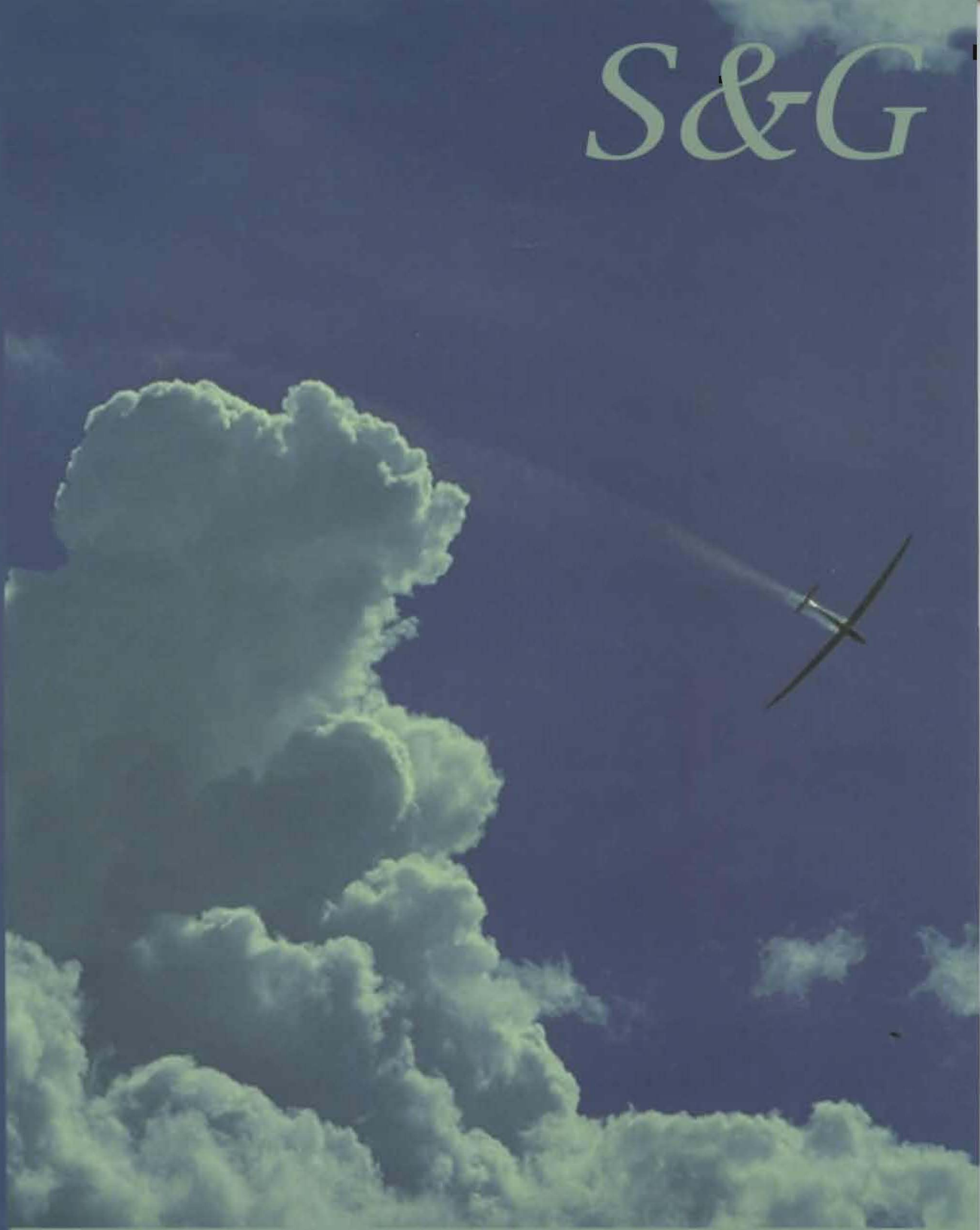
SAILPLANE & GLIDING

S&G



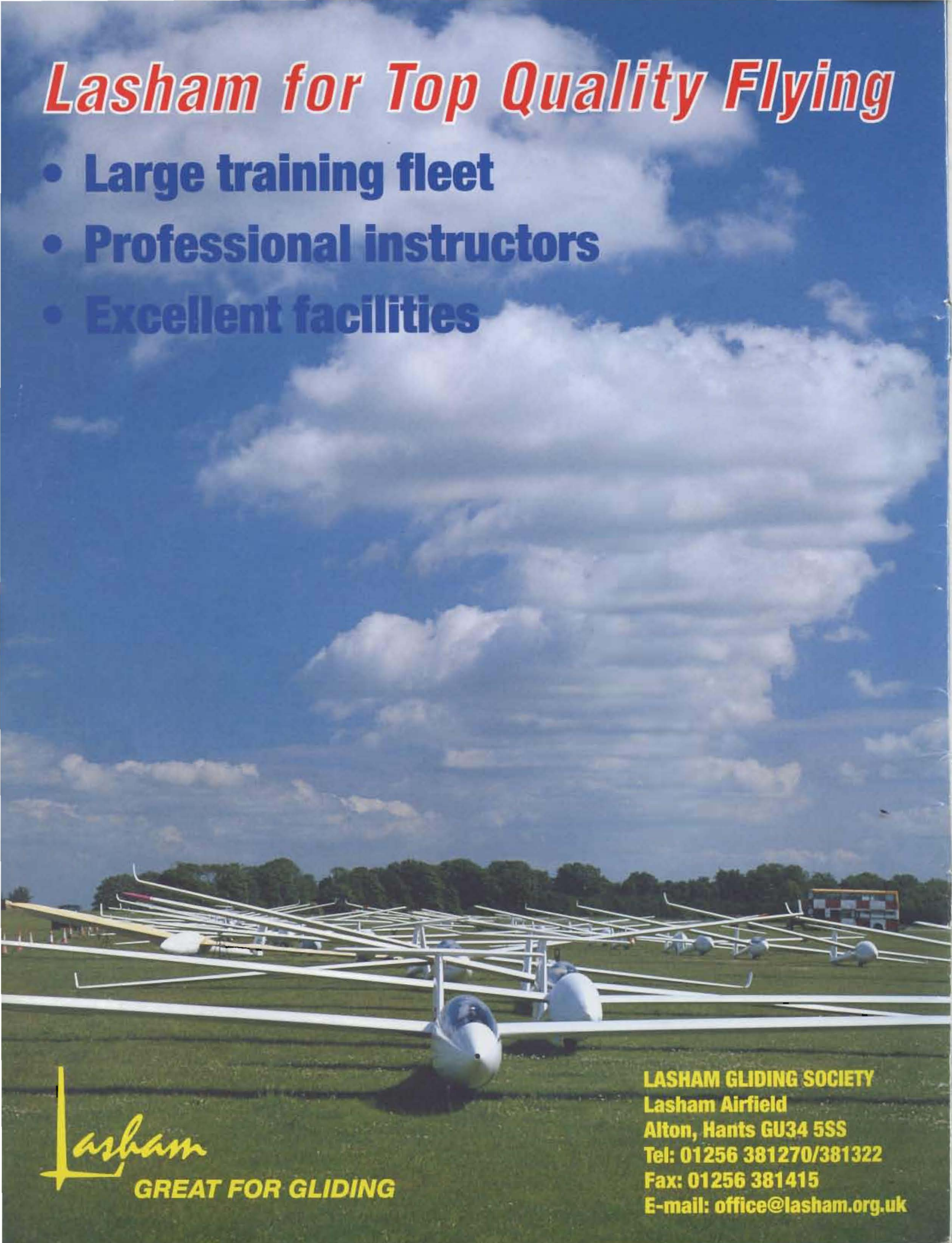
There But for the Grace of God...

Air Accident Investigation in the UK

Gillian Bryce-Smith ~ 1st Flight & 1st Solo ~ Discus 2 ~
Salutory Soaring ~ Volvo Pawnee ~ WGC 1999 ~
Airmanship ~ How not to Stall ~ Span is for Wimps

£2.50
Aug-Sept 1998
Vol.XLIX No.4

ISSN 0036-7230


Lasham for Top Quality Flying
• Large training fleet
• Professional instructors
• Excellent facilities
Lasham
GREAT FOR GLIDING
LASHAM GLIDING SOCIETY
Lasham Airfield
Alton, Hants GU34 5SS
Tel: 01256 381270/381322
Fax: 01256 381415
E-mail: office@lasham.org.uk

The Magazine of the
British Gliding Association

August ~ September 1998
Volume IL No.4

Editor
Le Forbes

Blot Publishing, PO Box 2039
PULBOROUGH
West Sussex, RH20 2FN

tel/fax: 01798 874831
email: le@blot.co.uk

For matters relating to *S&G* please telephone the editor. For matters relating to the BGA, please telephone the BGA office.

Submitting Material to S & G
Whoever you may be, please send a SAE for the new *Guide to Submitting Material to S&G*, before sending anything to the editor. Please DO NOT fax articles.

Deadline Dates

(October ~ November issue)	
Articles	10th August
Club News	10th August
Letters	15th August
Advertisements	21st August
Classifieds	4th September
(December ~ January issue)	
Articles	10th October
Club News	10th October
Letters	15th October
Advertisements	20th October
Classifieds	3rd November

Advertising
Debbie Carr

Subscriptions
Bev Russell

Publisher
British Gliding Association
Kimberley House, Vaughan Way
LEICESTER, Leics LE1 4SE
tel: 0116 253 1051 fax: 0116 251 5939
email: bga@gliding.co.uk
Internet: http://www.gliding.co.uk

***S&G* Annual Subscription**
Send £17.50 to the BGA Office



Frode Liland: Jan-Ola Nordh, the winner, crossing the line in a Discus B, during the Junior Swedish Nationals at Dala-Järna.

Sailplane & Gliding

204 ***Dear Editor,***



"Thank you for 25 years of hard, hard work." How *Sailplane & Gliding* has changed during Gillian Bryce-Smith's editorship of 151 issues.

207 ***Here's One I Made Earlier***



Bob Gibson's first flight in a glider was with the ATC in 1944. Those who know of the Dagling will understand that his first flight was also his first solo.

208 ***There but for the Grace of God...***



Air accident investigation in the UK by Peter Claiden, a Senior Inspector with the Air Accidents Investigation Bureau, the AAIB.

220 ***Bent Ears: Discus 2***



While most of us have not even seen it yet, Jochen Ewald has already been flying the latest offering from Shempp-Hirth, the new Discus 2.

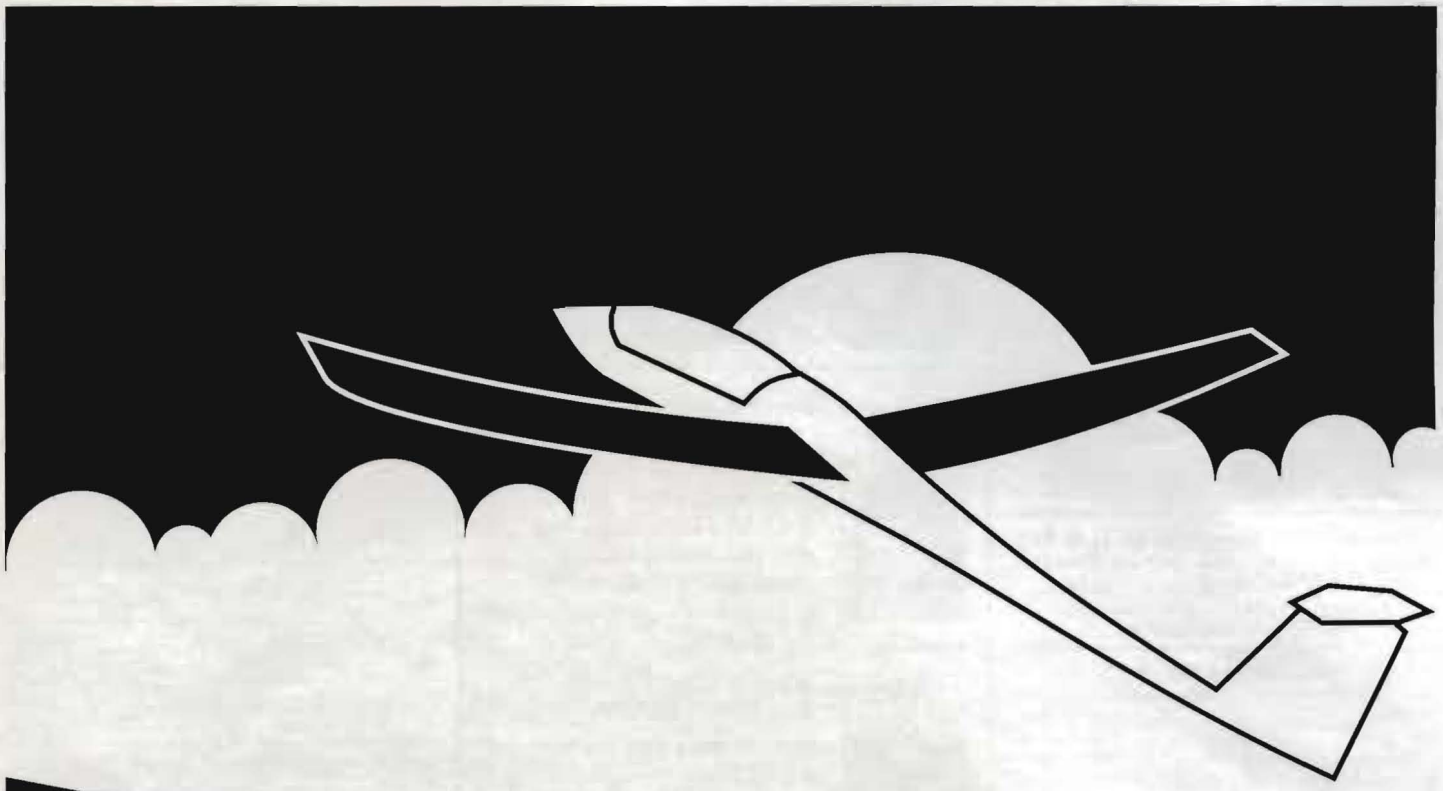
222 ***Span is for Wimps***



A challenge to the argument that 'there is no substitute for span'. Chris Davison comes up with a few suitable options for the metre-minded.

196 ***BGA and General News***
200 ***Letters to the Editor***
201 ***Calendar*** (UK & Europe)
212 ***Tail Feathers***
214 ***Dunstable Regionals '97***
215 ***Salutory Soaring***
216 ***Gliding Gallery***
222 ***Standard Class Nationals***
216 ***Another Retrieve Story***
225 ***The Volvo Pawnee***
225 ***BHPA Hang-gliding Comp***
228 ***26th WGC in Bayreuth***
229 ***Airmanship:*** Look-out!
231 ***When Are You Most at Risk***
233 ***Aerobatics:*** Dan Smith comp.
237 ***D-Day Delayed***
239 ***The French are Different***
241 ***Club News:*** in the UK
249 ***Review:*** gliding on your PC
251 ***IFR Procedures***
252 ***50km There, 300km Back***
253 ***Accident Summaries***
253 ***Classified Advertisements***

Member of the
Royal Aero Club
and the
Fédération Aéronautique Internationale



A professional and Personalised Service.
Technical Expertise, second to none,
to give you the advice and service you want.

Insurance advisors to the British Gliding Association

Contact: Duncan Ellis on 0171-377 3359

Sedgwick

Sedgwick Limited

Sedgwick House, The Sedgwick Centre, London E1 8DX
Telephone 0171-377 3456. Telex 882131. Facsimile 0171-377 3077

A Lloyd's Broker. A member of the Sedgwick Group

Personal Insurance Service

Comprehensive cover and competitive premiums on a full range of products

- **Personal Accident**
- **Travel**
- **Motor**
- **Household**

insurance advisors to the British Gliding Association

Roger Lark & Sedgwick
1948 - 1998

Roger Lark & Sedgwick
Wigham House
Wakering Road
Barking
Essex IG11 8PJ

Tel: 0181 557 2300
Fax: 0181 557 2405

Contact: Daren Sayer on 0181 557 2322

A Lloyds Broker and a member of the Sedgwick Group

Sage (SCHUEMANN)

ZULU GLASSTEK LTD



★ High quality repairs completed on time
★ General maintenance, wax polishing, hard sealing and instrument installation
★ **New 57mm Sage SV fast response torque band vario – £350+VAT introductory offer**

Pete Wells **Workshop 01844 208157**
Home & Fax 01844 201028 **Mobile 0831 273792**

VARIOMETERS – ***All models now in stock including new 57mm CV***

THOMAS SPORTS EQUIPMENT

Pop-Top Glider Pilots Parachute

- State of the art in emergency parachutes
- The Pop-Top. External seated pilotchute 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 • Tel: 01262 678299

BGA and General News

A Word from the Chairman

With the deadline for publication rushing at me and the new Editor making threatening noises, I have only had time to skim through the June/July issue of *Sailplane & Gliding* since it landed on my doormat this morning. What strikes me immediately about Gillian Bryce-Smith's last issue as Editor is not just the variety of subject-matter and quality of content, but also the enormous enthusiasm and dedication which our sport generates amongst its devotees. Justin Wills comments on the threats and difficulties with which we are faced in the closing months of the 20th century, and expresses a cautious optimism that solutions will be found. I share his view.

There are already signs that the BGA's approach – to pursue well-informed, constructive and determined negotiation – is already beginning to bear fruit in a number of areas, of which 'airspace' is one. Given the wealth of talent and knowledge within our community, we are well-placed to bring professional levels of expertise into the problem areas. If we continue to do this, while carefully monitoring UK and international developments, we can, at least in part, lessen the impact of the regulators' and bureaucrats' activities.

Under the heading "And it's Goodbye From Me" on p.168 of the June/July issue, Gillian signs off with thanks to a number of people who have helped to smooth the way during her 25 years' work with *S&G*. This is a fine opportunity for me to say a few words about the other side of the coin, namely the experience of dealing with Gillian as a contributor. I think I must have tried her patience to the limit as I pleaded 'lack of inspiration' and negotiated extended deadlines! It says much for her tact and powers of persuasion that, as far as I can recall, every issue of



S&G published since I was elected has actually included something "From the BGA Chairman"!

So now it's my turn to say an enormous *Thank you, Gillian,* for all your help and encouragement, and for a job well done. I know you are already working on a new and exciting project (of which more anon), and I do wish you every happiness and success in the future.

Lastly, for the moment, a warm welcome to Le Forbes who takes up the reins with this issue. I look forward to working with you, Le, and wish you every success. By the way, can you make a diary note to remind me of the date when I have to get my copy in for the next issue... .

British Women Pilots On-line

The British Women Pilots' Association (BWPA) has launched an Internet site, which can be found at http://www.bwpa.demon.co.uk. The site has been designed to keep members informed about the Association's activities, to encourage new members to join and to promote the cause of women in aviation.

It is planned that the site will soon be extended to include a page for each of the eleven BWPA regions, which run local events in addition to the national programme of activities.

Obituary - Lorne Welch

Lorne Welch died on May 15th aged 81.



Lorne Welch ~ 1916-1998

Chiefly, we remember Lorne Welch's total devotion to gliding, and the way he helped others to profit from his immense experience. It is difficult to appreciate how primitive gliding was when the Lasham Gliding Society was first set up, but Lorne did much to introduce an air of professionalism into matters such as instruction.

Apart from the elementary side, in which he, and his wife Ann, laid the foundations of a system which largely prevails today, he managed to de-mystify the planning of cross-country flights, field landings, and so on. There was practically no aspect of gliding which he did not touch, greatly improving it whilst doing so; we can think of winch design, flight testing, design requirements, the specification for the Standard Class and many other technical matters. Fortunately much of this has been preserved in his writings.

