long." Most competitors arrived on Wednesday or Thursday to find thundery weather, however on Friday good cumulus developed and gave everyone a chance to look round the local area. Thus the scene was set for the perfect competition.

But two things were wrong. An area of low pressure was developing over southern France and above the happy throng of crews and competitors that evening hung a very thin moon.

***"The best gliding
always happens
under a full moon"***

The success of any competition normally depends on three things – the weather, the weather and the weather. Unhappily the weather that week was not to be. (The best gliding always happens under a full moon.)

However Day 1, Sunday, May 31 was workable and both Classes were set small tasks to the west; 207km for the Standard Class and 235km for the Open. Chris Rollings (Discus) restarted after coming across a large blue gap on the first leg. Although he took longer than expected to make a second start, his gamble paid off and he was able to catch up the field in better developed cumulus.

It was a soggy and rather moist airmass but nonetheless both Classes had plenty of finishers. In the Open Class Gilles Navas, flying *hors concours*, undiplomatically beat Chris Garton into what would have been 2nd place (both flying LS-6s). (It was Gilles who gave Brian a hard time in the World Championships in Benalla until the final stages of the contest.)

A scrubbed day followed as the low pressure established itself and began to move north. The next day, Monday, June 1, we were able to get away. The Standard Class all landed out on a 179km 0/R to Chenonceaux Castle with myself and Alister Kay (both flying ASW-24s) getting the furthest. The Open Class had six finishers on a 253km triangle and again Gilles would have won the day but Russell Cheethan (DG-600) was the actual winner. It really was very weak, variable and British.

The next two days were scrubbed as the weather clamped in. A feeling of frustration and

OVERSEAS NATIONALS

Issoudun, France, May 31-June 7

annoyance that we had managed to pick such a bad week was offset by the better class of scrubbed day you get in a place like Issoudun. On Wednesday we all attended a drinks party given by the mayor in the town hall.

Day 3, Thursday, June 4, gave Brian and his team a chance to shine. No less than nine tasks were set before we finally launched on a 129km triangle. It was the only area and the only time of day in which we could have got a task. Both Classes had finishers. Chris Rollings won the Standard Class and Chris Garton the Open.

Friday and Saturday were scrubbed. Friday did, however, have the non gliding highlight of the competition when Dave Richardson and my crewman Ian Griffiths organised an "It's a Knockout" contest. It was no impromptu event being superbly planned and conducted. To give you some idea what was involved, I met Mick Boydon in the supermarket that afternoon. He looked around furtively, then confided "We've been buying up maggots!".

But as for the competition, that was that. The overall winner in the Open Class was Chris Garton (2353pts), Alan Clarke (Ventus CT) was 2nd with 2160pts and Gillian Spreckley (LS-6a) 3rd with 2022pts. Gilles Nevas gained 2186pts. Chris Rollings (2001pts) won the Standard Class, Phil Jeffery (LS-7) was 2nd with 1728pts and Eric Smith (LS-4) 3rd with 1644pts.

The drive north the next day, in excellent soaring conditions, served to show just how unlucky we had been. It is interesting to note that at the competition forum held during the week, when we were asked if we would attend another Overseas Nationals and continue the concept, there was an almost unanimous vote in favour. Especially surprising as it was on the third scrubbed day out of five!

It was easy to see how good that week could have been given only moderate weather. It was also felt that if we are to keep this concept going (and I hope we do), we should really go for it and hold it later in the year if possible and to make it at least ten days, since the extra days wouldn't be much more expensive given the fixed costs involved. Also, the chances of bad weather would be reduced. Understandably it is probably the people who were not there that might be the most difficult to convince.

The hospitality of the Issoudun club was remarkable. As Chris Garton said, "Would any club in Britain be happy to donate its club to a mass of French people for a week." Our sincere thanks go to the whole of the Issoudun team,

especially M Du Manoir, the club's president, M. Lemand, the chief pilot and M. Pussange, the tugmaster.

The congratulations to Brian and all his helpers is much more than the customary formality. They really did achieve the remarkable feat of making the competition a success in spite of the weather. Brian is an excellent organiser and motivator. His team were largely new to the game but it didn't show. Even the competitors were strangely good natured and uncomplaining!

Finally, in despatches, the following deserve a mention. Gill Spreckley is becoming alarmingly good at cross-country gliding. Chris Rollings is on form and gave the impression he would have won the competition however many days it had. So is Chris Garton who recently won the New Zealand Nationals. Eddie Downham would have been 3rd overall had his photo of Bourges railway junction on the last day not been obscured by heavy rain, and what Mick Boydon doesn't know about marginal final glides just isn't worth knowing!

PAIR FLYING

Alister Kay and I have flown together for many years and on occasions had very successful flights (I am talking now about two gliders). This year we planned to formally fly the Overseas Nationals as a pair entry. We decided that if we were going to do it, we would do it properly and agreed to start and finish together or land in the same field, come what may. We had managed to get in a fair amount of practice this year but nearly all of it in very weak weather.

The test of pair flying is just the same as individual flying, namely results. It has to be said that up until now we have failed this test. Although we did win one of the three days at Issoudun, the other two were disastrous.

For reasons we haven't figured out yet we can only get it to work some of the time. There is a lot more to pair flying than just looping out and searching for thermals. Perhaps the most significant difficulty is what to do when a difference of height develops.

The simple answer is to use that height to help the lower glider. But how? We have tried the obvious things and all of them have worked well sometimes. When they do work it is very very satisfying, but when it doesn't it becomes incredibly frustrating. In fact after a few weeks of flying ➡

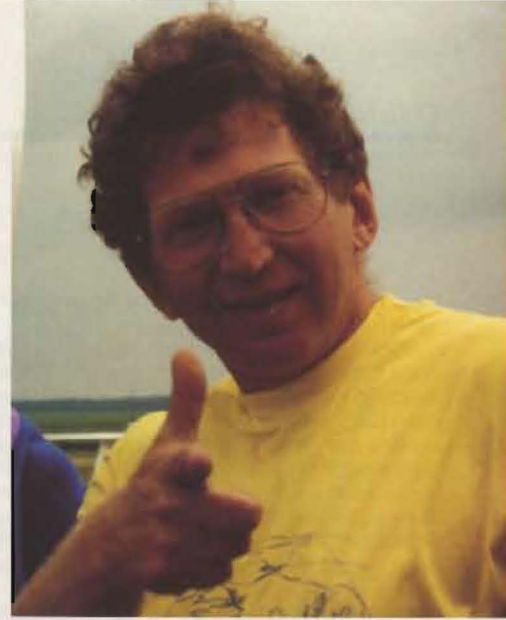


A↑

B↓



D↑



F↑ G↓



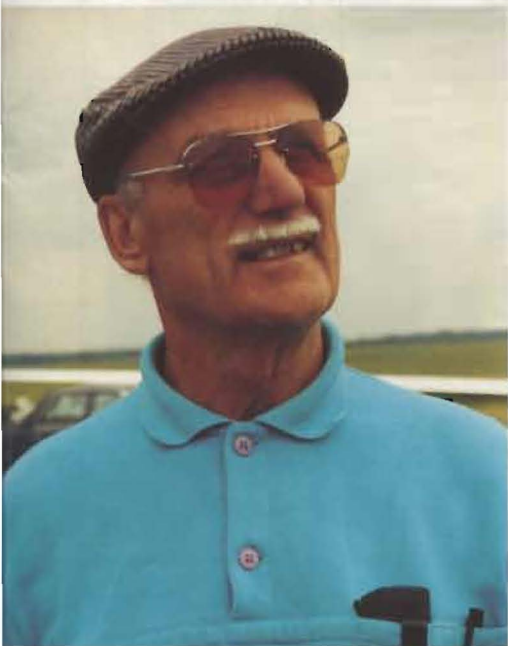
C↓

Photographs by Michael Bird
A. Alister Kay. B. Dave Watt. C. William Malpas.
D. Chris Garton the Champion. E. Michael Thick.
F. Bruce Owen. G. Gillian Spreckley. H. Brian Spreckley talking to M. Lemand, the chief pilot.

E↓



H↓



together it is an absolute joy to be on one's own again!

So why do we bother? Well, the answer lies in the remarkable success of other teams. I have flown against the Poles and the French and have been deeply impressed by their pair flying. I can recall a day in the 1990 European Championships when I managed to sandwich myself in between what must be the best pair flying team there is, namely the Poles Janusz Trzeciak and Franciszek Kepka. I had a flight that was like riding the crest of a wave! Also in Texas last year the French were very impressive.

The other problem is that very few people have ever tried it properly. Most top glider pilots may have given it a half-hearted go at some time or another, but I would suggest that it takes years of practice before the results come.

Some years ago when Alister and I picked up our gliders from the factory, Alexander Schleicher talked to us about slipstreaming. By this he was referring to the practice of flying like migrating birds with the wingtip of one glider in the vortex of a glider in front. Although this captivating idea isn't new, it was rather fascinating to us.

Found that in certain conditions the effect was very noticeable

It remained dormant for a long time, however last year we began experimenting and were both surprised to find that in certain conditions the effect was very noticeable providing the air is fairly still and the airspeed low (below about 65kt).

The glider following must be flown in the correct position with the wing overlapping about 6ft with a similar distance behind the lead glider. The effect is such that in only a matter of 30sec the glider following will have gained the height to be able to push forward under the wing of the leader so that the roles become reversed. In this way it is possible to improve the glide angle of the pair from about 40:1 to nearly 50:1. (Our thanks to Mike Cuming for the technical info on this.)

Now I am not suggesting that this is a practical possibility for general contest flying. For a start any form of manoeuvring is not really feasible. Also, we normally are flying at speeds that produce a tip vortex that is too small to work with, and in almost all conditions it would be too tiring not to say dangerous to fly in close formation due to general turbulence. However, every now and then the conditions are right.

Once during the contest at Issoudun we were able briefly to make use of it, but one day perhaps it might get us both home on a long marginal final glide. Now I challenge any glider pilot not to be fascinated by such a prospect. Both Alister and myself intend to persevere with pair flying, at least until we have flown at least one good long competition. (It isn't exactly a hardship since 90% of the time it is more fun than flying on your own.) The one thing I am certain of is that no one in this country really knows anything much about it and I suppose until we bring in some results nor do we.

**FINAL RESULTS
Open Class**

Pos	Pilot	Glider	Day 1.31.5 235km ▲ Port des Piles, La Roche Posay			Day 2.1.6 253km ▲ Port des Piles, Villefranche Sur Cher			Day 3.4.6 140km ▲ Romorantin, Bourges			Total Pts
			Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	
1	Garton, C.	LS-6	76.7	1	1000	57.2	3	621	67.9	1	732	2353
2	Clarke, A. J.	Ventus C	69.4	3	928	64.6	2	659	54.3	8	573	2160
3	Spreckley, G. M.	LS-6	65.9	4	895	56.4	=4	617	46.9	12	510	2022
4	Malpas, W. E.	ASH-25	60.2	6	839	56.3	=4	617	50.2	11	526	1982
5	Murphy, T.	ASW-20	61.5	5	852	(116.7)	11	203	57.3	3	608	1863
6	Pozerskis, A.	LAK-12	(161.6)	15	481	49.5	6	583	54.0	9	570	1634
7	Cooper, B. L.	LS-6	(219.6)	18	594	(200.3)	7	378	57.1	6	586*	1556
8	Boydou, M. V.	Nimbus 3d	51.7	8	756	(114.1)	13	164*	53.8	10	567	1487
9	Bird, M.	ASH-25	(161.4)	18	421	(195.7)	8	368	61.5	2	657	1446
10	Gaunt, R.	Kestrel	(281.8)	11	541	(166.1)	9	306	54.5	7	575	1422
11	Richards, E. W.	Janus CE	78.5	2	939	(122.6)	18	215	(91.6)	15	200	1354
12	Dobson, J. B.	Ventus	(199.9)	12	535	(107.3)	12	183	55.4	5	587	1305
13	Hawkins, P.	LS-6	(188.6)	14	502	(73.7)	15	113	56.1	4	594	1209
14	Cheatham, R. A.	DG-600	(172.4)	17	454	66.2	1	667	(34.8)	18	41	1162
15	Thick, M.	ASH-25	52.2	7	760	(84.6)	14	135	(114.6)	14	264	1159
16	Manwaring, A.	ASW-20cl	(176.8)	16	464	(48.8)	18	44	44.2	13	455	963
17	Burry, J.	LS-6	51.3	9	751	(64.5)	17	93	(35.3)	17	43	887
18	Slater, T.	Janus C	(193.1)	13	515	(65.6)	16	96	(65.3)	16	90*	701
<i>Hors concours</i>												
	Navas, G.	LS-6	80.5		1037	66.7		669	46.3		480	2185
	Dumanois, M.	ASH-25	65.3		888	(0)			DNF		888	888

Standard Class

Pos	Pilot	Glider	Day 1.31.5 207km, Chatillon sur Indre, La Roche Posay, Chatillon sur Indre			Day 2.1.6 179km O/R Chenonceaux			Day 3.4.6 129km ▲ Villefranche sur Cher, Bourges			Total Pts
			Speed (Dist)	Pos	Pts	(Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	
1	Rollings, C. C.	Discus	86.4	1	982	166.5	6	440	62.8	1	579	2001
2	Jeffery, P.	LS-7	83.0	2	931	108.4	10	265	52.6	3	532	1728
3	Smith, E. R.	LS-4	78.6	7	867	106.9	=11	261	49.2	5	516	1644
4	Cuming, M. F.	LS-4	80.9	3	900	168.6	4	446	(86.9)	15	247	1593
=5	Kay, A. E.	ASW-24	71.1	=11	756	173.9	=1	462	(97.1)	=12	285	1503
=5	Watt, D. S.	ASW-24	71.1	=11	756	173.9	=1	462	(97.1)	=12	285	1503
7	Glossop, J. D. J.	Discus	70.5	13	747	95.3	22	226	50.8	4	524	1497
8	Toon, R. J.	Discus B	65.0	22	665	105.5	=13	257	59.7	2	565	1487
9	Crabb, P. G.	Pegasus	80.1	5	889	59.5	29	118	40.8	9	478	1485
10	Weir, N. A.	Discus	68.1	16	712	105.5	=13	257	45.5	6	499	1468
11	Downham, E.	LS-7	88.8	4	898	170.7	3	452	(49.5)	=24	109	1459
12	McAndrew, G.	DG-300	66.7	19	691	94.1	23	222	44.9	=7	496	1409
13	Arnall, R.	Discus	76.8	8	840	108.8	=8	267	(78.9)	20	218	1325
14	King, P. A.	LS-7	71.9	10	767	168.3	5	445	(49.5)	=24	109	1321
15	Smith, G.	LS-7	75.7	9	823	97.0	20	233	(79.2)	19	219	1275
16	Wall, N. H.	Discus	64.9	23	664	108.8	=8	267	(97.1)	=12	285	1216
17	Langrick, D. J.	LS-4	64.7	24	660	38.3	30	55	44.7	=7	496	1211
18	Angell, J.	SZD 55	68.7	15	720	102.5	17	247	(84.1)	17	237	1204
19	Payne, R.	Discus B	66.8	18	692	105.5	=13	257	(73.3)	21	197	1146
20	Darby, M.	LS-4	67.9	17	708	98.0	19	234	(73.0)	22	196	1138
21	Cockburn, D.	Discus CS	60.9	26	556*	95.8	21	227	(111.7)	11	339	1122
22	Kinglerlee, J. C.	LS-7	78.8	6	869	82.3	24	187	(29.5)	=26	35	1091
23	Crabb, S. J.	LS-7	68.9	14	723	110.5	7	272	(18.8)	=29	985	995
24	White, S. A.	LS-7	66.6	20	689	105.5	=13	257	(29.5)	=26	35	981
25	Owen, B.	ASW-24	58.3	25	586	76.4	25	169	(81.0)	18	226	961
26	Bridges, R.	Pegasus	66.4	21	686	101.7	18	245	(0.0)	=29	931	931
27	Olander, S.	LS-7	(180.2)	28	280	65.5	28	137	40.0	10	474	891
28	Davidson, R.	LS-4	(80.5)	30	106	106.9	=11	261	(84.8)	16	239	606
29	Strange, R.	ASW-24	(140.9)	29	211	73.4	27	160	(59.6)	23	146	517
30	Hibberd, G.	LS-1f	(192.3)	27	301	75.4	26	166	(23.2)	28	12	479
<i>Hors concours</i>												
	Nortler, T.	Pegasus			297			0			0	

*=penalty; DNF=did not fly. BGA Competition Scoring Program by Crabb Computing.

SKYLAUNCH WINCH

400HP 7.4 litre Chevrolet V8 Engine thru- Standard 3 Speed Automatic Gearbox and Torque Converter:

Excellent Acceleration and accurate Power Control.
Reliable running and Odourless exhaust from cheap clean burning Propane Fuel.

High Quality Engineering and unique Sprung Cable feed produces Launches of exceptional Smoothness.

Easy Maintenance, simple design, dependable Operation.

Simple controls in a comfortable air filtered cab with heating makes for pleasant, easy driving.

Single or Twin Drum Winches at £32,000 and £35,500 also Retrieve Winches to provide complete Launching System.

Come and See One in operation at the Midland Gliding Club



"It's like going up on Rails!"

Designed and built in Britain by

D & M ENGINEERING

WESTLEY FARM
BAYSTON HILL
SHREWSBURY
SHROPSHIRE SY3 0AZ
Tel: (0743) 874427
Fax: (0743) 874682

A newly revised and rewritten version of the Sporting Code – Section 3 comes into force on October 1. It is the result of about three years' work by a small international working group headed by Tor Johannessen of Norway (a vice-president of IGC) with contributions from all over the world. BGA and Ian Strachan contributed greatly with word processing and content. In many cases explanatory notes have been included to assist interpretation.

Some of the alterations are listed here, but this article cannot hope to cover all the changes made, as each paragraph has been looked at closely. Very few are completely untouched, but in the main their sense is still the same.

The changes listed here are some of the more significant, but a close study of the new version of the Sporting Code may well pay dividends before a badge flight from October 1 onwards.

1.2.3.1 A definition of soaring performance is included.

1.3.2.1 Free distance flight. A new record type "free distance" is included later in the Code. It is defined as a flight *via* up to three TPs, but excludes polygons and multiple laps.

1.4.7 A zigzag course (*via* one TP) is renamed "broken leg course". (It had a "zig" but no "zag"!)

1.4.8 The "optional three TP course" was previously covered under badges, but is now defined under "courses". A limitation has been imposed that TPs must now be at least 10km apart. (Previously no separation was specified.)

1.5 Remote departure (also remote finish and TPs). Provision has been made for new instrumentation (such as a global positioning system) to prove start (etc) positioning. This rule can only come into effect after the instrumentation is approved by IGC.

1.8.7 Return to departure point. In busy airspace (Lasham was quoted as such a place) it is prudent to separate the start and finish lines for safety reasons. To complete a closed circuit flight it has been decided to allow a separation of up to 10km rather than insist that the start and finish be within 1km of each other. It should be noted that the distance flown is still measured from start to finish point and the 10km separation cannot be used to decrease the distance flown around a three TP triangle. The distance claimed for the distance around the three TPs must be less than the distance actually flown from start to finish. This 10km (or less) separation applies only to the definition of a "closed circuit" where a "return to the departure point" is required.

2.7.2 Use of the time recording camera. A sequence of photographs is set out where a time recording camera is used. It includes shots of the official time clock before and after the flight.

2.7.3 Photographic control method. The use of hand held cameras for photographic evidence is no longer permitted. Cameras must be mounted on the glider. Sealing the camera on the

WHAT'S NEW IN THE SPORTING CODE?

Ross, a New Zealander, was a member of the *IGC working group who updated the *Sporting Code*. For the last 20 years he has been his country's FAI awards officer for which he was awarded the Paul Tissandier diploma in 1988. He is currently living in England and flying with the Cambridge University GC

mounting is required except for badges where the same OO (official observer) controls the pre flight photos and the processing of the film. All time recording cameras must be sealed on the mounting.

2.10 Barographs. The temporary amendment allowing the use of electronic barographs will now apply to September 30, 1993, but has been extended to include use on all badge flights. Record flights may not rely on electronic barographs – yet. A new rule will be introduced on October 1, 1993, clarifying the use of these barographs.

2.11.4.1 Distance measurement. Formulae acceptable to the FAI for accuracy are included to allow calculation of distance.

2.1.2.2 Altitude difference – start and finish. The altitude difference allowable for both speed and duration flights is defined as 1000m. If this is exceeded the claim will not be valid. There is no penalty reduction as there is in a distance flight.

3.2.3 Types of records. The new record of

"free distance" will go to the first accepted claim of over 1000km after September 30. (The code will say after October 1, but a flight on October 1 will be acceptable.) Triangular speed records of 1500km and 2000km are provided for as are national O/R speed records over the same distances.

4.2 Badges. The Silver distance of 50km may be claimed if it is one leg of a longer pre declared course. The 2000km badge and diploma have been created and the FAI will maintain a register of 2000km flights.

5 Motor gliders. This chapter has received an extensive rewrite. Self sustaining motor gliders may now be used for records and badges under motor glider rules.

7.1.3 OOs – competence. OOs must be "knowledgeable in the FAI Sporting Code and have the integrity, skill and competence necessary to control and certificate glider and motor glider flights without favour. Before being approved by the NAC (National Airport Control) the OO should be given briefing or training appropriate to the duties of an OO."

7.1.5 Conflict of interest. "OOs may not act in such capacity for any record or badge attempt: a. In which they have any financial interest or b. In which they are pilot or passenger." An explanatory note indicates that ownership of the glider or motor glider shall not be considered to be "financial gain."

8 FAI claim forms. New claim forms are included for record claims. Photocopies of these forms (if used) must have all the pages of each form used on one sheet of paper.

Best of luck!

**International Gliding Commission*

GLIDING EXHIBITION

The International Gliding Exhibition at Valbrembo, 40km east of Milan, Italy is on September 19-20. It started as a second-hand glider market and has since developed into a shop window for new sailplanes, instruments, equipment and even airfield clothing.

Portmoak
Scottish Gliding Union Limited

Post solo courses available from April.

- *Ab-Initio* & AEI courses also available.
- All year round soaring in thermal wave & ridge.
- Launching by winch and aerotow.

For Details Contact ;
The Secretary
Scottish Gliding Union
Portmoak Airfield
Scotlandwell KY13 7JJ
059 284 543



In the early days of the late 1940s and 50s convection and lee waves were thought of as two separate phenomena which were mutually exclusive. Convection was believed to halt wave activity and nobody looked for waves above a field of cumuli. Now pilots often find waves above cumulus cloud and some waves seem to require convection to initiate them.

Cloud streets and waves

One of the earliest observations of waves above cu was made in Germany. A pilot flying fast under a cloud street pulled out to one side to avoid entering cloud. Instead of finding sink he continued to climb. The climb went on until he was high above the cloud streets. The first Met man to learn about this unexpected phenomenon tried hard (but unsuccessfully) to find some sort of high level cloudless thermals to explain the lift. Then it was noticed that the high level winds were blowing across the streets. The streets were acting like a series of ridges producing waves in the flow aloft.

American studies – waves parallel to cu streets

Many years later these waves were studied in great detail in the USA using several aircraft. It was found that there could be a difference of up to 20kt between the speed of the cu and the wind blowing across the streets. Wave lift was detectable up to 30000ft. Cloud streets were not essential; streets of blue thermals had the same effect.

Individual cumulus clouds can also produce waves provided there is a wind shear over them. A strongly growing cumulus moves at the speed of the wind low down where the thermal first became organised. As the cloud rises the stronger winds aloft blow round the side or over the top giving rise to waves. With individual cu the effect is lost when the cloud stops growing and such waves are usually short lived. A 3-D mathemati-

Photo C ↓. Big cu building up from a wave bar NW of Crieff. The lenticular was just above 17 000ft.

SKYWATCH – A Beginners Guide to Clouds

Part 5

This is the second half of looking at wave clouds following on from the article in the last issue



Photo A ↑. Pattern of lee waves (across the picture) with cloud bands at right angles lying up and downwind. Taken to the lee of the Black Mountains.

Photo D ↓. Big cu from 10200ft marking wave, looking N from the Ochils.



cal model suggested that wave energy produced when the cu tops bumped into a stable layer could be radiated up to levels near the stratosphere and then reflected back to the cumulus level. The process takes an hour or two, perhaps longer, but the result is that cumuli are damped out under the descending wave and boosted by wave lift. The feedback process can control the size and spacing of cumuli.

Experience in the UK – waves across cu streets

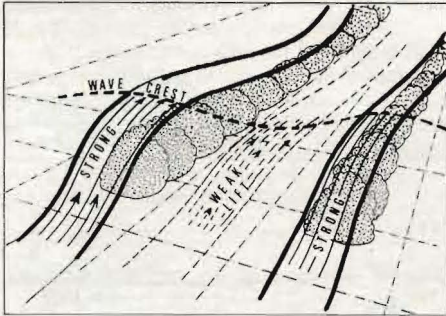


Fig 1

In the UK it seems much more common to get waves over cu streets when the upper wind does not change direction aloft. In this case the wave bars lie across the cu streets, not parallel with them as the Germans and Americans found. Fig 1 shows a 3-D sketch of the UK type of wave flow. The wave is not often marked by any lenticular; the subsided air above the cumuli is usually too dry. The upwind end of a street may mark the position of the first transverse wave. Although the wave lift goes across the gap between cloud streets it is apt to be weaker there; the best lift lies over the cu. Getting into the wave is difficult at low levels. One needs to be right up to the cloudbase before pushing forward into the wave; entry is easier from a cloud climb.

The waves aloft broaden the cloud street under areas of wave lift and narrow it under wave sink. The sink may be strong enough to break

the cloud street. Then one can get into wave at the downwind end of the break. The initial climb is usually very slow. It may be interrupted by detached clumps of cu blowing across the wave gap. If you are lower than these cu tops the wave lift tends to disappear when the cloud arrives. These cu can be avoided by moving to one side or the other until the cloud has passed. The lift is usually even weaker between the cloud lines but it can be used to maintain height until the intrusive cloud has passed.

Streaks across wave bars

Occasionally the well defined cloud streets dwindle into mere strips of cloud lying along the wind and at right angles to the wave bars. Photo A was taken looking into wind to lee of the Black Mountains. The wave bars run from left to right but the pattern is complicated by the appear-



Photo F↑. Breaking wave near Dollar seen from about 7500ft. The wind was from l to r and the cloud top curled into wind with a reversed rotor under the wave crest.



Photo E↑. Wave over big cu seen from 18000ft over the Ochils.

Photo G↓. Irregular wave humps in cloud tops seen from 13800ft near Aboyne. All ➡ photos taken by Tom.



ance of weak streets at right angles. A few hours later the wave bars had almost vanished but there were well formed cloud streets.

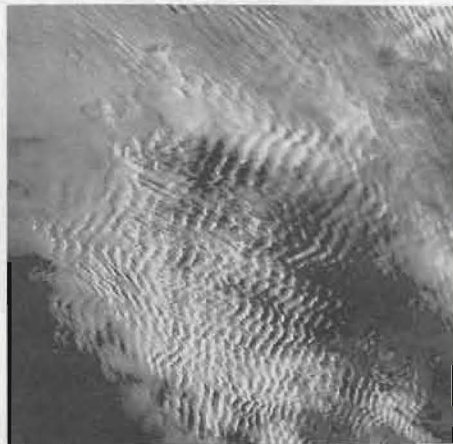


Photo B.

Photo B shows a satellite view of the area NW of Portmoak. Here the same sort of cloud streaks were aligned NW-SE with the wind and at right angles to the larger wave bars which lay NE-SW.

Big cu building out of wave bars

Waves are found even when the air is noticeably unstable. Fig 2 shows normal wave bars

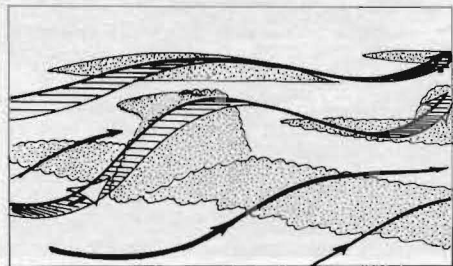


Fig 2

where the regions of much stronger lift have produced a large cumulus growing out of the bar. This stronger lift then formed a lenticular cap over the cu just above 17 000ft. Photo C (from a Kodachrome) shows the view looking NW from near Crieff. The upper air sounding showed hardly any depth to the usual stable layer in middle levels.

Waves which depend on cumuli

On days when conditions are just outside the range for normal waves the start of convection may initiate the wave. The sequence is illustrated in Fig 3. The numbers on the left indicate the approximate time of each stage. In the early morning when the valleys are filled with cold air the low level flow becomes blocked. The cold, dense and very stable air is reluctant to climb up over the mountain ridges. It prefers to find an easier way round by a valley. There may still be a fresh breeze over the hill tops but no slope lift. This cold air also prevents any wave flow from dipping down into the valley.

When the sun has warmed the ground for several hours (by about 11am) cumulus appear over

the mountains. They build there first partly because sunny slopes get more heating and partly because the hills are usually drier than the valleys. These early cu remain anchored to the high ground for some time. Individual cells keep growing over the ridges, are carried away by the wind and decay over the cool damp valleys. Time-lapse photography shows this cloud motion but to the casual observer the bank of cumuli seems to be a permanent feature over the ridges. As a result the ridges are effectively extended upwards by this belt of mountain cu anchored over them.

As the growing cu push up into the stronger winds aloft they start off a wave. Presently the low level block of cold air is warmed out by sunshine; this allows the wave to sweep down into the valley. Slope lift then begins and one may go from slope into waves in front of the growing cu. Pilots launched just after cu first appear can climb higher and higher as the cu builds up until they are well established in wave lift above the

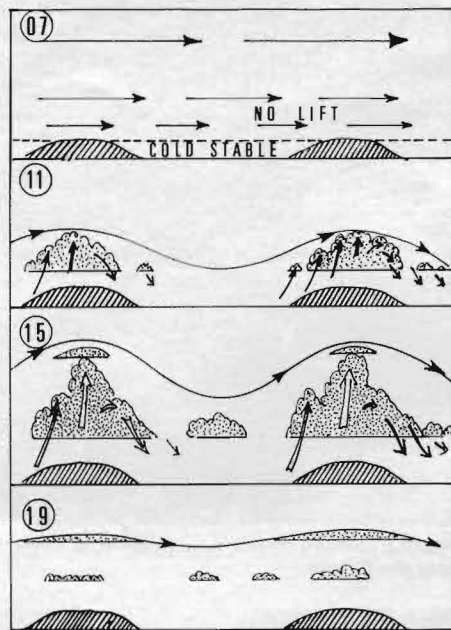


Fig 3

cumulus tops. Late arrivals may not be so lucky. By the time the cu has grown big the clouds are no longer confined to the hills but extend across the valleys as well. The wave lift disappears low down and the only way to reach it is by a cloud climb, which is apt to drift you downwind into the wrong part of the wave. High up above the cu the wave is still active. In the evening the cu die out leaving thin strands of stratocu and some high lenticulars which provide little lift.