In many a Technical Committee meeting he would listen to some rather turgid discussion and would then put in some simple flash of common-sense which made it perfectly clear. And Sigma [a 1970's project for a high-performance open-class glider], although not entirely a success perhaps because it was slightly too early, owed much to his influence and showed how others could follow. The pilot of today owes an immense amount to his influence, although probably few realise it. It is a legacy of which he could well have been proud.

– Frank Irving

A more detailed obituary was published on p.23 of *The Times,* Monday June 1st.

National Ladders

by John Bridge

Scores are well down, compared with those we usually see at this time of the year, reflecting the dreadful start to the thermal season in 1998. An especially heartfelt 'well done', therefore, to those who managed to stray away from the airfield for long enough to gather a few points. Four Counties are doing rather well, aren't they?

Next submissions at the end of July, please.

Open Ladder

	Pilot	Club	Score	Flights
1	J. Bridge	Cambridge	4,195	4
2	R. Hood	Four Counties	3,939	4
3	J. Wilton	Four Counties	3,895	4
4	K. Hook	SGC (was SGU)	3,662	3

Weekend Ladder

	Pilot	Club	Score	Flights
1	R. Hood	Four Counties	3,939	4
2	J. Wilton	Four Counties	3,731	4
3	R. Allcoat	SCG (was SGU)	3,473	3
4	J. Bridge	Cambridge	3,279	4

Junior Ladder

	Pilot	Club	Score	Flights
1	R. Hood	Four Counties	3,939	4
2	C. Peters	Four Counties	1,331	2
3	A. Jude	Cambridge	866	1
4	J. Hood	Four Counties	25	1

BGA Lottery

The winners of the May draw were:

Mrs J. Hartley (first prize)	**£47.50**
Runners up	
A. Mason	£9.50
C. M. Greaves	£9.50
J. Edyvean	£9.50
M. J. Wilshire	£9.50
G. H. N. Chamberlain	£9.50

The winners of the June draw were:

V. Carr (first prize)	**£47.50**
Runners up	
W. Gordon	£9.50
M. Wilson	£9.50
R. Barrett	£9.50
A. Thomas	£9.50
J. Wright	£9.50

Certificates

		Club	1998
All Three Diamonds			
544	Rebbeck, Luke	London	21/1
545	Rebbeck, Matthew	London	21/1
546	Walker, Jonatbon	Soaring Centre	22/2
547	Pope, Michael	Bidford	22/2
548	Walton-Smith, Patrick	631 VGS	21/1
Diamond Distance (500km)			
1-783	Rebbeck, Luke	London (in Australia)	20/1
1-784	Rebbeck, Matthew	London (in Australia)	20/1
1-785	Walton-Smith, Patrick	631 VGS (in Australia)	21/1
Diamond Goal (300km Triangle)			
2-2595	Rebbeck, Luke	London (in Australia)	21/1
2-2596	Rebbeck, Matthew	London (in Australia)	21/1
2-2597	Rebbeck, Robert	London (in Australia)	1/3/96
Diamond Height (5,000m gain)			
3-1434	Rebbeck, Matthew	London (in Australia)	12/12/97
3-1435	Rebbeck, Luke	London (in Australia)	12/12/97
3-1436	Chalmers, Geddes	Highland	13/2
3-1437	Walker, Jonathon	Soaring Centre (in New Zealand)	22/2
3-1438	Pope, Michael	Bidford (in New Zealand)	22/2
3-1439	Dewhurst, Colin	Deeside	27/3
3-1440	Banks, Terence	London	26/3
3-1441	Davies, Tim	Deeside	13/3
3-1442	Peters, Carl	Four Counties	
3-1443	Paul Mahony	Phoenix (in France)	21/3
3-1444	Clegg, Martin	Phoenix (in France)	19/3
3-1445	Salter, Michael	Anglia (in France)	19/3
3-1446	Shuttleworth, Paul,	Midland	27/3
3-1447	Osborn, Michael	Glyndwr	27/3
Gold Badge			
2027	Rebbeck, Luke	London	20/1
2028	Rebbeck, Matthew	London	20/1
2029	Rebbeck, Robert	London	10/3
2030	Walker, Jonathon	Soaring Centre	22/2
2031	Gallacher, Ian	Wrekin	26/3
Gold Distance (300km)			
	Rebbeck, Luke	London (in Australia)	20/1
	Rebbeck, Matthew	London (in Australia)	20/1
	Hewitt, Roy	Portsmouth Naval (in Australia)	22/1
Gold Height (3,000m gain)			
	Rebbeck, Luke	London (in N. Zealand)	12/12/97
	Rebbeck, Matthew	London (in N. Zealand)	12/12/97
	Rebbeck, Robert	London (in Australia)	10/3/97
	Walker, Jonathon	Soaring Centre (in New Zealand)	22/2
	Dewhurst, Colin	Deeside	27/3
	Crowhurst, Brian	P'borough & Spalding	30/3
	Peters, Carl	Four Counties (in France)	19/3
	Mahony,Paul	Pheonix (in France)	19/3
	Endicott, Mike	Ex Patriot (in USA)	6/10/97
	Salter, Michael	Anglia (in France)	19/3
	Robinson, Christopher	SGU	13/3
	Gallacher, Ian	Wrekin	26/3
	Gosden, Don	Black Mountains (in Spain)	16/4
Silver Badge (50km & 1,000m gain)			
10365	Sutton, Julian	Borders	15/3
10366	Stranger, David	Derby & Lancs	11/1
10367	Winter, Peter	London	28/2
10368	Hogbin, Matthew	Bicester	7/7/97
10369	Law, Anthony	Dorset	6/3
10370	Stewart, Alisdair	SGU	13/4
10371	Marsden, Kenneth	Wyvern	12/4
10372	Mahony, Paul	Pheonix	15/3
10373	Schrimpff, Sebastian	Cambridge	30/7
10374	Robinson, Christopher	SGU	13/3
10375	Archer, Jane	London	13/4
10376	Lee, John	Wolds	25/4
10377	Dymock, Brian	Mendip	13/4
10378	Fielding, Roger	Derby & Lancs	28/4
10379	Walters, Patricia	Clevelands	25/4
10380	Mather, Anne	Lasham	11/1
10381	Dennis, Gordon	Mendip	13/4
10382	Milton, Richard	Kestrel	4/5
10383	Payton, William	Yorkshire	5/5
10384	Dawson, Michelle	Four Counties	3/5
10385	Van Woerden, John	Cairngorm	17/4
10386	Parker, Mark	Cotswold	17/5
10387	Fitzgerald, Edward	Southdown	17/5
10388	Newland-Smith, Caroline	London	17/5
UK Cross Country Diploma			
Part 1	Robinson, Christopher	SGU	13/3
Part 2	Snoddy, Tom	Ulster	19/8

BGA Development News

by Roger Coote
Development Officer



Project 2,000

The activities of the Project 2,000 'task-force', details of their research, and their recommendations, will be published on a regular basis until our ambitions have been achieved. The Membership and Marketing Study Group has already embarked upon its programme of activities:

(i) to obtain alternative sources of funding for the British team.
(ii) to raise public awareness and perception of gliding.
(iii) to investigate the underlying causes of the recent decline in membership numbers.
(iv) to publicise recommendations for re-vitalising the sport of gliding in the UK.

Current Research

Each club has received a letter from Dick Dixon, enclosing two questionnaires, which are aimed at establishing:

(i) The annual turnover of membership that applies to gliding
(ii) Why people leave gliding.
(iii) Whether any correlation exists between the 'product' on offer at gliding clubs and their membership retention rates.

A closer look at BGA annual-returns reveals that, in spite of an overall decline of over 10% in membership since 1990, a significant number of individual gliding clubs have increased their numbers. The statistics show that 38 clubs increased their memberships during last year and 36 clubs achieved an overall increase in the years 1992-97.

There must be something to learn from this, and we hope that the responses to Mike Bird's questionnaires will provide the answers.

Comparative Data

Whilst collecting gliding data, the task force is also reviewing information from other sports in the UK and from gliding organisations in other countries.

Other sports have reported high rate membership turnover. We need to find out what research has been done to stop the rot, and whether other sports have reached conclusions that might help us.

Falling membership has been a problem in seven out of ten countries, according to OSTIV figures for the years 1972-95. Surprisingly, Australia has suffered a drop of 30% in total membership since 1990, while France and Belgium record steady gains. We are interested to know why, and whether any measures are being taken that might be applicable to our own problems.

Gliding Media Pack

Sally Mooney of Duncan Hopwood Advertising and Public Relations Ltd (responsible for the BGA Marketing Support Pack in 1996) has produced the prototype of the BGA Central Media pack, providing all that a club is likely to need to give a presentation about gliding or to run its own publicity campaign. The finished pack will be available soon, and will be presented to club Publicity and Public Relations officers at regional seminars in the autumn.

National Press and TV Coverage

Jack Alcock's suggestions, (*How do We Get and Keep Members S&G* June/July 1998 p.165) are being followed up with the intention of including gliding as a Blue Peter challenge on television and also on the BBC Weather Show.

Youth Initiatives

Many clubs run successful cadet schemes or bursaries offering low cost or free gliding to young people. Suggestions for the best operating practices will be published shortly. Contact is being made with Air Cadets, schools and universities with invitations to join BGA clubs.

• Special Day at Wormingford

A splendid example of how to achieve publicity was demonstrated when our Patron, HRH The Duke of Edinburgh, opened Essex and Suffolk GC's new hangar at Wormingford on 3rd June. The ceremony was attended by veterans of the 9th USAF 362 Fighter Squadron, based at Wormingford from 1943-45, who later presented their Colours to the club and held a moving wreath-laying service at the war memorial. How did Chris Price, Chairman of Essex and Suffolk G.C. persuade Prince Philip to open the Club's new hangar? He applied through the normal channels, making a formal request through the Lord Lieutenant of the County. It worked!

The Latest Shipment of the Me7 Arrives from St Petersburg

Another batch of Me7s slips in to Hull on its way to Shropshire for final fitting out and assembly. These new Me7s have a number of refinements in their construction. Ventilation has been improved, the trimmer system now weighs in at half the original specification and is much simpler to assemble. The most noticeable feature is the all-important (for some) extra leg-room which gives the Me7 the largest cockpit in its class; incidentally the new nose also gives the Me7 a much sportier outline than before.

One of the biggest changes however, is the trailer. Originally the transportation box for the components was thrown away despite it being a marvel of wooden engineering with copious aluminium brackets and fittings. Now with a little extra design work it has become a beautiful sculptured trailer. Whilst some may bemoan the return to wood it is, after all, the original sandwich composite construction the same as all gliders. With modern treatments and a galvanised chassis there is no reason why the trailer should not last the lifetime of the glider.

The next shipment is planned for September but order early to avoid disappointment.

The Me7 is available from:
Kenilworth Aviation,
PO Box 3223, Dorset BH31 6FJ, UK.
tel/fax: +44 (0)1202 828886

World Air Games – Andalucia 2001

AFTER A TENSE AND CLOSELY-FOUGHT, BUT GOOD-HUMOURED, CONTEST BETWEEN THREE WELL-QUALIFIED BIDDERS, THE 2001 WORLD AIR GAMES HAVE BEEN AWARDED TO SPAIN BY THE COUNCIL OF THE FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE, MEETING RECENTLY IN PARIS.

The successful bid, put forward jointly by the Real Aero Club de España (RACE) and the Federacion Aeronautica Española (FAE), calls for the 2nd World Air Games to be held on 10 sites centred on Seville in Andalucia in June 2001.

None of the proposed sites is more than a three-hour drive from Seville, ensuring a well-connected Games. The grand Opening Ceremony will be held in Seville, and the Closing Ceremony at the new motor racing circuit in Jerez de la Frontera.

Spain promises outstanding weather, uncongested airspace, good infrastructure and a big welcome from friendly local people. It is already clear, from the Spanish newspaper and TV coverage in response to the announcement of the Games, that the event will have a big impact in Spain, giving a great boost to the air-sport movement there.

The Andalucian Games will include:

- Hot Air and Gas Ballooning
- Gliding
- Parachuting
- Aeromodelling
- Aerobatics (Powered and Gliding)
- Microlights
- Helicopters
- Rally/Precision Flying
- Hang Gliding
- Paragliding
- Amateur Built and Solar Powered Aircraft

In addition to the flying contests there will be projects for various cultural and popular events within the framework of the Games. Extensive media coverage is planned, ensuring that TV stations around the world will have easy access to pictures, and that sponsors will therefore find it attractive to give support to the Games.

The budget for the event runs to several million dollars, only a small part of which will be covered by entry fees. Substantial financial and material support has been pledged by Spanish government authorities at national, regional and local level.

The International Olympic Committee (IOC) has been informed about the award of the Games to Spain, and the FAI has pledged to work closely with the IOC to ensure that there is no clash of interests.

The FAI is confident that Andalucia 2001 will anchor the World Air Games firmly in the regular international sporting calendar, alongside the Olympics and comparable large scale events. Regular updates will be mailed to all subscribers. Further information on the World Air Games is available at: http://www.fai.org/wag/.

Soaring? Sorted.



The Met.Office

MetFAX AVIATION

A year round soaring forecast for the UK, available by fax.

0331 100 490 South
0331 100 491 Planning
0331 100 492 Northern England

Helpline: 01344 854435
Fax: 01344 854018

The Met. Office Sutton House London Road Bracknell Berkshire RG12 2SY
e-mail: metfax@meto.gov.uk http://www.met-office.gov.uk

0331 calls are charged at £1/min at all times with approximate duration 2–4 minutes. MetFAX is a registered trademark of The Met. Office. © Crown Copyright 1998

98/206(b)

Letters to the Editor

Letters to the Editor should be marked *"for publication"* and sent to: The Editor, *S&G*, Blot Publishing, **email:** le@blot.co.uk **post:** PO Box 2039, PULBOROUGH, West Sussex RH20 2FN. **Please do not fax letters.**

Gillian Bryce-Smith

Dear Editor

The bi-monthly joy of finding *Sailplane & Gliding* among the usual final demands and junk mail was tempered by the news in the April/May edition of the retirement of Gillian Bryce-Smith. Each edition of *S&G* has been a credit to her and I would like to thank her for her efforts over 25 years. You have a tough act to follow but good luck!

John McCullagh
KINGSTON-UPON-THAMES, Surrey.

Radio Abuse

Dear Editor

The summer season has started again – birds are singing, lambs gambolling in the fields and the airwaves jammed with useless garbage!

It would be so much nicer for the rest of us if those pilots from a certain well-known club would take the trouble to spend a few minutes discussing their forthcoming flights on the ground, instead of endlessly discussing where they are, where they're going (we all know it will be Bicester-Didcot anyway), who they are, etc. etc., during the flight.

These individuals seem to think that the gliding frequencies (130.125 in particular, are their own preserve and show no consideration for the rest of us, subjected, as we are, to their endless drivel while waiting for the few brief interludes available in order to pass our own messages!

Sid Smith
UPTON ST LEONARDS, Glos.

Correction

In the June/July issue (Vol.XLIX No.3) an article entitled *Organisations Online* confused the learned society, the Royal Aeronautical Society (RAeS), with the Royal Aeronautical Club (RAeC) which is the BGA's formal link to the FAI. The RAeS can be found at http://www.raes.org.uk, and the RAeC is at http://www.u-net.com/icarus/royal.aero.club/aviation/.

Radio Checks

Dear Editor,

Having recently heard of an experienced pilot at my club being refused entry into class-D airspace, because his transmission was reported as unreadable, I think it's time we had a look at the standard of some of our radio equipment. The glider concerned is well known for its poor quality radio, and its pilot is certainly not alone; you don't have to listen to the gliding frequency for very long to realize that the standard of our radio equipment is, in some cases, appalling (never mind what's actually being said). I am sure this quality of transmission would not be signed off at C of A time if it were in a powered aircraft.

A lot of glider pilots are going to the trouble of getting R/T licences so that they may use controlled airspace, but if we wish to be taken seriously it's just as important to have good-quality radio equipment, otherwise controllers will soon get used to using 'unreadable' as an excuse to refuse entry.

I think a glider C of A should require a full check of radio equipment, including the installation, aerial, power supply, power output, interference from other equipment, and an airborne function check. So, how about some changes to the C of A requirements to ensure we maintain the standards required for flight in controlled airspace?

Paul Harper Little
STROUD, Gloucestershire

Compulsory Endorsement

Dear Editor,

Dave Salmon's proposal at the BGA's AGM, to take the compulsion out of the use of motor-gliders for the cross-country endorsement, is one I support. I believe that motor-gliders can be useful tools for the purpose, but the compulsion of a motor-glider test as a national rule for all is unproductive.

Chris Pullen's paper stated that there are 150 two-seat motor-gliders registered in the UK; but there are not more than two-dozen motor-glider instructors capable, enthusiastic and sufficiently experienced in cross-country flying, to teach the subject beyond a superficial level.

It is unfortunate that UK gliding instructors are seldom the most active cross-country pilots. Even more unfortunate is the fact that motor-gliding instructors can qualify with one 50km flight; many have not been cross-country in a glider since the day they qualified. So what can these pilots pass on that will really bite into the accident statistics?

Twenty years ago John Williamson and I did some research into field-landings; we found that roughly one in three produced an incident. Today I observe that, despite the use of motor-gliders, there has been no measurable change in the ensuing years.

I not only despair that pilots damage gliders when landing out, but that they occasionally kill themselves and are not infrequently injured, creating monumental suffering to themselves and their families. In addition every serious incident and injury brings gliding into disrepute. However, a high proportion of glider pilots succeed in landing out without accident. Are they just lucky? I doubt it. If they *are* lucky perhaps we need to teach new pilots how to be lucky. I suggest that the Instructors' Committee review this subject. Perhaps they could research and revise the basis of our statistics and establish whether, and how, the use of motor-gliders affects the accident rate. The real need is to do something substantially different and to do it soon.

V. C. Carr
WREXHAM.

Degrees, Minutes & Seconds

Dear Editor,

Have we all noticed that the CAA is changing position information (of airspace, navigation aids, etc.) to conform to the new ICAO format: degrees, minutes and seconds instead of degrees, minutes and hundredths of minutes? ▸

Gliding Calendar
August to October 1998

August 1st - 9th

Regionals: Bristol & Glos (Nymphsfield), tel: 01453 860342. email: Secretary@bggc.demon.co.uk

August 7th - 23rd

Bavaria-Glide (Pre-Worlds): Bayreuth P.O. Box 100813, D-95408 Bayreuth, Germany. Tel: +49 (0)921-854088 Fax +49 (0)921-854089 Internet: http://www.aerokurier.rotor.com/AkWM99/AkWM1/

August 8th & 9th

Wooden Ships Comp.: Bidford, tel: 01789 772606 (clubhouse). Internet: http://members.aol.com/Bidford/wooden.htm

August 8th - 16th

Inter-Universities Championships: Yorkshire (Sutton Bank), tel: 01845 597237 email: Ygliding club@CompuServe.Com

Open-class Nationals: Lasham, tel: 01256 381322 (office) email: office@lasham.org.uk

Regionals: Lasham, tel: 01256 381322 email: office@lasham.org.uk

Internationale Oldtimerflugwoche: Gundelfingen e.V., Germany. Vinatge-glider rally. Wolfgang Schaffler, tel: +49 (0)9073-2503

Call to Arms - Mercenaries wanted
"The Nation is experiencing civil unrest and loss of loyallty to the forces of the crown in Staffordshire. In response a band of volunteers is being formed. Men and women with current or previous service in Her Majesty's Army, Navy or Airforce and loyal civilians, should assemble at Hullavington on the 8th August. Nine days arduous training of both ground and airborne forces will be followed by an advance north to regain the country in th name of the Queen."
Inter-Services Championships: Anglia Gliding Club (RAF Hullavington), tel 0831 623253 (mobile).

August 16th - 22nd

Task Week: Yorkshire (Sutton Bank). Minimal red-tape or stress. £5 entry fee. Tasks for all pilots & gliders. Social events & prizes. All welcome. tel: 01845 597237 email: Ygliding club@CompuServe.Com

August 22nd & 23rd

Kestrel 19 Weekend: Bidford, tel: 01789 772606 (clubhouse). Internet: http://members.aol.com/Bidford/kestrel.htm email: SRolls3285@aol.com

August 22nd - 30th

Regionals: London (Dunstable), tel: 01582 663419 (office).

Two-seater Comp.: Wolds (Pocklington) tel: 01759 303579 (office).

Junior Championships: Lasham, tel: 01256 381322. email: office@lasham.org.uk

18m Championships: Norfolk (Tibenham), tel: 01379 677207 (clubhouse). email: (Josie Briggs) 101626.3246@compuserve.com

August 22nd - 31st

Slingsby Week: Yorkshire (Sutton Bank). A relaxing 10 days to fly and talk gliding – glass is not banned! tel: 01845 597237, email: Ygliding club@CompuServe.Com

August 26th

Marpingen Regionals: Beginners and advanced cross-country classes available with handicapping. 50% discount for young people. (Marpingen is on the French border) Registration: Aero Club Saar, Segelflugplatz, 66646 Marpingen. Germany. Fax.: +49 (0)6853-4390. Bernhard Haupert, email: BHaupert@t-online.de

September 5th - 6th

Internationaler Großflugtag: *(Interntional Flying Day)* Werdohl-Küntrop Aerodrome, Germany. Björn Fernholz, email: 02394800948 0001@t-online.de

September 10th - 17th

National Aerobatic Championships: Buckminster (Saltby), tel: 01476 860385 (Bill Morecroft). Internet: http://www.aerobatics.org.uk/Events/Contests/saltby.htm

September 19th - 20th

Euroglide: European trade fair, open to all, for secondhand gliders and equipment. Burbach Aerodrome, Siegerland Airport, Germany. Internet: http://www.segelflug.de/vereine/geisweid/eu-home.html (in german) Gerd Limbeck, email: limbeck@student.uni-siegen.de

September 26th

VGC End-of-Season Rally & Dinner: London Gliding Club (Dunstable). Geoff Moore, tel: 01442 873258.

The calendar in the next issue of *S&G* will cover the period from the 1st Oct to 31st Dec.

Please send details of open days, task weeks (if other clubs are invited), rallies, shows, and compeitions (but not inter-club leagues) to the editor by the middle of August. Please do not fax your information.

Letters to the Editor

If we keep our BGA turning point information in the old format, it is understandable that we will use our GPSs in that format. A small hazard arises if we also use aeronautical positions to fly close to restricted airspace. The worst case (eg. N 52° 59'.59, W 02° 59'.59) is more than half a mile away from N 52° 59' 59", W 02° 59' 59". The presentation looks the same (N52.59.59 W02.59.59).

A. H. G. St. Pierre
BEDALE, North Yorkshire.

Declining Membership

Dear Editor,

S&G is to be congratulated on three items in the June/July issue, each touching the subject of getting and keeping members which is of fundamental importance to the gliding world.

My club has a "How did you hear of us" question on its membership form, ostensibly to check the effectiveness of open-day advertising, which has proved interesting in a wider context. Perhaps more full members than expected have come with previous flying experience. Of these some have come through clubs offering course members information on clubs local to them (thank you Long Mynd), and some may have returned after long layoffs. We've also gained a number of hang-glider pilots recently, seeking landings less taxing on the undercarriage (their feet).

By far the most interesting group of recruits is of pilots moving from other clubs and I would expect most clubs to see such movements from time to time. Although some will have been forced to move due to pressures of work, etc., there will be a significant number who have become dissatisfied with their original clubs and may have been tempted to leave gliding altogether.

It would be most interesting to know what provokes people to change clubs; for small struggling clubs the answer could be the key to survival and, for the more fortunate, the key to improvement. Those articles certainly got me thinking about how to measure my club's performance and I look forward to more articles on similar topics in future issues.

Richard Dann
THATCHAM, Berkshire.

Dear Editor

Roger Coote (*Development News*, *S&G* June/July 1998 p.169) expresses concern about declining membership. He may not appreciate just how much the totals are affected by the figures reported from Lasham. Over the last seven years the reported membership of Lasham and its associated clubs has varied between 1,111 (12% of the civilian membership) and 606 (7%).

The membership trend depends upon your timescale. The civilian membership, excluding Lasham, has actually risen over fifteen years. Over five years it has fallen by 114. This is scarcely a crisis. The number of single-seaters is increasing, both absolutely and as a percentage of the membership. Competitions remain popular. Publicity is not a problem; we attracted over 37,000 temporary members last year.

Our problem is keeping those we attract. It seems that only about 1% of those who take trial lessons go on to achieve bronze badges. In spite of the vastly better equipment we have these days the number of silver badges has hardly changed over twenty years.

There seems to be a natural limit of about 220 members in a non-professional club. There is great potential in the remaining capacity of clubs other than the big seven. There are currently twenty-seven clubs with memberships of 70-170. If they each keep fifty of those who start training with them over the next five years or so that would add 16% to the overall total membership.

Charles Baker
WINCHESTER, Hampshire.

RAFGSA

Dear Editor

As a member of the RAFGSA for the last 22 years and now a (civilian) CFI of a RAFGSA club, I would like to express my thoughts on Peter Warren's letter in the June/July issue (*Rationalisation of UK Gliding*, p.133). I agree in principle with what he says but I think he is a little off the mark with some of his facts.

The RAFGSA is not, to my knowledge, an organisation subsidised by tax-payers. The organisation has acquired funding over a period of years from within its own resources and from service charity grants, just as civilian clubs get Sports Council grants. However, within the Services, gliding is recognised as an adventurous sport and a number of training courses and expeditions are run with the help of public expense but, as these are not a part of the general running of the association, neither the individual clubs nor civilian members see any benefit.

Cheap fuel? Well I suspect if your club uses diesel/avgas it costs you the same as it does us. Civilian members? We are allowed a percentage of civilian members, but the numbers are regulated by the Service charities (who provide some of the money) and not by the RAFGSA. A fair proportion of these members are ex-Service like myself, who own their own gliders and probably give more to the gliding movement than they take; indeed any civilians, who are not ex-service members, are expected to be able to offer some skill to the association before they can apply to join. (My personal membership costs doubled when I left the RAF).

BGA use of RAFGSA facilities? The BGA has been running courses at the RAFGSA centre (Bicester) for quite some time using our accommodation and launch facilities. My own club regularly provides the facilities, at much lower cost than BGA members would normally pay, to train AEI and Full Cat instructors within our BGA region. The question I ask now is "who is subsidising whom?"

The real point Peter is making is, how do we keep young people in gliding? During my last two years in the RAF I co-ordinated a charity scheme which awarded £200 to each applicant to pay for training to solo standard. There were initially 200 awards available per year, but fewer than 40% were ever taken up, and a much smaller percentage of the funds used.

I think the real problem is that today's society has more money and wants everything now; we need to learn to cater for these needs. We also need to keep gliding a fun sport, encourage family participation, which seems to be actively discouraged at some clubs, and to stop being so insular.

Paul Armstrong
GAINSBOROUGH, Lincolnshire.

The Experienced AEI

Dear Editor,

The days when no formal training was given to the passenger-carrying pilot are, thankfully, long gone. The need for a pilot who can act as an ambassador for gliding to the average ▸

'punter off the street' has been identified. Having been coached, trained and groomed to provide a service to the club, their effectiveness increases in proportion to the experience they have gained. The end goal is to allow the Assistant and Full Category instructors to concentrate on the students who require their greater instructional experience.

From the end of his training, the average AEI perseveres with the task, to the point where he could be considered for further training to Assistant Category instructor level. My personal flying log shows that two-thirds of all launches are instructional, whereas two-thirds of my hours are solo. As an ex-CFI I know how long it takes to accumulate instructional experience; an instructor's learning curve is very steep in the early years, therefore a good instructor evolves slowly.

Providing that AEIs perform their duties well, with no aspirations to advance through the training levels, as they enjoy 'selling gliding to the public', why after a period of five years should they be cornered into advancement or removed from the rôle at which they are now very experienced. Maybe the cost of the course is prohibitive or simply they cannot afford the time during their working lives to donate to the course; this is unfortunately a make or break situation. The club either gains an Assistant Category instructor who was happy as an AEI but possibly finds the new position out of his depth or loses a very experienced and capable AEI.

In my quarter of a century in gliding, eighteen as an instructor, I have met many good pilots who have achieved the position of instructor but found that it removed the joy that attracted them to gliding, therefore they gave up the sport altogether. If we can't keep our existing pilots how can we hope to keep the newcomers! There are many good Full Cats with just a Silver Badge. Shouldn't they be forced into becoming Gold Badge pilots after a few years; after all they should be able to prove to their prodigies that they not only talk a good cross-country, but also have a badge that proves they've flown in excess of Silver distance!

The AEI is, I feel, shunned in our sport; I quote from Jack Alcock's article on the last issue (*S&G* June/July p.165):

> "The final stage of attracting newcomers is the air experience flight. Where potential membership is involved, I would be very cautious about using an AEI. I would try to have a more experienced instructor who would inspire the potential student with enthusiasm and confidence".

I whole-heartedly agree with Jack, and many others who've voiced the same opinion, but perhaps we're just not allowing our AEIs to become experienced enough before they take on this important and demanding role. Let the AEI decide when he feels it's time to advance, not force him to observe an arbitrary time scale; there's only one thing you can't teach and that's experience!

Rhodri Evans
NARBOROUGH, Norfolk.

Letters to the Editor

The Soaring Season

Dear Ed,

Does *S&G* have an agony aunt? I'm worried! For a long time I have been happily soaring throughout the year (I gained my Silver duration in a cold January many years ago). My average solo flight time from October to March is nearly two hours per flight and I thought I could soar from January 1st to December 31st. But, horror of horrors! In the last *S&G* I read that the 'soaring season' was about to start; this was written by the BGA Chairman, so it must be true!

Can someone tell me what dates the soaring season covers? Can I be prosecuted for soaring out of season? Will my main spars crack and my tail drop off if I continue? Will all this out-of-season soaring make me go deaf (or is it blind)? Please, can someone help?

Worried, of Newcastle

Control of Air Traffic Control

Dear Editor,

As you will have heard, Gordon Brown has announced a 51% selloff of NATS (National Air Traffic Services). Perhaps through *S&G* you should encourage British glider-pilots to buy shares when the 'company' is floated.

If only half the UK's 10,000 glider-pilots each bought £500 of shares, we would have a combined holding of £2.5M and even more if Popular Flying Association members were involved. If all proxy votes were in the hands of the BGA we may hold some sway at AGMs/EGMs when airspace matters are being discussed! It's just a thought.

Stuart McArthur
smac@innotts.co.uk

The Talking Cockpit

Dear Editor,

It is accepted that, in these increasingly GPS-driven days, it is vital to keep the pilot's attention where it matters most, that is outside the cockpit.

Perhaps the single most important number in the cockpit (after the ASI reading) is the achieved rate of climb displayed by the averager. Surely the technology is now both available and cheap enough for the Vario makers to give us this information audibly, and in plain English, by stored voice.

I leave it to others to choose the tone of voice which would be acceptable to the average glider pilot, (who is not accustomed to taking instructions from anyone!).

It might also be worth remembering the example of the Austin Allegro which, some fifteen years ago, featured a talking voice to tell of such situations as "door open" or "petrol low". Unfortunately the feature was very quickly dropped, due to the universal condemnation which the "voice" received for its inhuman and mechanical tone.

Perhaps we can soon look forward to the "Varivox" from some enterprising manufacturer.

Rod Witter
CHESTER.

Ab initio from When?

Dear Editor,

Several of our members have pondered on the first use of the term *ab initio* to describe a trainee glider-pilot.

Our own research has proved fruitless. Can any of your readers shed any light on the question?

Dick Short
MARKET HARBOROUGH, Leicestershire.

Stick Forward, Houses Bigger

The advice of Andrew Palmer's instructor (*Simplification!* June/July p.147) was spot on, but one could be even briefer:

Hold the stick gently in the right hand, look over the nose and, depending on what colour you see, "green pull, blue push". That's it!

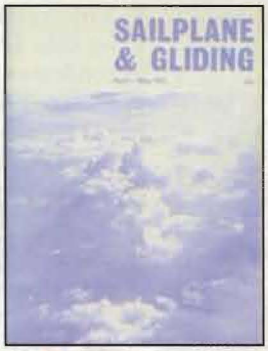
Andy Miller
A_S_Miller@hotmail.com

Dear Editor,

Thank you for the last 25 years of hard, hard work.

IN FEBRUARY 1973 GILLIAN BRYCE-SMITH FACED, AS I DO NOW, THE APPROACH OF HER FIRST S&G DEADLINE. SHE WOULD NOT HAVE HAD, AS I HAVE NOW, THE ASSISTANCE OF A COMPUTER, DESK-TOP PUBLISHING SOFTWARE, A SCANNER, PRINTERS, FAX, EMAIL, AND ALL THE OTHER TECHNICAL WONDERS WITH WHICH WE HAVE BEEN PRESENTED IN THE LAST 25 YEARS. SHE WOULD HAVE HAD A PENCIL, A RED BALL-POINT PEN, A CAN OF SCOTCH MOUNT, AND LOTS AND LOTS OF BITS OF PAPER.

Gillian's first issue was April/May 1973. In her first personal communication to the readership she wrote: 'I am beginning this job as Editor with a moan. You're just not writing to us... As well as giving the latest news and developments Sailplane & Gliding wants to reflect your feelings and impressions of the sport and we can't do that if we don't hear from you.' This is not a problem she has had in more recent years as the level of contribution to the magazine increased enormously under her editorship.

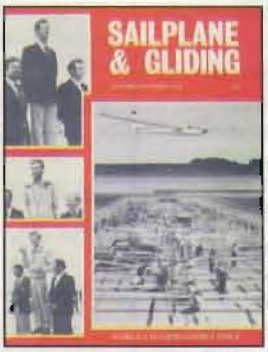


1973

The first letter under the new editorship was from Anthony Edwards: 'Dear Madam, Would you kindly inform your readers how you would like to be addressed in this magazine', to which Gillian replied that '*Dear Editor*' would be fine.

One of the first articles Gillian will have edited was entitled *Cliff Hangar* and was written by an up and coming young pilot of the day. He wrote how his five-hour Silver C attempt in a K6 from Sutton Bank almost ended too soon as he lost height in the final few minutes; those who know Sutton Bank will appreciate that a landout at the bottom of the ridge would have been all too tempting, but Dick Dixon's never been one for landing out!

In *Club News*, Shropshire Gliding Club reported had been quick to notice something that we all take for granted these days. They wrote: "A new hazard appeared in January when snow covered the ground. It was found that the modern, all white gliders are quite invisible from above". Perhaps green, however, is not the best alternative.



1978

Committee Meetings

Roger Barrett, a member of the BGA's magazine committee between 1972-76 has fond memories of Gillian's early days:

'By late 1973 Gillian had been editor of *S&G* for some months, and the magazine committee was having one of its occasional meetings. Barry Rolfe reported that our printers wanted more money and Peggy Mieville, who sold our advertising, hesitated about putting up our rates (I think mainly because she imagined the blast she would get from Ralph Jones at Southern Sailplanes). Gillian resisted editorial paging cuts so Platypus and I reluctantly concluded with the others that the cover price had to increase – from 30p to 40p. Don't laugh, that's a 1/3 increase, so we were seriously worried at the effect this might have on circulation; after all we had just appointed an editor who may have been Woman's Editor of the *Cambridge Evening News*, but had never flown a glider.'

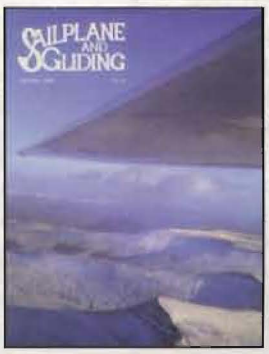
'When we reached "Editorial" on the agenda, we commented on the current issue and the old faithfuls were once again discussed: *Club News* (an editor's nightmare: dare we cut it back?), competition news (always too much of it for non-comp. readers), How-I-Done-Its (unless by Philip Wills they were usually over-written and only of interest to the pilot's nearest and dearest). We all had our say and Gillian listened.'

'I seem to remember that if we pressed her too hard about the contents of the next issue Gillian's technique was to produce from her bag alternative cover pictures that diverted us nicely until time ran out. She was, of course, quite right: never let a committee interfere with contents.'

'Gillian rapidly got the editorial balance spot on, the circulation increased and the letters pages flourished (a sure barometer for any specialist magazine). In future years Gillian proved a dab hand at finding good contributors, encouraging and developing them, and then making sure they kept on writing for what has become the best magazine of its kind in the world.'

Changes in S&G

Since her first issue Gillian worked hard to improve the magazine. Her husband Bryce remembers that almost the first thing she did was to change the size format and insist that the magazine ceased to be called 'The Official Organ of the BGA'.



1983

Colour appeared inside the magazine as soon as 1975 (in the form of green gliders behind an article entitled *Beer and Records*). and ater the same year an orange photograph was printed behind *Euroglide: Weather and Winners*. Although Gillian had published a superb series of cover photographs, it wasn't until the end of 1986 that full colour appeared inside

S&G. The December/January (86/87) issue carried a smashing centre-page spread of a picture taken from a tail-mounted camera, and by 1988 full-colour in the centre was common-place.

However, it wasn't until the early to mid 1990s, just a few years ago, that we saw 12-16 pages of full colour in *S&G* as a regular feature.



1988

Honours

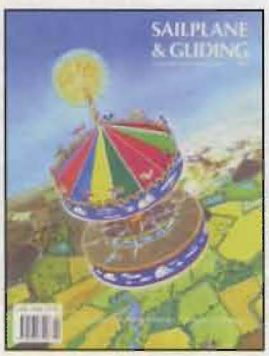
More recently Gillian felt very honoured to have been given the Royal Aero Club Silver medal 'for her services to gliding'. On her retirement the BGA presented her with a fine set of golf woods which will help her along with *her* pastime (if you ever tried to get in touch with Gillian on a Wednesday, and couldn't, it would have been because it was Ladies' Day at her golf club). In addition to these gifts she was made an Honorary member of the Cambridge Gliding Club at their AGM in May.

Family Life

Her husband Bryce has (of course) a different view of Gillian and her life during her time with *S&G*:

"Although she loves the idea, her flying aspirations have been marred by her airsickness problem (even in a Jumbo!) particularly when thermalling, but she has, in fact, flown many hours with me over the years in T31, T21, Eagle, Kranich, Grob, Capstan, DG500, Motor Gliders and Tugs, the latter especially in the winter or at night when conditions are smoother.

She has driven many miles retrieving gliders during her 45+ years involvement with (me and) the gliding world. She has brought up two children who are both airline pilots: Robert (with KLM UK) who was CUGC's CFI, and Suzanne, who has just joined British Airways after many years with British Midland.



1993

The BGA Office

Barry Rolfe, another long serving encumbant at the BGA has worked with Gillian since her first day. 'The BGA has made many appointments during the past twenty-five years but none has been so sucessful as the appointment of Gillian Bryce-Smith to the editorship of the BGA in 1973.'

'I have had the pleasure of working with Gill throughout her tenure and have the greatest admiration for her quiet professional unassuming approach to the job, often in sharp contrast to many of the contributors with whom she has had to deal, Perhaps her greatest asset and the biggest test she faced was always managing to retain a sense of humour.'