Waves after showers

There is another way to get into wave lift on these days of deep convection. This is after a heavy shower has passed. The departing cumulus leaves a band of subsiding air behind it, together with a well wetted ground which inhibits thermals. At this stage the wave is able to reach down to lower levels where one can get in from an aerotow. Photos D and E show the tops of

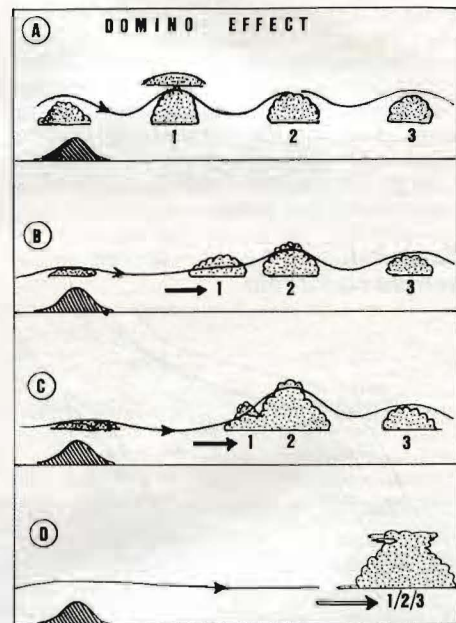


Fig 4

big cumuli over and to the NW of the Ochils. These built up a couple of hours after a shower had brought the wave down to low levels. A big bank of cu had settled down above the Ochils but it is hard to see any pattern to the wave upwind. The clouds had been big enough to produce a thunderstorm to the SW earlier in the afternoon.

Wave collapse after end of convection

On days when waves are initiated by cumulus the end of convection can also mean the end of waves, or at least a big decrease in wave lift. Over the Highlands of Scotland the dispersal of big cu may leave an evening sky with elegant lenticular clouds, none of which gives strong lift. To lee of the lesser hills of Wales the end of convection sometimes leads to an uprooting of all the wave bars. What seems to happen is that the wave collapses but the bars of cloud take longer to decay. The original wave clouds then start to drift off station. A sort of domino effect then follows.

The domino effect

This is illustrated in Fig 4. As the waves end the firmly anchored cloud bars lose their moorings. A deep wave bar does not instantly evaporate, it starts to drift downwind. The cloud would normally disperse as it drifted back into sink but when the wave motion has ended there is no marked sink so the cloud persists. It can be disconcerting if you are tracking up a previously reliable wave bar (No. 2 in the sketch) and find the wave gap filling in as bar 1 approaches. Going across to the front of bar 1 is no problem because the sink has vanished. So too has the lift. If (like me) you are a little slow in the uptake you persist tracking along the now defunct wave until bars 1 and 2 drift back into bar 3. The trio produce quite an impressive cloud bank, but still no lift. Finally a view of the ground shows that you

and the cloud bank are going downwind too fast for comfort.

Wave steepening

Most of the early wave diagrams show regular sinusoidal streamlines with the upslope symmetrical with the downslope. This is a perfectly good pattern; it shows up very well when there are small amplitude waves under a strong inversion. On these days the wave shape is well defined by the top of the stratocumulus layer and it usually looks symmetrical. Some of the larger amplitude waves are not symmetrical. When the phase lines tilt upwind, as they often do in mountain regions, the upslope is steeper than the downslope. The spacing of streamlines is wider on the upslope than on the downslope. As a result one finds strong lift with very little drift on the climb but going across to the next bar brings you up against a much stronger wind. Fig 5 is one example of these asymmetric waves. The

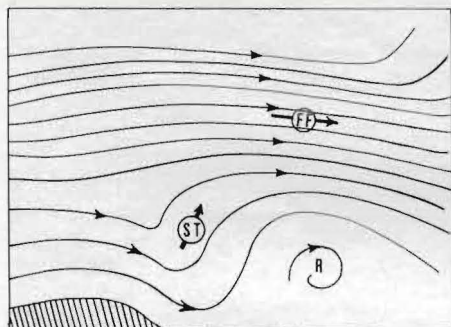


Fig 5

streamlines steepen just to lee of the mountain slope at ST. Higher up and further back from the ridge the streamlines slope downwards at a gentle angle but they are much closer together. Closely spaced streamlines indicate stronger winds. There is a much faster flow in the region around FF. This is apt to make going to the upwind wave a painfully slow process.

Wave overturning and breaking

The upwind side of a wave usually steepens after passing over an asymmetric ridge which has its highest part near the lee side. The ridge profile has a gentle ascent to the summit and then drops much more steeply to the valley beyond. Steep lee slopes often generate steep lee waves. The steepening is increased when the wind speed decreases upwards. Too much steepening and the wave overturns and breaks. Fig 6 shows a 3-D sketch of a series of shallow waves behind a ridge which has gentle lee slopes for much of its length but a short stretch where the ground profile is much steeper. The Ochils have such a shape; the section near Dollar is higher and steeper than the Portmoak end. One October day when the wavelength was just right, the wave flow first became vertical and then toppled over into wind. This process was aided by the winds which decreased between about 6000 and 8000ft. Whenever the wind profile shows a decrease with height there is a chance that the wave will steepen and break. Photo F, which was taken looking eastwards near Dollar, shows the top of the cloud curling

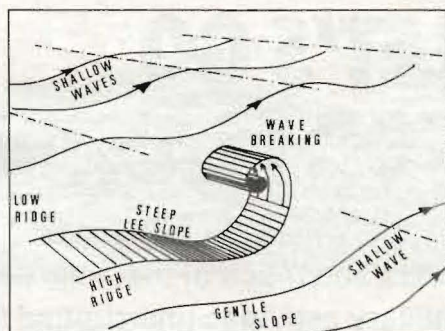


Fig 6

over into wind as the wave breaks. Underneath the curl-over was a reversed rotor giving much turbulence. Above the cloud top there was still some lift, and apparently no wind at all. One could circle up as if in a thermal.

The NW face of the Black Mountains also has a long steep slope. Easterly winds have produced similar wave steepening close to Talgarth. The wave cloud may have an almost vertical face to it and, as at Dollar, these conditions give next to zero wind beside the cloud.

Irregular waves

Cross-country wave flights are much easier when there is a well defined wave pattern with a series of nicely separated wave bars to track along. These are most likely when the wave energy is almost completely trapped below the tropopause and nothing can get out into the stratosphere. Strong upper winds are most likely to trap the wave energy so the presence of a jet stream with its axis not too far away is a good sign. When the winds aloft are only of moderate strength much of the wave energy may be able to escape. This does not prevent strong waves forming in mountainous areas but makes a series of wave bars unlikely. Each mountain sets off its own particular wave and the waves from one mountain may be out of phase with those from its neighbour. The result may be like photo G near Aboyne when there was a light south-westerly flow low down and no strong winds aloft. Here and there waves seemed to be in phase producing higher humps in the cloud and isolated lenticulars aloft.

Equally patchy effects can be found over the wide Severn valley when the wave is far downwind of the major Welsh mountains and the pattern is partly dependent on boosts from low level cumuli.

Interference patterns

Most mathematical wave models are confined to two dimensions; the modeller rarely has access to the big machines needed to run 3-D simulations. The 2-D models assume a ridge of near infinite length, too long for the air to slip round the ends. There are not many long straight ridges in the UK; most hilly areas have a number of ridges at different angles to the wind. The wave bars are generally parallel to the upwind ridge but bars sometimes have their ends bent back where the ridge comes to an end. Two ridges at an angle may generate a zig-zag wave pattern which allows one to make progress into

wind without having to make a desperate leap forward through heavy sink and against an unexpectedly powerful wind. If the ridge is shortened to an isolated peak it may set off a series of diverging waves like the wake of a ship.

Wake waves

Vee shaped wake waves can often be found on satellite pictures when there is a layer of stratocumulus beneath a well marked inversion just above the mountain top. Occasionally the wake from an isolated peak or group of hills may spread out downwind for hundreds of miles. Several conical peaks have been seen to originate wakes which crossed each other. This leads to interference and suppression of the waves where they cross out of phase. Some experts have used a CRAY-2 to work out the patterns produced by a single peak. I find such numerical dexterity too awesome to contemplate and await some genius to set out simple rules.

Billows on waves

Billows are very short waves which occur where the vertical wind shear is particularly strong over a shallow layer. Unlike the much longer lee waves billows are not linked to any ground feature. They move with the wind. The tops of anticyclonic stratocumulus sheets often carry a very regular pattern of billows if the wind speed increases across the inversion layer.

Billows can grow large enough to curl over and break; this is often the cause of clear air turbulence between 20 000 and 40 000ft. When large amplitude lee waves take the air far above condensation level billows may appear over the wave crests. Large lenticular clouds look very smooth from a distance but some develop a series of tiny ripples on the top where the smooth flow is ruffled up by wind shear.

Occasionally the tiny ripples grow into large billows. This is probably because the wave crest consists of air which has come up from a much lower level where the wind was less strong. At the wave crest it meets the faster flow aloft and here the wind shear is greatly increased.

Billows are usually aligned at right angles to the local wind shear. Thus if there is a north-westerly wind which has, at some level, a marked increase in speed the billows lie NE/SW. Billow alignment is not always so straightforward. Some layers of altocumulus show two sets of billows at right angles to each other, but not in exactly the same place.

Most wave flying is extremely smooth but if you meet the ripples formed at a wave crest they produce a slight cobblestone feeling. Exceptionally big waves, those rare beasts with a huge amplitude, have been known to set off severe turbulence near the base of the stratosphere.

Conclusion

No simple pattern fits all waves.

1. When there is a strong inversion and the winds are fairly light the waves are short and have a small amplitude. Lift falls off quickly above the inversion and so high climbs are rare. Very shallow inversions need to be very strong to produce good waves. Then the sharp discontinuity of density makes the waves behave as if the inver-

sion was a water surface; although the lift does not go high the waves are often good for cross-country flights.

2. If the inversion is weakened the stable layer needs to be deeper to support lee waves. The reduced stability often helps waves develop a larger amplitude. When there is no inversion but just a moderately stable zone above the convective layer big waves can form. This gives better climbs and the lift is likely to extend higher too.

3. Lift depends on the wind speed and the steepness of the streamlines. An increase of wind speed with height tends to "flatten" the wave so that the amplitude is reduced but the lift may be adequate provided one can fly fast enough. If the wind speed continues to increase with height the climb will usually end far below the tropopause.

4. Where the wind speed shows a slight decrease with height the streamlines steepen. Wave steepening is helped by a steep lee slope. This often gives very strong lift but if the wave becomes too steep it may break, restricting further climbs.

5. Some of the highest climbs can be made when:

(a) The low level winds are strong producing a big deflection over the mountains (30-40kt over the peaks).

(b) The stable layer is only just deep enough, say 3000-5000ft.

(c) The axis of the jet stream is well away from the area so that upper winds are not too strong (less than 80kt).

(d) The tropopause is high so that there is little risk of waves breaking into turbulence if one gets near the base of the stratosphere.

These conditions do not always favour reliable waves; some waves reach their maximum amplitude when conditions are only just adequate; a small increase in the winds low down, or a decrease in the depth of the stable layer may cause a sudden collapse of the wave.

6. Widespread waves appear when:

(a) The winds at mountain top level are only moderate, (about 25kt).

(b) There is a deep stable layer, (some 10000ft is good).

(c) The jet stream is not far from the area so that wind speeds are in the region of 100kt or more just below the stratosphere.

These conditions are usually insensitive to small changes in wind speed and stability. The strong upper winds trap almost all the wave energy so long wave trains can extend downwind and the wave pattern does not jump about. This makes cross-country flying easier but Diamond climbs are still possible.

7. On some days when there seems to be insufficient depth of stable air the development of cumulus over the mountains may set off waves which are only active during the day. Such waves tend to become much weaker or die out towards sunset.

LET'S GO FOR PLANNING

Bath & Wilts GC has been at Keevil, a MOD Airfield for 29 years and much of that time has been very happy. But with military activities interrupting flying, frequently without notice, it was obvious they would have to find a new site



The east end of the field before the grass was sown. The trees on the westerly approach and the square wood are clearly visible. Photo: Phil Gascoigne.

We set up a site fund but the years went by and we found nowhere. I actually talked to more than 60 landowners, but who wants a gliding club messing around amongst farming things! Eventually, last year, a friend said he would consider leasing us a piece of land.

The committee went and looked and were amazed. The proposed new site was 1470 yards long on the top of a hill, the strip running east/west and with a ridge on three sides, all upwind of the airfield.

There is a hard road into the field and water on site. The soil is chalk and flint, ideally well drained and in an area of exceptional thermals.

Dare I add – there's free airspace all around and above. Planning Committee with thumping hearts and our sweaty palms, here we come.

A site committee was set up comprising the CFI, the treasurer, an architect, a barrister and myself... ah...then chairman of the District Council's Policy Committee (a fact that drew a few brickbats from the objectors). But the real benefit was that we had someone who knew the personalities and what could and could not be done.

Bill Scull, BGA director of operations, instituted an application for use of winch cables at the site – the number one prerequisite – for without permission for cables the planning department probably wouldn't even look at the matter.

The pilot, Richard Yerburgh, talks to Nick James after the inaugural flight.



ANOTHER WIN FOR CHRIS

Chris Garton, who won the British Overseas Nationals, is also the New Zealand Champion having flown the ASW-17 owned by Justin Wills to first place at Omarama in January. They had 11 flying days and used wave and thermals.



The hangar and clubhouse from the west.
Photo: Richard Yerburgh.

And, of course, it leaves a great big slot for the objectors to work at – overturn the cable application and they've beaten you before you start. Well done Bill, permission was through in around six weeks.

We then had to find out if the planning officers would be supportive because if not you might as well forget about planning permission and particularly about any prospect of a successful appeal against an unfavourable decision. We were very grateful to the planning department for their helpful and unbiased approach.

The chief planning officer was a target of objectors and took insults, slanderous allegations and finally a complaint to the local government ombudsman.

We hand delivered a letter to each household in the nearby village of Kingston Deverill telling residents of our intentions, describing our operations and inviting them to an open meeting. Most who came were supportive and friendly and thought a gliding club would be a fine thing; a few were downright unfriendly.

We then applied for change of use of the land only, feeling it was better not to ask for the building at the same time, although we did indicate there would be a later application for a building.

Things went quiet whilst the planning department processed the application and informed the neighbours. Then after around three weeks all hell broke loose. Letters started arriving raising such subjects as noise from gliders; intrusion on privacy, glider pilots taking photographs of naked womenfolk sunning themselves in gardens; heavy traffic being generated on the main road and in the lane to the site and the danger of accidents with fast jets – one woman wrote to 24 landowners and every official body you can imagine insisting that the county council should provide fleet of ambulances to ferry the dead and wounded from the hills after the flaming wreckage had poured from the sky. As estate agent advised everyone that all property within ten miles would be down valued by £20 000.

The Airfields Environment Federation and Travers Morgan Consultants became involved and drew comparisons between our site and Heathrow and Docklands Airports explaining that although the frequency of departures at Heathrow was greater, noise levels at Kingston Deverill would be similar. Double glazing would be necessary for every house in the area.

A "Defeat the glider-men action committee" was set up and within two weeks the furore had spread five miles down the valley. When I saw the amount of letters coming in I was alarmed.

It was clear that counter action was needed and we prepared a large number of letters. Most were targeted at the planning office but we made sure every councillor on the committee received a fair proportion. We took copies to flying and gliding clubs all over the south of England and got them signed and posted individually. The letters seemed to get all over the country and we are grateful for all this support.

The Sports Council, the vice-chancellor of Bath University and the BGA wrote strong letters of support and perhaps most pleasing were the unsolicited letters from friends we had never met in the neighbourhood. On decision day there were nearly a 1000 letters in favour.

The objectors decided to take legal action and start a fighting fund of £40 000 to beat the nasty glider men. But the fund never got off the ground.

The noise aspect was still bothering us and being well used by the objectors, so Bath University's engineering department ran a survey with noise meters. Even with a silenced Auster towing gliders no significant noise problem appeared to exist.

The letters to the _____ villagers seemed to _____ have a calming effect _____

One of the difficulties was the objectors were gathering support from people who didn't understand the issues, so we countered this by writing a letter of explanation to everyone on the electoral role in the five villages in the Deverill valley. This seemed to have a calming effect because the momentum really seemed to go out of the objectors after that.

We won a unanimous vote in favour at the Planning Committee meeting and later gained permission for the building. But this wasn't the end. A letter from "expensive solicitors" in Bristol claimed the matter had been improperly dealt with and an application was made for a review of the planning permission with a view to revocation. It appeared the size of the "airfield" was such that there should have been automatic referral to the DoE. What they overlooked was that this only happens where the length of the runway exceeds 2100m. Ours is 1470. I think this is the only time I have been grateful for a short runway.

In the middle of this an objector (a local estate agent) called for the immediate suspension of the chief planning officer (without pay) and, if deemed necessary, the involvement of the police. For some reason this was a turning point and we began to get letters and calls from peo-

ple who had been supporting the objectors and now wished to disassociate themselves.

We believe there are a number of lessons to be learned from this saga:

Get your cable permission first.

Get the support of the planning officers.

Know and lobby all the councillors on the Planning Committee.

Counter objectors' fantasies with facts.

Orchestrate your campaign: don't let people play solo.

Know what the objectors are up to.

Play Mr Nice; ensure everyone is properly informed by you.

Utilise whatever outside authoritative support you can.

Make use of all the aviation people you can get hold of.

Help others with their application.

Remember you have the legal right to go to the planning office and read the file on the application. That will give you invaluable information about progress and the counter measures you need to take.

At the time of writing the building is up, services and access roads are in and we aim to start operations at Kingston Deverill around the middle of August. Visitors are most welcome but because of the sensitivity of the area please drive slowly and carefully through the village. We can still take a few more members and if you would like to join, contact me at 9 The Downlands, Warminster, Wilts BA12 0BD, tel 0985 212017. ✉



Using our 30 year combined experience we are pleased to be able to offer an exclusive new glider scheme

For further details or a quotation please contact:

**GRAHAM ROBERTS
NEIL DROGMAN
DAVID BACON**



Capital House
42 Weston Street
London SE1 3QD
Telephone: 071-403 2600
Fax: 071-403 0021

It all started when I decided as a result of some medical problems to contemplate early partial retirement. The rat race had at last taken its inevitable toll after forty years of business activities and we moved to Cornwall, eight miles from Davidstow airfield.

At this point some hard thinking about my future flying became necessary as the proud owner of an ASW-20 and with 1000ft of north Cornish cliffs only ten miles away, I thought the soaring should be good if only I could get to them.

I considered taking up microlighting, but could not get away from the fact that all that free lift was going spare in even a moderate north-westerly. The obvious choice was a motor glider but which one and what about hangarage? After looking at everything within my price range I concluded that a self launching motor glider which could be derigged and had a glide angle of around 40:1 for under £30 000 did not exist. The nearest I could get to my specification was a DG-400 which I could not afford.

Then breakthrough! I could achieve all I wanted without parting with my beloved 20 by getting a bolt-on goody TOP engine. Clearly this was the way to go.

Certification

I got all the information from the German manufacturers (Fischer Entwicklungen) and started the dialogue with the BGA and CAA to find what would be involved in getting UK certification for this fully German (LBA) approved unit. In theory, since we are all in the EEC, it should be a formality, especially under JAR 22. So enlisting the help of Dick Stratton, the BGA chief technical officer, I started the ball rolling by writing to the CAA with all the LBA data and a request for a quote for certification. Some seven months later after a reminder, the application was finally commenced.

Conversion

The conversion kit arrived with all the drawings in May and I started work on it immediately. Installation is relatively simple. It involves fitting two battery cases in the nose forward of the rudder pedals, a small instrument console on the right hand side of the cockpit together with the Bowden cable controls and an additional bulkhead just behind the wing spar slot. You also need to reinforce the existing rear bulkhead which is by far the most difficult task due to limited access. The TOP control access hatch has also to be let in and the hull reinforced locally. The TOP manufacturer provides a pre-moulded hatch which is flush fitting.

The work, including bonding in of the attachment plates for which I enlisted the help of Dave Richardson at Booker, took less than six working days – and we hadn't done it before. Final weighing with and without the TOP was completed by the end of June.

Weighing and TOP placarding

The LBA certification involved the TOP manufacturer in a design assessment with Schleicher to allow an increase in the max weight of non flying parts essentially equivalent to the weight of the TOP unit, thus rendering the max cockpit weight for the ASW-20 virtually unchanged. This

THE FIRST UK ASW-20 TOP

Bill Andrews found a compromise when he decided he wanted to keep his ASW-20 yet have advantages of a motor glider



Bill Andrews with his ASW-20 sporting the TOP engine.

indicates the margins of safety that must exist in the wing root bending moment for this glider. Weighing gave the following cockpit load limits:- Max cockpit load with TOP is 186lb. This is with glider batteries as well as TOP batteries and full tanks (8 litres).

Min cockpit load is 122lb (without trim weights).

Other changes in placarding are:-

VNE down from 143 to 135kt.

Vra down from 97 to 89kt.

Va down from 94 to 86kt.

None of the above are major penalties by any means.

Waterballast and use of tips are not permitted with the TOP fitted.

Without the TOP, placarding is virtually unchanged as permanently installed item weights are minimal, although you must remember to remove TOP batteries in the nose before flying without TOP fitted.

Flight testing

Before flight testing was possible I had to have a permit to fly from my local (Bristol) CAA office. The chief surveyor gave the aircraft and its documentation a thorough going over. After I had submitted a flight test schedule to him, he provided me with a permit to fly for test purposes.

On the question of who was to test fly it, on the recommendation of Al Bevan I rang Bob Cole of the CAA who was very helpful, admitting that

experience on type in the UK was clearly limited and that in the circumstances I was as qualified as anyone to carry it out. I hasten to say that Dick Stratton had made the same point earlier.

Inevitably the weather was less than clement and the waiting game started. At last, however, the clouds over Davidstow cleared late one afternoon and I persuaded the family to help me rig and mount the TOP unit on the glider.

The wind was 15kt and steady straight down Davidstow's 02/550m runway and the cloud 5/8 with a base at 1500ft. After completing the ground checks and engine rpm check (min 3900) I released the wheel brake and started the ground run. I had earlier done some taxiing trials to check on ground characteristics.

The stick has to be held back on the initial ground run to prevent nodding over as the brakes are released and with the non swivelling tail wheel this aids a straight ground run. With the usual ASW-20 flap take-off procedure of starting with flap position 2 changing to 4 when ailerons are effective, the glider lifted off easily at just over 40kt but I deliberately held it down until 50kt was indicated before settling into the climb at 4200rpm. The glider left the ground close to the first intersection which is about 200m from the runway threshold, so this was about right for a 15kt headwind. (The manufacturer claims 239m in no wind at 15°C.)

Leaving the undercarriage down until 500ft seemed like a good idea and once retracted the climb rate noticeably improved. Timings from 500ft indicated a rate of better than 350ft/min at an AUW of 871lb. Not bad from 25hp. Levelling

THE AMF CHEVRON 2-32

Derek Piggott writes about an aircraft which was designed as a fun machine but has real potential as a basic trainer

Technically, the Chevron is a three-axis microlight and at first sight may look rather light and fragile. But after instructing on it for some 250hrs, it has proved to be exceptionally rugged and a very good basic trainer. Most of my instructing is done flying from fairly rough farm fields in addition to runways covered in loose stones. Thankfully, the Chevron does not seem to pick up the stones and suffer from chipped propeller blades like the more powerful motor gliders.

The strength of the aircraft has been confirmed by the Swansea Air Sports. In less than two years they have done nearly 2000hrs of *ab-initio* instruction with no real problems.

Features


Apart from the reliability, the most impressive feature is the very low noise level. At 500ft even at full throttle, the engine noise is scarcely audible and it sets new standards for powered aircraft. Since it operates at glider speeds it fits in well with glider operations.

For glider pilot training the Chevron can be used as a low performance glider with the engine stopped, or when required a small amount of power will bring the glide up to that of a modern machine. The drag flaps are as effective as most glider airbrakes.

Design

Built and largely designed by Angus Fleming, who is well known for his AMF trailers, this attractive looking aircraft makes use of modern materials to keep the weight to the 185kg required for the CAA Certification under Section S. The design sets an entirely new standard for microlight designs. The structure is composite using vacuum moulded glass-fibre sandwich construction, re-inforced with carbon-fibre and Kevlar in the highly stressed areas. Aft of the torsion box the wing covering is a heat shrunk, ultraviolet resistant plastic skin.

It is designed to the Section S specifications

significant. The price seems to be set to attract people like me who would like the near performance of a DG-400 for *circa* £10000 less (PIK 20Es apart). The workmanship and design is typical German excellence and attention to detail first class. I would not on today's evidence hesitate to recommend it to any glider pilot with similar requirements. 

out and throttling back to idle I waited the requisite 5sec before switching off the ignition and selecting engine retraction. Twelve seconds later, delayed to allow the propeller to fold, the unit retracted smoothly with minimal pitch change and locked down with a comforting clunk.

There were signs of a little thermal activity so I worked the odd one for a bit and could detect no appreciable change in handling with the TOP retracted. Having not been too successful in staying in lift I selected TOP up and when the red indicator showed that it was up, switched on the ignition and pressed the starter. After 3-4sec, a delay to allow unfolding of the propeller, the engine started easily. I climbed away again at 50kt 4200rpm.

Having thoroughly enjoyed my new found freedom from tugs and winches I thought it prudent to return to the field to carry out a post flight inspection.

Landing with the TOP down is conventional and its increased weight was not noticeable, although maybe it would with a pilot on max weight. A post flight inspection showed nothing untoward and within 5min the unit was in the back of the car. So far so good. I am now looking forward to the rest of the flight tests as soon as possible, weather permitting. I hope to verify the claimed retracted glide angle of 40:1 at 50kt and 24:1 with engine extended and stopped.

Subsequent Impression

Cockpit noise and vibration was very low due to the inherent balance and smoothness of a 120° radial two-stroke. There is the usual roughness due to four-stroking when idling but this is minimised by the engine mounting design. A head set is not essential for radio usage although some will prefer it.

Best range is achieved in climb glide mode rather than cruise as in cruise mode the engine rpm is high for low fuel usage and hence lubrication suffers (Petrol). It is not therefore recommended by the manufacturers. According to my calculations on a still day (zero wind no thermals) a range of around 140 miles ought to be achievable. This assumes a 300ft/min and 5min allowance for take-off fuel and a climb to 1000ft. The TOP has two integral tanks of 4 litre each giving 55min endurance total.

So on the above basis you can expect to see me arrive at Booker from Cornwall on a day when it's blue and too dodgy to stray far from base without risking a trailer recovery.

Licence Requirements

These are subject to final ratification by the CAA but with a TOP fitted a PPL A with a SLMG type rating is required. Without the TOP it's a glider so usual BGA requirements apply. This makes it a suitable goody for syndicate use with mixed qualification pilots, especially in remote areas where clubs do not operate seven days a week.

Price

At around £11 000 plus VAT fitted it has clearly been priced by the market place, although for a relatively low quantity production unit (mine is No.77) the R and D cost amortisation must be

which normally require +4g and -2g with a safety factor of 1.5. However, because it is of composite construction, the British requirements call for a further factoring of 1.5 or 1.2 if the testing is done at 54°C, making the required ultimate load factors +7.2 and -3.6. This is much the same as for our normal gliders. The very stringent CAA inspection and testing for Section S ensures that this is no fragile hot-house plant, but a real working aircraft.

Engine


The engine is the reliable German König four cylinder two stroke radial producing 32hp. Each cylinder has its own electronic magneto so that a single failure of a plug or magneto merely reduces the available power. The engine runs so smoothly with one cylinder out of action that the fault can only be detected by the reduction in power. There is still sufficient power to cruise and climb on three cylinders! A toothed belt drive reduces the engine rpm. There are two exhaust mufflers which combined with the low propeller speed make it one of the quietest of all powered machines.

The electric starter is standard equipment and a small generator is available which produces about two amps to keep the battery charged.

Cockpit

The side-by-side cockpit is large and the fully adjustable rudder pedals make it suitable for both tall and short pilots without the need for extra cushions. The canopy is hinged at the front and is polycarbonate sheeting re-inforced with a carbon-fibre frame, so that although flexible when open, it is virtually unbreakable.

The stick is mounted centrally and shared between the pilots. This leaves the floor space completely clear and has the great advantage that there is no possible doubt about who has control. During demonstrations the student can feel the loads as well as the actual stick movements made by the instructor; a great advantage.

The instrument panel is large enough for plenty of instrumentation and the standard layout includes the usual ASI, altimeter, variometer, compass, rev counter and fuel gauge. Cylinder head temperature gauges, a slip indicator and Hobbs meter are available as optional extras. The master switch and switches for the fuel pump, radio and generator are at the top of the 

Make Insurance problems just plane sailing . . .



CONSULT THE AVIATION INSURANCE SPECIALISTS

FOR A COMPETITIVE QUOTATION CONTACT: MARTIN CASEY

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



Member of B.I.L.B.A.

LOWNDES LAMBERT AVIATION LIMITED

Lowndes Lambert House, 53 Eastcheap
London, EC3P 3HL
Tel (071) 283-2000 Telex 8814631
Fax (071) 283-1970

SAILPLANE & ENG. SERVICES LTD.

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

DART 17R - £7,550

K-4 - £2,300

SPARES K-13;
PIRAT and SWALLOW

WRITE OR PHONE:

KEN BLAKE
BUXTON (0298) 24365

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

LEARN TO GLIDE IN A WEEK . . .



. . . AND WHY NOT?

ONE-WEEK SOLO COURSES

We succeed by allocating no more than three beginners to each instructor so that your time in the air is maximised. ie 10 launches/2½ hours per day or equivalent. Prices from £350.

ONE-WEEK ADVANCED COURSES

Trainees can expect a mixture of dual advanced training (including cross-country soaring) and as much solo flying as they can cope with. Type conversion on to suitable single-seaters will be offered wherever appropriate.

The aim of these courses is to reach the standard of the Bronze or Silver badges. Suitable also for part trained pilots from other clubs who wish to accelerate their training. Prices from £275.

UNLIMITED FLYING

The prices include unlimited flying and instruction (using winch and aerotow as well as motor glider where appropriate), logbooks, insurance, lunches, refreshments and BGA membership fees. B+B accommodation is available on site. **GUARANTEE:** Fees are fixed and a refund is made if flying is limited by the weather.

The airfield is at Hinton-in-the-Hedges which is near Banbury. It is just over an hour from both London and Birmingham and about 20 minutes from Oxford, Milton Keynes or Northampton.

FURTHER INFORMATION

The Gliding Centre,
15 Norfolk Place, London W2 1QJ
071-706 2434 (live girls during office hours, answerphone at other times)

STEMME S-10

The ultimate self-launch two-seater

- Glide at over 50 to 1, or cruise quietly at 100 mph for 600 miles!
- Spacious, comfortable seating, delightful handling and docile stall.
- Safe airborne restart - no fold-out engine, the propeller folds from the retractable nose-cone.