'Gill has developed the magazine from its old friendly, but slightly amateur appearance into a highly professional publication printed to exacting modern standards. This has been allied to an increasing circulation and a healthy surplus for the BGA each year on the magazine account.'

'I have no intention of letting her retire quietly and we shall be working on as 'retirement' project jointly with the Soaring Society of America for a new magazine entitled *Motorgliding International*.'

Debbie Carr, the lady all the advertisers know so well, admitted that after working with Gillian for six years they had never met!



1998

The Day S&G Went Missing

Gillian herself recounted the story of the time *S&G* went missing (quite unknowing that everything she was saying was being written down at the other end of the telephone line).

It appears that the final copy for the printer was lost in the post. The Royal Mail had suffered some vandalism, they said. Sacks had been opened, relieved of any valuable items, and set alight. It is probable that *S&G* vanished into thin air and ashes. The obvious question is 'well, you had a back-up copy, didn't you?", but no. This event occured about fifteen years ago, before the days of desk-top publishing. Gillian had spent probably six weeks cuting up pieces of paper and sticking them, and photographs, onto other pieces of paper. It was *the* copy that burned. Perhaps most upsetting, on top of everything else, was the loss of the magazine cover; the transparency was irreplacable.


Gillian Bryce-Smith, not at deadline time.

So, on telephoning the printer the next day and learning that "no, everything is not alright" and Gillian spent the next two weeks (which she had been looking forward to spending in the garden) frantically telephoning contributors, gathering more material, more photographs and sticking more pieces of paper together. Her compensation? £30. Since then, if it hasn't been exchanged by hand, everything has been sent by 'pony express', Gillian's expression for Securicor.

She couldn't remember which issue it was, but knowing Gillian, no one would have been able to tell the difference.

The June/July *S&G* was the last of Gillian's 151 issues, the last of her 151 deadlines, hopefully the last of several thousand sleepless nights, and representative of lots and lots of hard, hard work.

Gillian, thank you.

C OF A OVERHAULS

TO ALL TYPES OF SAILPLANES

FULL TIME SENIOR INSPECTOR

JOHN SMOKER

9 ANSON WAY
BICESTER, OXON
Tel: Bicester 01869 245422
WORKSHOP, NR. HINTON A/F
Portable 058 58 56 002

RESTORATIONS

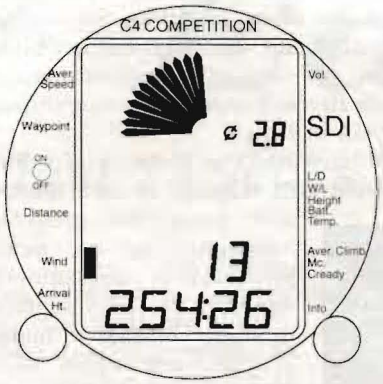
and repairs to wooden gliders of all ages a speciality

SKIDS

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

TRAILERS

Aluminum sheeting on steel frame



SDI Franz Pöschl

VARIOS/FLIGHT COMPUTERS FOR GLIDER PILOTS

Sales in UK

ERNST SPECHT Tel/Fax 01203 382190

FRANK STEVENS Tel. 0121 3532146

SPECIAL OFFER

C4 COMPETITION with Garmin 12XL

- wind calculation – direction/strength
- fast centring in thermals with tendency arrows
- GPS Interface as standard

AVAILABLE NOW! PRICE ON APPLICATION

CAA APPROVED COMPANY
AI/9182/89

Cotswold Gliders

http://www.cotswoldgliders.co.uk

HIGH QUALITY SPECIALIST WORK IN

Carbon, kevlar and glassfibre, wood and metal. Alloy airframe repairs a speciality. All types of repair work undertaken, from minor trailer rash to large insurance claim. Kestrel/Libelle rudder and aileron drive rebuilds, also NDT testing of rudder drive. Motor glider engine approval. Machining facilities for wing pins, axles, etc. Tig welding.

If you require any of the above services, please contact
TONY COX
Tel: **Workshop 01993 779380** Office/Fax **01993 774892**
Email: **tony@cotswoldgliders.co.uk**
or **18 Stanton Harcourt Road, Witney, Oxon. OX8 6LD**

McLEAN AVIATION

THE AERODROME, RUFFORTH, YORK YO23 3NA
Tel: 01904 738653 • Fax: 01904 738146
Mobile: 0802 674 498 • E-Mail: KMc2664616@aol.com

Full repair and maintenance service for major repairs in GRP, carbon, kevlar and wood. C of A renewals, re-finishing and general maintenance



DG 505MB
(Solo 2625-2 engine)

FOR SALE

- ★ DG 400 – complete outfit
- ★ DG 800 – complete outfit
- ★ DG 200 – complete outfit

Strobl-Solar
Solar panels for sailplanes & trailers
Please ask for details

Stockists of: Neogene paints & dopes, repair materials, tyres & tubes, canopy spare parts, release hook exchange, Aeroglym polish, ex military spares, Vega & Kestrel parts

Sole agents for DG Sailplanes and spares in the UK and Eire

Please ask for details of the DG range of single and two seater sailplanes and self-launchers

Here's One I Made Earlier

These days Bob Gibson flies an ASW 20 at Stratford-on-Avon Gliding Club

CAN YOU IMAGINE YOUR FIRST EXPERIENCE IN GLIDING BEING SEATED IN A MACHINE THAT YOU HAVE NEVER SEEN BEFORE, ON A FIELD THAT YOU DON'T KNOW, HAVING BEEN GIVEN BASIC INSTRUCTIONS, AND THEN SENT OFF ON YOUR FIRST FLIGHT BY YOURSELF? ALONE? UNACCOMPANIED? NO INSTRUCTOR? SOLO?

These days it is taken for granted that your first flight will be in a two-seater, with an instructor who has already given you an extensive explanation of the controls; but it wasn't always like that. Although there may have been two-seaters about when I was introduced to gliding, there wasn't one at my gliding school.

Like most of my contemporaries I had already flown as a passenger in much larger gliders, but they were the sort of aeroplane that later transported troops and equipment to Arnhem. They were being used for Army pilot training when we flew in them, so we did get an insight into the problems of motion sickness; in the hands of the inexperienced army pilots the tow rope between the Whitley tug and the Horsa glider stretched and tightened repeatedly until they got the hang of it, giving phugoid flying which would have tested anyone's stomach.

My own first attempt was made in a glider called a Dagling (a primary in modern parlance). I expect that you have seen pictures of such a machine in *S&G*, but if not I can only describe it as a cross between a five-barred gate and a set of scaffold poles, with a big thick plank on the bottom and wings the size of bus shelters tacked on top. The whole lot was laced together with assorted bits of wire and rods. Oh, and there was a tailplane and rudder attached to the back as an afterthought. The seat was perched at the front with the rudder pedals hanging out on each side in the fresh air. No instruments, no trim, no canopy, and although I cannot remember wearing goggles, I did have a safety harness.

The rest of the equipment was not unlike today's. We had a single drum Wild, ex-balloon winch (coincidently, I was working at M.B. Wild at the time) but the retrieve car, which brought back both glider and cable together, was more interesting. It was a Standard Nine chassis, fitted with an open-top armoured body, complete with machine gun mount. They were originally made for airfield defence but I cannot say that I ever saw one in use.

My first attempt at flying was made with the glider being pulled along just fast enough to give aileron control and all I had to do was keep the wings level with the joystick. This was called a ground slide. After I had mastered that I was pulled along a bit faster until the glider actually left the ground and together we proceeded across the airfield in a series of little climbs and bumps. A successful low hop came once I had found the knack of keeping the stick back just far enough to give a nice smooth flight. A high hop came next, up to about thirty feet, and by this time I was using all of the controls, particularly in cross-winds, when you really had to concentrate.



Aged 17, with a coveted RAF white cap-flash.

Although I always thought that I was in complete control, I now realise, as a winch driver my-self, just how much we were in the winch driver's hands. He played the glider like a large fish, letting it down gently when necessary.

Eventually came the great day when I made what was a normal high hop, but then released the cable and finished the flight, straight ahead, under my own steam. Alone. Unaccompanied. No instructor! Solo!

Something went wrong one day and the Dagling just fell out of the sky; as it hit the ground with a tremendous bang, one wing collapsed! Nobody seemed to be too worried, and in about half an hour, the support wire was replaced, and the glider flew again, as though nothing had happened.

All of this, of course, was under the auspices of that fine body of men (and boys), The Air Training Corps. I was a flight sergeant, and wore the coveted white cap flash which indicated that I had passed all the medical and aptitude tests, and had been accepted as PNB (Pilot, Navigator, Bomb-aimer) by the RAF, which I was impatiently waiting to join.

There are three things that stand out from my time at Heronfield Gliding School, apart from the off-ration bacon sandwiches that we could buy from the canal-bridge pub, The Cat In The Window. Alec Henshaw, of Castle Bromwich test-pilot fame, flew in to visit his friend the C.O. one day, and gave us trips in his Tiger Moth. Another time we were asked to give a demonstration at Loughborough College. I made an appalling flight in wet blustery conditions; if we had been at home we would not have flown. Finally, I remember when our first modern glider arrived; it was a Kirby Cadet. Some clown wrote it off on its first launch and I never did get the chance to fly its replacement. At this point I received my calling-up papers...

...from the Royal Navy!

There but for the Grace of God...

Peter Claiden is a Senior Inspector with the AAIB. He is also a Deputy-Chief Tug-Pilot, and flies a K16, at London Gliding Club.

A FATAL AIRCRAFT ACCIDENT IS ALWAYS A SPECIAL KIND OF HUMAN TRAGEDY, AND USUALLY MORE DRAMATIC AND PUBLIC THAN MOST. ALTHOUGH IT IS OFTEN SAID THAT FLYING THESE DAYS CARRIES A MUCH LOWER RISK THAN MOTORWAY DRIVING AT RUSH HOUR, IT REMAINS IMPORTANT TO INVESTIGATE AND UNDERSTAND THE CAUSES OF AIRCRAFT ACCIDENTS IN THE NEVER-ENDING PURSUIT OF FLIGHT SAFETY.

Flight safety does not just happen; it begins with an attitude of mind, a culture. It is a constant battle fought partly against familiarity and complacency by designers, certification authorities, flight and maintenance crews, Air Traffic Controllers and medical personnel and, of course, the accident investigation authorities.

Although there is no final solution to 'perfect safety', I and my colleagues in the AAIB believe we make a contribution by the investigation and analysis of accidents and incidents to aircraft of all types; whether the aircraft is large or small, civil or military, the procedures followed are the same. There is particular satisfaction in closing the file on an accident knowing that aviation is a little safer than when it was opened. It is this satisfaction, combined with the love of aircraft and flying, a consuming interest in the process of investigation, and the pure joy of those occasional blinding moments when a solution rises from the mayhem, that makes accident investigation so fulfilling.

Last year there were roughly 15,000 aircraft operating in the UK: there were 900 fixed-wing aircraft above 5,700kg (maximum take-off weight) and 8,300 below. There were also 900 helicopters, 3,260 microlights and 40 airships on the UK register, not to mention numerous homebuilt aircraft, gyroplanes, hang gliders, parascenders, balloons, a significant number of military aircraft and over 2,000 sailplanes. In the same year, the AAIB was notified of 323 accidents of which 57 were serious. To put things into perspective, in 1996 there were 25.6 million vehicles on the UK roads; 235,939 reported accidents occurred in which 3,598 people were killed and 316,704 injured.

The Accidents Investigation Branch (AIB) was established in 1915 when Captain C. B. Cockburn was appointed to the independent post of "Inspector of Accidents" for the Royal Flying Corps, reporting directly to the War Office. At the end of World War I the AIB became part of the newly established Department of Civil Aviation within the Air Ministry, but continued to be concerned with the investigation of military, as well as civil, accidents. Following World War II the

Case Study 1: ASW 20

An ASW 20 had been flying locally, on a day with good visibility and fairly rough, strong thermals. Although there were no witnesses to the departure from controlled flight, the glider had been thermalling quite normally at a height of between 1,200' and 1,500' just prior to the accident. A short time later, it was seen passing through roughly 1,000' in a near-vertical dive, from which it did not recover; the pilot was killed. The coroner found no medical condition that could have had a bearing on the accident and examination of the wreckage failed to reveal any evidence of control problems, or any pre-impact failures of the airframe; the flaps were set for thermaling as was to be expected.



However, the pilot was of small stature, light weight, and of relatively low experience. It was discovered that the glider had been ballasted with a small lead weight in the tail for competition purposes. With a different pilot, the glider would fly with its CG close to the aft limit. Thus on the final flight it was estimated that the glider's CG was very close to, or at, the aft limit. Although it was not positively determined *why* the pilot lost control, once into the dive, the acceleration would have been high, i.e. nearly a free fall, resulting in a rapid increase in airspeed and only a few seconds in which to recover.

The investigation highlighted two factors that might have hindered the ability of the pilot to recover from the dive: firstly, with the flaps slightly down, the authority of the elevator quickly diminished as speed increased. Secondly, in such a nose-down attitude, it was possible that the pilot may have slid forward under the straps and restricted rearward movement of the stick. Psychological considerations, such as the time taken to recognise the problem, time taken to act, the effects of ground rush, confusion, and fear may also have been factors.

Ministry of Civil Aviation was created and in 1946 the AIB was transferred to it, but continued to assist the Royal Air Force – a situation which continues today. After having various parent ministries, the AIB was passed to the Department of Transport in 1983 and is now an autonomous unit within the Dept. of the Environment, Transport and the Regions. When the Marine Accidents Investigation Branch was set up in 1987, the AIB became the Air Accidents Investigation Branch (AAIB). The AAIB has the power to investigate any accident or incident, but the BGA, following a period of training, has now been delegated full responsibility for the investigation of all accidents to gliders.

Accidents to aircraft occur, and no doubt will continue to occur, in all types of weather and in the most remote areas of land and sea, as well as at airfields and more accessible regions. Unless the aircraft has crashed in a remote region, the first few hours following an accident are usually somewhat chaotic. It is often the case that the investigator is the last to arrive, only to be met by the police, military, airfield authorities, rescue services, relatives of persons involved, aircraft operators and owners, the press, TV and radio media; he can be bombarded with information, opinion and requests as soon as he sets foot on the site.

Talking to witnesses early on is vital if good information is not to be corrupted by time, or witnesses talking to each other. (Incidentally, pilots do not necessarily make the most accurate witnesses). Another early task is to secure the site in order to preserve evidence and deter souvenir hunters...

These days, not only airliners carry flight data recorders. Many gliders and light aircraft carry barographs, GPS, data loggers or other recording devices. Information contained in such recorders often reveals what happened (although rarely *why* it happened); as it is not known at the time how much data will eventually be retrievable from such sources, it remains important to extract as much evidence as possible from elsewhere at the scene.

Unless there is a good reason to move the wreckage immediately, time taken to walk round the site, with one or two people familiar with the aircraft type, is time well spent. Once familiar with the general wreckage disposition, the Inspector can begin the process of recording the evidence. It is not wise to rely solely on police, fire service or press photographs and videos; although these are useful sources of evidence, often being taken before wreckage disturbance, they invariably do not cover the site in sufficient detail and always seem to just miss the area in which you become interested! Aerial photographs, however, can provide a quick and accurate way of mapping the disposition of the wreckage.

During the early stages of an investigation it is tempting to try and analyse each piece of wreckage as it is discovered. This can waste time which is better spent acquiring additional evidence for a more meaningful analysis later. However, if it is apparent that a wing detached, due to a fatigue crack in the main spar for example, immediate action is necessary to stop another aircraft suffering the same fate.

As the investigation continues, various pre-impact parameters need to be determined. Was the accident at high or low speed? Was the aircraft nose up or nose down? Was there an airborne fire or structural failure? What was the aircraft's heading, configuration, and flight path, prior to impact? Was there another aircraft involved? These points are not always easy to determine. Even after 24 hours on the site of one military accident the impact evidence just did not make sense. It was some time before the

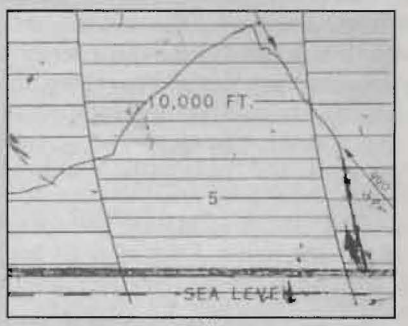
Case Study 2: Piper Super Cub

This burnt-out aircraft used to be a Piper Supercub and was one of two tug aircraft used for towing at a particular club. On this occasion, with only the tug pilot on board, it was towing a K-18 and had just become airborne when the glider pilot lost control and zoomed up above the level of the tug. Before the rope could be released, the tug had been tipped into a near vertical position from which it dived into the ground, killing the pilot. The rope broke and the glider was able to land back on the airfield.



Several similar accidents occurred in the 1980s, and an analysis of these highlighted several common factors. The gliders tended to be of low wing loading, with high set wings, with belly rather than nose hooks, and the pilots were generally of low experience. In at least one of these accidents, turbulence was a major factor. Although tug pilots are aware of the need to release the tow rope if the glider is seen or felt to climb quickly in the early stages of a launch, upsets occur very rapidly. As a glider climbs relative to the tug, it takes its energy from the momentum of the tug, which then slows down. This means that just when the tug pilot needs a good response from the elevator in order to retain control, the loss of air-speed greatly reduces the amount of control available. The result might be that both the tailplane and the wing stall, leading to a situation in which the tug will require some 500-600' to recover. If you lose sight of the tug while you are on tow, YOU MUST RELEASE IMMEDIATELY.

Case Study 3: Skylark 4



This glider went missing while flying over the Scottish Highlands and was later found in a forest having crashed vertically at high speed; the right outer section of the three piece wing was missing and was never found. The pilot, who was killed, was found close to the wreckage with a streamed parachute.

The flight lasted several hours, mostly at heights up to 5,000' but, as can be seen from the trace above, a wave climb was made to 14,000'. The subsequent descent to 8,000' seemed to have been reasonably controlled, but fast, at 450-1,000 fpm, at which point the outer wing almost certainly separated. Analysis of the wing failure, indicated that overstressing, possibly associated with flutter, had occurred, suggesting that the glider had oversped and/or had encountered extremely rough conditions.

The pilot was dressed casually in jeans and a pullover, and had probably become cold at altitude; it was also determined by the pathologist that he suffered from asthma. In the absence of any other evidence, it is probable that the pilot passed out (or was in extreme discomfort) and lost control, due to a combination of the low oxygen levels and low temperature at altitude, compounded by his lung disorder.

penny dropped: the aircraft hit the ground going backwards!

After a while the general characteristics of the accident become apparent. The wreckage is made as safe as practicable (consider walking amongst pressure bottles, tyres, live batteries and spilt fuel!), and a more extensive search might be called for to look for missing items or evidence well outside the immediate wreckage area. Some areas need to be documented as soon as possible; bent structures usually stay bent, but leaking water, fuel and oil samples can be lost, ice formations melt, and ash/soot deposits and paper debris can be blown away.

Once the immediate tasks have been accomplished, examination of the more permanent aspects of the wreckage can be carried out. Should the accident involve an in-flight break-up, then a comprehensive wreckage-plot will almost certainly be made before recovery of the relevant items for later reconstruction. Experience of the Lockerbie Boeing 747 has shown the advantages of itemising as many pieces as possible, such that at a later date the disintegration sequence of the aircraft may be calculated from the wind drift and trajectory data.

The cockpit, whether it has survived intact or is badly damaged, is potentially the most rewarding area of the wreckage to examine. Instrument readings, switch positions and lever positions are recorded before anything is touched; instruments must be carefully handled, particularly if burnt; even a light bulb might provide the answer.

The configuration of the aircraft can often be determined on site, i.e. the positions of the undercarriage, trailing edge flaps, control surfaces, airbrake and canopy or door. This can be relatively straightforward for an aircraft with power actuators, be they hydraulic or electric, but with manually controlled systems, almost universally found on light aircraft and gliders, care is needed in relating 'as found' positions to other evidence (e.g. witness marks between a control surface and adjacent structure) before any judgement is made.

Detailed examination of most aircraft and glider systems, e.g. pitot/static, avionics, electrics, oxygen, and fuel, is fairly straightforward. Possible exceptions to this are the flying control systems; it is important to try to establish control continuity, and to be assured that any failures discovered are as a direct result of the impact, before the wreckage is disturbed.

Once all evidence on the accident site has been documented, the wreckage may be recovered for further detailed examination. Often a grid is laid out to assist with the recovery and later understanding of the breakup sequence. Useful information can be gained from a survey of the ground scars once the wreckage has been cleared.

After the wreckage has been recovered to AAIB Farnborough, or a local hangar, any necessary detailed work is completed. This task can often take longer than the field phase of an investigation, particularly with the bigger, powered aircraft; but once completed, all data is dovetailed with evidence derived from the operations investigation (concerning flight history, ATC, meteorology, crew training, etc.). Hopefully, at the completion of this process, the circumstances of the accident may be analysed, conclusions drawn and where appropriate, reccommendations made in the final report.

Above all, investigations are carried out with the sole purpose of understanding what has happened with a view to preventing a recurrence. Consideration of blame plays no part in aircraft accident investigation in the UK.

Most accidents are relatively straightforward to investigate, but not invariably. One accident, which occurred in the UK in 1993, involved a twin-engined aircraft which had been designed in the USSR, built in Poland and was technically on the civil register of both Russia and Hungary at the same time. It was being flown by a Russian crew, with Russian licences, employed to drop parachutists (from the rear of the aircraft with the doors removed) for a UK military sporting association at an MoD airfield!

The original design-bureau stated that flight with the rear doors removed was unacceptable; they suspected that damage to the structure could result from consequent turbulence and vibration. Both engines stopped just after take-off. A poor modification to wiring had affected the electric flaps and the automatic engine failure/shutdown systems. No one was killed, but the aircraft was written off in the subsequent heavy landing.

If you are unfortunate enough to become involved in an accident, I hope that you will now understand the rôle of the AAIB/BGA investigators. I wish you safe flying.

FLIGHT INSURANCE

THE NAME FOR GLIDER INSURANCE



- ★ **High value Glider scheme (widest possible cover with economical rates)**
- ★ **"Economy" Policy for those pilots who do not wish to fly in Competitions or Europe**
- ★ **Personal Accident Insurance for glider pilots, wide cover – the lowest premiums available with a reputable insurer in this market**

NEW SCHEME

- **Travel Insurance on either a "trip" basis or annual cover. Again the widest possible cover at low cost**

As always – our "standard" glider cover which provides all the insurance you will ever need at the most economical premium available now.

Flexible payment schemes including monthly direct debit available

We (our staff!) have insured more gliders than everybody else in the business – if you do have to claim you will find the difference

ALL ABOVE POLICIES INSURED AT LLOYDS OR WITH LONDON COMPANIES

BEWARE OF CHEAP IMITATIONS

SPECIAL SCHEME FOR OLDER GLIDERS, FLYING THIRD PARTY COVER AND GROUND RISKS ON GLIDER AND EQUIPMENT

Contact: Carol Taylor Telephone 01845 522777 (24 hour answerphone)
Fax: 01845 526203 or write to: 48A Market Place, Thirsk, North Yorkshire, YO7 1LH

Tail Feathers

The rain in Spain sprays mainly on my plane – again

In May 1998 my second gliding trip to the Iberian peninsula contained one more hazard than the first one in May 1993 – a competition. It requires more airmanship and more commonsense than I possess to get through a contest unscathed in a country which has almost no aerodromes and in which ploughed fields are about the only resort in an emergency. All other fields in Spain seem to be full of little trees or irrigation pipes. Not a problem, of course, if the weather is benign and everyone stays up. The weather was malign.

I'll skate quickly over the humiliating details and just admit that I did £3,000 worth of dings to wingtip and fuselage on Day Four of the British Overseas Championships[1]. Lots of field landings were done by other pilots without comparable damage, so I offer no excuses. Disconsolate, we trailed the bits home through continuous downpour from south of Madrid, through France – the entire country from Biarritz to Calais darkened in a veritable monsoon, the péage and the thundering camions barely visible even at midday – to the Dunstable workshop.

This set me thinking about field landings and the increasing undesirability of having to do them. In the 1950s and early 1960s nearly every cross-country ended in a field. This was exciting at the time, if only because we were young, but this necessity also conferred two advantages. First, because



"...full of little trees" Plat scrapes away – just.

our gliders were expected by Fred Slingsby to have their noses rubbed violently into agricultural dirt after almost every flight, they were designed with monstrous great skids to do the work of stopping the aircraft and protecting the cockpit. Secondly the pilots got very expert at picking fields and landing in them, often doing 20 or more field landings a year.

Modern gliders, by contrast, have no protection forward of the wheel, and if the wheel sinks right into soft, rock-strewn soil then stones can do a lot of damage. Pilots in modern gliders also do very few outlandings, and they can usually reach a proper airfield if the weather turns sour. It is now possible to go through entire seasons without ever being forced to land in a farm. So we aren't used to it – and when we do discover that this wonderful 60:1 craft really isn't going to stay up it is a nasty psychological jolt. We did not experience any such jolts in the days of wood: the question was not whether we would hit the spuds but where. Now we find we are approaching this unknown patch of terrain in a fast, slippery projectile that won't relish getting grit up its nose. All of a sudden we wish this was a Skylark 3.

Landing out, which was once the rule, is now the exception. There are now far fewer field landings per 100 miles of flying than 40 years ago, but the proportion that cause damage is probably higher, and as for the cost of repairs...

Comps directors and rule-makers can do a lot to minimise damage by clumsy oafs like me. I mean apart from banning us from comps entirely. There are a lot of us CO's, and we are an important constituency who need to be considered, almost as big as the leech constituency, with which there is of course a sizeable overlap. We usually prang in fields when we can't find somebody to leech off.

As a contest director and task-setter in the past – fear of lawyers now deters me – I am guilty of having sent hundreds of people to certain outlandings[2]. I used to be happy to get just one pilot back: that proved my task was feasible. Now task-setters want 70% or more back, and that's right. But it takes guts to scrub the task for safety reasons, especially after several days of bad weather.

Scrubbing after the entire field has been launched, or even announcing which of two or three pre-declared alternative tasks will be flown, is a good idea. Brian Spreckley, who ran the Spanish comp., did an airborne scrub of the little class on the day of



The rain in Spain...

my ding, and I'm sure he is right to want to make this a general rule. This way the director has an hour more in which to judge the weather. Sure it might waste an aero-tow, but the launch price is a small proportion of the total expense of a comp, even without counting the cost of the odd crash.

We need also to encourage people to land in safe places without sacrificing large numbers of points on those days when mass glide-outs under a dead sky are unavoidable. (Gosh, those used to be fun: "First one to open his brakes is chicken, yah, boo!") Mike Fairman's request in the last *S&G* letters pages, asking that contest pilots be credited with the furthest distance they have registered on the GPS-logger, so that they can turn back and land at a safe field, is already enacted in some comps. It was agreed by the pilots in Spain and implemented by at least one pilot who was clever enough to find a real aerodromo to squelch down in. The new rule is called DNSS (I don't know what that means but "Doing Nothing, $%*@-Scared" has been suggested) and seems to be an excellent innovation.

"Blimey, Plat, you'll be recommending engines next!"

[1] It used to be called the British Overseas National Championships, but no longer. I think the BGA didn't like it being called BONC. A real bunch of prudes, that lot.

[2] I felt particularly responsible after John Glossop invented a novel form of electric chair when he hit a power line with a lot of volts – and a lot of amps, which I believe is what really cooks people in Sing-Sing. He was roasted by the metal in his parachute harness and seat belts, and by the coins in his pockets, ending up in Stoke Mandeville hospital, where I paid a tearful visit as the brutal task-setter who had nearly sent him to a fiery end. For months after that I went around with no change in my pockets, like royalty, for fear of scorching vital parts in similar circumstances.

Well, I won't be as abusive as I would once have been when that topic was raised. The notion that a usable engine gives competitors an unfair advantage is nonsense. The standard objection is that such people will venture over unlandable terrain and motor out of it if they don't get lift. In practice the wonderful unreliablity of engines ensures that such people will fill the obituary pages rather than the lists of champions. Rod Witter, step forward and make your case.

However the mere thought of Platypus and engines will make any mechanically-minded person shudder: all that can be said for it is that it has endless comic possibilities for this column.

Flaming June

Talking of malign weather I have this evening, after a day of nearly an inch of rain, interviewed by telephone two distinguished meteorologists who are also experienced glider pilots. I'll call them Met One and Met Two.

"What's with this godawful weather, then?" I demanded accusingly of Met One.

"I'm retired" Met One said by way of self-exculpation. "I don't do weather any more. It's some young chap's responsibility. I think it's been privatised since I started drawing my pension."

I wasn't sure if he meant that they'd privatised the forecasts or the actual weather itself, but I decided to humour him. (Besides, any good conspiracy theorist knows that the CIA and the Chinese between them run the world's weather: it would certainly explain a lot. US/China relations have been edgy recently)

"The weather was better when the government managed it, like Richard Branson's trains" I said in a voice carefully pitched so that he could not tell if I was joking. "However, what I really wanted to know was if there was a special problem about June for us British glider pilots. It looks like a jinxed month. Nobody wants to do their comps in June. They groan and bang their heads on their trailers when they hear the BGA announce that the championships for their class will be in June."

"I believe there is a downward blip in the UK average sunshine statistics for June over the last 25 years, maybe longer" he said with an air of assurance.

"In that case I'll spend every June in Nevada, California, Arizona and Utah from now on. Thanks for the advice."

"I'm not advising you, I just think there's a bl-" But I was now dialling Met Two to hit him with the same inquisitorial Jeremy-Paxman approach.

"Search me" he said, quite unperturbed. "There isn't any pattern. Years ago I tried to pick the best soaring week scientifically when planning holidays, but I got rained on every time, so now I use dice and an ouija board. If you do a scientific analysis you not only have a lousy vacation but people point at you as you sit under the wing, and jeer, "Look at the great forecaster hiding from the rain, and after all those fancy computer runs!"

"That must be galling, having such peasants add insult to a wet bottom. By the way, I'm surprised you haven't blamed El Nino."

"Well the Pacific has been a bit warmer, so it could have an effect."

"Great, can I have a big headline in *S&G* 'El Nino sabotages Standard Nats'?"

"Search me."

"If you don't know, what other meteorologists can I speak to who understand what's going on?"

"Search me."

Plat enters the forecasting game

So now I know how to plan next year's gliding. First, I shall obtain a long-range-forecasting-medallion, made in bronze with the Queen's head on one side and a fleur-de-lys on the obverse (I'll sell you any amount for a fiver each). Secondly, I shall practise



I'll sell you any amount for a fiver each.

making the LRFM rotate in mid-air by dextrous use of thumb and forefinger. Those who remember the Coronation in 1953 know that Queen-side-up means very wet indeed, so fleur-de-lys means sunny, or at any rate slightly less wet. Thirdly, I shall place a 1999 Sasco Year Planner or large calendar on the floor and flip the LRFM a few hundred times. Having done this for each day of the 1999 season I shall sell the results to all comers, but on a pricing-scale inversely related to span. (The little guys need the data more than the big ones.) By way of a side-bet, I shall also challenge Met One and Met Two to show that they can improve on this forecast.



In the tradition of Turkish soothsayers...

In the tradition of Turkish soothsayers claiming to influence the sex of a child in the womb (using a bronze medallion with Queen Victoria's head, I am told) I shall accept fees where I am right and generously give a full refund when I am wrong. I can't say fairer than that, can I?

Crew's-eye view

I have recently been doing massive opinion polls for the BGA and for my club about member-attitudes. To the critics of my questionnaires, as with my column, I say "Get lost, this is tedious unpaid work and if you want to do it, be my guest."

(New editor: is he always like this? Old – sorry, retiring – editor: No, he's much worse than he was. I got out while I could still speak to him. Best of luck.)

I also seem to remember doing a poll on *S&G* editorial content years ago. I think that even then competition reports were not popular with many readers. These darn contest reports are proliferating now because people are going to so many comps. Lord knows why; see above.

The challenge is to make such reports varied and readable. My own reports mainly consist of pictures of people and some very personal, libellous captions. That's an approach that I have copyrighted, and others must find their own. A refreshing alternative style is displayed over the page, first seen in the Dunstable newsletter. It is by Anthony Claiden (12 years old at the time of the events described) and can be called a mood piece: the feelings of the pilot and crew, variously exalted or depressed, are the main subject. The numerical results don't come into it, but that is a blessing, as is the avoidance of a mind-numbing thermal-by-thermal narrative.

Eventually our loggers will write all contest reports and put them out on the Internet without needing to be asked, and without any narrative needing to appear in *S&G*. Until then I commend to you the A. Claiden method.

What is a Ninosecond?

It is the interval between getting the glider rigged and hearing the first hailstones bouncing off the wings.

My report on Dunstable Regionals 1997



by Anthony Claiden

Aged 12 (at the time)

(Crew of No 5)

This year I decided to crew for Richard Abrahams and do some ground work at the same time. We only flew 4 days but scrubbed the rest. I said to Richard "Its a bit longer than Nympsfield". I also got a free hat (not because of that).

Day 1 Saturday

They flew both classes to day but red went first. Richard had a relight because he could not stay up and didn't want to wait until the start line opened so did Dick in 637 and 470. After Richard had launched I had to wash the canopy cover because Richards camel back had leaked so muggins here had to wash it.

Day 2 Sunday

To day was a waiting around day. I though I had got on the wrong side of Richard. After they finally scrubbed Jill [Claiden], Dad [Peter Claiden] and I went to Milton Keynes to get my coat but no luck.

Day 3 Monday

To day was a contest day Richard landed out at Sackville Farm and was a bit grumpy when he got back.

Day 4 Tuesday

To day was a contest day no land-outs or relights and no grumpiness.

Day 5 Wednesday

To day was a scrub day but not such a good one for the crew of N5 because the pilot decided to dump the ballast and filled the crews hat and plonked it over his head and then gave an all mighty push and I got covered with water. I said to Richard "its a good job I have a good sense of humour" (On Richards' text the comment will be different).

Day 6 Thursday

To day was a funny day we waited around for ages and then launched and either landed out or came back Richard landed out at Toddington Manor. But the crew was still shocked by Lofty and the traffic cone. The crew was lying on the ground and then Lofty [Lofty Russell] crept up behind me and put a traffic cone over my head and shouted "Anthony Claiden your time is up" so I jumped two feet in the air.

Day 7 Friday

To day was a contest day briefing at 11.00am. No relights or landouts but someone was nearly going to play a practical joke on Kay [Harris] and me. Some one was going to phone Kay and me up on the crews mobile phone and pretend that they were Richard and say he had landed out. So we went out for dinner with Jill and Dad, Ted [Hull], Nicola [Claiden], Richard and I.

Day 8 Saturday

The Director scrubbed and we went to Oxford and got my coat from Milletts (you can hear Jill shouting Horray!!! in the background) tried some pubs and went to the Billingtons [a resturant in Ampthill] in the evening.

Day 9 Sunday

Again we scrubbed and got on our bikes and went for a cycle ride. When it was time to prepare for the prize giving Richard said (come over to the car a minute) there's me thinking I have to clear out all my junk but it was a nice watch.

Bank Holiday Monday

Yesterday we were clearing up the hangar after breakfast. Yesterday the Billingtons came back and Richard helped me pack up my tent.

Three things to improve on next year for Richard

1. Your jokes
2. No insults
3. Do not soak me with water

For a real holiday...

...take a course with Cotswold

A Holiday Course at the Cotswold Gliding Club could well be the making of your soaring.

In just 5 days, improve your existing skills or start from scratch. Either way we'll happily tailor your learning to your needs, helping you to achieve your aims.

For more information, phone, fax or write to:

Cotswold Gliding Club
Aston Down Airfield
Minchinhampton
Stroud, Glos GL6 8HT
Tel/Fax 01285 760415



Shenington Gliding Club

Shenington Gliding Club is now offering Individual Tuition with Bruno Brown. Specialising in:

CONFIDENCE BUILDING COURSES
INSTRUCTOR WORK UP TRAINING
GROUND STUDIES IN ALL GLIDING ASPECTS

All courses will be tailored to your own requirements but will include:

- ✓ STALL APPRECIATION AND SPIN AWARENESS
- ✓ LAUNCH FAILURE RECOVERY TRAINING
- ✓ UNDERSTANDING THE DANGERS OF LOW FLYING

"SAFETY THROUGH KNOWLEDGE" IS GOOD
SAFETY THROUGH UNDER-STANDING IS BETTER

Talk to Bruno on
01295 258700

MINI VARIO

VISA/MASTERCARD ACCEPTED



$169 (£109) US Dollars only

World's Smallest Vario!

- Clips to cap, shoulder strap or glasses near pilot's ear
- 200 hours battery life
- 0-6m/sec range
- Fast response and very sensitive in light lift
- No tubing required
- 2 year guarantee
- Size 4cm x 4cm

MALLETTEC
PO Box 15756, Santa Ana, CA 92735
714-966-1240 • Fax 714-757-1610
E-mail: mmallett@aol.com

Call for a brochure!

Salutary Soaring



An anonymous column dedicated to those of us who got away with it

THE TIME OF THIS TALE OF WOE IS BACK IN THE DAYS OF RELAXED LAUNCHES, FINGER-WAVING SIGNALS AND THE BELIEF THAT THE PILOT KNOWS BEST. THE EXACT DATE WAS 15TH FEBRUARY 1976; THE PLACE: CRUSADERS G.C., DHEKELIA, CYPRUS; THE AIRCRAFT: AN OLY 401; THE METHOD OF LAUNCH: AERO-TOW; THE PILOT: ME.

I was almost ready to launch when I was presented with a tug; I made a final run through CBSIFTCB, and the cable was on. An over-enthusiastic "all out" (two seconds too soon), coupled with the lightning reflexes of a helicopter-pilot-turned-tuggie, had the glider lurching forward and me thrown back against my headrest at 2*g* too much.

I hadn't noticed the hole

I hadn't noticed the hole (left in the runway by a C130 during the 1974 war) in which my main wheel had been sitting. As the Oly extracted itself from this hole with some violence the tail, which had been well clear of the ground, connected with the runway; in less time than it has taken you to read this far, I was airborne.

From this point the story took two paths, the first from within the glider. I was having a quiet bumble around in thermals, which soon became boring. I looked around for the others while tightening my straps and almost unconsciously going through CBSIFTCB again. This time, when I reached 'instruments', I remembered to *include* the radio, which I then turned on.

there was some kind of flap going on

From the noise on the congested airwaves I soon learned that there was some kind of flap going on. Pilots were responding to calls from the CFI with messages like: "He was just in front of me over the power station". It did not take the powers of Sherlock Holmes to realise that during my thirty minutes *sans radio* I had done something to attract the CFI's attention.

Somewhat sheepishly, I called in. The exchange that took place over the following few minutes is unprintable, so I shall turn to the ground-based side of the story.

As I had zoomed past the Forward Signaller at zero feet he'd noticed a large, white ring around the otherwise red fuselage. The white ring was not a feature of the colour-scheme. Once the offending pilot's identity was established (and that the twit didn't have his radio on) the tug was launched to 'eyeball' the situation. Even the slowest tug is too fast for an Oly in a thermal turn, but the stories come together as I made radio contact.