Congratulations Tug Willson - 1012 km at 148.8 km/hr!!!

Let Dr Stemme's technology broaden your horizons too.

For information please contact:

Mike Jefferyes,
Tanglewood, Fingrith Hall Road,
Blackmore, Nr. Ingatestone,
Essex CM4 0RU
Phone & Auto Fax: 0277 823066



panel with the ignition switch and starter button on the left hand side.

There are two interconnected fuel tanks behind the seat bulkhead holding a possible total of 50 litres (11 gallons) depending on the empty aircraft weight, giving it a practical endurance of about 4hrs cruising at 50-55 kt.

Flaps

It is only on the latest version, the 2-32c, that drag flaps have been introduced and the aircraft has become an excellent and practical trainer for glider pilots. (These are similar to the trailing edge airbrakes on the Sport Vega.) This has transformed the aircraft by making it possible to make steep approaches and cutting down the otherwise long float during the landing.

The trailing edge drag flap can be set like a normal flap for powered approaches, or can be used flexibly like an airbrake on a glider. In the event of taking your hand off the flap lever to use the throttle, the flap returns to the normal landing position allowing the aircraft to climb away. A red warning light on the panel is used to remind the pilot that the flap is on as this could be an embarrassment on take-off or a "go around". There is no change of trim and virtually no change in the lift when using the flaps.

The single flap lever is on the left hand side of the cockpit and although it would be ideal for the instructor also to have a flap lever, this is not so critical as might seem. Since the instructor has a throttle, he can save the day by applying power to correct a bad landing, instead of reducing the airbrake as he would on a glider or motor glider.

Starting up and taxiing

Choke is used when the engine is cold and starting is just a matter of switching on the ignition switch and pressing the starter button. Taxiing is easy and with the nose wheel coupled to the rudder control the directional control on the ground is very positive. The aircraft is fitted with excellent hydraulic disc brakes on the main wheels, operated by the usual cycle type of hand lever on the stick.

Take-off

A run up is not essential before take-off, but the rpm should always be checked during the take-off run to ensure all four cylinders are firing.

The take-off is simplicity itself; just line up, open the throttle fully (checking the rpm) and ease the nose wheel off at about 30kt. The engine is offset slightly like a model aircraft to prevent any trim changes and swing due to power and propeller effects. The take-off distance is about 500ft making it suitable for operation from almost any gliding site. The aircraft is very cross-wind tolerant and the main thing is to remember to hold the stick over slightly to prevent the up-wind wing lifting during the take-off run.

Climbing

The best climbing speed is 38kt but it is sensible to make the initial climb faster to cut through any ground turbulence. At such a low speed the effects of lift and sink are very apparent. Like a motor glider, it pays to speed up in any bad sink

and to circle to make use of any lift to boost the rate of climb.

General handling

The handling in the air is similar to a glider. The large span and low flying speeds result in a fair amount of adverse yaw so it is essential to co-ordinate properly to fly straight. The elevator is very light, the ailerons and rudder heavier.

Stalling

The stall is extremely docile with only the occasional gentle wing drop and no tendency to spin. It occurs at about 30kt IAS. Like many gliders, the Chevvron is unstallable in well



Derek flying the Chevvron.

banked turns. Spinning is prohibited in all microlight aircraft and therefore no attempt has been made to explore the spinning characteristics. It shows little tendency to do more than drop into a diving turn.

Performance

The aircraft's performance is very close to the original Scheibe SF-25B, Stamo engine Falke. The rate of climb is a similar 3.5 kt and the glide is over 1:16 at about 40kt. The normal cruising speed is 50-55kt using about 10 litres an hour, with a maximum continuous cruise of about 60kt. The VNE is 78kt IAS (86kt EAS). Flying the aircraft solo results in an impressively short take-off and an obvious improvement in the rate of climb and soaring performance.

Soaring

The low circling speed makes it a surprisingly good soaring machine able to use the strong cores of small thermals. I frequently stop the propeller and use thermals to climb. Circling at 40kt gives it much the same radius of turn as a K-8.

Landing

The normal approach speed is 40-45kt and the full drag flap gives an approach angle of about 1:5, making judgments easy. Although it has a nose wheel type of undercarriage, it requires a fully held off landing like a tail wheel machine. Any attempt at landing without holding off properly results in a bounce requiring some power for the subsequent touch down. This makes it ideal for initial training as it makes properly held off landings essential. Once the right habits have been learned in the early

stages, this forms a good basis for all future flying.

It is normally landed with the engine idling because power is then available to sort out any bouncing which can occur landing on rough ground.

Rigging

The Chevvron has glider type rigging and can be managed by two people. The wings are extremely light weight (34kg each) and using a trestle under each wing, the hardest work is pushing the two main pins into position. I manage to rig quite easily in about 10min with Maria carrying the wingtip. The special AMF trailer is wider than

a normal glider trailer, but is easy to tow and is very stable at high speeds. It acts as a cheap hangar as well as making the aircraft more mobile.

Uses

Although it was designed as a fun machine, the real potential for this aircraft is as a basic trainer. Being so quiet makes it ideal for operations on a gliding site and it is excellent for field landing and navigation exercises.

The aircraft could be a good money spinner when it is not being used for instructional purposes. It is attractive to fly and inexpensive to run. The initial cost is about half that of a new motor glider and that includes the trailer for storage and transport of the aircraft.

It can be flown by anyone holding a normal PPL, a Group D licence (microlight) or, of course, solo by any student pilot under supervision. Moreover as it is a microlight it only requires 25hrs for the full licence (15hrs for Bronze badge pilots). Most glider pilots master the Chevvron in only one or two flights as the handling is typical of most gliders.

Thirty five aircraft have been built and are flying to date and with a good order book the production is one per month. They are made at Membury in the AMF works on the south side of the M4 at the Membury Service Station.

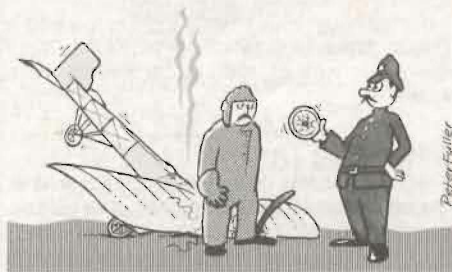
Summing up – this is a super little aircraft which should be of particular interest to clubs needing additional training facilities and to gliding enthusiasts wanting more flying. It has the great advantage of being light and easy to rig and of being much quieter than any other aircraft. ■

S & G CLASSIC

CHOSEN BY PLATYPUS

The political history of the BGA's organ would doubtless make Macchiavelli blush, if it became public. Last issue's 1951 classic came from *Gliding*. This 1939 classic comes from the May issue of *The Sailplane*. At one stage I believe there were two magazines clutching at each other's throats, then one combatant fell, and a publishing merger gave us the present ungainly title.

Often when I am driving back from a Continental gliding holiday, or just from an eating and drinking and whoopee holiday (more fun and less expensive, I am beginning to think) I see a sign indicating the village of Le Wast. I instantly recall that name and wonder if the field where the first cross Channel soaring flight ended has any memorial of that fact. After all, there is a memorial at the spot where Bleriot stove in his undercarriage at Dover. I doubt there is one at Le Wast, and if there was one Steve would be the last person to mention it, he being the most unassuming of all the great pilots.



Stove in his undercarriage.

What is interesting about this extract from *The Sailplane* is that people had been planning and attempting soaring flights across the Channel for years. The lure of that stretch of water to swimmers and balloonists and aviators is compelling, no doubt because it has prevented Britain being invaded for 900 years. From time to time vast prizes offered by newspapers added to the fever. (Feverish is a good word to apply to the chap who thought he could do it on ridge lift.)

I spoke to Steve just before this issue went to press and he confirms that many pilots had the Channel in mind, but people weren't so rash as to declare before take-off that they were aiming to fly to France. There was no prize on offer for a soaring flight across the Channel at that time, however.

Nothing was known about optimum wind directions or sea breezes; it was just accepted that a strong tailwind would be a

Good Thing. However the 300° appears to have been ideal. The wind was so strong, as his account indicates, that the problem of sea breeze over Kent did not arise, despite the late hour.

The retrieve

The account by Ann Edmonds (now Ann Welch) of how Steve was fetched home is an integral part of this classic, with a fascinating mass of detail on procedures and prices. No roll-on-roll-off in 1939; one watched one's life savings being hauled up and over by crane, if you could stomach the sight. Of course not many people had passports, foreign travel being for the super rich; hence the paperwork.

As for prices, I have always made a keen study of inflation (chiefly because it is very foolhardy not to know what is happening to the value of money, and partly in order to settle the hash of people who go round saying that their gliders have appreciated in value) so I asked my computer, which stores all the Retail Price Index figures since 1918, to reckon up the present-day cost of Geoffrey's retrieve. £25 and 5 shillings is roughly £750 in 1992 money, which would bring tears to the eyes of all but the wealthiest pilots today. Another way of looking at it is that most people did not earn £25 in a whole month in 1939.

Mercifully, the *Daily Express* was so excited it sent a man over in a plane to interview Steve in Calais. With Ann kicking Steve under the table during negotiations over the fee for the story ('Pssst, if they can afford to send a plane...') the breathtaking sum of £30 was eventually agreed, and financial ruin averted.



Sent a man over in a plane.

If you are enjoying this dip into old S&Gs you may be interested to know the BGA hold stocks of back copies for sale. Contact Bev Russell on 0533 351051

ACROSS THE CHANNEL



Geoffrey in his former sailplane, the Grey Kite.

On Saturday, April 22, we arrived late at Dunstable, due to having made an unsuccessful attempt to get towed off from Heston. At the surface the wind was 28mph, gusting to 40. The direction was about 300° (NW by W) at 4000ft.

I was launched at 2.55pm, reached the hill level with the top and hardly ceased climbing once all the way to cloudbase at 4000ft. This shows what sort of a day it was. The clouds were smooth inside and appeared slightly lighter looking upwards than downwards. This probably helped, for I managed to fly blind to Hatfield Aerodrome.

I now made for Abridge, and just before Epping Forest the lift became scarce. I passed over Abridge and Stapleford and reached the Thames at Stanford-le-Hope. Thinking of Greig with the trailer, I hesitated a long time before crossing, but a thermal over the water decided the issue.

The Medway was crossed at its widest part at 3000ft, and I decided that with luck Canterbury Aerodrome was within range. We proceeded cautiously along the London road and reached the town of Canterbury with 2000ft. This was encouraging, and I decided to have a shot for Hawkinge. This meant aiming south-west in order to allow for drift in the weak thermals.

The aerodrome was reached at 1000ft and then the big surprise came. I flew slap into a newly formed thermal at 5ft/sec, worked it up to 10ft/sec, and immediately thought of the Channel. The lift increased to 15 and even 20ft/sec. I checked up the direction of Cape Gris-Nez and entered a large cloud at 4500ft. At 6000ft, and probably still climbing, I let the speed fluctuate a bit, so decided that to come out was a bird in the hand. We emerged on the south side of the cloud just off the coast. There were a few ships below, but none ahead.

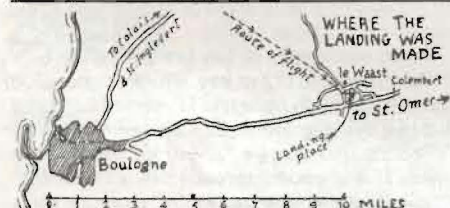
South-east of the cloud I had left, and adjoining it, was a rather broken cloud which I made for. It was very little use, and ahead of it was a

10ft/sec sink. Ahead again was blue sky and I wondered if it was all sink; but at 50mph, we were very quickly clear of it, and the sink was normal. I had forgotten to allow for drift, so a slightly curved course was followed.

Five miles off the French coast the sink was reduced slightly and I set the speed at about 35mph. The coast was crossed at about a mile east of Cape Gris-Nez. The height was 2600ft.

The sink was still a little below normal, and, forgetting about St Inglevert, I went downwind looking for somewhere from which I could be towed back home. There was no field large enough, and as height was running out I chose a small field at the village of Le West, ten miles east of Boulogne. The landing was very gusty, but it worked out all right at 5.35pm.

I can not speak the language, which was a snag, but everybody was very helpful and seemed to display intelligence in handling the Gull. I found the gliding certificate worked as a passport. If you want to know anything about wangling trailers and sailplanes through the customs, ask Ann Edmonds (Ann Welch) who, with Brian Powell, came over. Greig, who spent the afternoon driving the trailer north of the Thames, was responsible for a lot of the donkey work. I wish to express my gratitude to all those who were so helpful.



A copy of the barograph trace and the map reproduced from the original magazine article.

Retrieving from Overseas

To any further continental retrieving parties the following notes may be useful.

1. First of all, ring up the AA (Automobile Association). They will be extremely helpful and do everything.
2. Arrive at the Townsend Ferry Station at Dover at least an hour before the boat leaves. Everything necessary can be obtained from there. Then:
 - (a) Fill up with petrol – it is 9d per gallon cheaper than in France.
 - (b) Obtain a GB plate for the trailer from the AA.
 - (c) Buy a ticket (£5) for the trailer, and one (£3 17s approx) for the car.
 - (d) Buy a weekend return ticket (15s); it is possible to return on Monday with this ticket; it can also be used as a passport if that document is unavailable, but if used as such, four pages of



A Kirby Gull, the type in which Geoffrey made the first soaring flight across the English Channel.

personal particulars have to be filled in. (e) The AA will then remove your driving licence, and remove about 18s for 'phone calls and return clearance papers, stick little tickets into both car and trailer, and obtain several signatures.

Now drive on to the quay, where the crane will do its stuff.

Now prepare to be sick.
Be sick.

Some people must be very brave

Look at the seagulls soaring behind the boat; then look at the two dim and distant coast lines, and think that some people must be very brave.

On arriving at Calais, find the AA man (Captain Gregson is the chief man) and obtain some clearance papers for getting out of France, sign, and retrieve papers for getting into England, also driving licence. Then pay about 22s for clearance papers; these papers are called *Laisser-passer*s and can be made available for two days or more. Obtain an ICNU; this is instead of the car registration book if that is not carried.

Depart to look for the machine, remembering to drive on the wrong side of the road. When returning, produce the documents that have been collected and buy another ticket for trailer (£5), car (£3 17s) and pilot (12s 6d). Arrive early on the quay, so that a declaration in duplicate can be made out for the machine. Sign, then get on to the boat.

The only possible difficulty comes when getting the machine through customs at Dover, for the simple reason that it has technically never left the country. Have the C of A and, if possible, receipt from the makers sent to the Customs at the Townsend Ferry Station in time for the machine's arrival, as these prove more or less that the machine was built in England.

Our most useful documents were French and

English newspapers of the day after the flight; the English which stated that the machine had been launched at Dunstable at 2.30pm, and the French which stated that it had landed at Le West at 5.40pm the same day.

The actual cost of retrieving, including hotel, fares, documents, etc, came to £25 5s, but everyone was extremely helpful, and there were really no difficulties.

ANN WELCH

Previous Cross-Channel Attempts

June 19, 1931: Lissant Beardmore aerotowed from Lypne in a Professor and landed at St Inglevert; place of casting off cable unknown.

June 20, 1931: Opening day of *Daily Mail* £1000 competition for double glide across the Channel; Robert Kronfeld, in Wien, aerotowed from St Inglevert to 10000ft and glided to Dover, then aerotowed up from Dover and glided to St Inglevert, thus winning the prize.

1932: P. Michelson kept his Cloudcraft Phantom at Dover in the hope that one day he would gain enough height by slope-soaring to glide across with a following wind.

August 15, 1937: P. A. Wills in Hjordis soared from Dunstable to Dover; arrived at the coast at 4000ft and tried to gain enough extra height for a crossing, but lift gave out.

July 1938: At the National Contests at Dunstable a special prize was offered for crossing the Channel; on July 13 C. Nicholson reached Lypne at 2000ft, but lift had given out.

September 4, 1938: P. A. Wills in Minimoa soared from Dunstable to Lypne, getting to over 8000ft three times on the way, but arriving at the coast to find stable conditions and too low for a crossing.

April 22, 1939: G. H. Stephenson in Gull made first soaring flight across the Channel, starting from Dunstable.

HELLO TO BERLIN

Bob Rodwell reviews the gliding goodies at the first big show there since 1928

Surprisingly, Germany's glider manufacturers, except Grob and Stemme who both had other fish to fry, cold shouldered the big German aerospace show, ILA, which returned to a Berlin venue in June after an absence of 64 years.

Its Akaflieds, however, flew gliding's flag while Polish and Czechoslovak companies, anxious for hard currency earnings and any work at all with the drying up of former defence budgets, displayed new gliding projects.

Inteco's prototype L-213A all metal aerobatic glider showed unmistakable signs of an impeccable ancestry. This two year-old Czech private enterprise is at Uherské Hradiště where LET has built more than 2000 Blaniks over the past 25 years. An indefinable but real resemblance between the L-213A and the Blanik suggests the driving figures behind Inteco have long experience with LET.

The maiden flight was on March 13 and Inteco plans to begin full production in the second half of next year. To capitalise on revived international interest in glider aerobatics, the L-213A has an exceptionally spacious cockpit with a five point harness, a semi retracting undercarriage, huge ailerons (which, like the elevators and rudder, are fabric covered) and similarly big airbrakes.

Span is 41ft (12.57m, though Inteco's Pavel Mazurek said that a 15m wing would also be available for standard club flying), wing area is 136.6ft² and aspect ratio 12.44. With an MTOW of 770lb wing loading is under 6lb/ft². The glide ratio is missing from the sales literature but min sink is given as 3.9ft/sec at 47kt; stalling speed as 37kt; VNE as 188kt and max rough air speed as 86kt. G limits are +8 and -6.

The L-213A arrived at Schönefeld in one of the aluminium on steel glider trailers which Inteco builds for the L-23 Super Blanik and other gliders. Its other activities include light aircraft and military jet trainer overhauls and production of big wind turbine rotor blades.

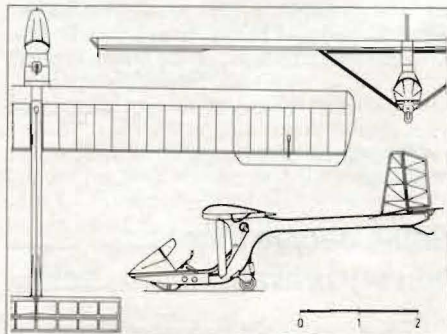
Poland's PZL Swidnik enterprise is best known for its helicopters, widely sold throughout the old Comecon bloc and the third world. But it now wants to get back into glider production,

which it quit after building scores of Bocians years ago. With a model, it was assessing market reaction to an elementary single-seater sailplane designed by staff and students of Warsaw's Technical University.

As yet unbuilt the PW-5 will have a sleek pod and boom fuselage, a span of 44ft (13.5m) and a cruciform tail. With 595lb MTOW it will offer a 34:1 glide at 44kt and a min sink of 2ft/sec at 37kt.

"If there is a promising market response we'll buy the design from the university and build a prototype" said a Swidnik official. Signs are that the PW-5 would be priced lower than Poland's current offering in the club market, the SZD Junior.

But another Polish enterprise, composite specialist DWL KK of Warsaw, has already beaten Swidnik into flight test with an even simpler, smaller, elementary glider which appears to be from the same Technical University stable. Designed to JAR 22 rules the PW-2D Gapa is more or less a latter-day Dagling with a pod and boom fuselage and open cockpit, a span of only 36ft (11m) and its flying surfaces largely fabric covered aft of GRP torsion boxes. A glide ratio of 24 and a speed range between 26.4kt and 80kt (49 to 150km/hr) were cited.



Polish enterprise DFL KK is already flying the PW-2D Gapa, a latter-day Dagling in glass-fibre and fabric.

An almost unique feature is the airbrakes – rotating fairings on the wing struts. The prototype is already flying and big pictures from a Tatra mountain site showed it after what the caption said was a bungy lunch.

Must be nice change if you've had a rubber chicken dinner the night before.

DWL KK is also flying the prototype of a two seater, the PW-3D Bakcyl D, which is similarly a pod and boom design with strut-braced partly fabric covered wings, albeit it with conventional airbrakes. Again complying with JAR 22, the Bakcyl D is designed for a lower market slot than Poland's current Puchacz, with a span of 52.4ft (16m), max weight of 1060lb and a glide ratio at 43kt of 24:1.

For Stemme the big show was on its home patch – it is the only aircraft manufacturer actually located in Berlin, where it builds its S-10 motor gliders and surveillance derivatives in the inner suburb of Wedding and test flies them at Strausberg, a former DDR military field about 30 miles out of town.

At Schönefeld Stemme displayed both the standard production motor glider and the

S-10VC surveillance version which can be variously equipped for environmental and atmospheric pollution research and three of which were in use by June.

Greenpeace Germany's Wolfgang Lohbeck was to have been one of the speakers at Stemme's press conference but unavoidably he missed the date. Earlier that morning he had been arrested by police in Hamburg after climbing a particularly offensive industrial chimney as part of a Greenpeace protest. In the imperishable phrase he was "helping police inquiries."

Sufficient buyers to demand an expansion of Stemme's work-force

At DM250 000 equipped with instruments, the S-10 motor glider was finding sufficient buyers to demand an expansion of Stemme's work-force, then 50-strong. During the show the 38th came off the line and was to be shipped to the USA to become the FAA certification specimen. According to sales chief Wolfgang Bilger another 30 S-10 orders were in hand.

Also playing at home in its 70th year was Akaflieg Berlin, one of the four academic flying groups present and one of the two with a glider on hand. The side-by-side Kevlar and carbon-fibre B 13 has been flying since March last year. With a 76ft (23.3m) span and an aspect ratio of 28.5 it returns a glide angle of 49:1 at 56kt and a min sink of 1.8ft/sec at 40kt.

You'd easily miss its key feature, however, if it wasn't pointed out to you. Wholly concealed inside the smooth nose and forward of the panel is a two cylinder Rotax 377 sustainer engine. With 32hp this drives a five bladed folding prop which, when needed, extends forward on a telescopic shaft and emerges as the nosecone splits longitudinally and the two halves retract on either side.

As one student designer and probably a 2000AD Waibel or Holighaus remarked "It won't get you off the ground but it's enough to get you home when the lift runs dry."

Akaflieg Stuttgart had logged about 40hrs since the maiden flight in February of the FS32 Aquila, design which began in 1985. Based on a modified Ventus fuselage built in Schempp Hirth moulds but with increased use of carbon-fibre and internal redesign it has a very high tensile carbon-fibre wing of FX-81-K144/20 section, an aspect ratio of 22.64 and a unique full span flap system. Glide ratio is 43:1 at 56kt; it can be safely flown down to 32kt and has a min sink of 1.96ft/sec at 46kt.

Grob is still knocking out gliders and motor gliders at Mindelheim much as Ford produces cars and Walls extrude sausages but its aspirations now are, literally, stratospheric.

Der Alte, Dr Burkhardt Grob himself, was on hand to reveal the Strato 2c high altitude, ultra long endurance research aircraft which the company is now designing under contract to the German Ministry for Research and Technology.



A two cylinder 32hp Rotax sustainer drives a five bladed folding prop in the Berlin Akafflieg B 13, which emerges forwards as the nose cone divides and retracts to either side.



Inteco's L-213A aerobatic glider prototype comes from the Blanik's home town and shows its ancestry. Both photos: Mike Vines.

With a unique twin piston engined compound propulsion system and pressurised this will carry a crew of four to altitudes of almost 80 000ft and fly for as long as 50hrs. Translating this into real terms it means a Strato 2C operating from Chile could fly to the South Pole, loiter there at over 70 000ft for many hours studying, say, ozone depletion and then wing its way another 2200 miles back to base.

It's not an O/R *you're* likely to fly, even if you are a Booker hotshot.

And it was all possible, said Dr Grob, because of his firm's experience of gliding principles: the

use of low wing loadings and high-lift airfoil sections to avoid the necessity for flying fast in the very thin air at design altitude, combined with high aspect ratio to minimise induced drag and high aerodynamic quality to reduce parasitic drag.

With a span of more than 185ft the Strato 2c will take up only a few inches less apron space than the latest Boeing 747-400.

But back to the kind of aircraft you and I might fly: Grob displayed the latest G103c Twin 3 with a pylon mounted retractable Rotax sticking out of the topdeck amidships. I hadn't even realised


they'd done an SL version of the aircraft that, through long experience, I'll forever call the Twin Astir and to Hell with Twin 3.

"How long have you been flying this?" I asked.

"Oh, about six months" a Grob official said.

"Built any more since?"


"About 60" he said.

If the recession hasn't hit you as hard as it's clobbered me, one will cost you DM148 195, with basic instruments and without taxes, at the factory gate in Mindelheim. The purist's version (the Twin 3 JJ?) without the midships donkey was quoted at DM93 400. 

THE ASH IS GROWING!

Tony Hutchings met the sailplane designer Wilder Binder and flew in his self launching ASH-25 during a recent trip to Onteim, Germany, when he also took these interesting photographs including the cover.

Top right is the ASH-25 with one normal tip and one winglet. Below is Tony with Wilder in front (note the one piece canopy).

Tony explains that Wilder is currently designing and evaluating winglets and tips for the Schleicher ASH-25. He also spotted another set of tips in Wilder's trailer which would extend the ASH to 27 metres. 



ROLEX 15 METRE CLASS NATIONALS

Nympsfield, July 25 – August 2

Weather notes by Tom Bradbury

The 1992 Rolex 15 Metre Nationals proved what most weekend glider pilots have long suspected: the British Standard Thermal really does work Mondays to Fridays only. Five of the six competition days were weekdays and the typical contestant logged around 1700km in 24hrs. But the weekends mustered just one task, of 246km – and even then more than half the field landed out.

The fleet of 45 gliders at the Bristol & Gloucestershire GC included various ASWs, Ventuses, Discuses, DGs, an SZD 55 and no fewer than 19 LSs. A number of pilots used GPS, although the winner didn't.

Bill Davis was competition director, Tim Macfadyen the task setter and Tom Bradbury did the Met from home – so that he could do the weather for the Lasham Regionals at the same time. The weekday weather more than compensated for the weekend gloom, with two tasks over 300km and one over 500km.

Day 1, Saturday, July 25. Task: 208.2km triangle, Bicester control tower, Chieveley A34/M4 junction (J13) 5km N of Newbury.

From l to r: Michael Deacon (sponsor) with winners Dave Watt (3rd), Justin Wills (1st) and Martyn Wells (2nd) and Bill Davis the competition director. Photo: Nick Wall

Weather: A ridge of high pressure had moved east across England overnight and the task was a race against the approaching cloud from the next front. Fortunately the air was very unstable at low levels and cumulus still formed giving a good run eastward away from the thickening upper cloud. The return was much harder as top cover killed thermals.

[Noon pressure: 1020mb. Max temp 20°C. Dew point 11°C. Mean wind 240/16.]

The day belonged to Ed Johnston (LS-6), who romped home more than 6km/h faster than 2nd placed Trevor Murphy (ASW-20). Ed started as soon as he could and found better conditions at the first TP. Approaching Didcot, Ed chose one cloud street and Justin Wills another, giving Ed a few minutes' lead which he maintained to Swindon. "At that stage those few minutes were critical because I was able to go straight ahead into the gloom and find a thermal at Kemble quickly," Ed said. "People just two or three minutes behind me either fell down at Kemble or had a dreadful struggle there." That thermal got him home. Altogether 25 people landed out, many at Kemble, with 20 finishers.

Among the returners was Russell Cheetham, flying the first pre-production tipped LS-7wL in its first British Nationals. The tips, according to



Richard Palmer (ASW-20F) prepares to launch on Day 4. Photo: Dave Rich.

LS agent Martyn Wells, significantly reduce drag and can be fitted retrospectively. Russell amused the waiting crowd by landing short of the line and pulling his glider across unaided. Unsure of the rules, bystanders left him to it despite agonised shouts from the finish team that it didn't count. He had the last laugh of the competition, though – being the only pilot outside the top three to fly all six days and not land out.

Day 2, Monday, July 17. Task: 362.7km triangle, Newbury racecourse grandstand, Oundle A605/A427 junction E of town.

Weather: A cold front had cleared away Sunday's bad weather and a WNW flow brought unstable air across with good cumulus and excellent visibility. As the air dried out the cloud-base rose above 4000ft. Welsh wave gave climbs to over 12 000ft although competitors had no use for them.

[Midday pressure 1024mb. Max temp 19°C. Dew point 7°C. Mean wind 290/22.]

Day 2 was won convincingly by Martyn Wells (LS-6c) at 90.7km/h. He started at roughly the

Russell Cheetham with his tipped LS-7wL. Photo: Helen Evans.





same time as everyone else, went down cloud streets to Didcot, then went with a gaggle to Northampton where he picked up streets running just north of west with 4-5kt climbs. At Rugby, Martyn turned at right angles to the others and across a blue hole into the next cloud street. Arriving at the next reasonable cu at 1800ft he re-established himself and from then on had a straightforward run home.

It was a bad day for the Aboyne contingent of Peter Coward (LS-4A) and his crew, Bill Neill and John Douglas. Bill flew to Enstone and stayed aloft for 5½hrs to complete his Silver with distance and duration – then discovered he had no working barograph. His pilot, meanwhile, had landed out near Aston Down. Ground level inspection revealed the field had just been spread with dung.

Day 3, Tuesday, July 28. Task: 519.1km quadrilateral, Duxford J10 M11/A505 roundabout, Tuxford power station, Husbands Bosworth hangars.

Weather: A high of 1031mb moved over England and brought the inversion down to 5000ft. The inversion was still lowering at dawn and looked like sinking to 4000ft to make it a blue thermal day. Fortunately the task setter ignored the last minute Met pessimism, the inversion began to rise later and there were reliable Cu's. Winds became almost calm. This gave

very good soaring for the outward leg, not quite so good for leg two, and some problems for the return when shadows from bands of alto-cu castellanus produced lanes of poor thermals. [Pressure 1031mb. Max temp 21°C. Dew point 8°C. Mean wind zero.]

This was THE day of the competition and one that most pilots dream of. Thirty-four of the 45 gliders completed the task, with the winner, Justin Wills (LS-6) almost setting a new 500km record at a speed of 96.4km/h. Interestingly, Justin did not enjoy the first 300km, when gag-gling meant lower achieved speed. His break came after the field split up: he began to enjoy his flying then which meant he flew better and faster. Twenty miles SW of Husbands Bosworth he ran into as stubble fire which took him to 5000ft and a swift run home.

Mike Cuming (LS-4) in the meantime pulled out of the competition for the day to try a 750km – a tradition he started at the Open Class Nationals last year. Tim Macfadyen joined him on the task (Bury St Edmunds, Harrogate, Oundle). Mike was collected by long-suffering crew David Teasdel from near Cannock after 9½hrs and 620km, while Tim, who launched later, turned back at Doncaster and made it home.

Day 4, Wednesday, July 29. Task: 293.3km butterfly, Tewkesbury M5/M50 intersection, Olney, church spire S end of village, Kettering, A509 bridge over railway.

Weather: Yesterday's splendid high had moved off into Germany leaving a more stable and rather hazy south-easterly flow with an inversion about 3500ft. Conditions were complicated by broad bands of upper cloud carried on WSW upper winds. One band threatened to delay the start and a second arrived just too late to ruin the return.

[Midday pressure 1019mb. Max temp 23°C. Dew point 10°C. Mean wind 150/11.]

Andy Davis (Discus A) won the day at a speed of 93.8km/h, with Justin Wills hard on his heels at 93.4km/h. Dave Watt (ASW-24) and Martyn



Steve Parker waits for the grid to get moving. Photo: Bill Neill.



Tel:
0904-83653

McLEAN AVIATION

THE AERODROME, RUFFORTH, YORK YO2 3QA

Fax:
0904-838146

Repairers in GRP, Carbon, Kevlar, Wood & Metal Structures. Full repair & maintenance facility for all types.

Main Agents for
NEOGENE Paints & Coatings

Stockists of
Ceeconite fabric
Epoxy resins
Glass cloth
Gel coat
Aerodux glues
O/K Barographs
& accessories

Spare Parts for:
T.59 Kestrels
T.65 Vegas
T.61 Ventures
T.21, T.31, T.38
Ottfur hook reconditioning
Service & spare part

Tyres & tubes
Mail Order Service available
credit cards accepted

Full range of Sailplanes, Self-launching sailplanes & 2-seaters
Please ask for details

Bob McLean
0904-83653

GLASER-DIRKS U.K.

John Ellis
0765-689431

SOLE AGENTS FOR D-G SAILPLANES & SPARES IN UK & EIRE

15 METRE CLASS NATIONALS

Wells came in 3rd and 4th respectively. Meanwhile, Nympsfield pilot Ray Payne withdrew from the competition because of ill-health. The finish line saw some interesting attempts at mass landings, with a lot of finishers arriving back at once. Spectators wished they had video cameras.

Day 5, Thursday, July 30. Task: 251km butterfly, Ludlow Castle keep, Hay on Wye B4351, bridge over Wye, Evesham, bridge over railway.

Weather: A new high was moving into Ireland but an upper trough slowly moving SE lay from Cornwall to the Wash this morning. It produced a wide band of upper cloud which delayed the start of thermals. Thermals became good after the sun broke through. The task was set into Wales to get well clear of this upper cloud but a dense sheet of cirrostratus rushing eastwards from the Atlantic came over earlier than expected and killed thermals too soon for most people.

[Midday pressure 1019mb. Max temp 24°C. Dew point 12°C. Mean wind 010/05.]

A contest wouldn't be a contest without a very difficult day and this was it, as evidenced by the 34 outlandings. Justin Wills was the first of the eight who made it to the finish at 69.3km/h. This, too, was a day of gaggles, with gliders occasionally falling out and being left behind to slip into fields. After rounding Evesham Justin again found himself on his own and picked up a thermal just before Cheltenham which was to be the deciding factor of the day, for it gave him the height to reach a thermal at Cheltenham while still reasonably high. Those following missed it and struggled over the town. Dave Watt came in 2nd and Russell Cheetham 3rd.

Day 6, Friday, July 31. Task: 212km triangle,



Peter Coward's crew, Bill Neill (left) and John Douglas, with the special prizes they won for allegedly flying further than their pilot did during the Comp. Photo: Nick Wall.

Gaydon M40/B4451 J12, M1/A45 Northampton West.

Weather: The last high had moved into the North Sea but although yesterday's cloud was well away there was a threat of further cirrus coming from the west. At first visibility was very poor and pilots lost sight of the field soon after launch. One GPS-equipped pilot was heard to call the startline: "I have you as 1.9nm bearing 270 but where are you?" The pre-frontal upper cloud never appeared but a sea breeze from the Bristol Channel killed lift on the return.

[Midday pressure 1015mb with a heat low over the West Midlands. Max temp 27°C. Dew point 12°C. Mean wind 170/12.]

Justin wanted to fly carefully to ensure his place at the top, and so he left earlier than he might otherwise have done. But that early start proved just right. The critical point came 10 miles on to the third leg when at 1600ft he picked up a

good thermal which whisked him back to a good operating height. After a roaring climb in a stubble field NW of Banbury a series of good climbs ran him to Cheltenham and on to Nympsfield with a final speed of 99.5km/h devaluing the day. For a cautious flight, it was a winning performance.

Justin Wills was the 15 Metre Champion with three day wins and 5457pts. Martyn Wells, winner of Day 2, came 2nd with 5126pts, 22pts ahead of 3rd placed Dave Watt. Prizes of a carriage clock, a salver and a barometer, donated by joint sponsors Deacon's of Tetbury & Swindon and Rolex, were presented by Mr Michael Deacon. Numerous special prizes were awarded including one to Pete Coward's crew who, with 25hrs in the air, allegedly flew more km than he did. As Bill Davis remarked in his closing speech, you couldn't really hope for better weather at a British competition.

FINAL RESULTS

15 Metre Class Rolex Nationals

Pos	Pilot	Glider	Day 1.25.7 208.2km A Bicester, M4 J13			Day 2.27.7 362.7km A Newbury, Gundle			Day 3.28.7 519.1km B M11 J10, High Marnham, Husbanden Bosworth			Day 4.29.7 293.3km butterfly M5 J8, Olney, Kettering			Day 5.30.7 251km butterfly Ludlow, Hay on Wye, Evesham			Day 6.31.7 212km A M40 J12, M1 J16			Total Pts
			Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	
1	Wills, T. J.	LS-6	75.2	6	888	84.3	=4	907	96.4	1	1000	93.4	2	994	69.3	1	815	99.5	1	853	5457
2	Wells, M. D.	LS-6c	65.4	13	815	90.7	1	1000	89.0	5	910	87.0	4	796	63.4	4	796	88.2	11	714	5126
3	Watt, D. S.	ASW-24	75.4	5	890	82.9	8	885	89.9	4	922	88.5	3	916	68.0	2	811	85.4	18	680	5104
4	Cooper, B. L.	LS-6	75.7	4	893	76.7	16	794	88.4	6	903	81.8	8	807	(215.2)	-22	609	97.8	2	831	4837
5	Johnston, E. W.	LS-6	1 65.9	1	969	73.6	20	749	86.6	10	884	80.3	12	783	(249.7)	-11	660	89.5	9	730	4775
6	Scott, T. J.	LS-7	72.5	8	868	72.9	22	739	84.8	14	860	86.5	5	883	(215.3)	-22	609	84.5	21	688	4627
7	Devis, A. J.	Discus A	(200.1)	22	813	80.4	9	849	83.1	19	840	93.8	1	1000	(215.5)	-22	603	87.8	12	709	4620
8	Rollings, C. C.	52D 55	73.1	7	872	83.4	7	893	80.2	25	805	77.9	-22	745	(223.5)	-12	631	83.2	24	652	4598
8	Jordy, M.	ASW-20i	71.7	9	862	77.0	15	799	87.5	8	893	84.1	6	844	(223.5)	-12	631	76.1	37	565	4594
8	Barker, K.	Discus	84.5	16	808	84.6	3	910	84.7	15	859	79.2	17	766	(158.3)	-40	438	91.4	5	753	4534
11	Jonea, P. R.	Ventus C	(192.1)	-25	580	84.4	=4	907	84.2	16	853	82.5	16	769	(223.5)	-12	631	90.1	8	737	4477
12	Clarke, A.	Ventus	77.8	3	908	71.4	28	716	86.6	11	892	75.0	32	699	(215.3)	-22	609	75.9	39	562	4376
13	Morris, G.	ASW-20	(192.1)	-25	580	72.8	23	737	90.4	3	927	81.7	9	805	(205.2)	-29	582	90.2	7	738	4369
14	Hutchinson, S.	Discus	60.3	18	777	66.9	30	650	79.4	26	756	78.6	20	756	(249.2)	9	699	83.7	23	658	4335
15	Cheetham, R. A.	LS-7w	59.1	19	768	77.2	14	801	85.7	23	821	71.1	44	386	65.4	3	603	87.1	14	700	4279
16	Evans, A. D.	ASW-20c	65.0	14	812	63.4	-32	598	85.6	12	870	79.0	18	763	(208.7)	-27	591	75.1	40	553	4187
17	Murphy, T. J.	ASW-20	79.3	2	919	73.1	21	741	(499.2)	38	403	81.0	10	794	(223.5)	-12	631	85.8	17	684	4172
18	Smith, R. J.	Ventus B	(197.6)	-23	603	78.9	12	826	85.3	13	867	81.5	39	604	(223.5)	-12	631	80.7	-28	622	4153
19	Sheard, P. G.	Ventus A	(206.6)	21	840	83.6	6	895	(497.9)	39	402	80.4	11	785	(188.3)	35	551	96.8	3	820	4073
20	Parker, S. J. C.	LS-4	(187.1)	37	559	77.4	13	805	77.1	28	768	78.2	31	700	(205.3)	-29	582	82.2	25	640	4054
21	Jeffery, P.	LS-7	(192.1)	-25	580	85.5	2	923	78.0	27	778	77.7	41	593	(178.8)	39	501	81.3	27	629	4004
22	Durham, M. W.	LS-7	(183.1)	-40	542	56.4	38	496	80.8	24	812	78.6	19	757	(219.2)	21	619	91.8	4	758	3984
23	Hartley, K.	ASW-20b	(187.3)	44	512	78.9	11	827	81.9	20	826	78.1	21	749	(135.8)	42	368	85.0	19	675	3957
24	Dawson, M. R.	Ventus A	(192.1)	-25	580	57.9	37	518	87.6	18	844	77.1	26	733	(223.5)	-12	631	82.0	26	637	3943
25	Smith, D. J.	LS-6c	64.2	15	811	(78.1)	42	20	90.8	2	933	69.5	38	612	82.9	5	795	88.8	10	722	3893
26	Hood, L. S.	Ventus 15c	67.6	10	831	73.7	19	750	(503.2)	42	357	78.0	-24	741	(194.8)	33	551	80.2	-28	622	3852
27	Fox, R. L.	Ventus	(182.8)	42	541	63.4	-32	598	76.7	32	713	79.7	15	774	(208.7)	-27	591	80.1	31	615	3832
28	Sheard, P. G.	LS-7	48.9	20	691	74.9	18	768	(509.4)	-35	412	76.5	28	723	(198.1)	31	561	79.2	34	609	3764
29	Dobson, J. B.	LS-6c	(187.8)	45	479	58.9	35	532	87.5	9	892	80.0	13	780	(144.1)	41	394	85.9	15	686	3763
30	Lemin, R.	Discus	(192.1)	-25	580	67.2	29	655	72.6	31	714	75.1	43	550	(195.9)	32	554	85.9	16	685	3738
31	Roberts, D.	ASW-20i	(183.3)	39	543	80.0	10	842	81.8	=21	824	82.6	7	821	(190.3)	34	537	(132.3)	44	128	3695
32	Pantococi, P. R.	LS-6c	65.6	15	811	72.5	-24	733	86.0	21	824	77.6	-24	741	(10)	44	0	76.8	33	674	3688
33	Coward, P. J.	LS-4a	66.5	11	823	(0)	43	0	83.8	17	849	77.4	35	638	(223.5)	-12	631	90.4	6	740	3681
34	King, P. A.	LS-7	(192.1)	-25	580	(284.0)	41	229	68.1	7	899	79.9	14	778	(211.3)	26	596	76.0	38	563	3647
35	Mouliang, A.	ASW-20	(183.6)	38	544	62.3	34	583	(509.4)	-35	412	77.2	36	633	58.6	8	781	84.5	20	669	3622
36	May, J. I.	LS-4	(183.1)	-40	542	53.1	39	446	70.9	34	894	73.6	34	676	61.2	7	799	65.3	42	432	3579
37	Jeffery, M. B.	DG-600	(192.1)	-25	580	(0)	-43	0	74.5	30	737	77.9	-22	745	61.3	6	790	84.2	22	665	3517
38	Palmer, R.	ASW-20f	(192.1)	-25	580	70.8	27	707	(459.9)	41	370	75.9	29	714	(183.5)	38	516	80.7	30	621	3508
39	Gardner, D. H.	LS-3a	(197.6)	-23	603	65.2	31	625	(87.4)	40	377	68.7	40	598	(223.5)	+12	631	78.9	33	610	3444
40	Olander, S.	Discus	(192.1)	-25	580	49.5	40	394	71.7	33	703	69.7	37	615	(187.6)	37	529	78.9	35	599	3420
41	Cuming, M. F.	LS-4	(192.1)	-25	580	69.9	28	694	Withdrawn			86.2	27	727	(235.2)	10	662	87.7	13	707	3370
42	Spencer, J.	DG-600	(192.1)	-25	580	58.0	36	522	(171.7)	44	128	75.1	30	701	(220.2)	20	622	80.1	32	614	3187
43	Walsh, A.	DG-400	(192.1)	-25	580	76.3	17	788	(401.7)	43	321	74.8	33	695	(96.3)	43	255	71.6	41	510	3149
44	Baker, P.	Discus B	(178.8)	45	524	(0)	-43	0	75.4	29	747	76.6	42	575	(189.1)	35	533	(206.1)	43	233	2612
45	Payne, R.	Discus B	61.2	17	763	72.5	-24	733	(503.2)	37	407	Withdrawn			Withdrawn			Withdrawn			1923

Score: Ken Brown, BGA Competition Scoring Program by Specialist Systems Ltd.



"You can bank on us"

RADIOS

DELCOM AIR 960 Tx/Rx. £186, ICOM A2 Tx/Rx. £268, ICOM A20 Mk 2 Tx/Rx, VOR £329, Inc. nicads and accessories.

GLIDER ELECTRONICS

T/S Inverter "High Tech Model", 12V in - 24, 26, 28V out £23.90. Automatic charger for sealed rechargeable 12v batteries, two outputs with LED indicators audio polarity warning £38.90.

INSTRUMENTS

Latest zero resettable PZL Sensitive Variometers complete with speed to fly ring and flask. Standard size £159, Miniature £189. PZL expanded scale sensitive ASI 0-140 kts in 1½ turns or 0-200 kts in 1¾ turns £89. PZL TE Compensator £25.90, Stainless Steel Total Energy Probes £18.60, Reconditioned Sensitive IFR Altimeters 20,000' £147, 30,000' £157, New IFR 20,000 Altimeters £159.90, Reconditioned 12V T/Slips £144, New Miniature 12V PZL Turn & Slip £269, Reconditioned Bendix 3¼" Artificial Horizons with new inverter £349, Airpath Panel Mount Compasses reconditioned £43, new £48.90, New IFR Pedestal Mount Compasses £64, Ex Ministry Accelerometers Standard Size £82, New IFR Mini Accelerometers £179.90.

THE NEW "XK 10" VARIOMETER

Standard or Miniature Instrument sizes, Dual Range, Dual Response Rates, Up and Down Audio with Variable Thresholds, Dedicated Continuous Reading Averager, No Flask required, Only 10MA power consumption. £299. Repeater Meter £79.

NEW PARACHUTES

SK94 - latest state of the art, 24 gore, two pin release, soft comfortable back pack parachute. Rapid opening with low descent rate, steerable, 20 year life £415.

AIRFRAME SPARES

Cadet, Tutor, Sedbergh, Prefect, T.31, Grasshopper, Swallow, Skylark.

ASH SKIDS

K-7 & K-13 £69, OLY 2B and other types from £62.

OTTFUR RELEASES

New "Ottfur" releases £116.00. Exchange "Ottfur" re-condition service £46.00.

TRAILERS

Superior well engineered metal trailers for the discerning glider owner. POA.

GLIDERS

Foka Standard, Foka 5.
*SZD-51-1 Junior £16,500
*SZD-50-3 Puchacz £24,000
*SZD-55 US\$45,000

*New gliders in conjunction with Anglo Polish Sailplanes Ltd. Prices subject to revision.

Prices shown exclude VAT and carriage.

COLIN D. STREET

"Yewdown House", 7 Sharphorne Close, Ifield, Crawley, Sussex, RH11 0LU.
Tel: 0293 543832, FAX 0293 513819 24hrs

JOHN EDWARDS

BGA Senior Inspector

*C of A Inspections
Repairs & Restorations*

Watermill Industrial Estate
Aspenden Road, Buntingford
Herts. SG9 9JS
Tel: 0763 71612 (works)
0763 89460 (home)

CANOPIES & SCREENS



LARGE RANGE
OF SHAPES
AND SIZES
FOR GLIDERS
AND LIGHT
AIRCRAFT



EX-STOCK
IN CLEAR OR
COLOURED



Bob Reece
REMATIC
School House
Norton
Nr Worcester WR5 2PT
Tel/Fax Worcester
(0905) 821334

WEAR TO FLY 2

**A follow up on Terry Hurley's
article in the April issue, p90**

Geoff Crawshaw is manager information services at the Wool Research Organisation of New Zealand and was formerly editor of *Textile Horizons* the magazine of the Textile Institute, Manchester. He does not excuse his failure to get all three Diamonds by lack of suitable clothing.

Quite some time ago the International Wool Secretariat's UK Branch published a couple of advertisements for wool clothing showing alternatively a lady, dressed up to the nines, about to step into a glider, and a very superior instructor just having stepped out of one, looking even more elegant than John Jeffries at a BGA dinner.

Terry Hurley would have been delighted to see them. But mostly they were pinned on club noticeboards with derisive comments scribbled by Platypus and his ilk.

Terry Hurley is right, though. It is difficult to buy suitable gliding gear. This was not always the case. In the days of T-21s, Tutors and Prefects you could buy a cast-off Spitfire pilot's sheepskin jacket for a few quid, and his suede boots for only a little more. What better gear! The aspiring macho glider pilot cut a finer figure than the Red Baron; and Merri would have looked good in the outfit too. My real point, though, is that there was nothing more practical. With the jacket zipped up, a wool scarf around the neck, and the sheepskin collar turned up over the ears, the glider pilot of the 1950s was snug in spite of the slipstream.

But try wearing the same gear in the sleek cockpit in a nifty 1990s glider and you would be dreadfully uncomfortable - if you managed to squeeze in, that is. This is serious stuff, Terry Hurley. Discomfort can be dangerous: at the very least it can impair your performance in the sky.

Take a typical gliding situation - typical for me, that is. You are scratching about at 500ft, trying to work out which part of that ploughed field the thermal is funnelling from. The ambient temperature is high; the mid-day sun is radiating through the canopy; you are working hard physically pushing the wing down into the gusts and simultaneously prodding at the rudder and the adrenalin is flowing because you know you should never have got yourself into this situation. The combination of heat, exertion and nervous strain causes you to sweat profusely.

Then, at last, you get centralised and climb rapidly to 5000ft. The air temperature is 10°C lower and that juicy cu has cut off the sun's heat too. And with the prospect of a booming sky ahead, the pressure is off. But you can feel a chill from your damp clothing.

Cold stress can lead to lethargy, poor co-ordination, irrational behaviour and visual problems – hardly conducive to optimum performance. Watch out golden oldies – you are at risk from pneumonia. Now proceed to the windward edge of the cloud. You contact wave and climb further, sensibly levelling off at 10000ft (more people should try this – I achieved my Diamond goal in the UK flying above cloud on a convective July day). The health hazard is accentuated, and the cold stress on the body means that anoxia can be encountered even at this modest altitude.

What to wear to alleviate such situations? Avoid nylon and polyester garments; they do little to absorb or transmit the perspiration, becoming wet and losing their insulating effect. Cotton or polypropylene are a little better, they wick perspiration away and keep the skin relatively dry. Best of all is wool. The perspiration generated under that situation of heat and stress has a purpose – to provide evaporative cooling, thereby preventing the body from overheating. A situation of insensible perspiration that precedes the appearance of liquid perspiration is most favourable. Wool absorbs and transmits both kinds of perspiration, but does not wick liquid perspiration away. The perspiration evaporates from the skin and does its cooling job to best advantage. The wool fabric remains dry and retains its insulating power as you climb.

Still wear it for summer gliding in spite of tea stains and darns

Where can you buy suitable wool garments? Here's the rub. In the late 1960s the wool sweater shirt was fashionable and it was ideal. After visiting 23 shops, I managed to find one of the last ones in 1980 and I still wear it for summer gliding in spite of tea stains and darns. It is fine and light and its pale colour reflects the sun's rays. With the neck open, it is acceptably cool at low altitudes. At height I button up the neck and turn up the collar and am reasonably warm.

Wool has another plus point if you are a tug pilot. Once on take-off I was horrified to see the tug cartwheel (Bill Scull in the back was equally horrified). Fortunately there was no fire and my friends crawled clear, but I was reminded of an accident to a New Zealand crop dusting plane that did burn. The pilot's polyester trousers melted on to his leg and he suffered serious burns, but his wool sweater successfully protected his torso. I now never wear synthetic garments for gliding. Cotton will burn, but does not melt dangerously and for winter gliding a cotton anorak on top of a layer of wool is the answer.

Availability of 100% wool trousers is a problem, though. I find cotton jeans insufficiently warm for winter on the airfield or even in summer at height, and am nervous about the fire hazard of the common wool/polyester slacks. So my

GIRLS BE WARNED

Many many moons ago, when I was still young and impressionable, my then boy friend took me to a gliding club as he thought he might take to that sport. Three visits later – he was hooked and I was bored out of my mind. On the rebound I sort of fell for another pilot whose line of patter was akin to his flying skill.

Now I was carefully brought up by my parents, convent educated and generally considered a "nice girl" but definitely not prepared for aviation mania. When my new beau took me to the cinema to see a very romantic French film (for the first and last time in our relationship), at the moment critique when the screen hero took the leading lady in his arms for the big love scene, my hero turned to me and said "My God, just look at that sky!"

If only I had realised the significance of that remark. I would and should have run. If only . . .

Many miles of retrieving later in cold cars with starting handles and no lovely dinners on the way home – in those days the pilot if he landed out could rush back during Comps and have a reflight, I had had enough. By now our lounge was wall papered with failed declarations for 500km, our friends were dropping away like flies in winter and "shop talk" was referred to as "Aileron Bushes", whatever that meant.

One day we were invited to a super dinner party with really interesting people. I had my hair cut and set, bought a new dress and had organised a reliable baby sitter. For two days before my man had been behaving very strangely making highly suspicious phone calls which ended abruptly when I entered the room. A mistress I wondered, no impossible – his mistress was an invisible load in a long wooden box at Lasham.

The hors d'oeuvre was sublime, the lamb melted in my mouth and the men . . . Ah.

As the hostess offered a lime sorbet, my man excused himself and two minutes later came back and quietly explained to the hostess that he felt very very unwell. Being a dutiful spouse I

wool gliding trousers are pretty ancient. As my gliding clothes tend to double as gardening and painting clothes, I shall never feature in one of the Wool Secretariat's ads. Terry Hurley would be disgusted if we were to meet, but I share with him the wish that someone would produce some gear for gliding – trendy for him, practical for me.

The comments on clothing physiology are based on research carried out at the Hohenstein Research Institute, Germany, and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Division of Wool Technology, Australia.

helped him into the car and we drove home. On the way he admitted that he was perfectly all right but needed to rush down to Lasham immediately. Apparently for the past two days Jock Findlater that supreme forecaster and he had been watching the weather and Jock had confirmed on the telephone that the next day was the day.

Livid wasn't the word for it. Divorce and take him to the cleaners – get the glider, all the instruments, the house and let him have the over-draft. Next day he climbed into the 419, declared Perth and landed at White Waltham half an hour later. Serve him right!

Years later (we were speaking again by then) we bought an Eagle two-seater. "Darling" he said "we can fly together and have fun and on mediocre days you can fly it solo or take your friends up for a ride". It did not work – I got the dross and he took up beautiful young things who fluttered their long eye lashes at him. By now he had learnt and conned me into selling him my share in the Eagle for a set of golf clubs – not the sort you play on you understand, the sort you play with!

Golf is very relaxing. Nice normal people, weather is not really a factor and when I shout that word to golfers to get out of the way – you should hear the venom in my voice.

Girls be warned – it might already be too late for you but disregard Noel Coward's instruction and do put your daughters on the stage and make sure that your son-in-law suffers from seasickness, airsickness and vertigo!

It's what you would have to be!



To fly without the
appropriate insurance
cover – which is exactly
what we provide,
including complete
back-up and advice
service at all times!

Phone, fax or write to:
Stephen Hill

hill aviation
insurance
services ltd

Phone: 0845 567777 Fax: 0845 567744

22 Melltowns Green, Pickhill,
Thirsk, North Yorkshire YO7 4LL.

NEW FAI SECRETARY



Max Bishop, former RAFGSA secretary, is to take over as secretary general of the FAI on February 1, based at their Paris office.

Tom Zealley, the FAI delegate, writes:- The FAI has been around for a long time – it was founded in 1905 – and is the oldest established international aviation organisation. As such it could be in danger of becoming set in its ways and rather slow moving. However, a recently announced change of its general secretary will, I believe, symbolise its willingness to look to the future and not just to its worthy past.

At the April meeting of the FAI's ruling Council it was decided not to renew the contract of the present secretary general and to seek applications for a new incumbent for that important post. The FAI headquarters is in Paris where the staff are, of course, French. But the membership is world-wide with virtually all its meetings and paperwork in English, so it is obvious that the secretary general must be multi-lingual. It is good news for British gliding enthusiasts that that attribute and many others persuaded the FAI appointment committee to select Max Bishop.

In addition to his contribution to gliding in Britain, Max has been working in the international field for some years as a member of the FAI Aerospace Education Committee and is currently its president. As such he has become well known and liked and I am sure he will be well supported throughout FAI.

In taking up this post, Max will be concluding his career in the RAF which he started after leaving university. He is now a Group Captain and president of the RAF officer selection board at Biggin Hill.

MERRI HEAD DESCRIBES HER NEW JOB

I've recently had the honour to be elected BGA Public Relations Committee chairman – and it is an honour. Though I came late to gliding, it has become part of the fabric of our lives, and I'd like to give something back to the sport which gives me so much.

Gliding is perhaps the most exhilarating pastime on earth. I don't really need to tell you this, because you're among the converted or you'd be reading another magazine. It is also a pastime which accommodates all sorts of interests and abilities; it's not only about taking

ever increasing spans around ever increasing distances.

I see my job as, to a large extent, making sure that as many people as possible understand that gliding is fun and accessible. To this end, since I've been in the chair, I've been busy writing articles and organising interviews and photographic sessions for several different publications. I'm in the process of producing a promotional video which will be circulated among the BGA member clubs for them to use, as they wish, at open days (any help or suggestions are welcome). We also organised a press day at the Open Class Nationals with television crews and newspapers attending.

The BGA newsletter will be undergoing a revamp during the coming months looking to an expanded format, so if your club has any news or information to publish **let me know!**

Personal details: I'm a management consultant specialising in cable and satellite television. I have a commercial pilot husband, Derek, without whose help I would not be gliding these days at all thanks to the demands of our daughter, Isobel, the famous flying baby who can be seen at Bicester riding on our Janus as we push out to the launch point.

THE 1000 CLUB LOTTERY



Chris Simpson, chairman of the trustees of the Philip Wills Memorial Fund, photographed drawing the winning ticket in the first of the BGA's 1000 Club Monthly Lottery. Half the proceeds each month will go to the fund.

The July results: First prize – C. J. Nicholas (£65.75) with the runners up – D. Holmes, E. R. Duffin, C. H. Morshead, R. Milton and J. Richardson – each winning £13.15.

The August results: First prize – P. Molloy (£74) with the runners up – M. Ward, A. M. Bower, M. A. Clarke, S. Currie and J. Gorrington – each winning £14.80.

MANDATORY INSURANCE COVER

Current BGA Operational Regulations make it mandatory for all gliders to be covered by third party insurance (and additionally by second seat insurance for two-seaters) for a minimum of £500 000. In addition the Executive Committee recommend that consideration be

given to making that cover one million pounds. Those figures were decided in January of this year and first published in the April issue of *S&G*, p98.

Since that time some members of the Executive have been concerned as to whether or not these limits are high enough. This, of course, is one of the reasons why the BGA takes out a block back up policy of its own with one million pounds of cover for all rated gliding instructors in case the amount taken out by their club or the aircraft operator proves to be inadequate.

It is recognised that there may well be different degrees of risk involved between club and privately owned gliders and between single and two-seaters. Later this year the Executive will be giving consideration to whether or not the operational Regulation should be rewritten to reflect different levels of cover for different gliders and, in the meantime, we should welcome any feedback on this subject from clubs, owners or instructors. Until such time as any review comes into force we would take this opportunity to remind you that £500 000 of cover is the *minimum* mandatory cover and that you are urged to consider, and to take advice from insurance brokers, the possibility of extending this cover to one million pounds.
Barry Rolfe, BGA administrator.

NATIONAL LADDER

Open Ladder

Leading pilot	Club	Fits	Pts
1. P. Jeffery	Cambridge Univ	4	7236
2. J. Bridge	Cambridge Univ	4	6899
3. J. D. J. Glossop	Cambridge Univ	4	5851
4. P. Gentil	Cotswold	4	4046

Weekend Ladder

Leading pilot	Club	Fits	Pts
1. E. W. Johnston	Cotswold	4	4093
2. S. Evans	Cotswold	4	2945
3. T. E. Macfadyen	Bristol & Glos	4	2475
4. A. Parker	Cotswold	2	2335

OBITUARY

WALLY WALLINGTON

I first met Wally in the mid 1950s at Lasham. His distinctive voice and weather presentation meant "Nationals" to me, and I was especially honoured to receive from his own hands a pre-release copy of the first edition of **Meteorology for Glider Pilots** when I won the 1961 Nationals. I still treasure that volume!

Many years and many competitions later I moved to Benalla in Australia where, only a few months previously, Wally had directed the very successful World Gliding Championships. Within a very few weeks of my arrival I learned that Wally was Met man for the World Hang Gliding Championships being held in the nearby mountains of North East Victoria. Ann Welch was a steward of the meeting and I spent a very happy day with them.

Meanwhile I developed a small skill in convection forecasting here at Benalla, and performed this function for the 1989 Australian Nationals. Wally was never very far away, and

gave me extra help in an area that was covered only in the *second* edition of his book. He even allowed me to photocopy the new chapter!

Then with some trepidation, I agreed to be official Met man for the Australian Hot Air Balloon Championships in 1990. Fortunately Wally turned up crewing for his son John who was defending his title as Australian Champion. Wally couldn't be the Met man and a competitor, but generously shared his special knowledge of the minute wind shifts that balloonists rely on, obtained with a theodolite which he had personally modified, and linked by software of his own design, to a computer carried in the boot of his car.

The memories, and occasional hilarity of our daily pre-dawn launch of the pilot balloon will stay with me always. His was the expertise – I was merely the presenter. (Wally died in July.)
JOHN WILLIAMSON

JOHN EVANS

Following a training period at RAF Bicester, the Army gliding team arrived at the 1968 Nationals at Dunstable flying in formation. John Evans (vice-president of the Army Gliding Association) had instructed us to soar to Dunstable and overfly the field in formation. Following this, flying his beloved white and yellow Olympia 419 he gave an expert aerobatic display. This act demonstrates his adventurous spirit and love of flying, which together with team work exemplifies his leadership in the AGA over many years.