I was given a course and speed to fly. An instructor flew in below me, in a Blanik, and inspected the damage. After a few moments, he asked me if I was wearing a parachute. My high-pitched negative responses could not be shaken; I was carefully talked through a circuit, with its final turn at 4,500' and a long, long approach.

After landing I stepped out of the glider, which, as we moved it off the runway, promptly fell in half . The entry in my logbook (written by the aforementioned Forward Signaller) reads: "Broke the tailplane section of fuselage on take off and soared with 1 longeron holding. Lucky to make further entries below".

Lucky...

Needless to say I now include 'Radio' in my checks at the 'instrument' part of the new CBSIFTCB-

Nevynn international

Sole UK agents for S.N. Centrair *"PEGASE", "Alliance 34"* and *"Marianne"* gliders & spares
WITH THE CURRENT HIGH EXCHANGE RATE . . . NOW IS THE TIME TO BUY!!!

OUR Alliance 34 DEMONSTRATOR IS NOW FLYING and BASED AT HUS. BOS.
Please contact us or the club direct for a test flight.

IT WILL ALSO BE FLYING IN THE 2-SEATER COMPETITION AT POCKLINGTON

We are now stocking TOST weak links, hooks & releases etc., please see our separate competitive price list

Please ask for a copy of our latest stock/price list, which contains many new products including:
More Instruments, Walkie Talkies, DV Panels & More TOST Wheels & Tyres PLUS SOME HUGE REDUCTIONS

36 Southpark Avenue, Mansfield, Notts. NG18 4PL ▪ Tel/Fax 01623 634437

Gliding



A lenticular cloud over the Black Mountains Gliding Club (Talgarth).



Unusual whisps of cloud indicating turbulence at high altitude.



Jochan Ewald: on the left is a DFS-Habicht (habicht means 'hawk' – this machine was designed by Jacobs, and first flown in 1936). On the right is a Musger Mg-19.



Keith Simmons: West-on-Super-Mare is on the right, Brean Down (left of centre) the M5 (foreground) and South Wales (in the distance).

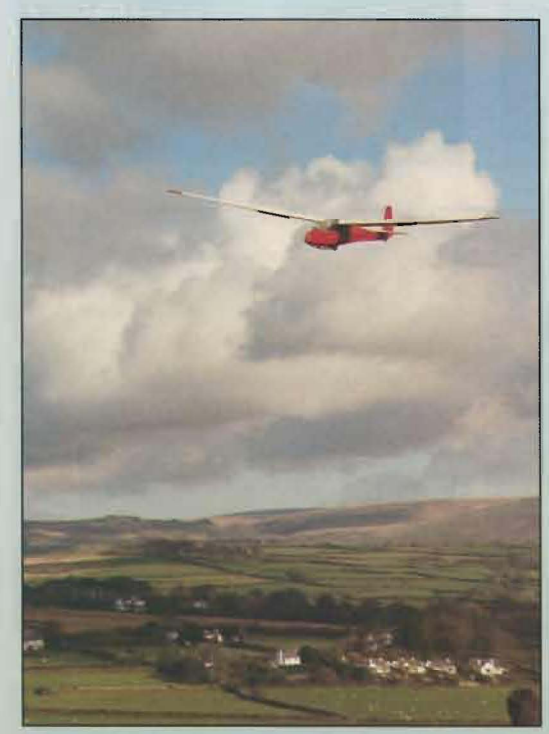


Keith Simmons (taken from the cockpit of the Long Mynd's club Discus): K23 FCX at the launch point.



Anonymous (he says he shouldn't have been taking photographs at the time): Wave clouds over Spain.

Gallery



(above) A Ka7 on approach into Dartmoor Gliding Club's site at Brentor.

Schemmp Hirth's new Discus 2a (right) being flown in Germany for one of its early test flights. This particular glider, flown by Andy Davis, won the Standard Class Nationals in June this year.

See pp.220 for Jochen Ewald's flight-test report and p.222 for a brief report on the Nationals.



Brian Bateson: (right) Flying in the French alps in a Duo Discus. They say that the best lift is always to be found close to the ridge; this is the view on offer when you take such advice to the extreme.



Camarillas resevoir, near Ontur, (below) photographed by a member of the recent Lasham club-expedition to Spain.



Guy Westgate: flying his DG400 over the south coast of England. Notice the cooler air over the sea preventing cumuli from forming.



Cambridge Gliding Club offers you . . .

- A Discus, Pegasus, Astir, and two Juniors. And, choice of two seaters: K21, Grob 103, Puchacz, and, for fun, a T21.
- Three huge runways in the middle of great soaring country, with very few airspace restrictions.
- Personally tailored courses – call us and ask how we can help.
- Flying 7 days every week.

Located 10 miles SW of Cambridge, off the B1046, midway between Little Gransden and Longstowe. Phone 01767 677 077

PAWNEE TUGS

Fully Rebuilt to Your Specification

For Early Delivery

PAWNEE AVIATION
01754 820316 Ph
01754 820329 Fax
(Note new numbers)



CAMBRIDGE

The Best Variometer System just got Better

For the 98 Season CAMBRIDGE AERO Introduce the Following *NEW* Features in the LNAV Version 5.4

- High resolution Wind measurement shows airmass behaviour
- Wind Strength and Direction derived from GPS groundspeed & track
- Electronic fine tuning of TE compensation in flight
- Final Glide around a turn-point when coupled to Cambridge GPS/NAV
- Speed to Fly calculation now takes wind into account
- Required Glide Altitude can take into account the glider's total energy
- New Averager displays show last thermal average and overall average

More Capability at Less Price

LNAV Version 5.4 complete with meter	£1497.02 + VAT = £1759.00
LNAV Upgrade to V 5.4 including recalibration	£80.00 + VAT = £94.00

Designed and Manufactured by:
Cambridge Aero Instruments
PO Box 100, Waitsfield
Vermont, USA 05673-1420
Tel: (802) 496 7755
Fax: (802) 496 6235

Represented by:
RD AVIATION Ltd
Unit 25, Bankside
Kidlington, Oxon OX5 1JE
Tel: (44) 01865 841441
Fax: (44) 01865 842495

CAMBRIDGE INSTRUMENTS - The choice of Champions - Leaders in innovative technology

BENALLA AUSTRALIA
Your Aussie Gliding holiday

Benalla has everything to tempt both the Novice and the expert sailplane pilot, we can provide all your expert needs. Courses will be available from November 98 to March 99. If the aim is to get from Bronze to Gold in just two weeks, then join one of our Novex courses. We teach you all you need to know.

Thermal Soaring – Paddock Landings – Photo Techniques – Badge and Racing Tasks

And with the Australian Dollar weakened by the current Asian economic situation, your Pound is worth more than ever this year.

Inexpensive on-site accommodation or nearby motels available. Easy travel from Sydney or Melbourne.

For details contact our Administration Manager, Nigel Allom at:

Gliding Club of Victoria
PO Box 46, BENALLA, Vic 3672, Australia
Tel: +61 357 621058 • Fax +61 357 625599
Our Website:
www.home.aone.net.au/benalla_gliding/
E-MAIL: vivdrew@msn.com

BENALLA –
SIMPLY THE BEST!



GLIDING AT PORTMOAK?

Just 2 miles from the airfield this cosy family run hotel offers

THE LOMOND COUNTRY INN

REAL FOOD and REAL ALE

at reasonable prices. All rooms are en suite

DINNER BED and BREAKFAST from £38.50

AA 2 STAR ROSETTE

Scottish Tourist Board COMMENDED

KINNESSWOOD BY LOCH LEVEN
PERTHSHIRE KY13 7HN
TELEPHONE 01592 840253 FACSIMILE 01592 840693

ALPINE SOARING
OMARAMA • NEW ZEALAND

Soar the Southern Alps of New Zealand in an ASH 25

Ridge, Wave & Thermal flying

We can also offer
- Training – basic and advanced
- Glider hire and accommodation
- Scenic flights (power and glider)
- Other activities – Golf, Fishing etc.

Fleet: ASH 25, Twin Astir, LS3, LS4, Hornet, Cessna 182

For details write or fax
ALPINE SOARING
PO Box 41, Omarama 8950, New Zealand
Fax 0064 3 4389 877 • E-mail alpsoar@xtra.co.nz
Web page www.soaring.co.nz

CANOPIES & SCREENS

✦

LARGE RANGE OF SHAPES AND SIZES FOR GLIDERS AND LIGHT AIRCRAFT

✦

EX-STOCK

✦

Bob Reece

REMATIC

School House
Norton
Nr Worcester WR5 2PT
Tel/Fax Worcester (01905) 821334
Mobile Tel: 0589 786838

Summer Gliding Courses

Five-day gliding courses for beginners or those wishing to extend their experience up to solo standard and beyond.

Situated on the edge of the Cotswolds, with plenty of places to stay, Enstone Airfield is easily accessible from the M40.

- **Unlimited flying.**
- **Large, safe airfield.**
- **Optional use of motor glider for circuit/landing practice.**
- **Friendly atmosphere.**
- **Course fee from £250**

Come and enjoy yourself this summer at Oxfordshire's best gliding site

For more information call David Wardell on 01202 747176 or write to:

Enstone Eagles Gliding Club
Enstone Airfield, Church Enstone, Oxon OX7 4NP



NORFOLK GLIDING CLUB



Summer Courses

Winch and Aerotow Courses for Beginners
***NEW* Aerotow Solo Improvers Course**

FRIENDLY CLUB - LARGE SAFE AIRFIELD

For further info ring Claudia Herring 01263 734049
TIBENHAM AIRFIELD • THE HOME OF GLIDING IN NORFOLK

GLIDERS SPECIAL
FOR THE WAVE SEASON

7 NIGHTS BED and BREAKFAST from £100pp

The Loch Kinord Hotel
(formerly Profeits Hotel) in Royal Deeside
Only 1.5 miles from the
DEESIDE GLIDING CLUB
Offering comfortable accommodation, good food, Real Ales and a fine selection of Malt Whisky to enjoy beside real log fires.(Daily rates available)

Telephone 013398 85229 for reservations

✦ **Under new management** ✦

New 'Bent Ears' from Kircheim: the Discus 2

Jochen Ewald is a gliding photo-journalist in Germany

SINCE THE APPEARANCE OF THE MINIMOA THE SCHEMPP-HIRTH FACTORY AT KIRCHHEIM/TECK, NEAR STUTTGART IN GERMANY, HAS BEEN WELL KNOWN FOR THE PRODUCTION OF IMPRESSIVELY-SHAPED WINGS.

In 1985, the first Discus displayed Schempp-Hirth's new wing with its leading edge swept back in two steps. It created an image that proved successful, and is now a common sight on airfields around the world. The Discus, being robust and easy to fly, did not only become a successful standard-class competition glider, but also a 'best seller' to clubs; more than 800 gliders were built. Licenced production also took place at Orlican in the Czech Republic.

On April 3rd Tilo Holighaus took off for the maiden flight of the Discus 2 at Kirchheim/Teck. This model is the first glider developed by Klaus Holighaus's engineering team since his death. The name remains, but the glider has a completely new design. The design team, consisting of Tilo Holighaus, Helmut Treiber, Eberhard Schott and Joachim Krauter, have kept to Klaus's design philosophy and have done an excellent job. The four-section wing, with a surface area of 10.16m², has a straight trailing edge and Discus-type leading edge. The wing bends up a little at each of three stages so that the wing-tips are, according to the theories of Prof. Richard Eppler, bent up 30° from the root. The tips can be removed so the wings fit into a normal trailer.

Building the moulds for such a complicated-shape wing was only possible using the latest CNC milling machines. The wing profile of the Discus 2 was developed by Dr Horstmann from DLR Braunschweig and tested by Dr Würz in the laminar wind tunnel in Stuttgart. It has a thickness of only 14.5%. This profile was chosen for the Discus 2 by Helmut Treiber; it is barely influenced by bugs or rain on the leading edge, and offers gentle stall characteristics.

With the wingtip 'folded' upwards, the tip does not touch the ground when the wing is down. The lowest point, which is underneath the second (middle) kink in the wing, is protected by a streamlined piece of rubber.



Tilo Holighaus fitting the starboard wing-tip to the new four-section Discus wings.

An 'a' fuselage for smaller pilots and a roomy 'b' version for universal use – will again be available for the Discus 2. In particular the new 'b' fuselage, with which the prototype is equipped, is really new; it contains new inner structures to improve crash safety according to the "TÜV" tests. The fuselage structures of all Schempp-Hirth's production gliders, have been improved to protect the pilot(s) in case of a crash. The new structure of the 'b' fuselage has also allowed the installation of an extra fresh-air nozzle in the right cockpit wall. The bigger, sprung 5" main wheel gives not only more comfort, but more safety during heavy landings, and it has an effective disc brake. The elevator and fin have a new shape and have received new low-drag profiles specially designed by Professor Loek Boermans from Delft University.

In the future, Tilo Holighaus also plans to offer a turbo model, the "Discus 2bT" with the well-known Solo "Turbo" engine. A self-launcher model is not planned at the moment – most self-launcher pilots prefer the flapped, 18m designs, with a lower wingload, to carry the heavy engine.

Schempp-Hirth's rigging and control-connection system, developed originally by the late Eugen Hänle for his "Glasflügel" gliders, allows easy and fast two-man rigging. A useful feature is the ability to hold the left wing in position, by half-inserting the main pin, until the right wing is in place.

In spite of the new safety features and thinner wings, the new glider is one of the lightest current standard-class designs: at 240kg, the empty mass of the Discus 2b remains approximately the same as that of the original Discus design. With a maximum take-off mass of 525kg, the Discus 2 may be flown in a wingload range between about 30-51.6kg/m². The glider has a water ballast capacity of 200*l* (in integral wing-tanks), and 6.5*l* (in the fin, to maintain the centre of gravity position with water in the wings). The outlet valves have been improved and water can be

dropped in a much shorter time than was previously possible. A safe battery and barograph mounting can be found behind a door in the rear cockpit wall; further battery holders between the instrument panel and rudder pedals, and in the fin, allow the CG to be adjusted (according to the pilot's weight) within a wide range. In addition, there is a fixing for ballast weights in front of the rudder pedals.

The sideways-opening canopy and a hinged instrument-panel make it easy to get in as well as to get out in an emergency. Behind the adjustable seat-back with its big, integrated headrest there is a bag with pockets for the main pin and aircraft papers (logbook, etc.). In both side-walls there are pockets for the things you need during a flight. The undercarriage and water levers, as well as the seat-back adjustment and the new fresh-air nozzle, are on the right-hand side of the cockpit; the airbrake and spring trimmer are on the left. The trimmer knob is locked by a spring and has to be pushed to the right before moving. On the prototype this locking spring was a bit too strong, but this is to be corrected. Pedal-adjusting and towcable release handles are on the fixed 'stalk' of the instrument 'mush-room'; but the release handle should be placed a bit higher to stop it disappearing under the pilot's leg. The wheel-brake is operated by a bicycle brake-lever mounted on the stick. In case of an emergency, the canopy can be jettisoned by using the normal opening lever only (on the left-hand side). When pushed open, the canopy is broken from its hinges by the airflow. The right lever is not needed for emergencies; it serves only to take the whole canopy off.

I test-flew the Discus 2b prototype on the day the first 'raw' 2a was taken to England for completion. The 2b feels very easy and safe to fly, having effective controls from low speed and lots of ground clearance. The elevator is well-damped to reduce the risk of PIOs. The wheel retracts easily, and the big canopy gives an excellent view. The cockpit ventilation from the front and sidewall inlets is good, but could be improved: when the front nozzle is fully open, only a little air flows from the side nozzle.

On aerotow, as well as in flight, the Discus 2b is well-coordinated, stable, and easy to control. At a speed of 53kts it rolls from 45° to 45° within about 3.5s, almost without sideslipping, but using full rudder and aileron. The stall characteristics are those you would wish to find in every early solo single seater: at an indicated speed of 39kts the controls start feeling soft, at 38kts a slightly buffeting straight-stall starts. Meanwhile the ASI needle drops completely. Pulling the stick back further causes the aircraft to wallow, but still completely under aileron control! This is a result of the new wing geometry; to drop a wing you must apply a large amount of rudder. The spin tests had not started at the time of my flight; I didn't try anything more. The airspeed indications in the lowest range seem to read a bit lower than the true airspeed; the pitot tube in front of the fin is influenced by the wing's wake at stalling speed.



The Discus 2 on display.

As expected, wonderful thermals developed at Kirchheim during my flight and gave me the opportunity to try rough and strong thermals with the averager showing 8-up. In those gusty, narrow thermals it was fun to circle the agile Discus 2b at a speed of 50kts and 45° bank. In 'normal' thermals a speed around 45kts is nice and comfortable to fly. Once trimmed to thermalling speed, the Discus 2b nearly flies without touching the controls: again a result of the new wingshape! Stalling under these conditions also causes no wingdrop or loss of aileron control. Comfort and stability are also felt in flying faster, up to 112kts. As the flutter tests were not yet done, I avoided higher speeds. This general behaviour of the Discus 2b makes it an excellent aircraft for high-performance and competition flights. Even after long flights, the pilot will not be tired. This easy-to-fly glider may also be used in club training as a first single-seater for early solo pilots.

Before landing, a check of the behaviour in landing configuration: with the trim set for a speed of 50kts 'clean', the nose goes down and the speed climbs up to 78kts when the big air-brakes are fully extended. This is on the safe side, but a bit more than needed to compensate the higher stalling speed. The elevator force to compensate this nose-down moment is low. Tilo told me that this will be improved by a small aerodynamic change. The minimum speed with extended airbrakes is indicated at 43kts. At this speed, the Discus 2b enters a stable, buffeting stall. The airbrakes are very efficient, so a sideslip should not normally be needed. If desired the new Discus will sideslip: full sideslip requires full aileron with about 80% opposite rudder. Sideslipping with extended airbrakes requires the stick to be held well back to maintain an appropriate airspeed.

Landing is fully held off, on both tailwheel and main wheel. Crosswinds do not cause any problems. The big, well-suspended wheel smoothes even bumpy airfields and the wheelbrake is effective and easy to use. Thanks to the high wingtips, the risk of groundlooping during field landings is minimised.

With the new Discus 2b Schempp-Hirth have again produced a high performance standard-class glider for general use. Like the original Discus, it will surely find its way not only to the competition pilots, but also to the clubs. No performance data will be published before the Idaflieg/DLR performance measuring flights have been done. But, after internal comparison flights with the old Discus, the factory pilots and design engineers came back with happy smiles on their faces! So, watch this year's competition results!

(see p.222 for Standard Class Nationals).

cobra CAR SECURITY

Standard Class Nationals
Dunstable, 6-14th June 1998

By day four, the competition leader had won a total of 28 points. Day five was scrubbed as was day six; it was not a good start (or middle) to the first Nationals of 1998.

Day 2

(We'll ignore Day 1) In order to understand what happened on Day 2, we must first consider the intricacies of the competition rules:

The rules

Before the start of any competition day there are 1,000 points available for the winner, although they might not all be awarded. As well as the turning points there are two other points along the track of a task:

- Point X must be passed by each pilot before he scores *any* points.
- Point Y must be passed by at least one pilot before any points are awarded for the day.
- If 75% of the competitors pass Y the winner is eligible for the full 1,000 points, otherwise he will win a proportion of 1,000 depending on how many pilots reach Y (e.g. if 37.5% of the competitors were to pass Y – I don't know where the .5 would come from – the day would be worth 500 points).

On Day 2, only one pilot managed the fight upwind to point Y (118km). As he was the only person skilled/determined/daft enough to get there, his total winnings amounted to just 28 points!