Soldier and engineer, John fought as a gunner during the Desert War before joining REME. Many remember him during his service at the Army Air Transport Development Centre, Old Sarum and at Boscombe Down.

John's early gliding days started in Germany. He later established a gliding club at RAF Abingdon using a T-21 and began a long association with the RAFGSA, in particular the Moonrakers Club at Upavon.

He was not only an excellent and experienced instructor and competent competition

BGA ACCIDENT SUMMARY

Compiled by DAVID WRIGHT

Ref Number	Glider Type	BGA No	Damage	Date Time	Place	Pilot/Crew		
						Age	Injury	Hr
19	K-13	-	M	28.12.91	North Hill	P2 45 42	N N	440 280
After a short flight in nil wind conditions P1 flew a wide circuit and long final approach which resulted in the glider getting too low. The glider's left wingtip hit part of the boundary hedge but a normal landing followed. P1 normally flew higher performance glass two-seaters and had limited experience in the K-13.								
20	K-6CR	2314	M	11.1.92 1530	North Hill	45	N	55
In a fresh NE wind the approach was over a west facing lee slope that created a very strong wind gradient. The pilot turned crosswind too late and found strong sink so increased speed in an attempt to "zoom" climb over the ridge. This did not work and so he pancaked into the undershoot area. The club is to move aiming point further into the airfield.								
21	Bocian & Vega	1676	S	15.2.92 1530	Crowland	P2 0	N	-
Flying had stopped due to the increasing wind. Club gliders were being put into the hangar while those still outside were well weighed down with tyres and there were a good number of members around. A severe gust caught the Bocian and turned it over on to the club Vega.								
22	Grab G109	M/G G-BJZX	M	9.2.92 1230	Enstone	52	N	3500
The motor glider instructor decided to check the conditions. After three normal circuits he made a low pass over one side of the airfield. He hit a low voltage power cable running to the old control tower which he had not seen. Feeling vibration he closed the throttle, converted speed to height and landed on the runway. A propeller tip was lost.								
23	Astir Cs	2514	S	16.2.92 1600	Booker	35	N	470
In strong wind conditions the pilot allowed enough height to reach the airfield but flew the whole approach with the airbrakes open. The glider undershot the landing area, hit a tree on the boundary and landed sideways on a very rough part of the airfield.								
24	DG-300	-	N	15.2.92 1320	Parham	25	N	40
Following a higher performance glider, which was itself rather low on the approach for the strong wind conditions, the pilot found he would not clear the trees on the airfield boundary. He was able to land short in a very small paddock but had to groundloop the glider to avoid the far fence, power poles and stream. The glider was not damaged.								
25	K-8	3118	M	1.1.92 1356	Parham	68	N	536
At about 800ft on a winch launch that was already rather too fast the glider encountered a gust and the weak link broke. A bang was heard but the glider flew a normal circuit and landing. There was a hole in the left fuselage and the broken weak link was embedded in the left stabiliser with the strop trailing. Shorter strops are now used.								
26	Std Libelle	-	N	9.3.92 1500	Nympsfield	64	N	1500
The pilot failed to do a positive control check. At 500ft on the aerotow he found that only one aileron was connected. He pulled off tow and managed to land back on the field. However, in doing so he cut across the path of an aerotow combination causing it to turn sharply while only just airborne.								
27	LS-7	3663	S	8.3.92 1400	Abergavenny	30	M	820
After choosing a suitable landing field the experienced pilot set up a normal circuit and approach. He remembers the final approach but next woke up very dazed surrounded by broken canopy in the hedge. Wheel marks showed he had landed some 30-40ft short and hit the hedge. He may have been approaching too slowly and stalled in a gust.								
28	Blanik	2094	M	11.3.92 1210	Talgarth	P2 56 31	N N	930 35+873pwr
While ridge soaring the glider encountered sink and, after first choosing a field, P1 changed his mind and turned down the valley to reach better fields. While doing this the glider hit power cables which neither pilot had seen but was able to continue, landing back at the airfield after regaining height. The nose was dented by the cable.								
29	K-7	-	N3	11.1.92	Winthorpe	P2 41 43	N N	500+ 14
At the top of the winch launch P2 pulled the release but the cable did not go. P1 realised this while P2 was wondering why the glider would not trim out and pulled the release with both hands. The cable fell away. The glider had by this time overflowed the winch and the cable fell on to a main road damaging a car. The Tost hook was found to be worn.								

BGA SHOP

1993 GLIDING CALENDARS

In response to popular demand we shall be stocking the SSA Calendar again for 1993. Full colour gliding prints to illustrate each month, with clear dates and useful room to make your own notes. We are the sole importer in the UK and have a limited supply so order now at £7.00 each (plus 50p for post and packing).

Help to put gliding on the map by putting it on the wall for all to see. Of course, if you'd rather put a map on the wall then we can sell you one of those as well – but we'd rather you put the map in the glider and the calendar on the wall!



BRITISH GLIDING ASSOCIATION

SALES DEPT., FREEPOST, LEICESTER LE1 7ZB

Telephone 0533 531051

or ask us to send you our complete sales list

(ACCESS/VISA accepted)

**Grob Twin III 18mtr, now all carbon
25KG lighter**

Self-Launcher: Full dual control
VP propeller
Highly automated operation
First SL with FAA certification
50 sold
Short delivery

Sailplane is the same specification but sans engine.

Send for details:

**JOHN ADAMS
SOARING (OXFORD) LTD**
Hoo Mill, Ingestre, Stafford
Tel: 0889-881495 Fax: 0889 882189



TWIN III SL

SAILPLANE

ZULU GLASSTEK LTD

- ★ High quality repairs completed on time
- ★ General maintenance and instrument installation
- ★ We supply GPS, Bohli Compasses, R C Allen horizons, new altimeters, hard seals, instrument accessories, tapes & polishes

**Pete Wells
Workshop & Fax
08444 4345**

**Office
08444 3036**



TOP

*The answer to your launching and landing out problems – **TOP***

*Available for all types of ASW-20s also ASTIR CS, CS 77 and Jeans.
Std Cirrus B and 75.*

WBA ENTERPRISES LTD

Hillcrest Farm, Maxworthy, Launceston, Cornwall PL15 8LY. Tel: 056681 332

pilot but a sound administrator. In 1960 he became association master instructor at Lasham and established the Southern Command GC at Netheravon which eventually became the Wyvern GC. He campaigned for an AGA Adventurous Training Centre but there was never enough money – the RAFGSA Centre at Bicester now, of course, looks after the three services. John was the technical member of the AGA for many years, in addition to many other duties with the Association, and was a highly respected BGA inspector.

He emigrated to South Africa and became the manager of the Port Elizabeth Bus Company. He took his Olympia 419 with him and later replaced it with an ASW-20 in which he had many exciting and challenging flights. He was a stalwart member of the Eastern Province Sailplane Club Utenhage and influential in establishing technical standards, based on BGA disciplines, in the South African gliding movement. When he returned to the UK in 1989 he immediately became active in the AGA, joining the Kestrel GC.

John was one of those unique people one is privileged to meet in life who is impossible to replace. He was a much loved and respected man and fellow glider pilot. Above all he was a gentleman.

Our deep sympathy goes to his widow Joan and his family.

TED SHEPHARD & JOHN WELSH

Sailplane & Gliding

You can buy the magazine from most Gliding Clubs in Gt. Britain, alternatively send **£19.00** (to include the 1992 Yearbook) or **£15.50**, 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 BGA.

Price £5.50 including post and packing.

USA and all other Countries
Payable in either Sterling £15.50 (or US\$30.00) (or US \$40.00 by Air Mail) direct to the British Gliding Association.

WINCHING WIRE

- Available in stranded cable 4mm, 4.5mm and 5mm diameter
- High tensile galvanised steel
- Special coated wire for use on runway
- Tost release rings and weak links and splicing ferrules available
- Also cable parachutes and shock absorber ropes

BEST PRICES for gliding clubs - supplied by glider pilot

DAVID GARRARD
Bridge Works, Gt Barford, Bedford
Tel: 0234 870401

30	Skylark 3	950	N	3.3.92 1447	Porkmoak	56	N	800
The pilot was about to land to the side of a previously landed glider when, at about 50ft, he saw a tug on a converging course for the landing area. He closed the brakes, overflew the tug and landed well up the field. Neither pilot had seen the other in the circuit.								
31	Ventus B	2853	M	25.3.92 1000	Aboyne	41	N	270
After returning to the airfield after a Gold height flight the pilot raised the wheel during his downwind checks. As a consequence he belly landed on the tarmac runway.								
32	LS-3A	2637	M	3.4.92 1901	Aboyne	37	N	70
After a wave flight in snowy conditions the pilot decided to descend as the weather was closing in. It became very turbulent and he decided to make a field landing but forgot to put the wheel down. In addition he was unable to round out, in spite of flying at 70-80kt, and landed heavily. The wings were covered with ice.								
33	Astir	2185	M	10.2.92 1630	Lleweni Parc	35	N	297
After a local soaring flight the pilot decided to land near the hangar "to wash down the glider". Shortly after rounding out he became aware that the wheel was still up and made a gentle, fully held off landing on the wet grass.								
34	K-2a	1026	M	11.3.92 1600	Wormingford	19	N	1
After a check flight the early solo pilot took a second winch launch. As he signalled "too fast" his knee caught the airbrake lever and they opened fully. The weak link broke and in closing the brakes the pilot was rather slow in lowering the nose. However, the glider landed safely with the shock rope ring embedded in the tailplane leading edge.								
35	Nimbus 2a	3821	S	12.4.92 1815	Luppitt, Devon	39	N	691
Returning to the airfield the pilot learnt that showers were approaching so he chose to fly via an area of known fields. In rain, and later hail, he had to land in one of these. After being too close and high he got too low, turned to land in another field and apparently spun in from 30ft. There was strong turbulence and heavy rain/hail at the time.								
36	Cirrus 75	3355	M	5.4.92 1430	Strubby	45	N	189
At about 30-50ft on the winch launch the pilot lowered the nose as the speed decayed. This allowed the cable 'chute to deploy and the winch driver seeing this assumed the cable had broken and shut the throttle. The pilot lowered the nose but was unable to prevent a heavy landing in soft ground beside the runway.								
37	Falke	M/G G-FHAS	M	12.4.92 1830	Burn	45	N	160+3pwr
The motor glider was caught by a gust while being taxied at "10 to 15 mph" back to the hangar at the end of flying. The right wing came up and the m/g turned sharply off. The propeller hit the soft ground and broke. The pilot had been instructed to "taxi the aircraft back slowly".								
38	Pegasus 90	3710	M?	1.4.92 1445	Parham	65	N	189
After a 1/2hr flight with the wheel down the pilot raised it during his downwind checks. The slightly heavy landing on the grass caused cracks to the underside of the fuselage forward of the wheel.								
39	Puchacz	-	M?	30.3.92 1015	Parham	30 P2 57	N N	2336 712
While on an instructor training course P2 was demonstrating adverse yaw when the canopy violently flew open and smashed. P1 took control and landed safely without further damage. Neither pilot was familiar with the glider type and it is possible the canopy lever was not pushed into the fully locked position, although P2 thought it had been.								
40	ASW-15a	3646	S	18.4.92 1200	Talgarth	43	N	635
While soaring in strong ridge lift the pilot entered cloud, in spite of opening the airbrakes. He turned away from the ridge and flew straight at 60kt. After some time he briefly saw the ground 50ft below so shut the brakes and flew ahead. He next saw the ground 20ft below and made a "controlled crash" into the hill.								
41	Pegasus 101a	3559	M	12.4.92 1730	Keevil	0	N	1100
This incident occurred during derigging. The wings had been removed and the canopy left open when the unattended fuselage was blown over as a squall approached.								
42	K-13	2845	M	21.4.92 2045	Portmoak	75 P2 35	N N	2397 0
After a normal circuit the pilot misjudged the approach and failed to notice the developing undershoot. With half airbrake still extended the glider's wing hit a metal post in the undershoot area. It then slewed around and landed heavily.								
43	K-6E	3495	M	16.4.92 1220	Graffam	34	N	99
After ridge soaring the pilot found he had to make a field landing. His circuit was too close to the field as the earlier strong wind had reduced and so he used full airbrake and sideslip. He did not come out of the sideslip in time to prevent the glider landing first on the nose then touching a wingtip.								
44	DG-300	3822	M	20.4.92 1245	Lasham	34	M	210
The pilot decided to make a sideslip approach as he was too high on finals. The glider stalled in from about 10ft while coming out of the slip. There was a 15kt crosswind at touch down.								
45	Jantar Std 2	2937	M	11.4.92 1554	Condor	50	N	352
At about 1000ft during the winch launch the canopy detached and was smashed. The pilot carefully checked the control response and finding no obvious problem made a normal approach and landing. After landing the leading edge of the tailplane was found to be damaged.								
46	Junior	3418	M	24.4.92	Challock	34	N	37
Awaiting a winch launch into a strong wind the pilot signalled "take up slack". The launch to winch signaller inadvertently signalled "all out" and the glider shot forward violently. The pilot released but, in having the stick well forward "to prevent too steep a climb", hit the ground nose first several times before stopping.								

GLIDING CERTIFICATES

ALL THREE DIAMONDS

No.	Name	Club	1992
377	Strange, R.	Lasham	24.8
378	Thomas, C.R.V.	Lasham	31.1

DIAMOND DISTANCE

No.	Name	Club	1992
1/564	Strange, R.	Lasham (in Spain)	24.8
1/565	Kangurs, A.	Coventry	12.8.91
1/566	Thomas, C.R.V.	Lasham (in Australia)	31.1
2/2045	Bruce, D.T.	SGU	2.5
2/2046	Binnie, G.J.	Phoenix	4.5
2/2047	Westwood, D.J.	Coventry	8.8.91
2/2048	Parker, A.R.L.	Cotswold	3.5
2/2049	Smith, D.W.	Cleavelands	22.5
2/2050	Randle, Alison	Bicester	22.5
2/2051	Kangurs, A.	Coventry	12.8.91
2/2052	Fitzgerald, E.	South Wales (in Australia)	14.2

DIAMOND HEIGHT

No.	Name	Club	1992
3/1088	Underwood, G.J.T.	Midland	13.5
3/1089	Norman, N.A.C.	Cairngorm	14.6
3/1090	Fitzgerald, E.	South Wales	1.1

GOLD BADGE

No.	Name	Club	1992
1622	Smith, A.D.	Booker	17.4
1623	Bruce, D.T.	SGU	2.5
1624	Binnie, G.J.	Phoenix	4.5
1625	Parker, A.R.L.	Cotswold	3.5
1626	Smith, D.W.	Cleavelands	22.5
1627	Gordon, J.S.	Oxford	31.5
1628	Wells, P.M.	Booker	24.5
1629	Kangurs, A.	Coventry	4.1
1630	Fitzgerald, E.	South Wales	14.2
1631	Dillon, K.	SGU	2.5

GOLD DISTANCE

Name	Club	1992
Bruce, D.T.	SGU	2.5
Elgas, S.	Booker	4.5
Binnie, G.J.	Phoenix	4.5
Westwood, D.J.	Coventry	8.8
Parker, A.R.L.	Cotswold	3.5
Smith, D.W.	Cleavelands	22.5
Randle, Alison	Bicester	22.5
Fitzgerald, E.	South Wales (in Australia)	14.2
Dillon, K.	SGU	2.5

GOLD HEIGHT

Name	Club	1992
Smith, A.D.	Booker	17.4
Trotter, I.M.	SGU	22.3
Hanks, R.	Bristol & Glos	18.4
Goudie, N.F.	SGU	2.5
Thompson, S.R.	Deeside	14.5
Neill, W.B.	Deeside	19.4
Gordon, J.S.	Oxford	31.5
Wells, P.M.	Booker	24.5
Kangurs, A.	Coventry	4.1
Robinson, M.	Strathclyde	19.10.91

SILVER BADGE

No.	Name	Club	1992
8864	Cahill, J.	London	20.5
8865	Johnson, G.M.	Nene Valley	25.5
8866	Burkert, G.R.	Thruxton	3.5
8867	Coles, E.A.	London	22.5
8868	Rooke, G.	Fenland	4.5
8869	Babb, B.	Aquila	24.5
8870	Savage, J.	Lasham	22.5
8871	Mansfield, C.	Lasham	22.5
8872	Holland, M.	Oxford Univ	22.5
8873	Seward, J.	Fulmar	22.5
8874	Douglas, J.	Deeside	26.5
8875	Lynchehaun, J.	Glyndwr	7.6
8876	Evans, Helen	Bristol & Glos	11.5
8877	Phillips, A.M.	Blackpool & Fylde	6.6
8878	Thirkill, R.G.	P'boro & Spalding	3.5

47 K-6cr 3528 M 14.4.92 Brentor 54 N 42
During the winch launch take-off the pilot heard a bang from the rear. He signalled too fast with no problem but at the top of the launch found the rudder would not move. A landing with drift tore off the tailskid. The skid cleat had hit a stone and had hit the rudder. Incorrect tailskid assembly had meant the cleat was not protected by a leaf.

48 Olympia 463 476 S 28.4.92 Balado A/F 71 N 423
1220

The pilot was being towed level through good thermals to a remote cross-country start point. Entering one thermal the pilot lost control as the glider pitched violently nose up. The weak link sheared and the tug landed safely. The glider pilot saw a field but had to land downwind, apparently with the airbrakes open, and ran into the far fence.

49 K-21 2871 M 11.4.92 Dunstable 40 N 9min
1420

At 150ft on his third solo winch launch the pilot heard an increase in wind noise, and looking for the reason continued the climb to 400ft where he found the rear canopy had opened and shattered, then abandoned the launch. He made an abbreviated circuit and landed normally.

50 Vega 2509 M 5.4.92 Dunstable 36 N 92
1330

At about 30ft on an aerotow the canopy came open. After trying to close it the pilot got out of position and so released and turned to land, downwind, on the airfield. He misjudged the round out and landed heavily cracking the fuselage. Wear in the mechanism or a bulky coat stowed behind the pilot may have interfered with the canopy mechanism.

51 SIE 3 2642 M 8.4.92 Tatenhill 69 N 127
1530

On his first flight off this runway at a new site the pilot decided to land short in the "rough but landable" area at the start of the runway. At the last moment he noticed grass tufts which in fact hid runway lights, one of which hit the glider's wing. He had walked the undershoot of another runway, but not this one, and assumed they were alike.

52 DG-300 3302 M 16.4.92 Aboyne 42 N 695
1002

After a normal circuit and approach the pilot made a normal landing on the runway. At this point the undercarriage collapsed and the glider sustained damage to the belly hook and gel coat. The undercarriage lever was in the down position but not locked.

53 Blanik S 1.5.92 Sutton Bank 54 N 225
1400 P2 40 N 0

The pilot had to make a field landing after encountering sink and chose to land as short as possible in a large field. He miscalculated the wind strength and his rate of descent and hit the near boundary hedge with a wingtip. This swung the glider around and it landed sideways, twisting the fuselage.

54 SF-34 2843 S? 4.5.92 Easterton 50 N 48
1347

The visiting pilot thought he was too high in the circuit and made several turns to lose height. He was seen to turn finals too low and slow and tried to stretch the glide rather than turn and land in a nearby large field. Flying slowly, the glider touched down downwind of the boundary fence and crashed through it.

55 K-7 S 6.5.92 Ringmer 55 N 2
1215

This was the pilot's first solo after retraining and a satisfactory series of check flights. The pilot made a good circuit but turned finals with the airbrakes extended and did not think to close them as an undershoot developed. The glider stalled into the top of a small tree and the cockpit came to rest about 6ft from the ground.

56 Olympia 463 1221 M 5.4.92 Camphill 55 M 23
1630

On his second flight on type the pilot misjudged his final approach speed and the effect of the wind gradient. As a result the glider stalled in from about 10ft, landed heavily and groundlooped.

57 Pirat & Junior - W/O 18.5.92 Ringmer 0 F?
0 F?

Fatal mid-air collision. The two gliders collided whilst thermalling. The left wings of both gliders failed as the Junior's left leading edge hit the trailing edge of the Pirat. The Pirat pilot was unable to exit the cockpit and the Junior pilot got out but not in time to successfully deploy his chute. Both were killed. (Preliminary report.)

F=Fatal; S=Serious; W/O=Write-off; M=Minor; N=Nil.

8879	Morris, H.T.	London	3.5
8880	Carter, C.	Midland	13.6
8881	Cottingham, D.M.	Devon & Somerset	5.4
8882	Burgess, M.J.	East Sussex	8.5
8883	Wide, R.K.	Pegasus	10.5
8884	Kaye, J.S.	Cranfield	2.6
8885	Hall, J.M.	Midland	10.5
8886	Jones, M.A.T.	Anglia	22.5
8887	Selway, R.J.	Bristol & Glos	21.6
8888	English, G.	Blackpool & Fylde	13.6
8889	Roberts, P.M.	Wolds	26.6
8890	Lewis, P.	London	28.6
8891	Stone, H.	Oxford	28.6
8892	Robinson, S.	Blackpool & Fylde	20.6
8893	Hughes, J.	Aquila	28.6
8894	Herriman, P.	South Wales	27.6
8895	Chesher, K.	Four Counties	13.6
8896	Marsh, C.A.	Cotswold	20.5
8897	Nice, C.G.	Essex	26.6
8898	Sloggett, F.C.	Devon & Somerset	25.6
8899	Goodsell, R.	East Sussex	28.6
8900	Withall, Sarah	London	25.6
8901	Ashby, D.	Yorkshire	13.6
8902	Newman, M.	Derby & Lancs	26.6
8903	Rogers, J.B.	West Wales	25.5
8904	Collins, S.J.	Mendip	3.5
8905	Field, F.T.	Kestrel	28.6

8906	Horne, W.A.	Derby & Lancs	12.6
8907	Fowler, Christine	Derby & Lancs	27.6
8908	Hogarth, J.S.W.	Derby & Lancs	12.6
8909	Buzzard, C.	Coventry	28.6
8910	McAree, R.	London	25.6
8911	Colhoun, S.	Bannerdown	28.6
8912	Chapman, A.D.	Marchington	27.6
8913	Marsh, B.J.	South Wales	26.6
8914	Turner, R.N.	Cambridge Univ	29.6
8915	MacDonald, E.	SGU	10.7
8916	Green, A.	Bicester	22.5
8917	Punt, S.A.I.	Surrey & Hants	28.6
8918	Snoddy, T.E.	Ulster	13.7
8919	Walker, E.S.	Fulmar	9.5
8920	Harland, Sarah	Lasham	22.7
8921	Morris, E.M.	London	22.7

UK CROSS-COUNTRY DIPLOMA

Part 1

Name	Club	1992
Green, K.S.	Lasham	4.5
Eastburn, M.P.	Aquila	27.7
Babb, B.	Brackley	11.6

Correction: We regret we gave the wrong phone number for Gaynor and Peter Jackson in the last issue, p217. It should have been 0745 75253.

ALEX EVANS

STANDARD CLASS NATIONALS

Booker, July 11-19

Alex Evans, CFI of Booker GC, was the director and task-setter. The photographs are by Paul Mellor.



↑ Chris Rollings, the senior national coach, Standard Class Champion and winner of the Overseas Nationals' Standard Class, conserves his energy while the clouds roll in.



↑ The briefing.

↓ The grid on a calmer day.



↑ A dramatic sky.



**Batteries
Batteries
Batteries**

Anglia Sailplanes

SALES:

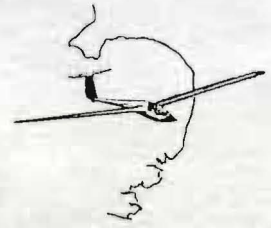
Yuasa Gel Cell Batteries
6, 12 or 14 volt, various A/Hours
Prices: 12v 7A/H £26.45, 12v 18A/H £55
Battery Chargers from £12.95
Rechargeable Torches from £39.95
Plus our usual range of fabrics, dopes, accessories and tools

MANUFACTURING:

Seat Harnesses Made/Refurbished
Wing Tip Wheel Mod Kits
Oversize Pins/Bushes
Winch Cable Parachutes

SERVICES:

C of A Inspections to
Gliders & Motor gliders.
Repairs to all Aircraft
Structures. Specialising
in wooden aircraft.
Aircraft Weighing

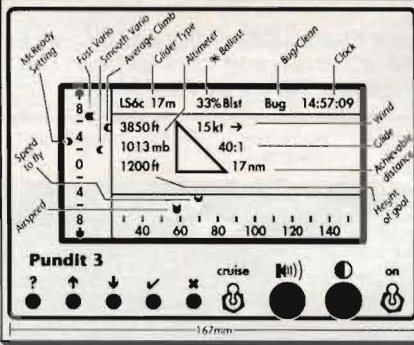


For further details and price list, phone or write to **Stu Hoy** at:

Anglia Sailplanes Crown Cottage, Lower Street, Gissing, Diss, Norfolk IP22 3UJ. Tel: 037977 4114

Pundit 3

All your soaring instruments in one compact package



Analogue Displays • Proven Technology
See at a glance. No need to carry a flight observer.

'Soft' Design

Quick update and customisation.
In many cases you will be able to do it yourself.

Value

Special low introductory price.
£1400 (plus VAT in UK) for early orders.

Dinosaur Electronics Ltd, Whitehill Park, Weobley, Hereford HR4 8QE
Telephone: +44 (0)544 318191 • Facsimile: +44 (0)544 318990

Pundit 3 is a soaring aid. Approved instruments must be used for primary flight information.
Dinosaur Electronics Ltd do not accept responsibility for loss or damage occasioned by malfunction.

SKYCRAFT SERVICES LIMITED

Telephone: 0763-852150
Facsimile: 0763-852593
Albany House, Litlington, Cambs.



UK SERVICE STATION FOR
**HOFFMANN
PROPELLER**

AIRBORNE COMPOSITES

C's of A, REPAIRS AND GLASSWORK

Having successfully completed the **Grob** Training Programme we are now qualified to inspect and repair all **Grob** glass structures, specialists in the 109B, from rebuilds to engine maintenance.

Currently maintaining 8 **Grob** 109Bs

Astir Spigot Mod £400 (no VAT) + kit at factory price.

Please call or write to:

Tim Dews, 49 Bratton Road, Westbury, Wilts BA13 3ES. Tel: 0373 827963



Pop-Top Glider Pilots Parachute

- State of the art in emergency parachutes
- The Pop-Top. External seated pilot chute providing the fastest possible deployment.
- Fully encased risers resulting in a snag free parachute container system.
- Steerable parachutes in a range of sizes to suit all sizes of pilots.
- Soft, slim line design for the ultimate in comfort
- British built, quality assured to BS 5750
- Reliability, comfort and efficiency when it matters



THOMAS Sports Equipment Limited

Lofty's Loft • Pinfold Lane • Bridlington • North Humberside • YO16 5XS • Telephone: 0262 678299

Peter Bayliss, the Met man, told me that the weather looked very changeable all week and we needed to take every opportunity to fly. So I said "What about today then?" Now Peter is usually no pessimist and will hang on for a remote chance of a task. His reply was "You might as well scrub now; it's going to rain all day." It did! So at 10am we opened the Standard Class Nationals and promptly scrubbed. The only question to crop up was "What's an LS-6x?" More on that later.

Day 1, Sunday, July 12: a 276.2km triangle, Wantage, Westbury.

The front had gone through overnight leaving a strong north-westerly airflow over the area with very little in the way of a ridge. We managed to get everyone off by about 1400hrs, virtually all having had relights. The day eventually turned out to be quite good although most competitors encountered lowering cloudbases near the second TP, considerably slowing them down.

Of 44 competitors, 20 got back. George Metcalfe (ASW-24) was 1st at 73km/h, Martin Durham 2nd with 70.5km/h and Tom Scott (both flying LS-7s) 3rd at 70.4km/h.

The only other problem with the task was the first TP at Wantage. The list said "the only round-about north side of town towards Grove." Unfortunately there are now two which confused matters somewhat and resulted in quite a few photo penalties.

Needed to get something out of the day as our chances were limited for the whole week

For the next three days we tried to get something out of each day, knowing our chances were limited for the whole week. We even thought of a goal race from somewhere like Husbands Bosworth to East Anglia but felt it was too impractical. So the competitors spent their time considering such things as what's an LS-6x and is it allowed in the Standard Class?

For those of you who don't know I will explain. An LS-6x is an LS-6 with full span, ailerons and no flaps. Some people did not think it complied with the rules, however the BGA Competitions Committee agreed it didn't have flaps and therefore it was allowed to continue in the competition. I'm sure things will change in the future.

Day 2, Thursday, July 16: 168.6km triangle, Towcester, Goring.

Having no chance of getting the competitors off early we eventually opted for a short task with some hope of having a contest day with a possibility of a few finishers. The startline opened at 1627hrs and everyone left within a few minutes. Unfortunately the day died once most pilots had turned Towcester. Nearly 30 landed at Silverstone, which somewhat surprised the management as they hadn't been told they were hosting a gliding competition.

Chris Rollings (SZD 55) won the day with 75.3km and 121pts, Steve Crabb (Pegasus was 2nd with 71.3km and 114pts and Gary McKirdy (Pegasus 101) 3rd with 68km for 108pts.

Day 3, Thursday, July 17: 284.7km polygon,



Alex Evans, the director, and Pete Harbourne, deputy director.

Newport Pagnell, Watford Gap, Newport Pagnell, Didcot.

The day looked positively cracking compared to the rest of the week. The front that had been plaguing us for days had gone through leaving a weak ridge over southern England.

Soaring conditions were reasonable but a strong westerly wind slowed everyone down and

eventually 19 finished. The fastest was Mike Throssell (Discus B) at 66.1km/h but unfortunately a photo penalty dropped him to 4th place.

The winner was Chris Rollings at 65.8km/h with 998pts; Dave Watt (ASW-24) was 2nd with 64.4km/h and Steve White (LS-7) 3rd with a speed of 61.9km/h.

After three contest days out of the previous seven we unfortunately didn't fly again and Chris Rollings was the winner having flown 435km.

FINAL RESULTS

Standard Class

Pos	Pilot	Glider	Day 1.12.7 276.2km ▲ Wantage, Westbury			Day 2.16.7 168.6km ▲ Towcester, Goring			Day 3.17.7 284.7km five legs Newport Pagnell, Watford Gap, Newport Pagnell, Didcot			Total Pts
			Speed (Dist)	Pos	Pts	Dist	Pos	Pts	Speed (Dist)	Pos	Pts	
1	Rollings, C. C.	SZD 55	64.5	10	920	75.3	1	121	65.8	1	998	2039
2	Jones, S. G.	Discus	69.0	6	862	65.3	=5	104	59.2	6	935	2001
3	Watt, D. S.	ASW-24	62.2	11	899	60.8	=35	96	64.4	2	984	1979
4	Wells, M. D.	LS-6x	70.2	5	974	65.3	=5	104	55.0	7	897	1975
5	Aapland, W.	ASW-19b	67.4	12	898*	65.3	=5	104	52.0	10	889	1871
6	Payne, R. D.	Discus B	70.3	=3	975	68.1	=3	108	42.4	13	779	1862
7	Elliott, B.	Discus CS	=56.7	14	848	60.8	=35	96	53.0	8	878	1822
8	Wells, S.	LS-7	52.0	15	803	65.3	=5	104	48.9	11	840	1747
9	McAndrew, G.	Discus	52.9	=16	762*	65.3	=5	104	52.8	9	876	1742
10	Scott, T.	LS-7	70.4	=3	975	65.3	=5	104	(191.7)	19	650	1729
11	Mitchell, T. M.	ASW-24	72.4	8	944*	65.3	=5	104	(183.3)	21	627	1675
12	Smith, E. R.	LS-4	68.7	9	940*	65.3	=5	104	(180.6)	22	613	1657
13	Durham, M. W.	LS-7	70.5	2	976	65.3	=5	104	(171.9)	=27	565	1645
14	Glossop, J. D. J.	Discus bt	(166.1)	22	582	65.3	=5	104	60.5	5	948	1634
15	Aldis, C. J.	LS-4	67.3	7	946	65.3	=5	104	(171.9)	=27	565	1615
16	Atkinson, K. R.	Discus CS	(190.3)	23	577*	65.3	=5	104	45.4	12	808	1489
17	White, S. A.	LS-7	(89.1)	28	397	65.3	=5	104	61.9	3	961	1462
18	Jeffery, P.	LS-7	47.5	=16	762	48.2	40	70	(178.1)	23	599	1431
19	Langrick, D. J.	LS-4	46.8	19	755	65.3	=5	104	(164.7)	31	527	1386
20	Metcalfe, G.	ASW-24	73.0	1	1000	65.3	=5	104	(89.5)	42	221	1325
21	Throssell, M. G.	Discus B	(61.1)	38	269	65.3	=5	104	66.1	4	950*	1323
22	Stewart, D. R.	Discus	41.2	20	653*	65.3	=5	104	(170.1)	=29	556	1313
23	Edyvean, J.	Discus CS	(77.6)	30	344	65.3	=5	104	40.4	14	761	1209
24	Weir, N. A.	Discus	(69.4)	=32	307	65.3	=5	104	43.2	16	737*	1148
25	Ashcroft, J. P.	LS-7	(78.2)	29	347	42.2	43	57	37.5	17	735	1139
26	Kingerlee, J.	LS-7	(198.8)	21	644	65.3	=5	104	(136.6)	40	374	1122
27	McKirdy, G.	Pegasus 101	(159.2)	24	569	68.0	=3	108	(139.2)	39	388	1065
28	Rice, P. E.	Std Libelle	(96.6)	=26	431	65.3	=5	104	(163.8)	33	521	1056
29	Barker, K. D.	Discus B	66.2	13	886*	65.3	=5	104	(51.4)	=43	64	1054
30	Crabb, S.	Pegasus	(74.8)	36	282*	71.3	2	114	(193.7)	18	653	1049
31	Garrity, A. J.	Discus B	(120.3)	25	495	65.3	=5	104	(144.8)	38	418	1017
32	Crabb, P. G.	LS-7	(62.1)	37	273	60.8	=35	96	38.8	20	646*	1015
33	Young, M. J.	Discus B	(96.6)	=26	431	46.2	41	66	(162.6)	35	515	1012
34	Cox, A.	DG-300 Elen	(68.6)	34	303	65.3	=5	104	(174.3)	25	578	985
35	Coward, P. J.	LS-4a	52.9	=16	782*	65.3	=5	104	(51.4)	=43	64	930
36	Payne, G.	Pegasus	(65.2)	35	288	43.1	42	59	(172.8)	26	571	918
37	Brice, P. F.	ASW-24	(54.1)	=39	237	65.3	=5	104	(164.6)	32	526	867
38	Strathern, M.	LS-7	(73.6)	31	326	65.3	=5	104	(147.8)	36	435	865
39	Smart, A. M. B.	Discus	(69.4)	=32	307	65.3	=5	104	(147.5)	37	433	844
40	Booth, D. A.	DG-300	(8.6)	=43	0	59.1	=38	93	38.2	15	741	834
41	Hodgson, K.	Pegasus	(10.0)	42	5	65.3	=5	104	(176.3)	24	590	699
42	Tribe, A.	LS-4	(16.4)	41	41	59.4	=38	93	(170.2)	=29	556	690
43	Olander, S.	LS-7	(8.8)	=43	0	65.3	=5	104	(162.7)	34	516	620
44	Atkinson, P.	LS-4	(54.1)	=39	237	39.2	44	51	(90.3)	41	223	511

BGA Competition Scoring Program by Specialist Systems Ltd.

CLUB NEWS



Above: Blackpool & Fylde GC's new tug has started a trend for wacky registrations on other club equipment!



Above: The competitive Mayle brothers from Thruxton GC – Paul (left) and Dave (right) with their K-6cr. (See club report on p289.) Below: Graeme Simmers, Scottish Sports Council chairman, about to present the ASH-25 to the Scottish Gliding Association at the Deeside GC.



Copy and photographs for the December-January issue should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, tel 0223 247725, fax 0223 413793, to arrive not later than October 6 and for the February-March issue to arrive not later than December 1.

GILLIAN BRYCE-SMITH
August 12

ANGLIA (RAF Wattisham)

Steve Dart's Silver height was the only badge leg from our expedition to Le Blanc due to typically British weather.

We are doing well in the Inter-Club League and on a difficult day at Cambridge Colin Wheeler came 1st and Chris Webb 2nd in their Classes.

Jim Coughlan has flown 300km and Nick Paterson 5hrs.
N.P.

ANGUS (Arbroath)

A successful barbecue was held with 662 VGS at the control tower at Condor with an excellent display of radio controlled flying by the local aeromodelling club.

Gus Christie has joined the Vega syndicate and the club Jantar 2 is back on line.
C.H.W.

AQUILA (Hinton-in-the-Hedges)

The season is going well with solos by Neil Scarborough, Richard Ireson and Ian Hammond; a Bronze for Ian Scarborough, Silver badges for Jim Hughes and Brian Babb; 100km cross-country diplomas for Brian Babb, Steve Blackmore, Bob Murray, John Cooper and Karl Emerson and Diamond goal for Mel Eastburn.

John Cooper, Simon Kroner and Gary Bennett have become instructors. Ken McNulty completed his Bronze after his Silver badge. Is the Australian system upside down?

We have been operating seven days a week with great success since April in conjunction with Mike Cuming's Gliding Centre.
D.McK.

BANNERDOWN (RAF Hullavington)

Despite restricted flying since the University Air Squadron's Bulldogs moved in we have some achievements. Mark Layland, John Wheeler and Phil Raistrick have soloed; Chrissie Fenton has resoloed; Bob Thomas has a Bronze; Steve Colhoun a Silver badge and Phil Dawson Silver height and 5hrs.

The air experience evenings were a great success. A small group took the K-21 and K-6 to Talgarth for some good ridge flying.

Simon Hutchinson came 14th and Mel Dawson 24th in the 15 Metre Nationals.
D.C.F.

BATH, WILTS & DORSET (The Park)

We have done it. We have moved to our new permanent home at The Park (see the article in this issue). Visitors and new members are welcome.

CLUB NEWS

We have won the SW Inter-Club League and will be in the final and Bob Bromwich won the Northern Regionals' Sport Class. We are replacing our Auster tugs with a virtually new Pawnee. R.H.

BICESTER (RAFGSA Centre)

The weather has been kind with many solo, Bronze and Silver legs. Davey Rae and Jonathan May have flown 500kms and Andy Roberts 300km.

Five of our pilots flew in the 15 Metre Nationals and four in the Standard (Barrie Elliott coming 8th) and Peter Stratten came 5th in the Lasham Regionals.

C.A.D.

BLACK MOUNTAINS (Talgarth)

When Talgarth is good it is very good and we have had some excellent, varied flights with wave to 12 000ft in July. Tony Burton took advantage of a great thermal day to fly 500km.

Mark Fisher has a Silver badge and John Colan and Stuart Spray have gone solo. We welcome visitors and if interested in a wave expedition contact Les Bradley.

PS. Visiting pilot (from a large club near London) to our CFI: "I've seen the trailer park Gerry – but where's the airfield?" S.R.

BLACKPOOL & FYLDE (Chipping)

Our tug, which has opened up a wonderful new world of possibilities, arrived in time for the BGA cross-country course. Cross-country kilometres continue to rise and Graham English, Steve Robinson and Martin Phillips have Silver badges; Dave Johnson Gold height and Ian Banister, Lee Mitchell, Roy Randall, Steve Riley, John Roskall and John Sanders have gone solo.

Until recently only Lake GC members have visited us by air but last week we had our first trans-Pennine arrival – John Goodall from Sutton Bank.

V.H.

BOOKER (Wycombe Air Park)

We have regained our normal stranglehold on the Nationals with Chris Rollings winning the Overseas and Justin Wills the Standard Class and seven of our pilots taking the first tenplaces in the Standard Class.

On July 28 Gary McKirdy, Mike Williamson, Geoff Payne and Bernie Morris flew 500kms; Dave Gaunt a 442km O/R and Michelle Holdaway, Alex Lewicka and Wendy Palmer 5hrs. The most rewarding was a 300km by Dennis Harris in his beautifully refinished Cirrus, crutches in the back. Shep in his new LS-6c managed 345km and the Vintage Group Tutor, resplendent in pink and purple, flew 2hrs in five flights. R.N.

BORDERS (Galewood)

Mike Crews, hooked on gliding after an AEI trip, has gone solo.

Our August task week started well with wave in excess of 10 000ft. Derek Robson, after a high placing in the Northern Regionals and a Diamond goal, was keen to show how it's done. ➔

October/November 1992



We have another batch of young solo pilots. Above: Shona Buchanan of Southdown GC, who soloed on her 16th birthday, photographed with her mother Maggie who flew the tug and her instructor father, Angus.



Above: Matthew Tanner, the first solo pilot from the Lord Grey School's activities week at Hinton-in-the-Hedges (see the last issue, p197). Below: Matthew Colmsee from the Lasham Thursday evening course who went solo two days after his 16th birthday.



Our new fuel store will speed up tug re-fuelling and should be ready in time for the autumn wave weeks.

R.C.

BRISTOL & GLOUCESTERSHIRE

(Nympsfield)

Sue Woollard has flown Gold distance in her K-6; John Sharwood-Smith and Richard Ballard have gone solo and Martin Greathead has Silver height and distance.

Kenny Barker came 10th in the 15 Metre Nationals, run by Bill Davis and which we hosted.

We have won the Rockpolishers' trophy again and over three weekends 15 pilots flew for Andrew Davis's team, showing the strength of our club squad.

S.R.

BUCKMINSTER (Saltby Airfield)

Despite the poor season there have been many cross-countries. Paul Rodwell, Lisa Mannion and Ian Robertson have soloed, Ian just after his 16th birthday; Mike Cunningham and Chris Sellars gained Bronze badges on our second successful Bronze course and Mike Entwisle has an assistant Cat rating. Bill Morecraft has taken over from Martin Hutchinson as "airtech" - thanks Martin for all your work.

We are through to the finals of the Inter-Club League for the second year running. The University Task Week was successful with three contest days for Glass and two for Wood. We are hosting it again next year.

M.E.

BURN (Burn Airfield)

The peripatetic Twin Astir is in the wars again - the combination was turned over on the MI by the bow wave of an overtaking lorry, writing off the trailer, towing van and damaging the glider. Fortunately Martin Holland and Carol White were uninjured.

Hedley Forshaw (Pirat) flew 5hrs making the most of our power stations. July 12 and 19 produced wave over the site giving climbs up to 7500ft.

P.N.

CHANNEL (Waldershare Park)

Maurice Theo has gone solo; Tony Harris has a Bronze leg and Peter Whitehouse, commuting between Deal and Nigeria, heads the club competition.

A Bearday Fly-in (with charitable connections) has 65 furry teds signed up. More later...

N.O.A.

CLEVELANDS (RAF Dishforth)

We had a successful longest day and summer barbecue. Paul Whitehead (Ventus) won the Open Class in the Northerns.

Charlie Pratt has gone solo and Robin Sinton has a 100km cross-country diploma.

J.P.

CORNISH (Perranporth)

We are operating from the grass as well as the runways, so with our new twin drum winch and Pawnee tug we have eliminated the launch queue. Visitors are welcome to experience

unique soaring on our sea cliff site and enjoy sea breeze front soaring.

Robin Ridge and Chris Willey have gone solo; Shaunne Shaw, Bernie Hatton and Pete Burrage have AEI ratings and Phil Hawkey and Dave Clouder are assistant Cats. John Trenchard has retired as chairman. We thank him for his enormous amount of work, especially during negotiations with the new airfield owners.

I.F.

COTSWOLD (Aston Down)

We had excellent soaring in June and July with glorious weather for our six day task competition, organised by Paul Gentil. Visitors competed from several clubs with the Oxford GC team of Tom Lamb and Phil Hawkins (Mini Nimbus) 1st and their John Gordon (Cirrus and Astir) 2nd. Paul Gentil (SHK) was 3rd, compensating him for missing his 500km by 32km the previous week.

Dave Roberts, Doug Gardiner and Ed Johnston competed in the 15 Metre Nationals, Ed coming 5th. Our round of the Inter-Club League was abandoned due to adverse weather.

Simon Housden flew a 511km 0/R to Norwich Cathedral in just over 6hrs for Diamond distance and Ted Walker flew 300km during the task week for Gold distance and Diamond goal. Chris Marsh and Frank Birlison have Silver badges, Frank gaining his in one flight. Paul Boylan and David Briggs have Bronze badges while Keith Roberts and 16 year-old Rachel Harris have gone solo, Rachel after just two weeks on Cotwold courses.

M.S.

CULDROSE (RNAS Culdrose, Helston)

The weather was poor in June and July. The longest day was blown out and there have been no cross-counties, but our thanks to Brenda and Arnie for a great sausage sizzle and quiz. The course started in August prior to Golf Charlie's C of A (our thanks to all who helped). Terry Dean has gone solo and CFI George is making audio varios for the club fleet.

Our dinner-dance will be at Budock Vean on December 15.

R.A.

DARTMOOR (Brentor)

We recruit most members from air experience flights, organised brilliantly by Ray Boundy.

Ray Boundy, Steve Bolt and Phil Jarman (chairman) have Silver heights, Steve also gaining Silver distance, and Norman Wood and Fiona Smart have Bronze legs.

Chris Manning is our new secretary and John Bolt the site engineer under whose guidance the site improvements continue. We now have an all weather retrieve track and a "free gift" clubhouse has been collected.

Our CFI, Peter Williams, has asked me to point out that we have only five accredited instructors and are pleased to welcome more.

F.G.M.

DERBY & LANCS (Camphill)

John Potter, John MacIver and John Timmis have gone solo and we have had a crop of badge

Early deadline: Please note that the deadline for the February-March issue is December 1 in the hope of beating the Christmas postal rush.

flights:- Warwick Horne and Chris Fowler (Silver badges); Miles Newman and Martin Harbour (Silver distance); Ron Farnell, Dick Muir, Nicky Beresford and Peter Cowling (Silver height); Mike Booth (5hrs) and Bob Bollom (300km).

Club week was a great success and the courses have benefited from the enthusiasm of instructor Steve Carver. Our thanks to him and winch drivers Arran Wheeler, Fred Neal and Harry Crebbs, and also to those who helped with the evening flying groups. Jill Edwards, the new secretary, is a great help, and we have a professional mechanic, Carmine Trani.

We are always pleased to see visitors and remind them that winter flying is each week from Wednesday to Sunday.

M.I.R.

DEESIDE (Aboyne Airfield)

On July 25 Graeme Simmers, chairman of the Scottish Sports Council, officially handed over the ASH-25 national glider and Allan Alstead, the Council's chief executive, opened our new runway "27 left" and the extended clubhouse. The weather was poor but we had many visitors and a buffet lunch provided by members. Our thanks to the visitors, especially from 216 Field Squadron, RAF Marham, and our local MP George Kynoch, and the helpers.

Neil Mitchell and Cameron Robinson have gone solo and Bill Neill flew 50km while crewing for Peter Coward at Nympsfield.

The summer wave has been working with flights in brilliant sunshine to 26 000ft in June and 22 000ft in July.

G.D.

DEVON & SOMERSET (North Hill)

The Easter Portmoak expedition logged over 180hrs in the week, with Gold height for John Pursey (SF-27). Returning south, Mike Fairclough (PIK 20) went to 24 700ft at Glyndwr for their site record.

Strong winds discouraged visitors to the May Day weekend vintage rally with only Ted Hull (Moswey) arriving to fly with our home based T-21, Eagle and Oly 463.

Since late May we have had good wave off Exmoor and Dartmoor with climbs to more than 8000ft. Our newly arrived K-21 is doing advanced and cross-country training with some TV filming.

Badge claims are flowing in:- Stan Yeo, Ken Daniel, Peter Huggins and Mike Beecham (Bronze badges); Stan Yeo (Silver badge in two weeks in the K-6); Chris Oldfield (Silver distance); Peter Harding (distance and height for a Silver badge); Ellis Smith (Silver distance) and Simon Leeson (duration). Simon Grey, Neil Gorton and Adrian Jones have gone solo.

Damian le Roux (K-6) came 2nd in Competition Enterprise and flew a Gold 344km from Sutton Bank with climbs in the lee wave from the Pennines.

We celebrated our 40th anniversary and 25

years at North Hill with a hangar party well attended by members of all generations, including founder member Brian Masters from the USA. I.D.K.

DORSET (Old Sarum)

Plans continue for the move back to Dorset at Eyres' Field, 3km north of Wool, with the establishment of a new site working party. Meanwhile flying continues at Old Sarum.

Tim Smythe soloed on the longest day, Steve Wareham has a Bronze badge, Dave Hill Silver height and duration and Alastair MacGregor flew a 500km triangle from Le Blanc. G.G.S.

DRA (Farnborough)

The RAE GC has become the DRA (Farnborough) GC and we fly weekends at Farnborough when weather and GA movements permit. Although we have to leave the operational area whenever there is a commercial movement, the ATC are very helpful in taking the minimum time and we have coped with up to eight. If this number should increase significantly we will have to reassess our future but are hopeful the tradition of gliding on the site, where flying started in Britain, may continue.

Visiting pilots should note that executive jets may be climbing out into the airways at any time including weekends and that frequently parachuting (occasionally from 12 000ft) is just south of the airfield.

P.M.W.

DUKERIES (Gamston Airport)

We gave 56 trial flights at a successful open day on May Day. Our Friday trial flight nights have been so booked up we have spilled over into some Wednesday evenings.

Beryl Clarke has Silver height but her husband David flew Silver distance with a loose connection on his barograph.

J.C.P.

EAST SUSSEX (Ringmer)

The Tost winch's major refit is nearing completion, thanks to Jason and helpers. An Astir and a Blanik join the club fleet.

Richard Goodsell has a Silver badge and Ken Furmedge and Jack Shirvell Bronze badges.

L.M.

ENSTONE EAGLES (Enstone Airfield)

David Carter has soloed; two days after both Bronze legs Lorna Bevan gained Silver height and 5hrs; Paul Noonan Silver height and 5hrs; Larry Griffiths has a Bronze badge and Silver height; Richard Markham, son of a founder member, has both Bronze legs with one each for Tim O'Sullivan, Neil Edwards and Peter Green.

R.J.P.B.

FOUR COUNTIES (RAF Syerston)

With increased membership and the arrival of the Nottingham University GC, kilometres and hours have greatly increased. Steve Walker, Steve Cannon and Martin Ward have gone solo; Helen Regan has a Bronze badge and 5hrs and Pete Sanderson his full Cat rating.

Our thanks to Trev Gorley and his team for building the Beever winch.

The Nottingham University team were 4th in the university task week; Debbie Hawcroft and Alan Mather have soloed in the University's Blanik and Alan Freeman flew 5hrs in their K-8. T.L.

GLYNDWR (Denbigh)

Brian Williams, Chris Butler and Ray and Sally Cronin have gone solo and Dave Townsend and Ian Sergeant have Bronze badges. We have a new club K-7, a syndicate Dart 17 and plan to use our new motor glider for field landing practice and exploring the wave further out in the Vale of Clwyd.

We flew from dawn to dusk on the longest day despite the grotty Welsh weather.

G.H.

GRAMPIAN (By Laurencekirk)

The excellent weather has given us soaring weekends. Dave Smith has bought and is soaring an LS-4 and John Neville a very smart Capstan. John McGregor has gone solo.

R.J.S.

HIGHLAND (Easterton)

Robert Tait broke the club and site height record with a wave climb to 24 600ft in June off a winch launch cable break!

Our new grass runway has been rolled and is very landable. Any wandering tugs will be most welcome. Eddie Trainer (our parish priest), Bill Smith and Martin Birse have gone solo - Eddie now has a Swallow and Dennis Shepherd an Oly 463. Jill Matthews has a Bronze badge and Theresa Bruce-Jones Bronze legs. John Maclean resoloed after 25 years.

Robert Tait is again taking our club Astir to the Junior Nationals with our good wishes.

A.G.V.

KENT (Challock)

We thank our retiring CFI, Mike Kemp, for all his hard work and effort. Our new CFI is Mike Moulang.

Our longest day charity event was marred by high winds but we had a few flights and were given good radio coverage. We are top in our Inter-Club League after three rounds.

J.R.W.

LASHAM (Lasham Airfield)

When you read this we will have bought albeit for a vast sum our new 56 year lease of Lasham Airfield. Longer security at last!

As we are now home to nearly 200 gliders - 150 are privately owned - and anyone joining from another club will have to be a member of Lasham for two years before (s)he can become private owners. A limit for our own members is under active discussion. However a midweek dispensation is being examined. Watch this space.

Stage 1 of the new "Tony Norrie" hangar complex is complete. Tony was killed in the Chad terrorist outrage; we will never forget him.

W.K.

LINCOLNSHIRE (Strubby Airfield)

Dave Armstrong has gone solo and Nick Kendall, Chris Ormsby and Jack Libell have Bronze badges. Arthur Tubby has retired from instructing and we thank him for his efforts. His place will be taken by Bert Barker, chairman, following his course at Portmoak.

R.G.S.

MARCHINGTON (Tatenhill Airfield)

We are settling in well at our new site while continuing to search for a more permanent home. Visitors are most welcome.

Ray Steward, chairman, and Mike Shelton, CFI, have retired and we thank them for their hard work. David Barke is the new chairman and Syd Brixton the CFI.

John Rushton, David Knight and Eric Reynolds have gone solo; Phil Pritchard and Dave Evetts have Bronze badges and Andy Chapman a Silver badge. The Bronze badge evening lectures were popular with several sitting the exam and others brushing up on their knowledge.

A.R.

MIDLAND (Long Mynd)

The best soaring days of the last two months have mostly been midweek to the frustration of weekend pilots.

Paul Brown, D. Kite, Marcus Rowson and Nick Swales have soloed; John Collins has a Bronze badge and Silver height; Dave Knibbs and John Lewis have Silver height and distance; Jon Hall and Charles Carter have Silver badges; Gordon Kerr and Rose Johnson AEI ratings and Graham Underwood and Bob Williams are now assistant instructors.

A.R.E.

NENE VALLEY (RAF Upwood)

We had a successful June open day with a weekend visit to Tibenham in July. Bronze badges go to Dave Mansfield, Martin Reynolds, Les Ward, Tony Gardner, Dave Hubbard and "Taff" Turner with Len Dunster, Les Ward, Tony Gardner and Fabos Young gaining Silver heights.

D.H.

NEWARK & NOTTS (Winthorpe)

After trapping our winch gremlins we are enjoying flying again. David Robertson and Robert Tatlow went solo and Dave Kassube has Silver height.

PIGOTT'S

Fluorescent Orange Windcones made in Nylon or Ministry of Defence Hypalon.®

Flagstuffs suitable for Windcones supplied and fitted.

Landing Marker Sets in bright orange.

All types of Flags and Banners.

PIGOTT BROTHERS & CO. LIMITED
Stanford Rivers, Ongar, Essex CM5 9PJ
Tel: 0277 363262
Fax 0277 365162

CLUB NEWS



We were about to use this painting of the Sie owned by John Richardson, Alf Barnes, Chris Harris and John Corfield when John telephoned with the sad news that it had been seriously damaged in a field landing south of Ludlow racecourse. Fortunately the pilot was unhurt. But the accident triggered an interesting train of events.

The accident or the results were seen by a power pilot on a cross-country from Halfpenny Green Airport who reported it to his Air Traffic Control who contact the West Mercia police HQ at Worcester.

The Nord 2000 is going to a vintage club in America and thanks to John Maddison and Barry Pattison our ex Swiss K-8 has been re-covered. M.A.

NORTH WALES (Bryn Gwyn Bach)

We had a very successful open day in May gaining new members and breaking the club record for launches in the day. Our thanks to the organiser, Ken Payne, and helpers.

Sunday, July 19, gave the best soaring for a long time. Tony Cooper flew Silver distance with 17 000ft for Gold height on the way; "J.P." Perrin completed his Silver badge with 5hrs; John Stroud flew to 12 000ft and Eric Jackson to Silver height, both without barographs. Virtually every member had good soaring flights.

We have had courses for the first time. Visitors are welcome – tel Vic on 0745 582286 D.J.

They attempted to launch their helicopter but couldn't get the engine to start so got in touch with the Ludlow sub station who sent three officers to the scene. They also alerted an ambulance and the rescue co-ordination centre in Plymouth who in turn told the distress and diversion cell at West Drayton of the emergency.

"I personally find it very comforting to know that not only are fellow aviators watching over each other in such a fashion, but that so much expertise exists in an emergency," John added.

Now back to the story behind the painting. John wanted an air to air shot of the Sie but as the Mynd doesn't have a two-seater tug he persuaded his father, a retired commercial artist, to get the effect he wanted in a painting (shown above). John gave him the club brochure featuring a photograph of a K-23 flying over the site which was used for the background with the Sie superimposed.

"Unfortunately, I don't have a photograph of the Sie in the attitude depicted in the painting, so gave dad a head on shot and a side view together with a small plan view taken at Dunstable," John explains. "There is some artistic licence, for instance he has shown rather a lot of aileron deflection on the starboard wing, but since he isn't a pilot and has never been in a glider I think he can be forgiven." John and his syndicate are now hoping that one day the Sie will fly again.

NORTHUMBRIA (Currock Hill)

Martin Fellis flew Diamond height, Martin Arrowsmith Gold height and many achieved 8000 to 14 500ft in the recent wave. Two-seater training flights ventured as far as Durham and Spennymoor in superb conditions.

A BGA instructors' course was held in June and Gary Oldfield gained his assistant rating. Sue Hall completed her Silver badge at Le Blanc.

During our members' course in July, Wilf Turnbull, John Richardson and Ken Murphy soloed and Bronze legs were flown by Wilf, John and Andrew McCutcheon. We have an expedition to Portmoak in September. R.D.

OXFORD (Weston on the Green)

Peter Wallace has gone solo; Simon Hogg and Terry Cain have Bronze badges and Terry Silver distance; Mike O'Neill and Kevin Duthie have



Patrick Gogan in the Trent Valley GC's Puchacz.

Silver heights, Mike also managing 5hrs, and Graham Barrett (Libelle) and Tony Boyce (DG-202-17C) have Diamond distances.

Our K-6CR has been sold and we have another K-8 in the club fleet. F.B.

PEGASUS (RAF Gütersloh)

Numerous Bronze and Silver legs have been flown with Russ Wide, Ron Turley and John Rayner gaining Silver badges. Lesley Cooper-Young, Bob Thompson, Colin Foster, Adrian Pye and David Marston have gone solo, David on his 16th birthday.

Ray Pye came an excellent 3rd in the German Regionals and Dave Mintey has become an assistant Cat. Richie Arnall has stepped down after a long, hard working stint as CFI to become DCFI to his successor, Mick Dolphin.

Our new Discus has arrived complete with GPS in time for our expedition to Innsbruck in October.

D.R.M.

PETERBOROUGH & SPALDING (Crowland Airfield)

Roger Gretton, who is 1st on the club ladder, and Steve Turner have flown 300kms for their Gold badges. N. Ayres, G. Rodrigues and S. Dickson have gone solo and F.Dade and T. Nash have Bronze badges.

The flying fortnight is well under way with James Crowhurst reclaiming "Snoopy", the club mascot, after his 50km to Tibenham.

D.K.P.

RATTLESDEN (Rattlesden Airfield)

Clive Booth and Stuart Janes have gone solo and Reg Smith and Richard Page have Bronze badges.

First solos for two Sackville GC pilots. David Mole is with his instructor, David Wilkinson, and a delighted Ann Fewtrell was photographed soon after landing.



Tim Smythe of the Dorset GC on the day of his solo flight.



The hangar is complete and our new tug, a syndicate Citabria, is due this week. The Inter-Club League was cancelled through bad weather – but we enjoyed the barbecue!
M.E.

Obituary – Wilf Reynolds

We were saddened by the recent death of our friend Wilf Reynolds – a very experienced pilot both in the RAF and as the CFI of the Norfolk Aero Club.

He enjoyed his flying and recently resoled with us – his friendly, helpful, cheerful manner will be greatly missed by us all. We send our deepest sympathy to his wife and family.

Mike Elmer

SACKVILLE (Riseley, Beds)

A party joined the BGA soaring course at Lyveden – our thanks to Keith Scott for his hospitality – and a group are taking part in the Cambridge University GC's task week.

Dave Mole, Dave Slark and Ann Fewtrell have gone solo and Pete Brownlow has an AEI rating.

A fly-in barbecue was somewhat muted by bad weather, but enjoyed by members, and the weekend brightened by the arrival of eight pilots from the Open Class Nationals.

D.C.W.

SHALBOURNE (Rivar Hill)

Our May open day was a great success with many trial flights – our thanks to the helpers and to Alan Pettitt and his team who have refurbished the Tost winch. Verity Murrice organised a barbecue to celebrate.

Well done to Ken Reid and Geoff Nicholls who won their days in the Inter-Club League. Brian Vowell flew Silver distance during the BGA course and Fergus Glen, Elizabeth Warner and Eddie King have Bronze legs.

J.R.

SCOTTISH GLIDING UNION (Portmoak)

Margaret Doig, Derek Asprey, Richard Gynes and Richard Ambler have gone solo; Tony Brown, Graham Fraser and Bill Henderson have Bronze badges; Eoin McDonald completed his Silver badge with a flight in his refurbished T-53 and Ian Ridge has an AEI rating.

We are again hosting air cadets from Syerston and they have had a bumper crop of Silver heights and durations.

Richard Allcoat did very well in his first Comp coming 2nd in the Northern Regionals.
G.N.