Champagne Moments

A bottle of champagne was awarded each day to the originator of the daftest thing done the previous day. The most memorable winner, apparently, won her bottle of champagne for her wing-taping skills: it wasn't until the pilot was doing his pre-launch checks that he found his controls were not full and free. His crew had taped up the ailerons; these new, stranger-than-ever shaped wings must be very confusing!

Interestingly enough, there is a rumour that the same aricraft was found to be over-span. Under competition rules the Director may scrutinise each aircraft and measure its wing span to ensure that it has no advantage over others. This aircraft was supposedly found to have a wingspan of 15.04m; 4cm too much. Fortunately for its pilot, it had not been scrutinised *before* the start of the competition (and no one complained) so he avoided the one-point-per-cm-per-day penalty that would otherwise have endangered his lead.

The circumstances surrounding the measurement of gliders gave rise to a conversation which managed to occupy a whole coffee-soaked, non-flying afternoon. Is a glider measured with its wings full of water, or not? Do the scrutineers take into account the fact that, in flight, the wing-loading bends the tips up, thus reducing the span? Indeed, is the glider measured on the ground? (They must have drunk a lot of coffee by then). A copy of the *Competition Handbook* is recommended as reading material on scrubbed days.

Other highlights of the competition included the appearance of a second grid on Wednesday. A couple of gliders landed before the whole grid had gone. One tug pilot said that he went to refuel, and by the time he got back there were thirty more gliders on the ground. A second grid formed and the next hour was spent launching them all again! In the end, everyone who went landed out.

Picketing

Mischievous weather prevailed throughout the week. Considering the total value of aircraft parked on the grid the standard of picketing was dubious. Some aircraft were very carefully tied down in winds gusting to 25kts, but others could be seen, inch by inch, rolling backwards down the hill, jetting ballast water out of their wings as they went. Wouldn't it be a shame if your (no doubt, carefully secured) machine was dented by the stupidity of the guy in front; it'll have to happen once before anyone actually takes any notice of the Director!

Results in Brief

Day 2	Name	Distance	Glider	ID	Points
1st	D. Campbell	147.8	LS8	370	28
2nd	P. Harvey	59.6	LS8	LS8	14
3rd	S. Reman	59.1	LS8	56	13
Day 5	**Name**	**Distance**	**Glider**	**ID**	**Points**
1st	A. Davis	153.4	Discus 2	D2	439
2nd	M. Wells	134.0	LS8	321	378
2nd	I. Freestone	134.0	LS8	S6	378
2nd	S. Harland	134.0	ASW 24	S1	378
2nd	G. Metcalfe	134.0	ASW 24	104	378
Day 7	**Name**	**Speed**	**Glider**	**ID**	**Points**
1st	A. Davis	94.8	Discus 2	D2	1000
2nd	T. Scott	93.4	LS8	Z8	979
3rd	P. Coward	91.5	LS8	L88	953

Final	Name	Glider	ID	Points
1st	Andy Davis	Discus 2	D2	1449
2nd	Tim Scott	LS8	Z8	1331
3rd	Peter Coward	LS8	L88	1316

Results

A full table of results for all competitions will be published in *S&G* as a centre-page pull-out section at the end of the competition season.

In the meantime, results will be available from the BGA office.

Another Retrieve Story

Chris Collins is an Assistant Instructor at the Wolds Gliding Club

IT WAS A USUAL SUNDAY MORNING AT OUR GLIDING CLUB, THE DEVOTED FEW TURNING UP EARLY REGARDLESS OF THE FREEZING WEATHER. PROSPECTS FOR SOARING DID NOT LOOK GOOD. NEVERTHELESS, THE GLIDERS WERE DRAGGED FROM THE HANGAR, WASHED, DRIED, INSPECTED AND TAKEN TO THE LAUNCH POINT.

Things started normally: up, round, down, up, round, down, but, after a while things started to stir in the heavens. We were able to stay up and to soar on quite strong thermals given the time of year.

There was a fairly stiff northerly wind blowing and, being the Duty Instructor, I turned my thoughts to sending somebody off on a 50km downwind dash to our neighbouring club, Kirton Lindsay. A quick scout around for a likely victim revealed... no one. Everybody present was either pre-solo, or already had his silver badge; no one needed a 50k.

Suddenly, unannounced, a little green Mini Metro rolled onto the airfield. It was Duncan: 'he needs his 50k!' Poor Duncan's feet never touched the ground. We rigged his syndicate Swallow, marked his map, smoked and sealed his barograph, and hustled him into his glider. He muttered something about 'a mug of tea and a bacon butty on the tea-bus' but his remonstrations were ignored. We pointed in the direction of the distant goal, and he was toldnot to come back. Cable on, up-slack, all-out and he was away. Half a dozen turns later he disappeared downwind.

After about half an hour the phone rang; it was Duncan. He'd landed out. A fellow syndicate-member and several volunteers went to retrieve him at about 3pm. Comments were overheard regarding the ancestry and possible roadworthiness of the ancient Swallow trailer, which was rumoured to have originally stored the wings of Icarus.

They had only about twelve miles to travel so, when they had not returned by 6.30, we began to get concerned. We started to despatch people to open the bar curtains to see if they had got back. At 7pm we saw the headlights of a car turn in to the club. They were back, but with no trailer! Duncan, and his band of, now not very happy, volunteers, came into the bar and explained that the trailer's axle had fallen off, and the whole lot was stranded on a country lane about eight miles away.

Most of the original volunteers, now thoroughly frozen, had quite reasonably decided that they had homes to go to. We were left with about half a dozen of us who, somehow, had to get the Swallow back to its roost. Dave had a Transit van, so we put the gas welding bottles in there. I hitched up the club K21 trailer to my car, and we packed it with cushions, foam, and ropes. Nick followed in his pick-up, which was packed with tradesman's tools and flower catalogues.

> ...a large and slowly freezing puddle.

What greeted us was a sorry sight. The sad old trailer was sunk up to its belly in mud on the roadside verge, directly over a large and slowly freezing puddle. The first job was to get the Swallow out of the stricken trailer and into the K21 trailer. Straddling the deserted country lane, in the pitch dark, we were trying to find room to manoeuvre the wing into the trailer when a car tore around a nearby bend, immediately threatening us with a root end, a tip and nothing in between! In a scene reminiscent of Buster Keaton we managed, just, to scurry out of the way. The car driver must have thought he was hallucinating!

When the Swallow was eventually secured in the trailer, Alan pointed out that we had two trailers, six people, three vehicles... and one towbar; it was lack of forward planning, you see. Alan therefore, promising to return as soon as possible, took my car, with the Swallow resplendent in its temporary home, back to the club.

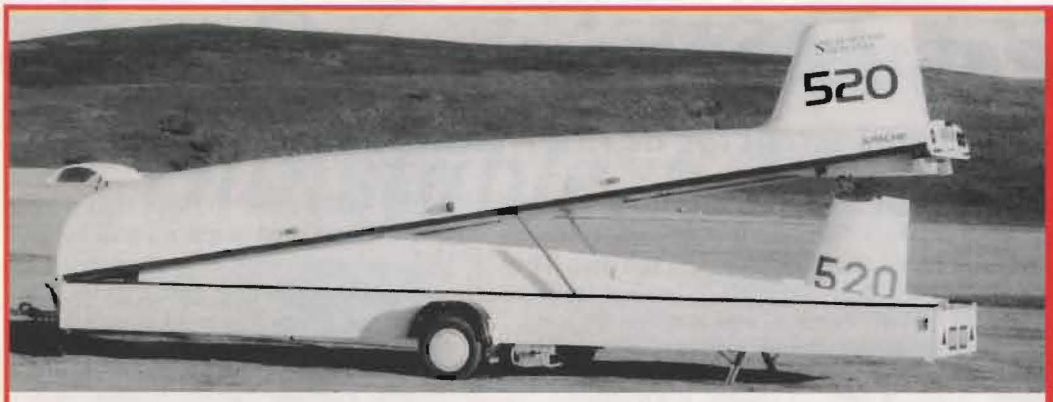
By this time it was 8.30pm, and freezing nicely thank you! To get at the trailer axle we had to lie in that puddle. We managed to get a small bottle jack under the axle, but when we pumped it the trailer didn't go up, the jack went down. I asked Duncan to find us something solid to go under the jack to stop it sinking into the mud. He walked to the rear of the trailer and with one swift movement ripped off the back door (he's a powerful lad is Duncan) saying "Will that do, Chris?" It worked, of course, and in no time at all we could see the problem. The Indespension unit had broken away from the axle leaving the wheel sticking out at a grotesque angle. The solution was simple; all we had to do was jack the unit back up into place, and weld it.

Everything was positioned nicely; "Who can weld ?" I asked. Nick (who likes flowers) said "I've done a BOC welding course". He got the job. In fairness to Nick none of us knew that the welding torch was, in fact, a cutting torch. He made a valiant attempt, but when he had finished, declaring "That should do it", the axle and the suspension unit looked like it had just flowed from Mt Etna. Oh, and the trailer caught fire, but the ever resourceful Duncan sprang into action with a trailer hub cap and the contents of that damn puddle!

Overjoyed we packed everything up, hitched up, and away we went. Estimates vary as to how far we travelled before the axle parted company again, but it was certainly no more than ten yards; at 10pm it was back to square one.

Alan had returned with several G-clamps from the club workshop. In less than ten minutes we had clamped the suspension unit to the axle. It worked a treat, and driving very gingerly we got back to the airfield, dumped the trailer, and all went home.

The following weekend Duncan arrived bearing a very determined look. He towed his trailer to a part of the airfield reserved for bonfire night and burnt it. Whilst it was blazing Dave, our Aircraft Inspector, said "Duncan, you did remove those G clamps didn't you, and, where's the Swallow?"



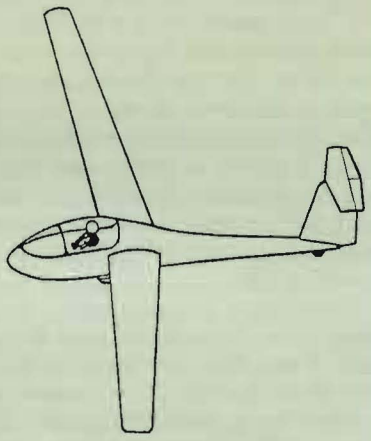
For all your trailer requirements
Green Lane Farm
Lower Eggleton, Nr Ledbury
Herefordshire HR8 2UQ

The Trailer Builder

Shirenewton Sailplanes
Tel/Fax 01531 670522
Mobile 0860 313474

Kena Me7

£14,450
inclusive of trailer and instruments – tax included



30 sold worldwide • Strengthened cockpit for club use
Easy rig, 32:1 glide • 130kg empty, auto connect controls
Wing fairings • Longer front fuselage

KENILWORTH INTERNATIONAL LTD
P.O. Box 3223, Dorset BH31 6FJ • Tel/Fax 01202 828886 • Mobile 0385 372073

NORTH YORKSHIRE SAILPLANES
Tel 01845 577341 • Fax 01845 577646 • Mobile 0411 889245

nys



NEW MOBILE
0411 889245

REPAIRS
MODIFICATIONS
MAINTENANCE

Unit M, Alanbrooke Industrial Park, Topcliffe, Thirsk, North Yorkshire YO7 3SE

Like the Sound of a Sewing Machine

THE VOLVO PAWNEE MADE ITS MAIDEN FLIGHT IN 1995. LARS BROBERG TOOK OFF FROM ESKILSTUNA IN CENTRAL SWEDEN FOR A TEST FLIGHT OF NEARLY TWO HOURS. THE HIGH-TECH CAR ENGINE FUNCTIONED EXCELLENTLY. BY THE SUMMER OF 1997 THE TESTS WERE COMPLETE.

The Volvo Pawnee, with the Swedish registration SE-EPB, has flown146 hours and 330 launches. The test flights have now been completed successfully.

A comparison was carried out at Eskilstuna G.C. between a traditional Pawnee, with a Lycoming 0540-260 engine, and the Volvo Pawnee with a 960 Volvo engine. Each tug took a two seater to 2,300' thirty times. On average, the Volvo Pawnee took 6.7 minutes per tow, and the traditional Pawnee 5.9 minutes per tow. Although the climb rate of the Volvo Pawnee is a bit lower, it consumed fuel at the rate of 3.9*l*/tow, (0.57*l*/min), compared to the Lycoming's 6.35*l*/tow (1.075*l*/min).

Other advantages that the Volvo Pawnee has over the Lycoming Pawnee include its almost noiseless flight and a considerably cleaner exhaust. The total lack of vibration is sensational. Even if you put your finger on the engine when it is running you cannot feel the vibration. The noise level of the original Pawnee, 86dBa, has been reduced to 65dBa.

Due to the electronic control of each individual cylinder and sequential injection timing, the engine refinement is excellent; its cleanliness has been measured as ten times better than the Lycoming engine. Despite the fact that there is no catalytic converter, as fitted to the Volvo car, the Pawnee engine meets the most stringent national car engine legislation.



In flight with its temporary two-bladed propeler

Specification

Engine: A 3.0*l* inline six-cylinder, water-cooled, engine and with four valves per cylinder, is the same engine as in the Volvo 960.

Transmission: The propeller is belt-driven and runs at 650rpm, only one third of engine speed. Instead of a gearbox, the Volvo Pawnee has two reduction gears (3:1 and 2:1). For maintenance purposes, they can be changed within fifteen minutes.

Ignition: Electronic.

Fuel System: Multi-point injection and running on unleaded petrol.

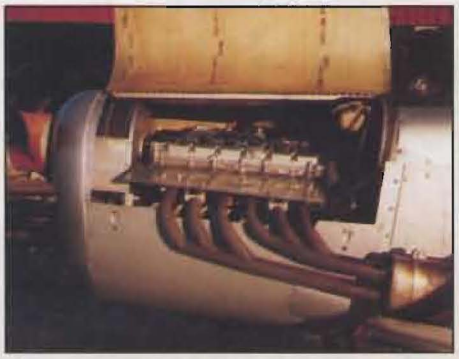
Max power: 210hp.

Fuel consumption: 34*l*/h.

Engine Price: 35,000Kr ($4,700).

There will be a full set of drawings, detailing the conversion of Lycoming Pawnees to Volvo Pawnees, produced in due course.


Starboard: showing the inlets and ignition.


Port: The exhaust outlets and heat shielding.

Offering outstanding workmanship, efficiency and service in:

- ★ All glass, carbon, kevlar, wood and metal repairs
- ★ Modifications
- ★ Motor glider engine approval
- ★ C of A renewals and general maintenance
- ★ Weighings, including accurate in flight C of G positioning
- ★ Re-finishing in all types of gel coat and paint
- ★ Hard wax polishing
- ★ Competition sealing
- ★ BGA and PFA approved

ROGER TARGETT

ROGER TARGETT
Sailplane Services

Bristol & Gloucestershire Gliding Club
Nympsfield, Nr. Stonehouse
Gloucestershire GL10 3TX

Tel: Workshop (01453) 860861
Home (01453) 860447 (Portable (0850) 769060

TRUST IN MORE THAN 20 YEARS EXPERIENCE OF CONSTRUCTING ELECTRONIC PRESSURE TRANSDUCER VARIOMETERS AND DISTANCE CALCULATORS

- altitude induced error free working variometer
- multitask, multileg controlled microprocessor on board computer
- inertialess analogue LC - display for variometer signals
- gliding specific LC - display with all important instruments ***(PFD)***

VP 6 E with GPS



- the system with huge capability
- high resolution graphic display, free of optical distortion
- simple, innovative operation and illustration
- specially designed graphic information
- precise electronic variometer
- complete with GPS - possible functions
- soon available UK- airspace graphic

VP 7 the top class



PFD specially designed LC-Display for all primary flight data, diplayed in a richly contrasted overall view

Beside all the GPS - GIMMICKS don't forget that there are more important functions for the glider pilot !

- the best pressure tranducer variometer
- an electronic TE compensation that really works
- a precise electronic altimeter with a ± 1m resolution

On PESCHGES Variometers, as well as the NAV- data you also have:

- easy to use operation structure
- individual adaptable information
- unrivalled presentation of glider specific information

NEW NEW NEW

VP 9 Distance calculator with integrated 12 channel parallel receiver of the latest generation



- high quality electronic pressure transducers
- electronic precision altimeter
- special LC - Display
- graphic mode display
- integrated 12 channel receiver
- integrated European database

New: VP 9 Basic
Starting at £ 1.799 ex VAT

VP 8 the World's smartest solution for a GPS - documentation system



- IGC / FAI approval
- recordtime >15 hours
- comfortable software
- comparison of different flights online on screen
- easy quick mounting
- connection to VP 6/ VP 7 /VP 9

£ 930 ex VAT

PESCHGES VARIOMETER

Zieglerstr. 11 D - 57028 Aachen Germany
Tel : +49 241 563022 Fax : +49 241 563913

JOINT AVIATION SERVICES LTD

The Only Insurance agent which offers the following.

1. **Unrivalled knowledge of our sport.**
2. **Access to more secure underwriters than any other independent agent.**
3. **FREE LOAN TWO SEAT AIRCRAFT TO ANY CLUB THAT INSURES THROUGH US AND LOSES ONE OF ITS TWO SEAT AIRCRAFT DUE TO CLAIM.***
   (Think how much you lose from a broken two seater in mid summer.)
4. **FREE LOAN SINGLE SEAT AIRCRAFT TO ANY CLIENT THAT LOSES THE USE OF HIS AIRCRAFT DUE TO A CLAIM.***

Not sure yet? Try us, to save money for individuals and clubs.

Telephone 01420 88664 • Facsimile 01420 542003 e.mail.joint.aviation@virgin.net

**Aircraft subject to availability and some small limitations*

UK National Hang-gliding Championships

The British Hang-gliding and Paragliding Association's final competition of the year will be held in South East Wales with the headquarters likely to be based in Crickhowell, Powys.

The local club is the South East Wales Hang Gliding and Paragliding Club which has been host to many league and club competitions over the years. It is regularly used for national competitions by both the hang gliding and paragliding leagues and has many fine sites with the capacity to take large numbers of pilots.

The competition will run from 28th August until 1st September with tasks being flown on all of those days, weather permitting, and results will be published on the BHPA's website.

The first leg of the competition was held in May in Strathclyde, Scotland where forty pilots competed. The tasks included a "race to anywhere" during which pilots could fly a set distance (in this case 50km) in any direction they chose. The second leg of the league was held over seven days at the end of June. at Monte Cucco, Italy, the site of the 1999 World Hang-gliding Competition.

The aims of the National Hang-gliding League are to select the British Champion, to select the British Women's Champion, to provide a pool of pilots from which teams for International events may be selected, and to foster and encourage a spirit of sportsmanship between pilots.

More information about this competition, and other activities of the BHPA, can be found on the Internet at: http://www.theleague.force9.co.uk/.

KENT GLIDING CLUB

K·E·N·T GLIDING CLUB

Challock, Ashford, Kent TN25 4DR

Come to Kent for courses to suit all grades of pilots from beginners to cross country. Situated on North Downs thermal and ridge site. Meals and accommodation in comfortable fully licensed Clubhouse.