SOUTHDOWN (Parham Airfield)

Our chairman Derek Eastell has resigned and been replaced by acting chairman Colin Robinson. We thank Derek for all his hard work over many years.

Maggie Buchanan, Derek Tagg and Martin Roberts have assistant Cat ratings; Bob Adam has a Silver badge and Mike Garwood, Steve Mansfield, Mike Hutchings, Neil Irving and Shona Buchanan have gone solo. Shona soloed on her 16th birthday with the tug flown by her mother Maggie and watched by father and instructor Angus, while Neil soloed behind the tug

flown by his father, our CFI Don "Tiny" Irving. Southdown is becoming a flying family club!
W.S.

SOUTH WALES (Usk)

The season has been good with a well supported task week and tasks set nearly every day thanks to Colin Broom and Earle Duffin. The winners were Colin Broom and Bill Mills (Open), Ken Counsell (Intermediate) and Jim Marsh (Sport). On one task Justin Fitzgerald (Vega) flew Diamond goal in 4hrs.

Silver badges were gained by Jim Marsh, Paul Herriman, Bryan Crow, Stan Armstrong, Dave Neal and Maureen Counsell, Maureen in one flight. Keith Smart, Bob Thompson and Tony Wojtowicz have gone solo. The new winch will soon be undergoing trials.
N.S.J.

STAFFORDSHIRE (Seighford)

Our hangar and workshops are nearing completing and will end three months of daily rigging. We are gradually adjusting to flat site operation after 20 years in the hills.

We have had two successful task weeks, each ending with a barbecue. Silver distances have been flown by Bob Heath-Webb and Keith Ward and Silver heights by Ian Davies and David Gill. John May, Nick Tatlow and David Taylor have Bronze badges and Graham Bowes and David Taylor have soloed, David being the first Seighford trained member to do so.

John Humpherson held our first AEI course when Keith Ward, Simon Watson and Peter Wills gained their ratings. Membership is now 97 – 50% greater than at Morridge.

P.J.G.

STRATFORD ON AVON (Snitterfield Airfield)

Conditions have been mixed but we had over 100 launches on our dawn to dusk flying day.

John Fowler and Peter Ingham have gone solo; June Harris, Mark Parsons, Ian Edkins and Geoff Bridgewater have Silver heights; Geoff Butler 5hrs and Frank Jeynes a full Cat rating.

Our two courses were well attended and successful and Dave Benton, CFI, ran a PI rating course for eight members who passed. Geoff Grainger and Barry Kirby are joint DCFIs.

G.J.B.

THE GLIDING CENTRE (Hinton-in-the-Hedges)

We are up and running despite the forecasts of the sceptics and are doing over 1000 launches a month. Results so far – 20 solos, 18 Bronze and 17 Silver badges.

The courses are largely full and almost 50% of our students are rebooking. How do we do it? Come and find out.

M.F.C.

THRUXTON (Thrupton Airfield)

This is one of our best seasons with a Bronze leg for Mark Lomas, Bronze badges for "Busty" Taylor and Mark Thomas and Silver badges on the same day for Dave and Paul Mayle.

The Mayle brothers have competed with each other throughout their gliding training. Dave flew their K-6cr to Lasham for Silver distance to com-

plete his badge and was towed back for Paul to repeat the flight.
B.L.

TRENT VALLEY (Kirton in Lindsey)

We regret to announce the death of Dib Clewes who recently rejoined us after many happy years flying at Saltby. His legacy has helped us buy the Puchacz which now bears his name.

Peter Shakespeare and Andrew Speed have gone solo and John Rice and John Williams have flown to 14 000ft in wave.

M.P.G.

TWO RIVERS (RAF Laarbruch)

CFI Mike Foreman (ASW-22) won the Dutch Regionals' Open Class to give him a place in next year's Dutch Nationals and Mick Ferguson (DG-300) came 15th out of 27 in the Standard Class.

Jack Wright completed his Silver badge during an expedition to Czechoslovakia and Berkhart Dryer gained his in one flight. Alex Lascelles-Hadwin has Silver height and 5hrs; Julie Nethercott 5hrs; Geoff Porter and Bill Bailey Silver height; Joe Carrigan distance for a Silver badge and Stuart Warne Silver height and a Bronze leg.

L.F.

ULSTER (Bellarena)

In November the club becomes the freeholder of a new site beneath Binevenagh. The £46 000 contract for two fields totalling over 50 acres and presently separated by a wire fence, 800 yards north of our rented strip, was signed in July. We move in when the annual grazing lease expires.

We are excited by the possibilities site security will bring. The field is flat and crosswinds will be a thing of the past, take-off and landing being possible in any direction. Plans are in for a hangar, clubhouse and trailer and caravan park.

In 1967 Tom Snoddy won us a barograph in a competition and, after a very long absence from gliding, he had the satisfaction of using it for his Silver distance in July.

Jim Lamb and Trevor Busby completed their Silver badges with cross-countries during the all-Ireland task week at Kilkenny. Trevor gained his height in the same flight but Jim flew his earlier with a Gold climb to 11 700ft in SW wave over Bellarena. Jim Weston brought the week's honours north, winning with his DG-100.

R.R.R.

VALE OF WHITE HORSE (Swindon)

Amber Saif and Mike Leach have gone solo and Amber, Sue Sellman, Mike Rouse and Bernard Marett have Silver heights.

Bernard Marett and Peter Finnegan have a Dart. We thank Lindy Wirdnam and Dianne Steel for organising the barbecues and Steve Foggin (instructor), Haydn Wirdnam (winch driver) and Dianne Steele (catering) for the June course.

The winches are in working order and we are replacing the yellow tractor.

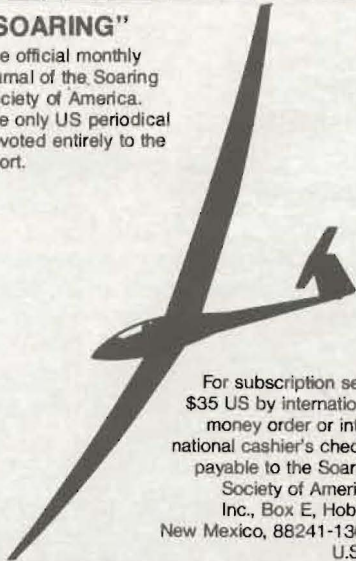
A.M.

WOLDS (Pocklington Airfield)

Despite the poor season we have had some notable days. A balloon meeting at the airfield

"SOARING"

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



For subscription send \$35 US by international money order or international cashier's cheque payable to the Soaring Society of America, Inc., Box E, Hobbs, New Mexico, 88241-1308, U.S.A.

BOOKER

- ★ All aerotow launching for longer flights
- ★ Visiting pilots always welcome – instruction always available
- ★ One, two and five day courses for ab-initios and early solo pilots, from £110 – accommodation available
- ★ Five Day Advanced and X-Country Courses for Solo, Bronze and Silver pilots
- ★ We are open every day, all year, including summer evenings until sunset
- ★ Only 35 minutes from London (M40, Junction 4)



For colour brochure write or phone:

BOOKER GLIDING CLUB
Wycombe Air Park, Marlow, Bucks SL7 3DR
Tel: 0494 442501/529263

COME GLIDING

with the
CORNISH GLIDING CLUB
Perranporth, Cornwall

5 DAY AERO-TOW COURSES
Super Value only £250.00

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 PHILLIPS
BOSWENS, WHEAL KITTY, ST. AGNES
(0872) 552430
If no reply please phone 0726 842 798

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, Mrs G. Edwards, Gt Stones, Hare Street, Buntingford, Herts SG9 0AD. Tel: 0763 89460.



RIDGE AND WAVE
AT THE
BRISTOL & GLOUCESTERSHIRE
GLIDING CLUB

Discover the Cotswolds and the Welsh mountains • Sharpen your soaring skills on our 50 mile ridge • Flying every day, training always available • Friendly site with excellent facilities • Easy access M4/M5

For further information please call:

The Manager
Bristol & Gloucestershire Gliding Club
Nympsfield
Nr Stonehouse, Glos. GL10 3TX
☎ 0453 860342

MARCHINGTON GLIDING CLUB

Situated in the Midlands. Offers Holiday courses from April to September.

Good local soaring and cross-country.

Private owners welcome.

Please Contact:

Course Secretary
Marchington Gliding Club
Tatenhill Airfield, Newborough Rd
Needwood, Burton-on-Trent DE13 9PD
Telephone: 021 355 6248

PLANNING
AN EXPEDITION
OR PERHAPS A
WEEKEND AWAY?

Wolds
Gliding
Club

VISIT THE ...

The Airfield, POCKLINGTON
East Yorkshire YO4 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 &
- FLY YOUR GLIDER OR OURS. BRIEFING ROOM.

Write or give us a ring – 0759 303579

BUCKMINSTER

- 7 days a week May-Sept Weekends & Wednesdays throughout the year.
- 1-5 day courses from May to September
- Aerotow and winch facilities
- Club fleet – Puchacz (2), K13, K8 and Astir
- Visitors always welcome – you will find us 5 miles south of Grantham and 3 miles west of the A1.

EAST MIDLANDS

Buckminster Gliding Club
Saltby Airfield (Nr Grantham), Leicestershire
Tel. Mike (0602) 817432
or Martin (0602) 307737



NORTHUMBRIA GLIDING CLUB

Currock Hill, Chopwell,
Newcastle upon Tyne NE17 7AX

Holiday Courses 1993 May-Sept.

Soar the beautiful Northumbrian countryside. Many local places of interest to visit.

Winch and aerotow launches.
Club expeditions welcome.

Contact:

The Course Secretary
5 The Oval, Houghton Park, Houghton-Le-Spring
Tyne & Wear. 091 584 3011

GLIDING CLOTHING

Keep cool in summer and warm in winter by wearing BGA T-Shirts or Sweat Shirts from the exclusive Whispering Wings range. (Sizes available to fit all glider pilots.) Promote your sport whilst wearing these attractive and excellent quality clothes.

Tel the BGA on 0533 531051 for information on all our items in the shop – Access/Visa Credit Card bookings accepted.

Cambridge University Gliding Club



The Club is open to everyone!

We operate from Gransden Lodge airfield, 10 miles west of Cambridge, offering:

- 80 acre 3 runway gliding only site
- Unrestricted airspace
- Ideal for early cross-country soaring
- 7 day week operation (4 days in winter)
- Supacat winch and 2 tugs
- 4 club 2-seaters
- 6 single seaters from K-8 to ASW-20
- 4 day intensive & ½ day mini-courses and all usual club flying activity

Membership & courses:	Other information:
Margaret Cox	The Secretary,
PO Box 16	Chris Sullivan
Royston,	10 Kentings, Comberton
Herts SG8 7TY	Cambridge CB3 7DT
Tel. 0763 208021	Tel. 0223 263480

KENT GLIDING CLUB



**Challock,
Ashford,
Kent
TN25 4DR**

Courses to suit all grades of pilots from beginners to cross country with modern Gliders. Situated on North Down thermal and ridge site. Meals and accommodation in comfortable licensed Clubhouse.

For FREE brochure, write or phone:

Challock 0233 740274 or 740307



meant many of our pilots tried ballooning while the balloonists went gliding.

We have a K-21, our first glass-fibre two-seater. Many members enjoyed the Northern Regionals with Alan McWhirter flying Gold distance on one day and Gold height three days later.

N.R.A.

YORK (Rufforth Airfield)

The longest flying day lasted 15hrs with 42hrs flying by seven gliders. Our thanks to the helpers. Our pilots put up a fair showing at the Northern Regionals.

Brian Pritchard, course instructor, had his 15 000th flight. Rick Hornsey has a 100km cross-country diploma; Alan Wrigley a Silver badge; Terry Taylor and Dave Rowntree 5hrs; Andy Stocks Silver height and Alan Jolly a Bronze badge.

Brian Mennell and Bill Osborne have SLMG PPLs and our first intensive SLMG course was a great success. Richard Brown and Howard McDermott-Row have assistant instructor ratings.

A.W.

YORKSHIRE (Sutton Bank)

Good weather gave us six competition days for the Northern Regionals and Bob Bromwich (LS-4A) won the Sport Class and Paul Whitehead (Ventus) the Open Class.

Keith Robson, Andy McLean, Tony Waddoup and Michael Riley have gone solo; Jack McGregor has Silver distance and Gold height; John Goodall Gold height, Mike Dennett Diamond goal and a special mention for Tom Goodall – at the start of the season he had Bronze badge and through effort and dedication now has a Gold badge and Diamond goal.

We are always happy to welcome visitors to sample our wave.

C.L.

Please send all editorial contributions to the Cambridge address and not the BGA office.



HUSBANDS BOSWORTH COVENTRY GLIDING CLUB

Our Courses are unbeatable for speedy progress to Solo and also very competitively priced.

The place to be to enjoy gliding to the full.

Specialist courses: AEI, Field approaches, Lead and follow, Aerobatics and Cloud flying.

**Coventry Gliding Club
Husbands Bosworth Airfield
Lutterworth, Leics. LE17 6JJ
0858 880521**

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 winch launch 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: 0256 381322/381270**

DERBYSHIRE & LANCASHIRE

Welcomes you to the spectacular Peak District

- Ridge
- Wave
- Thermal
- Winter opening Wednesday – Sunday
- Visitors most welcome
- Summer Holiday courses
- On-site accommodation, full catering and licensed bar
- Local attractions for all your family

For further information please contact our

**Club Manager, John McKenzie.
Tel: 0298 871270**

FREEDOM OF THE SKY



THE MIDLAND GLIDING CLUB AT THE LONG MYND

invites private owners and groups to partake of an Autumnal visit and to take advantage of our winch, aerotow and bungee launch facilities

ACCOMMODATION and MEALS available.

HOLIDAY COURSES, tailored to suit the individual's experience and needs, continue well into the Autumn

Ring Janet Stuart soon on 058861-206 to secure your place

SHENINGTON GLIDING CLUB

New club with exciting growth potential

- M40 Corridor near Banbury (Approx. 1 hour from London)
- Ridge site, 7 day operation
- Winch and Aerotows
- Secure caravan/trailer storage – economic hangarage available
- Triangular 1000 metre runways
- Airfield restricted to Gliders only
- Economic membership and flying rates
- New members and visitors welcome

EDGE HILL AIRFIELD, SHENINGTON, OXFORDSHIRE

CONTACT:

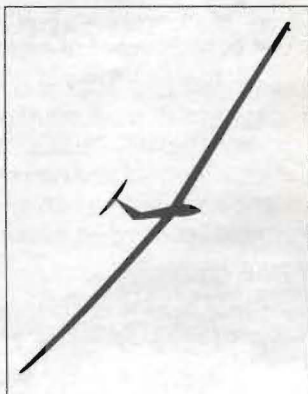
**Paul (0295) 680553
Brian (0608) 662763**

GLIDING HOLIDAYS!

Have the time of your life discovering the magic world of cloudscapes, stunning views and silent soaring flight! Glide with our instructors, learning the controls under expert guidance in our modern dual-control 2 seaters! Inclusive holidays give you flying activities all day, meals, accommodation and a friendly bar, in the heart of the Dunstable Downs.

Send the coupon off or call us now:

London Gliding Club;
telephone: (0582) 663419 for a free brochure:



To: London Gliding Club, Tring Road, Dunstable, Bedfordshire LU6 2JP: Please send me your free brochure:

Name _____

Address _____

S&G

LONDON GLIDING CLUB

C OF A OVERHAULS

TO ALL TYPES OF SAILPLANES

FULL TIME SENIOR 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

TRAILERS

Aluminium sheeting
on steel frame

The YORKSHIRE GLIDING CLUB

Our superb glass fibre fleet caters for absolute beginners or pundits. You can be assured of the best opportunities for gliding in this most beautiful county.

5-day courses for beginners & experienced pilots

With over fifty years of successful soaring at one of Europe's foremost panoramic sites, the YORKSHIRE GLIDING CLUB welcomes visitors from all over the World.

Residential and catering facilities.

The Yorkshire Gliding Club (pty) Ltd, Sutton Bank, Thirsk, N. Yorkshire
(0845) 597237

Parker SAILPLANES

FOR THE LOWEST PRICES AND
GUARANTEED-ON-TIME-DELIVERY! Write or phone;
The Airfield, Pocklington, York YO4 2NR
0759 306067 *The Specialists in Wood and Fabric Aircraft*

- ▶ Need your K6 re-covered?
- ▶ Has your Oly failed it's C of A?
- ▶ Is your club K13 Tatty?
- ▶ Broken your Skylark?

The 1992 S&G YEARBOOK

with loads of special articles, an airspace update, records, annual statistics and a club directory, is now available from the BGA at £3.45 (including p&p).

GLIDING BOOKS

Read all about it! All the gliding books are available from the BGA shop from the best authors – Piggott, Bradbury, Wallington, Reichmann etc. Ask us to send you our complete list of all the books and gliding accessories available from our shop.

Tel 0533 531051 –
Access/Visa Credit Card
bookings accepted



The new Super Dimona is a real joy to look at and fly. The high quality glassfibre finish, the superb engineering and extra quiet engine make this aircraft very kind to both the pilot and the environment. Stall speed 38kt, cruise 108kt, range 700NM at 2.8 Gal/Hour!
Look forward to flying with you.

AEROMARINE

AEROMARINE LTD
Mariners House, High Street, Hamble
Southampton SO3 5JF
Tel: 0703 456256 Fax: 0703 453010

BRIAN WEARE - AERO

ALL TYPES OF GLIDER AND MOTOR GLIDER MAINTENANCE AND REPAIR. FROM SMALL TO THE LARGE INSURANCE REPAIR. REFABRICATING OF TUGS. VINTAGE GLIDER AND AIRCRAFT RESTORATIONS.

GLIDER WORKS
DUNKESWELL AIRPORT
HONITON, DEVON EX14 0RA

Phone:
Works (0404) 891338
Home (0404) 41041



**CENTRELINE
Services**

COMPETITIVE INSURANCE SCHEMES FOR ALL TYPES OF AIRCRAFT

GENEROUS INTRODUCTORY
DISCOUNTS FOR NEW CUSTOMERS



IMMEDIATE COVER



PROGRESSIVE NO CLAIMS BONUS



NO LOADING
FOR COMPETITION PILOTS



AGREED VALUES



FLEXIBLE & EFFICIENT SERVICE

CALL US NOW ON

0489 885998

AND FIND OUT WHAT
WE CAN DO FOR YOU

P.O. BOX 100, SARISBURY GREEN,
SOUTHAMPTON, HAMPSHIRE, SO3 6YJ.
FAX: 0489 885889

SPECIALISTS IN ALL TYPES OF AVIATION INSURANCE

IN ASSOCIATION WITH
EDGAR HAMILTON LTD.,
LLOYD'S BROKERS.



David Goodison



INSTRUMENTS

CALIBRATED, SERVICED AND REPAIRED

PZL WINTER AND SMITHS
BAROGRAPHS CALIBRATED
CALIBRATIONS RETURNED
WITHIN THE WEEK

4 BROADACRES AVENUE
CARLTON, Nr. GOOLE
NORTH HUMBERSIDE DN14 9NE
Tel. GOOLE (0405) 860856

AUSTRALIAN SOARING CENTRE NARROMINE

THE BEST FLEET AT THE BEST SITE IN AUSTRALIA

- ★ ASH-25, ASW-20, ASW-24
- ★ LS-6, LS-4, LS-IF
- ★ NIMBUS 3, VENTUS C, DISCUS
- ★ ASTIR, BLANIK

Contact: Shawn Leigh
PO Box 206, Narromine 2821
Tel/Fax: (010 61) 68 892564
Tel: (010 61) 68 892642

LAKE KEEPIT



Australia's Holiday Soaring Centre

- ★ Superb cross country soaring 7 days a week Oct to April
- ★ Fleet includes LS7, LS4, Astir, Libelle, Hornet, & Twin Astir.
- ★ Friendly Club atmosphere
- ★ Kangaroos & birdlife abound in Nature Park
- ★ Home club of World 15m Champion Brad Edwards
- ★ Justin Wills' favourite site
- ★ Fly 1000km in LS7 & win \$1000 in prizes

KEEPIT SOARING CENTRE,
via Tamworth, NSW, 2340
Ph +61 67 697640 Fax +61 67 697681

FLY THE S-10 IN SPAIN

You can now fly the big tasks in the 23 metre two seater under the guidance of Tug Willson. Fly 500 – 750 – 1000ks in year round thermals and wave. Learn to use the global positioning system (GPS) and Cambridge varios. New apartment has satellite television (including Sky) and large swimming pool. Golf course within 5 mins and miles of Mediterranean sand just 10 mins. 30 mins from Alicante.

CALL
TUG WILLSON
Phone/Fax 010 346-671-5196

GLIDER INSTRUMENTS

(M. G. Hutchinson)

Repairs and overhauls carried out

P.Z.L. Sales and Service
Barograph Calibration centre
Instrument panels cut to order

Write or phone:
Tanfield
Shobdon
Nr. Leominster
Herefordshire HR6 9LX
Tel: 0568 708 368
(answering machine)

STORCOMM TWO-WAY RADIO

Our NEW instrument panel mounting air set, model TR 9005 is now in production. Main features:

- ★ Covers entire band 118-136 Mhz.
- ★ Accepts up to 8 channels.
- ★ Offers cost saving narrow band receiver version.
- ★ Full power transmitter accepts both hand and boom microphones.
- ★ Sensitive and selective receiver with crystal filter.

Economic service for all our previous models plus most other air and ground radios.

Pye "Westminster" 6-channel ground sets available, fitted 130.1 and 130.4 Mhz.

Detailed information, prices and technical specifications from

GEORGE STOREY Tel. 0932 784422
H.T. Communications, P.O. Box 4,
SUNBURY ON THAMES, Middlesex, TW16 7TA

L23 "SUPER BLANIK"

A superb Trainer
Fully Instrumented 2 Panels
Easy Ground Handling E/W 310Kgs
Price delivered UK with
BGA Reg & C of A
£19,220 plus VAT

HERCULES 4 WINCH

Gliders up to 1760lbs AUW
Twin Drum
TATRA Air Cooled Diesel 185HP
Price Delivered UK
£21,300 plus VAT

PETER CLIFFORD & CO

15 Home Farm, Crowmarsh Gifford
Wallingford, Oxon. OX10 8EL
Tel 0491 39316/680420
Fax 0491 393316

If it's going to be

AUSTRALIA

The most comprehensive in the air:
Daily weather and task briefing. Soaring & competition training courses. 14-glider fleet – Junior to Nimbus 2C. Day, week, month hire rates. High performance training available in Janus.

The most convenient on the ground:
On-site budget accommodation. Easy walk to four motels. Pleasant country town, all activities. Mountain, river scenery one hour by car. Melbourne two hours train, car.

it's got to be

BENALLA

Write or phone John Williamson for details:
PO Box 46, BENALLA, VIC. 3672, Australia.
Tel: (0) 57 621058. Fax: (0) 57 625599

For discount travel and details of alternative Aussie
Holidays quote 'Benalla Gliding' to:
TRAVELBAG, 12 High Street, ALTON,
Hants GU34 8BN. Tel: 0420 88724

Oxfordshire Sportflying Club The Premier Motor-gliding School

- ★ Convert your bronze/silver badge to a self launching motor glider ppl.
- ★ We teach and examine for bronze c field landing exercises
- ★ We coach in navigation for your silver c
- ★ Ab-initio training
- ★ Trial lessons.

Discover motor-gliding and how it can help you in the world of pure gliding.

For details call on 0608 677208
Ray Brownrigg (C.F.I.) or Bobbie Ford
Open seven days a week



SOMETHING SPECIAL

The story of a flight last summer in the Slingsby T-42 (Eagle 2) referred to in Philip Wills's S&G Classic (February 1991, p16) as the "soap box" and known at Southdown GC as the "mahogany bomber"

The forecast on August 15 showed a cold front clearing the south coast on the Saturday night, followed by rising pressure and north or north-westerly winds – always a good recipe at Parham. I suggested to my syndicate partner, Roger Coote, that Sunday might be a good day and he was immediately enthusiastic, talking of a big task in an attempt to regain the club two-seater trophy.

The great day was slow to get started and 1100hrs before the first cumulus appeared. The front had been weaker than expected leaving light north-westerly winds. We selected a 300km triangle, Frome, Didcot as the most suitable task for the day and took an early launch, worried about not completing before the sea breeze came in at Parham. As it was we would have to average 50km/h.

As we set off up the valley the pioneering spirit of the Eagle rose again. Cloudbase was only 3000ft but we made good progress. However, there was trouble at Petersfield. The clouds looked great but none produced more than zero. Roger took over and immediately found four down which wouldn't go away.

My imagination ran riot as we made an ignominious fieldward descent. This couldn't be happening. The sky looked fantastic. How would we survive the ridicule of declaring 300km and landing at Petersfield?

At the last moment we spotted some seagulls circling over a farmyard. Fortunately the seagull is a lazy bird and will never flap if it can soar. They were right in the middle of a six knotter that took us to cloudbase. From here we never looked back but Roger had frightened himself so badly he was reluctant to take the controls again.

The clouds were forming into little streets as we pushed towards Winchester with cloudbase steadily rising to 4500ft. Wings level, 60kt on the clock and zero sink – this was more like it!

By the time we reached Salisbury we had made up some of the lost time and were at the

Frome TP in 3hrs, a little behind schedule. Conditions were weaker there but rounding the TP gave a good boost to morale, with the longest and most into wind leg behind us. There was plenty of day left and the highest and driest county to cross next.

Sure enough conditions improved again and provided the best soaring of the day with strong climbs and long glides between the cloud streets. Didcot power station over 40 miles away appeared on the horizon like some distant El Dorado. This made navigation easy as we flew straight towards it, up over the rich country of the Vale of Pewsey and the acres and acres of crops on the Marlborough Downs.



Roger and Andy with the Eagle. Photo: Chris Hancock.

Roger was content to watch the little towns and farms slide by under the wings and busied himself spotting white horses and corn circles. Could there be anything more beautiful than soaring over England on a summer's day? The view was incredible. We could see 50 miles in all directions through the gin clear air. Above us were jets in the airways, below power planes chugging cross-country and gliders under the miles of cumulus, all having fun in this vast pilots' playground we call the sky.

As we crossed the M4 and the 200km mark it was 1600 and I was getting tired. If the day weakened we could have made a downwind dash for Lasham but another good climb brought Didcot in easy reach so we pressed on.

Flying in over the huge power station, we took our pictures and then climbed in the smoke back to cloudbase. Only 1hr for the second leg and a real feeling of being on the way home. We floated downwind, the flying easy and instinctive and every breath of lift carried us nearer our goal.

Reaching cloudbase again over Lasham our optimism was rising rapidly – one more climb could see us home through the sea breeze. The last cloud in the sky just west of Liss gave us a smooth 4kt back to 5200ft and brought the airfield and victory in sight. The patient 20min final glide and the great bird finally came to rest outside the trailer doors from where it started out almost 7hrs earlier. We had flown 311km, the longest closed distance task this illustrious craft had ever made.

A REPORT FROM THE PAST

Tom Zealley has sent us the following cutting of an article in *The Times*, dated April 23, 1934 and reprinted on April 23, 1988. This is reproduced below by kind permission of Times Newspapers Ltd.

NATIONAL GLIDING SCHOOL Site Secured in Yorkshire

From our Aeronautical Correspondent

The first steps are being taken to establish a British gliding school similar to the famous German centre at the Wasserkuppe. The site at Sutton Bank, 20 miles north of York, has been obtained on lease from the Ecclesiastical Commissioners. A number of previous tenants have surrendered their shooting rights. A hangar and clubhouse are to be erected forthwith and the National School of Soaring Flight will probably be opened at the beginning of August.

This site, between the White Horse and Roulston Scar, about seven miles from Thirsk, is as good a soaring site as anything of the sort in Germany. It has both a westerly and southerly slope. It is 600ft above the surrounding country, and on the westerly side there is a bowl-shaped formation which serves admirably as a scoop for deflecting the wind upwards. The BGA has secured control of this land, which measures about 500 yards by 400 yards, and intends to enclose it and proceed with preparations.

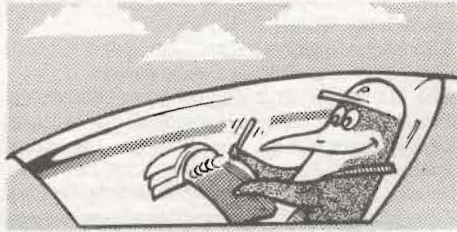
The characteristics of Sutton Bank were tested in October, when a series of competitions was held there. The meeting was most successful, and at one time nine gliders were soaring 1000ft above the ridge at the same time. The alternative faces at the end of the ridge increase the chance of good soaring conditions, but the height of the launching ground is still more important. The headquarters of the London Gliding Club on Dunstable Downs is only 200ft above the surrounding country. An additional 400ft may make all the difference to the height and duration of a soaring flight.

At the present stage in British soaring flight the disparity is not due to lack of skill nor wholly to lack of high-efficiency machines. Given a good launching site the band of British pilots produced by the London GC could probably challenge German pilots using similar machines. This is a notable achievement in a movement which has had only four years in which to establish itself. In 1930 gliding was revived in this country, and something like 100 clubs were started. Very few have survived, but among them is the London Club, which has become probably the most efficient unsubsidised gliding school in the world...

The BGA has delegated control of the scheme to a committee consisting of Messrs Philip Wills (London), Norman Sharpe (Bradford) and Fred Slingsby (Scarborough).

When the school opens pupils will be able to take dual instruction in soaring machines, and it is hoped that the prospect of good soaring conditions will attract pilots of powered aeroplanes, who have hitherto had few opportunities to study the behaviour of air currents.

WAY OFF TRACK



It's a fake!

I yield to no one in my admiration and amazement at what can now be done with computer graphics. Nightly I wait with bated breath for *News at Ten's* camera ship to smash into Big Ben. On the rare occasions when commercials

in the midway break beat me to the zapper I am sometimes moved to exclaim "gee whiz" at the effects achieved, though rarely compelled to dash out immediately to buy the fizzy beer, or bovine laxatives aimed at the farming community, which are all they seem to advertise on-screen where I live.

My admiration stops short, however, of ardent approval for the computer-generated cover on the last *S&G*. It was a brave attempt by Tony Hutchings and friends and I am grateful for the simple explanation of how it was done.

But even as I was pulling the mag from its envelope I saw instantly the cover was a fake. So I must take issue with Tony's assertion that the image was one that it would be impossible to create in reality "but which looked as though it really happened."

I'd be desolate at the thought that future *S&G* covers might be composed through electronic trickery and not obtained by straightforward photographic flair and luck.

As one whose only attempt at a cover was

politely rejected by the editor, to be beaten to the slot twice by my son (now a professional snapper) and once by my wife (strictly an amateur), I have no vested interest here. I only wish to see *genuine* pictures of our most romantic, lyrical and photogenic sport.

If the weather in which we generally pursue it rarely gives the crystal clarity and brightness of, say, the US desert states and which is so marked in the cover pictures of *Soaring*, no matter – our cloudscapes, like that which Tony used for the backdrop of his fake, make up in drama what may be lost in pinsharp luminosity.

One advantage that could come from computer trickery, however, would be to overcome the editor's desperate shortage of good cover shots taken in the vertical format rather than the scores of otherwise usable horizontal format shots she receives.

I sometimes feel I am the last person alive who ever holds a 35mm camera on end yet any amateur would have done so without another thought when I was young. When I was obliging another birdwatcher on Tory Island (not Mr Major's Britain but a small speck in the Atlantic off the NW corner of Ireland) by snapping him and his friends with his camera in July I was mildly upbraided for holding the camera, as he saw it, the wrong way up. I had to assure him that it *did* work when banked at 90 degrees and that the picture would come out.

A nice touch of human frailty crept into Tony's cover with even the computer failing to get the horizon straight. It was no surprise to see from the smaller pictures with his article that it was a female hand at what on the computer system presumably passes for a shutter release. For have you ever met a woman yet who can hold a camera straight?

(We have had an interesting response to the cover. You either love it or hate it – in about equal numbers. Ed.)

The BGA will again be selling the Soaring Calendar from the SSA. See p277 for details



AIR ACE

The new IC-A20 MKII is the very latest lightweight, avionic transceiver from ICOM, giving the power and functions of a panel-mount VHF but in a more versatile handportable format, ideal for gliding.

Features include:

- Unique single knob tuning.
- Illuminated keypad and LCD.
- 20 memory channels.
- 3 scanning modes.
- 760 comms & 200 nav channels.
- TO and FROM VOR with digital CDI.
- Complete with rechargeable battery pack, mains charger, cigar power/charging lead and carrying case.



MEMBER OF 

For more information and your local Icom dealer post to:
Icom (UK) Ltd, Dept SPG Sea Street Herne Bay Kent CT6 8LD
Telephone: 0227 741741 (24hr). Fax: 0227 741742

Name/address/postcode

Tel: Dept: SPG

Are you cherished, Reg?

The thought had never occurred to me that there could be a market in BGA competition letters until I saw that Tony Hutchings has probably the most saleable of combinations. FUN is blazoned on the fin of his machine.

If there were to be such a market, what price would that command on the small ads pages of the *Sunday Times* from those boring egotists who pay a king's ransom for so called "cherished reg" combinations which include their initials or have some arcane associations that only they and their intimates can comprehend? The prices asked are mind boggling, for goodness sake. If anyone can use IIB 4400, at a price, offers to Penguin, please – before body rot and piston-slap propel its present bearer to the knacker's yard.

Those idents that carry a clear and amusing implication, like Tony's, I applaud, however, recalling the cruel trick pulled by the Italian authorities on our local planemakers in the 1960s. Shorts were immensely pleased to have sent off a Skyvan light freighter – an aircraft which looks like an amiable cross between a surf board and an outside loo – to its first export customer. It

departed with a UK ferry registration.

The pleasure in Belfast was somewhat tempered when the first photograph of it in its new Italian livery came back. A Roman bureaucrat had decreed that it was to be I-SORE.

Photographs wanted. Martin Simons of 13 Loch Street, Stepney 5069, South Australia, is writing a series of articles and needs photographs of the Slingsby type 20 and the type 24 (Falcon 4). Can anyone help?

CLASSIFIED SECTION

TO PLACE AN ADVERTISEMENT IN THE CLASSIFIED SECTION, please send your remittance together with your wording to CHEIRON PRESS LIMITED, Hillview, Heathfield Road, High Wycombe, Bucks HP12 4DQ (Tel 0494 442423 or 0860 510407), before the 4th of the month of publication. Rates 70p per word with a minimum of £14.00. Black & White photographs accepted £6.00 extra. Box No. £3.00 extra. Prices include VAT. For copy dates see Contents page.

FOR SALE

JANUS

The BGA Janus C fully instrumented plus trailer is now available for sale at £35000 (plus VAT). Registered in May 1988 as BGA 3333 and nothing but tender loving care since that time! For more details please contact Chris Rollings on 0582 861096 or through the BGA Office.

WINCHING: Tost winches built from kit, heated two-person cab, 290hp petrol engine from £27 000. Refurbished ATC Wild winches fitted new, 290hp petrol engine from £8500 when available. Tel Mervyn Gooch 0449 740 710 (works) 0473 822 738 (eves)

ASW-15A refinished wings, excellent condition, CAV II, barograph, radio, oxygen, metal/glass trailer £9900 offers. Tel Cambridge 461989/413256 (eves) 333569/3 (day)

IS-29b C of A June 93. 600hrs, 500 launches. Full panel, parachute, radio, first-class metal/GRP trailer £7500ono OR DART 15 concourse condition, full panel, parachute, radio, new alloy trailer £7000. Tel 0604 764851

ASW-15e Full panel. Barograph, parachute (available separately), glass-fibre trailer £11 500ono. Tel 0279 439334 (day) 0279 659989 (eves)

ASW-20 Instruments including Dittel LX2000, director/computer, tail wheel, glass trailer, parachute, very good condition throughout. 12 months C of A £21 750ovno. Tel 0453 872740

ASK-13 with open trailer, instruments and radio. Extremely good condition throughout, 12 months C of A £17 500. Tel 0453 872740

STD LIBELLE with top and bottom air brakes. Tinted canopy, C of A, Komet-type trailer, all in very good condition £10 650. Tel 0522 790635

NIMBUS 2c. Condition superb. 309hrs only. Privately hangared since new. Complete with Komet trailer, full panel, solo tow-out gear, wing covers and rigging aids. Tel 044284 2445

INSTRUMENTS Bohli compass (new), Gauging 57mm T & S indicator, Winter barograph, A/C clock, radio ground set. Tel 044282 2445

ASH-25e/ASW-20Ft. Syndicate forming at Pocklington. 2 x ¼ shares available in this two glider syndicate. The ultimate flying. Tel Steve McNeil 07596 225 (after 6pm)

SKYLARK 3b (F Mods) Good condition, standard panel, good aluminium trailer, C of A May 93 £4750 Tel 0822 810799

STD CIRRUS Excellent condition complete with trailer, parachute, barograph etc. £13 000. Tel Barry 0934 414100 or Peter 0934 412728

STD LIBELLE H-201b absolutely immaculate condition, sealed ailerons, water ballast. Instruments include mini T & S and barograph. Two year old metal trailer. Viewing strongly recommended £13 500ono. Tel 062882 3140 (eves)

SHK-1 wood glider with glass performance, very good condition, never been pranged. Instruments, including audio vario, T & S and radio. New C of A and good wooden trailer £8800 Tel 0761 453615

K-6E lovely condition/paintwork. Superb aircraft. A/H, electric barograph, radio, parachute, wood & glass-fibre trailer. Well worth viewing £8400. Tel 0652 678 624

T-31 A fine example of this vintage machine £1250. Located near Denby, N. Wales. Tel John Dean 074570 356 or Peter Manchett 051 342 2341

STD JANTAR Comp. No 767. Complete with very good trailer. Comp. equipped. Radio, parachute, oxygen, Burton ADC, T & S. Syndicate seeking LS-4 to replace. £12 750ono. Tel D Robson 091 4135478 (eves)

IS-29b 15m 37:1 good condition, low hours, low cost, high performance. WANTED DG-202 Tel 0344 776627

VENTUS B good condition. Full panel with radio, metal trailer. View at Lasham Tel 0705 326048

LIFT TOP TRAILER. Protect your back at an affordable price. Fittings for 15m with tips. Insulated glass-fibre top. Tel 0732 452092

SINGLE DRUM WINCH on self powered chassis, offers to clear. Also Commer chassis in good condition, partly converted to take Tost winch kit, surplus to requirements. Tel G. Dale, Bristol & Gloucs G.C. Tel 0453 860342

1992 PEGASUS '90' 101b. Fully instrumented, 720, new Pop Top parachute, tow-out gear, Komet trailer. Based Nympsfield. Shares or complete outfit. Tel 0453 547708 (eves)

ASW-17 Your chance to fly this high performance classic machine. Complete outfit. Further details Tel 0993 845727 (day) 0993 845570 (eves)

STD CIRRUS Excellent condition, Torva glass-fibre trailer. Complete with instruments, radio, oxygen and barograph £12 250. Tel 031 334 0963

VENTURE T-61E motor glider. Good example, ready to fly. C of A to April 1995. Tel 0332 44996 or 0283 820108

PROTECT YOUR GLIDER with lightweight pyjamas. New waterproof, breathable material or dust covers in polyester/cotton. Sofy Viyella canopy covers from £55. Tel/Fax Ann Woolf 0256 58540

MINI NIMBUS and trailer. Low hours and launches, excellent condition, full instrumentation, no mishaps, recent C of A £16 250. Tel Porrett 0935 28081

LS-3a with metal trailer, rigging aids, tow-out gear. Panel includes Cambridge speed director, based Nympsfield £18 000ono. Tel 0453 883874 or 0272 563690

DIAMANT 18m flapped, 45:1. T & S, audio, radio, C of A June 93. Barograph, trailer £11 000. Tel 0689 854653 or 0293 545976

STD LIBELLE. Beautifully maintained. Water, 720 radio, T & S, A/H, EW barograph and printer, databack camera, new parachute, oxygen. Excellent metal trailer, recently rewired, good rigging aids. £12 250ono. Tel (eves) Mark 081 530 8267 Chris 081 989 9843

JAVELOT 2 ideal first syndicate, very good condition, excellent handling and brakes. Well instrumented, aluminium trailer, parachute available Tel 0302 368782 (eves)

PIK 20e in excellent condition. Irish National Open Class Champion. Recently zero-houred engine and new hull paint. New chassis on GRP trailer. Fly where and when you choose for only £22 500. Tel 0238 542300

STD LIBELLE 201b Top and bottom airbrakes, full instrumentation, barograph, oxygen, water, parachute, radio, enclosed metal trailer, C of A to May 1993. Excellent condition £11 000. Tel 081 467 2180

PEGASUS OUTFIT. Very good condition. Full panel, AMF trailer £16 000 + VAT. Tel 0494 442501

LIBELLE 201b Severe crash damage. Complete or spare parts. Tel 0433 630856

NORTH YORKSHIRE SAILPLANES

We are a new company, offering a wide range of services to clubs, syndicates and private owners.

Whatever your glider - vintage or 'High-Tech', wood, glass, carbon or kevlar; whether it's a replacement switch, or a complete airframe re-build, you can depend on the same high standards of craftsmanship and meticulous attention to detail.

- INSURANCE WORK**
- GELCOAT CHIPS**
- ANNUAL C of A**
- PANELS CUT**
- HAND WAXING**
- COMP. NUMBERS**
- CECONITE COVERING**
- MANDATORY MODS.**
- TOTAL RE-BUILDS**

Contact: **Derek Taylor** Telephone: **0845 577341**

24hr. Ansaphone Service

BALTIC SAILPLANES LTD



BAROGRAPHS
Exceptional value. New
Clockwork type now available.
Send for details. £160 + VAT



**ELECTRIC VARIO/FLIGHT
DIRECTOR**
Invaluable soaring aid.
£400+VAT



ARTIFICIAL HORIZONS
With inverters. New 80mm Czech
made, electric 12v. Fast erect,
Built-in Turn and Slip. £400+VAT

BALTIC SAILPLANES LTD

Tel 0858 467723 (anytime) • 0536 81777 (eves) • 0536 85552 (office) • Fax 0858 467137

SLINGSBY SWALLOW 1967 recently recovered, excellent condition. Basic panel, T & S, wooden trailer, C of A £2750 Tel 0962 861044

OLY 463 last one built. 2 varios, T & S, A/H, nose hook and CG hook. Never damaged. Good trailer. GQ 850 parachute £4500. View Booker Tel 0494 483154

K-21 Ex-air cadets. Privately owned last two years. Approx 500hrs. 720 radio, electric varios, plus audio. AMF double axle trailer. Full tow out gear. Barograph, batteries plus charger. C of A to Spring 93. £28 000. Tel 0502 519500

GLIDER TRAILER - steel frame with glass-fibre cladding. Suit any 15m glass glider £1250. Tel 0793 790160/822300 or 0831 405272

DG-100 excellent condition. Glass-fibre trailer, instruments, radio. One man tow-out. New C of A. Based Parham £14 750. Tel 0483 271529 (eves)

HUTTER H-17 BGA 490 (G-ALRK) built 1946, refurbished 1979. Excellent condition, trailer, basic instruments, open to sensible offers. Tel 0845 524803

SKYLARK 3F BGA 920, 18.2m. Good condition, new canopy, cockpit/panel refurbished, good trailer. Easy to fly - 30:1 L/D. Includes rigging aids, tow out gear, parachute and barograph £5450. Tel 0256 29804

LOWLINE TRAILER, wooden in good condition. Hydraulic brakes, Flettner, suit Standard 15m glass (current fittings for ASW-19). View Gransden Lodge Tel 0223 263480

NIMBUS 2. Full panel, Cambridge Mk 4, Dittel 720, nearly new parachute, Cirrus-type air brake mod. AMF trailer £17 750. Tel 0453 544549

ASTIR cs. Fully refurbished. New canopy, new mainframes. Refinished in gel coat. Basic instruments. Trailer. Tow away for £10 000. Tel 0494 529263 (day) 488414 (eves)

ALL WEATHER large glider trailer. £400. Tel Swinn 0642 700553.

SKYLARK 4 good condition, complete with barograph, oxygen and wooden trailer with rigging aids. Needs C of A. Offers Tel 041 332 7511 (day) 031 567 0297 (eves).

ZUGVOGEL IIIa (SF-27 17m) 35:1 Trailer, radio, electric vario £7500 ono. Tel 0636 700242.

ASTIR cs-77 pristine condition, low hrs. Well instrumented, radio, good trailer, realistic price £11 800 Tel 0908 562592 any time.

ELFE S2. Classic 1965 Swiss built Std Class glider. Ideal first high performance machine (37.5:1 at 51kts). Compares favourably with a Libelle. Good condition throughout. Excellent value at £9000 ono. Including full panel, radio, barograph, parachute, tow-out gear and trailer. Tel Mike Corcoran 0457 855101 (home).

K-6E 1/3 SHARE

Probably the finest K-6E in the UK! Ideal first solo machine to Gold C. Recovered and refinished Dec 1990. Full panel including horizon. 720 radio with boom microphone, brand new oxygen rig, barograph, parachute and one man tow out kit. Aluminium trailer rebuilt to highest standards with new axle wheels, suspension, braking system etc.

£3300

For further information contact John Marshall on:
081 458 2155 (home)
0836 35 3344 (mobile)

PACKAGE OF 2 STD JANTAR II

Both aircraft are in excellent condition with complete instruments (720 radio, Cambridge electric vario, parachute) and one aluminium trailer.

£17 000

Tel: Switzerland (010 41) 21 312 08 66 (evenings)

STD CIRRUS 1973

Extremely good condition with excellent gel. 655hrs, Cambridge vario, A/H, 720 radio, parachute, all aluminium compact trailer.

£14 000

Tel 0949 837867 (evee)
0602 591169 (days)

AVIATION FOR THE RECESSION

Eon OLYMPIA 2a Self-sustainer Motorised Glider
25HP 3cyl Konig Radial
Electric engine start - 1.5gal/hour
BGA Approved Mods
Excellent Aluminium Covered Trailer,
Full Panel + Pye Ground Set

£6250

Telephone: I Hodge 0485 600260 (evenings)

TALGARTH

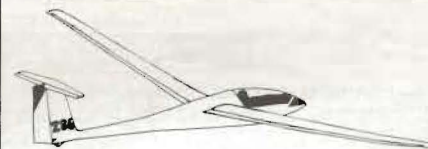


BLACK MOUNTAINS GLIDING CLUB

OCTOBER IS WAVE TIME

Why travel all the way to Scotland when the best Wave is in Wales. Talgarth has Wave in S to SW, NW and SE to NE winds. Diamonds have been achieved in all these wind directions and if it doesn't wave there's always the ridge!

Tel: 0874 711463 (airfield)
0874 711254 } (evenings)
or 0874 86619 }



WINTER BLUES? - DON'T FRET

Talgarth has good soaring all year round
Polish up your ridge & wave soaring skills
Courses available at all levels, all year round

See opposite advertisement for contact details

The "LS" Agent in UK - Sales • Spares • Repairs

MARTYN WELLS
(Wells Design Ltd.)
Brailes, Banbury, Oxon.
Workshop Tel. 060 885 790
Home Tel. 060 884 217

ORDER NOW:-

LS4, LS6, LS7
MOTORISED GLIDER COMING SOON

**REPAIR
MAINTENANCE
C of A**

**FACILITIES FOR ALL
GLIDERS IN OUR PURPOSE
BUILT WORKSHOP**

SINGLE DRUM WINCH Offers invited. Tel 0283 820108

WINTER BAROGRAPH clockwork mechanism. Very little use. Full documentation also T & S 80mm ex-service. Tel 0256 703473

1986 HOFFMAN H-36 DIMONA in good condition. 780hrs. Fax 010 46 510 269 08 (Sweden)

TWIN ASTIR Oxygen, trailer £16 500. Tel 081 445 5513

K-7 Good condition, basic instruments, T.E £6450. Tel 0763 71612 (day) 0763 89460 (eves)

VENTUS TURBO 16.6M. Fitted Pesches VP3 flight director. Becker 720 radio, Bohli compass, Aerograph barograph, GQ parachute. Fully fitted and insulated AMF aluminium trailer with genuine one person rigging aids. £37 000. Tel 0372 450665 (eves)

LS-7 HULL. Excellent condition. Many extras. Competition sealed. View Booker £24 750. Tel Steve White 0494 436888 or Doug Hilton 0494 483252

LS-4 1981 Refinished Prestec 1991, Komet, oxygen, Cambridge M-2, turbulator, Sage, Winter, Dittel ATR 720 US\$ 45 000. Tel (Florida) 305 531 6646 (day) 305 362 6887 (eves)

SPORT VEGA FSG 40 720ch radio, GQ parachute, demand type oxygen system, electric T & S, barograph, ball electric vario, speed director system with audio. AMF aluminium trailer £13 000. Tel (Dublin) 010 353 1 935901 (after 7 pm)

ASTIR cs Complete outfit including trailer, parachute, instruments, radio, barograph. Spigot mod completed. Available end Oct 92. Offers over £10 000. Tel 010 49 5241 25175

LS-7 Two years old, 200hrs, perfect condition £26 750 for hull only, or will sell complete outfit. Tel Richard Blackmore 0664 822291

SF-27 basic instruments, trailer, spotless condition. K-6E performance, lower costs £6300. Tel 0904 703171

'EAGLE EYES' SAFETY FLIGHTSPECS. Cut out glare/u.v./fatigue. Enhance definition dramatically; spot power lines/fences/competitors instantly! Put clouds in 3D! Prescription lenses available - standard pairs £50. Tel 0298 871845

NEW 15M TRAILER. Timber construction covered with aero-lene and glass-fibre resin. Fitted auto-reverse £1200 Tel 0225 314302

GLIDER TRAILERS. For the best hand-made glider trailers, at sensible prices talk to David Schofield. Tel 0793 790160/822300 or 0831 405272

VENTUS s. Trailer, full competition panel, including Cambridge 720 channel radio £23 500. Tel 0869 243030 (day) 0636 70523 (eves).

WANTED

LS-4 outfit complete. Tel D Robson 091 4135478

TRAILER for Kite 2. Fuselage height at cockpit: 1.4m, root chord: 1.2m. Must be roadworthy, weatherproof, reasonably priced. Tel 081 940 4837

BLANK OR SILENE preferably airworthy. Booker Gliding Club. Tel 0494 442501

SF-25a FALKE. Any condition considered. Tel 0844 281487

WITTER
TOWBARS

TRUST WITTER

● First choice for safety-conscious drivers with over 3 million towbars supplied. ● Safety tested to B.S. and I.S.O. standards. See Yellow Pages for your nearest specialist fitter or stockist.

WITTER TOWBARS, CHESTER CH1 3LL
Telephone: 0244 341166

RESIDENT INSTRUCTOR & TUG PILOT

Required for 1993 Season May/Sept

These positions require self-motivated person prepared to help with every day running of Club's activities

Apply to:

BUCKMINSTER GLIDING CLUB
c/o F.L. Cox, 23 St Mary's Rd. Bingham, Notts NG13 8DX
Tel 0949 837867 (eves)

PROTECH GLIDER REFINISHING

Partial or total in gelcoat or acrylic to mirror finish and other non-insurance work where true value for money still counts! Insure the previously uninsurable for only £199 (bi-annual hard wax and inspection) to prevent later major expense. (See Aug/Sept issue S & G Page 198)

Contact Protech, Booker Airfield, Marlow, Bucks SL7 3DR.
Tel 0494 438581



**GLIDING AT ABOYNE,
ABERDEENSHIRE THIS YEAR!**

Try the Charleston Hotel, Aboyne. Five minutes drive from the Club. Family-run Hotel, excellent food and comfortable accommodation. Also self-catering cottage to sleep 5 in Hotel grounds. We specialise in serving food until 10.30pm daily.

Tel: 03398 86475

**JOINT AIR SERVICES
GLIDER FINDER**

Still many happy customers
TA & KM Joint
Call us on 0420 88664

PENNINGTONS CHARTERED ACCOUNTANTS

For accountancy and taxation services.

11 Worton Court, Worton Road, Isleworth,
Middlesex TW7 6ER
Telephone John Gorringe
Day 081 568 8745, Evening 081 948 3799

PILATUS PC-11Af (B4) aerobatic version only. Tel Roger Reeves 0625 827827 (home) or 820070 (eves) or 820050 (fax)

80mm VACUUM ARTIFICIAL HORIZON, 57mm mechanical vario and 4" Venturi. Hangarage available Nuthampsted/Barkway. Tel 0279 876428 (ansaphone if not in)

LS-4 Cash available. Prefer hull only. Would collect broad. Tel Martin Blake 0602 677622 (office) 0332 551496 (home).

ACCOMMODATION

SCOTLANDWELL, Kinross. Cosy cottage, open fire, sleeps 4, short walk to Portmoak Airfield. Sorry, no pets. Tel 0293 883220

SERVICES

GEL COAT REFINISHING A stone chip to a complete re-gel. Guaranteed work carried out in environment controlled workshop. Realistic price and delivery times. Also hard-waxing to protect your gel coat, C of A's, canopy repairs/restoration and glass work. 35mm databack turnpoint cameras £38 inc P&P. Tel Steve McNeil 07956 225 (after 6pm)

MISCELLANEOUS

NEED MORE MONEY for Gliding? Tel 0252 812308


LEARN TO FLY with High Adventure. Hang gliding, paragliding, sailing and more. Tel or Fax High Adventure 0983 752322

S&G AND THE 1993 YEARBOOK
S&G will be £2.25 from the next issue (December-January). The annual subscription will be £15.50 or £19 to include the 1993 Yearbook.

SCHOFIELD AVIATION - SAILPLANE CONTAINER SYSTEMS

Trailers for every type of sailplane manufactured • DS-15 Standard Class Trailer - £2,895 inc. VAT

- Specials for any requirement designed and built
- Kits for own completion, ready to tow away with all materials to complete from £1,995 inc. VAT
- All spares and servicing. Possible part exchange.



Workshops: The Hangar, Lotmead Farm, Lower Wanborough, Swindon, Wilts SN3 4AJ
Telephone 0793 790160, 0793 822300 or 0831 405272

REQUIRED FOR 1993 SEASON

TUG PILOT WITH ASST. CAT. INSTRUCTOR RATING COURSE INSTRUCTOR

TUG PILOTS

Please apply to
CFI, Booker Gliding Club
Wycombe Air Park
Marlow, Bucks SL7 3DR
0494 529263



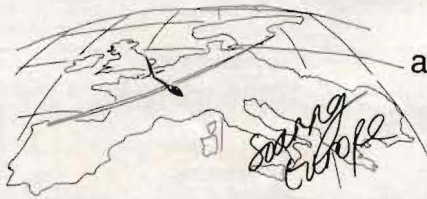
Fly the beautiful Cotswolds from this top
soaring location. Aero/wire launches.
New members *ab-initio* top/untdit welcomed
5 day Courses-unlimited wire launches £195.

Details from ENSTONE EAGLES GLIDING CLUB LTD
Enstone Airfield, Church Enstone, Oxon, OX7 4NP
Tel: (0608) 677535 (0869) 50767 (evenings)

ADVERTISERS' INDEX

Aero Marine	293
Airborne Composites	282
AMF Enterprises	242
Anglia Sailplanes	282
Anglo-Polish Sailplanes	1FC
Australian Soaring Centre	294
Baltic Sailplanes	248, 298
Benalla GC	294
BGA	277, 297
Black Mountains GC	298
Booker GC	290, 300
Bristol & Gloucestershire GC	290
Buckminster GC	290
Cair Aviation Ltd	274
Cambridge Aero Instruments	242
Cambridge University GC	291
Centreline	293
Charleston Hotel	299
Peter Clifford & Co	294
Cornish Gliding and Flying Club	290
Cotswold Gliders	300
Coventry GC	291
D & M Engineering	254
Derby & Lancs GC	291
Dinosaur Electronics	282
John Edwards	274
Enstone Eagles GC	300
European Soaring Club	300
Fite Lines Marketing	243
D. Garrard	279
Glider Instruments	294
Goodison Glider Instruments	294
Hill Aviation Insurance	275
HT Communications	294
ICOM	296
IMC	247
Insurance Brokers International	261
Irvin GB	248
Kent GC	291
Lake Keepit	294
Lasham Gliding Society	291
London GC	292
London Sailplanes	244
Lowndes Lambert	264
Marchington GC	290
McLean Aviation	272
Medway Flight Training	249
Midland GC	291
Norfolk GC	290
Northumbria GC	290
Oxfordshire Sport Flying Club	294
Parker Sailplanes	292
Piggott Brothers & Co	287
RD Aviation/Cambridge Aero Inst	1BC
Rematic	274
Roger Targett-Sailplane Services	248
Sabre AAV	244
Sailplane & Engineering Services	264
S&G	279
Schofield Aviation	299
Scottish Gliding Union	255
Sedgwick Aviation	246
Shenington GC	291
Skycraft	282
J.L.Smoker	292
Soaring Magazine	290
Soaring Oxford	278
Southdown Aero Services	245
Southern Sailplanes	BC
Stemme Motor Glider	264
The Gliding Centre	264
Thomas Sports Equipment	282
WBA Enterprises	278
Brian Weare	293
Wells Design	298
Wolds GC	290
Tug Willson	294
C.P.Witter	299
Yorkshire GC	292
Zulu Glasstiek	278

THE EUROPEAN SOARING CLUB



For details of 1993
Soaring & Cross Country Courses
in Central France
and Expeditions Throughout Europe

Kiera Hibberd,
8 Victoria St, Sandbach,
Cheshire CW11 9BB.
Tel & Fax (0270) 759246
or Brian & Gill Spreckley
Tel (0844 281) 487



HIGH QUALITY SPECIALIST WORK IN

Glassfibre, carbon, kevlar, wood and metal inc. alloy. Blanik repair Agent.
All types of repair undertaken - Motor glider engine approval
Kestrel/Libelle aileron drive rebuilds, also rudder drive NDT testing
Machining facilities for oversize wing pins, axles, control rods etc. Tig welding.

Phone or write
Tony Cox (Senior Inspector)
18 Stanton Harcourt Road
Witney, Oxon OX8 6LD Tel. & Fax 0993 774892

LLOYDS APPROVED
CAA APPROVED COMPANY
AI/9182/89

British Gliding Association THE 1000 CLUB MONTHLY LOTTERY

A great chance to win substantial cash prizes and at the same time enable the Philip Wills Memorial Fund to make loans to clubs for site purchase and development.

1000 is the target number of members to participate in this new monthly lottery which started in July 1992. When 1000 members subscribe £1.00 a month each then the monthly first cash prize will be £250.00.

HALF of the proceeds go to the Philip Wills Memorial Fund to help with its work in developing BGA clubs and the other HALF is distributed each month in the form of 6 CASH PRIZES. The more participants we have, the greater the prize money pool.

1st PRIZE - 50% of the prize money pool.
5 Runner Up Prizes of 10% each of the prize money pool.
Chances/numbers can only be bought from the BGA at

£1.00 each. Those whose money has been received at the BGA by the end of each month will then participate in the draw on the first Wednesday of each following month. Tickets will not be issued in order to keep the administrative costs low but each member will purchase

a "number" which will go into the draw. It is hoped that members will purchase 12 months' worth of tickets at a time. Winners will receive their prizes direct from the BGA and a list of their names will be published in S&G.

Please complete the form below and return it to the BGA with your payment. Please note that only BGA

members and their families may participate and that the BGA is registered under the Lotteries And Amusements Act 1976 with Leicester City Council.

Barry Rolfe
Promoter

To: Barry Rolfe, British Gliding Association, Kimberley House, Vaughan Way, Leicester LE1 4SE

Please include me in the "1000 Club" and I enclose £12.00 (payable to BGA) for twelve months of entries, or multiples thereof.

Name Signed

Address

RD

AVIATION LIMITED

**For all your
Gliding requirements**
 Advertised prices include VAT, when shown
 Exports shipped without UK VAT

Specialists in Avionics & Instrumentation Installations



**Let us
quote for your
requirements**

TRAILERS too



Orders for Schroeder trailers placed in 1992 for Spring 1993 delivery will be at 1992 prices.

Package Deal?

If you purchase your equipment from 'RD' for your glider, subject to minimum order value, and have it installed by 'RD', we will deduct 5% off Schroeder list price for trailer, if purchased as part of package. SAVE £££

(Limited period offer)

C of A?

**Book your next C of A
and Hardwax treatment
with "RD" – NOW**



TRIMBLE Ensign GPS

Handheld pocket-sized GPS special offer (with copy of this coupon to accompany your order.)
ONLY £666 incl. VAT (p&p add £6.50)

**SPECIAL
OFFER COUPON**



FREE
48-Page
Catalogue

**QUALITY
SUPPLIES
AND
SERVICE**

RD Aviation Ltd.
25, BANKSIDE INDUSTRIAL
ESTATE,
KIDLINGTON, OXON OX5 1JE.

**Tel: 0865 841441
Fax: 0865 842495**

24hr Answerphone & Fax

SHOP HOURS:
0900-1830 Mon-Fri • 1000-1230 Sats.

FREE
48-Page
Catalogue



Which sailplane has been in production for 13 years with over 550 produced to date?



Which sailplane took the top three places in the 1992 German 15m National Championships?



Which was the first "stretched" 15m sailplane to give performance similar to the Kestrel, and now with 17.6m wing tips even outperforms the Nimbus 2C?



Which is the only 15/17m sailplane to utilise the "turbo", retrieve/exploration, powerplant system?



Now also available as a self launching motor glider the answer to all the above questions is simple

VENTUS

Manufactured by Schempp-Hirth and available in the UK from:

SOUTHERN SAILPLANES

Membury Airfield

Lambourn

Berks RG16 7TH

Tel: 0488 71774 Fax: 0488 72482