For details, write or phone:
01233 740274
Fax 01233 740811

Oxfordshire Sportflying Club
The Premier Motor-gliding School

- ★ Intensive Courses, or by the hour for Self Launching Motor Glider PPL
- ★ Bronze C Cross Country Endorsement and field landing checks
- ★ BGA SLMG Instructor Courses
- ★ Convert your Bronze/Silver badge to a Self-launching Motor-Glider PPL
- ★ Bronze and Silver conversions at a special rate
- ★ Ab initio training
- ★ Trial lessons
- ★ Lessons from £48 per hour

OXFORDSHIRE SPORTFLYING CLUB DISTONE AERODROME

For details call on 01608 677208
Open seven days a week

THE SCOTTISH GLIDING CENTRE
Portmoak
Invites you to join us on the
The best of Ridge Soaring from Southerly through to Northeasterly
Bottom Landing Field
Autumn Wave Bookings still available
Training Courses through to October
Clubhouse accommodation caravan and camping space
Call Irene on 01592 840543
Scottish Gliding Centre
Portmoak Airfield, Scotlandwell KY13 7JL

GLIDING HOLIDAYS
THE MIDLANDS NEAREST CLUB
(Easy M'way access from M40) (Junc. 15/A46 (4.5m only)
Visitors and new members are welcome • Trial lessons £25 • 5 day courses £225 May & June £245 July & August
Phone for details 10am – 7pm 01926 429676
STRATFORD ON AVON GLIDING CLUB
Snitterfield, CV37 0EX
✦ *Lots to see and do on the ground or in the air* ✦

The Bristol and Gloucestershire Gliding Club
✦ ✦ ✦
Nympsfield – where the adventure begins
✦ ✦ ✦
Operational 365 days a year

FIXED PRICE TO SOLO –
all inclusive training to solo **£490.00**

POST SOLO TRAINING
Winch/aerotow
Soaring – all tasks individually tailored
Conversion to glass
Bronze and cross country endorsement
PPL conversion
Confidence building

Discuss your personal requirements with an instructor

Individuals and club expeditions welcome
Accommodation facilities

CLUB FLEET –
Ka13's SF34 DG505 Ka8's Grob 109 ASW 19

Write – phone/fax
THE BRISTOL AND GLOUCESTERSHIRE GLIDING CLUB
Nympsfield, Nr Stonehouse, Gloucestershire GL1 3TX
Tel: 01453 860342 • Fax 01453 860060
Web: www.bggc.demon.co.uk
E-mail: secretary@bggc.demon.co.uk

World Gliding Championships

BAYREUTH GERMANY
28. WORLD GLIDING CHAMPIONSHIPS

"The organisers at Bayreuth and more than 40,000 members of the Deutsche Aero Club (DAeC) will give a warm welcome to teams from all over the world when they come to join an unforgettable contest in the centre of Europe."

It seems that the Germans are very much looking forward to organising the 26th World Gliding Championships in Bayreuth from 31st July to 15th August, 1999. The hangar-party they held at St Auban certainly displayed their huge capacity for hospitality and friendship, as well as for sauerkraut and weißbier.

The hilly countryside around Bayreuth is famous for its excellent soaring conditions. Klaus Holighaus flew the second leg of the first 1,000km triangle in Germany across the Bayreuth area. Most of the big flights in Germany cross this area too. The landscape changes from low, nearly flat areas to 1,200m in the highlands. The hills of the Erz- and Riesengebirge to the east, the Thüringer Wald to the north and the Bayerischer Wald to the south often produce good thermals. The big flights will reach the excellent 'Schwäbische Alb' and the 'Rhön'.

A patchwork of green forests, fields, lakes and cities will give everybody the same chance to test the thermals and find the best way to fly. Landing out is never a problem, and retrieves will be a pleasure for the crews; there is a very good road network and many cosy, inexpensive restaurants out in the country.

The airfield, Bindlacher Berg, is 8km north east of Bayreuth on a high plateau about 150m above the city; imagine the exciting final glides! The five runways in use, four grass, one concrete, offer plenty of space in which to launch and land 120 gliders. The facilities for camping, briefing, administration, team huts, etc., are conveniently close together. The beautiful landscape, historical villages and a lot of points of interest, including the Richard Wagner Festival in Bayreuth, offer many things to do away from the airfield.

The best team of organisers in Germany will be available to provide a very successful competition. Peter Ryder, well known throughout the gliding community, is to be Championship Director. Walter Eisele is an authority as Contest Director and Task Setter; in Fred Gai he will have a very experienced Deputy. Sigi Kabbe, Chairman of the DAeC Organizing Committee, and the local Championship Manager Andy Baier, have the enjoyable challenge of looking for, and selecting, the best volunteers for the numerous other tasks.

Bavaria-glide, (the pre-worlds) to be held at Bayreuth from the 8th to the 22nd August 1998, will provide the opportunity for all pilots and their crews to become familiar with the local conditions and scenery in preparation for the following year's championships; the organisers too will get the chance to put their skills into action. Arrangements have been made with several local hotels and guesthouses to provide discounted rates for those attending Bavaria-glide.

Details of Bavaria-glide and the 26th World Championships can be found on the Internet at http://www.aerokurier.rotor.com/AkWM99/AkWM1/.

WGC 2001 South Africa

The site of the 2001 World Gliding Championships, Mafeking airfield (formerly Mmbatho), hosted The South African championships from 27th December to 9th January. The first day was also the best day during which the competition's director Dick Bradley promptly flew 1000km. On the first two days the average speeds were over 100 km/h. The weather deteriorated after that and the final days' tasks had to be flown with a cloudbase of little more than 1,500m above ground. Thanks to good weather forecasting and carefully optimised tasks set by Brian Spreckley eight successful competition days were completed.

AIRBORNE COMPOSITES
C's of A, REPAIRS AND GLASSWORK
Purpose built glider workshop on a 500yd grass strip
2 nautical miles SW of Warminster
Currently maintaining over 15 motorgliders
Please fly in, call or write to:
Tim Dews, Airborne Composites, The Hangar, Wing Farm, Longbridge, Deverill, Warminster, Wilts BA12 7DD.
Tel: 01985 840981 (workshop) or 01985 841125 (home)
Fax: 01985 841126 • Mobile: 0378 963277 • E-Mail: TimothyDews@msn.com

Safety Airmanship

Bill Scull is Chairman of the BGA Safety Committee and flies mainly at Lasham

NOTHING CONCENTRATES THE MIND LIKE AN ACCIDENT, THE MORE SO IF IT IS A FATALITY AND CLUB MEMBERS WATCH IT HAPPEN. THE RECENT MID-AIR COLLISION (REPORTED IN *S&G*, JUNE/JULY, P.189) DID JUST THAT. IT PRESENTED A JOLTING REMINDER OF THE IMPORTANCE OF AIRMANSHIP SKILLS.

There are many aspects of airmanship, but the ones that are of primary importance are the rules for collision avoidance and the protocol for soaring in thermals.

In a teaching context 'lookout' is paramount in gliders, perhaps more so than in any other type of aircraft; we spend a lot of time in close proximity to each other. The law of primacy dictates that the habit of looking out has to be acquired at the earliest possible stage of training. To my mind there is a strong case for teaching lookout ahead of any skill exercise, possibly straight after the first trial-lesson and once the commitment of learning to glide has been made.

The ability to see another aircraft improves with experience. Have you ever flown with a much more experienced pilot who always seems to see other traffic sooner than you do? The basic patter tape, used for preparation before instructor training, says for the lookout **before turning**:

> "...scan, using the full field of view, pausing every 45° or so; look above and below the horizon as well as on it..."

If this habit is acquired at the outset then it will stay with a pilot for life. For instructors the means of emphasis, reinforcement and fault-finding are of considerable importance. In the early stages of turn-training a student will be prompted, "turn left, turn right, straighten up, etc." Later, he will be prompted to "turn" and be required to make a decision; this is the time for reinforcement. If the turn is started without a lookout then the turn should be 'blocked' – not letting the student move the stick. The longer the student is allowed to get away with turning without looking the harder it gets to remedy the fault. Ultimately, when you have told a particular student countless times and he (or she) has failed to lookout before turning, drastic measures are needed. Take control, say nothing, join the circuit and land the glider, then deliver an ultimatum. 'If you don't lookout consistently you will never go solo' or words to that effect – drastic but necessary. It only takes two such pilots to have a collision.

A similar scenario can apply when examining an instructor. If the prompt 'teach me turning' does not result in the words – 'before we turn we have a good look around', etc., then the instructor should be given a second chance. If a third prompt still doesn't start with 'lookout' then the examiner can be pretty sure that this has not been taught as a matter of course. It would be cynical to suggest that such an instructor and his student deserve each other; I say again – it only takes two such pilots to have a collision.

Regarding the basic rules for collision avoidance, head-on, converging and over-taking (Rule 17 of the *Rules of the Air Regulations*) in an ideal training environment these would first be demonstrated and be followed by students' attempts. This would provide the instructor with the necessary feedback, confirming that the student knew the rules and the appropriate actions. Appropriate situations need to be contrived to train and test. Another vital point here is **fixed relative bearing**; this means that an aircraft with which you are going to collide will remain in a fixed position in the field of view.

The basic rules should be in the training syllabus and ticked as demonstrated and completed (tested) satisfactorily. Regarding the problem of failing to keep a lookout, an anecdote will confirm the importance of the above.

The visiting pilot was being checked at a hill site. His lookout was poor and his response to a comment about it was, 'lots of instructors tell me that'. Later the same day this pilot overtook me at the same height while I was flying on the ridge. I was flying a T49, he his own glider. Having overtaken (correctly, between me and the ridge) he then turned in front of me. Had he overtaken without seeing me? Had he forgotten that he had overtaken me? One thing is sure; he did not lookout before turning. The distance between us? A couple of wingspans – a hundred feet or so... .

Basic collision-avoidance is a matter of learning the 'rules of the air' and making some decisions during training to solo. Without this a student pilot really cannot be regarded as having been properly trained.

Obviously, there are other things to consider for ridge and thermal flying, and these will be dealt with in another article.

Heard on the Radio

I was returning from Madrid to Gatwick in Flight International's Beech Baron. It was a gin-clear December night in the mid-1960s.

A Spanish pilot was having difficulty making West Drayton understand the type of aircraft he was flying.

"An 'aystack," he answered the controller's query for the third time.

"Haystack? ...I say again, what type of aircraft are you?" the controller asked, for the *fourth* time. "I'm an 'aystack, a Piper 'aystack. Alpha, Zebra, Tango, Echo, Coca...." the exasperated Spaniard replied.

–Penguin

DERBYSHIRE & LANCASHIRE

Welcomes you to the spectacular Peak District

- Ridge
- Wave
- Thermal
- Open 7 days a week
- Fly our aircraft or bring your own
- Visitors most welcome
- Summer Holiday courses
- On-site accommodation, full catering and licensed bar
- Local attractions for all your family members

For further information please contact our
Flying Manager, John McKenzie.
Tel: 01298 871270
http://ourworld.compuserve.com/homepages/MH1

** LS 8 WORLDS WINNER **
*ALSO 2+3+4+5+6 **

LS 8-18
TOP STD CLASS/18m
LS 10
New 15 racing class
LS 6-18w
LS 9, LS4b

Martyn Wells
Workshop: 01608 685790
Home: 01608 684217
Mobile: 0370 626719
E-mail: wells.glide@virgin.net

GLIDER INSTRUMENTS
(M. G. Hutchinson)

Repairs and overhauls carried out
P.Z.L. Sales and Service
Barograph Calibration centre

Write or phone:
'Tanfield'
Shobdon
Nr. Leominster
Herefordshire HR6 9LX
Tel: 01568 708 368
(answering machine)



HOW'S YOUR EYESIGHT?

Don't worry if it's not what it was – we check all the small print for you, it's all part of the service!

Phone, fax or write to:
Stephen Hill

hill aviation insurance services ltd

Phone: 01765 690777 Fax: 01765 690544
Unit 1A Sycamore Grange Estate,
Copt Hewick, Ripon, North Yorkshire. HG4 5DF.

LOGSTAR

Professional
COMPUTER LOGKEEPING

- ★ Glider or Power Pilot Versions
- ★ Simple to use (Computer beginners HELPLINE)
- ★ Very comprehensive, rapid and accurate logging
- ★ Super-Powerful Flight Analysis System
- ★ Many user defined reports. Graphs and Tables
- ★ Annual Returns/Cert of Exp. Etc. Etc.
- ★ Runs in Windows 3 or 95

LOGSTAR for Glider or Power

Order TODAY Use it TOMORROW
Phone or Fax **Credit Card** details to 01329 221992
Say GLIDER or POWER **£25.00 each**

or by post **Turnpike Technics**
73 Old Turnpike, Fareham, Hants, UK PO16 7HF
WEB: http://home.clara.net/~turnpike/ E-MAIL: turnpike@clara.net

JAXIDA – condensation-free ALL WEATHER COVER
for sailplanes and aircraft

- ★ Protects against humidity and dust at the hangar, the trailer and in the open air
- ★ Self-polishing action in the wind
- ★ UV-coated

Design reg. 2062846

JAXIDA COVER
Verner Jaksland
Strandmøllevej 144
DK-4300 Holbæk
Tel. +4559440725,
Fax: +4559440609

e-mail: jaxida@jaxida.dk
internet: http://www.jaxida.dk

CONVERT WITH US

SLMG to PPL COURSES from	SILVER 'C' COURSES from	SLMG COURSES from
£495	£1320	£1000

(All prices inc VAT and landing fees)

THE REAL CONVERSION SPECIALISTS

STOP PRESS!
We can now offer RT courses

- ★ Aircraft hire: Falke £40PH; C152 £75PH; PA28 £80PH
- ★ SLMG Courses Available
- ★ Farmhouse accommodation can be arranged

TEL: TOM EAGLES AT **PILOT FLIGHT TRAINING**

Oxford Airport Tel. 01865 370814 or Hinton-in-the-Hedges Airfield, Nr Banbury Tel. Mobile 0836 787421 or 01295 812775

When are You Most at Risk?

Tom Knauff is a well-known instructor from Keystone Gliderport in Pennsylvania, USA.

IT HAS BEEN ABOUT 90 YEARS SINCE THE FIRST FATAL ACCIDENT IN A POWERED AIRCRAFT, AND ABOUT 100 YEARS SINCE LILIENTHAL'S DEMISE. EACH MONTH, SOME WELL-KNOWN AVIATION MAGAZINE PRINTS AN ARTICLE ABOUT STALLING, WHICH REMAINS A MAJOR CAUSE OF AVIATION ACCIDENTS

Still, stalling continues to be aviation's principal problem. Fifty years ago, stalling was the primary cause of over 75% of fatal aviation accidents. It still is today.

Pilots are trained, and trained, and trained to handle stalls. They are given check flights, flight reviews and flight tests, all to emphasize the point. Training manuals devote a major portion of their pages to stalls. Pilots should know everything about stalls.

We are taught how to perform stalls and about stall recovery; but is this what we need to know in order to fly safely?

If we could, in some way, reconstruct the debris that results from a fatal stall-related accident and take the pilot back up to altitude, it would be discovered that he knew how to perform stalls. However, there is the unavoidable proof that there was something he did *not* know about stalls. What is it that the typical pilot does not know, that results in the horrifying statistics? Let's begin with a basic question: when are you most likely to die as the result of a stall? Every glider pilot should be aware of life-threatening situations. Why have most glider pilots never thought of this question? Is it possible that the answer is so obvious that instructors assume that it is unnecessary to offer every student this life-saving information? When are you most at risk? Accident statistics point to three occasions:

1. PT3

Many years ago, I termed the myriad things that can go wrong during the first few seconds of flight, PT3s, or Premature Terminations of The Tow. The phrase 'PT3' has caught on, but the accident statistics still reveal that nearly 20% of all fatal glider-accidents result from something happening at the beginning of a launch: the rope breaks, the canopy opens, the tug's engine fails, there's a bee in the cockpit, the air vent is closed and the pilot reaches up to open it and pulls the release by mistake; the list of things that can go wrong, and cause a life-threatening situation, is far longer than most pilots realise. PT3 accidents are totally unnecessary and can be easily avoided.

2. Low-altitude thermalling.

Pilots attempt to perform miracles by trying to stay aloft in impossible circumstances. The result is often deadly. There is specific knowledge that will enable the pilot to avoid this situation.

3. Stalls during the circuit.

Most pilots identify the turn onto base-leg or approach as being the primary danger to their safety. This response is only partly correct. In aviation, 90% is not a passing grade, for the knowledge you don't have can kill you.

Knowing the three situations in which you are most at risk of a stall-related accident can help you to be especially alert while you are flying. Knowing the three situations in which you are most at risk can help you to avoid the problem and to be prepared with a plan of action.

1. Premature Termination of the Tow.
2. Low-altitude thermalling.
3. Circuit.

Future articles will discuss each of these occasions in detail. Some rather surprising facts and misconceptions about stalls and stall training will also be investigated. In the next issue of *Sailplane & Gliding* the dangers of stalling after a Premature Termination of the Tow will be considered in more depth.

The Ultimate Self-Launch Two-Seater



First British S10-VT, flown in from Berlin over Easter, is all that was promised.

- Rotax 914 Turbo engine – 113.2 hp
- Impressive take-off and climb out improvements, even on wet grass
- Cruise across Europe at 130 knots with Range of 750 nautical miles
- Soaring power-off from Challock to North Weald – averager up to 7.5 kts
- Soaring and Handling enhanced by winglets and other aerodynamic fine-tuning – best glide ratio of 50:1

Second-hand S10 also available and in need of a good home.

➤ Syndicate Partners Wanted ◄

For information please contact:
Mike Jefferyes,
Tanglewood, Fingrith Hall Road,
Blackmore, Nr. Ingatestone,
Essex CM4 0RU
Tel & Auto Fax: 01277 823066
MikeJefferyes@compuserve.com



Way Off Track



A SINGLE PARAGRAPH IN THE LAST *S&G* BROUGHT HOME TO ME HOW MUCH ONE'S PLACE OF RESIDENCE SHAPES ONE'S PERSPECTIVES ON ANYTHING, EVEN GLIDING.

I fly principally in Northern Ireland, occasionally in the Republic and abroad but rather more frequently in various parts of mainland Great Britain. I haven't yet sampled gliding on the Isle of Wight or, for that matter, the Isle of Man, which I can see through my office window as I write, today having brought gin-clear cross-Channel visibility in biting Arctic air though it's early June, for goodness sake!

The item concerned a change in the competition rules. Two pilots in a comp. who land in the same field will now be scored equally, no advantage being gained by the one who lands further down track in that field.

I would never have imagined that the situation could ever have been otherwise, or that any field chosen for an out-landing, even in the East Anglian prairies, could ever have been big enough to give one pilot a measurable advantage over the other as far as cross-country distance was concerned.

In Ireland, north and south, over very wide areas, fields tend to be so small that even if you *can* get two gliders in it's a full house. The distance between them would then best be measured by a micrometer rather than by a tape or GPS.

Score Chris Another Ten

The only time I have ever field-landed with others in competition, apart from a mass descent on another airfield, Dunkeswell, I referred to in this column only three issues ago.

On that occasion Chris Ellis probably scored more highly than I on handicap – his mount was an Oly 463 and mine a Phoebus 17C. But I'll have to be honest and declare now – only 16 years too late – that he should also have been given something more for Chris was at least another eight yards down track.

Bring back paint

I had the pleasure of flying the unassuming Edgeley EA9 Optimist at Dunstable recently. My enjoyment was heightened by the knowledge that someone else was paying for my launches and that, for the first time ever, I'd make a few quid from gliding. I was reporting on the project for another journal which, unlike *S&G*, can afford to pay.

A more obvious, but less pecuniary, reason enhanced my pleasure still further. The Optimist stood out on Dunstable's absolutely jam-packed grid, where everyone was waiting to see whether or not circuit-bashing trainees encountered any lift on what promised to be a flat and disappointing blue day.

Surrounded by such a vast acreage of expensive white plastic – does southern England feel it is incumbent to flaunt the region's wealth? – the Optimist looked very distinctive, and appealing, in its overall green with yellow trim.



Photo: Derek Cattani

The Edgeley Optimist, or 'the green thing'.

Now you can argue – and plenty do – with John Edgeley's choice of colour scheme, which has been likened to that of a BP truck or filling station, but at least it has some visual interest. It is both bright and different.

I think visual appeal is important, particularly among gliding first-timers whom we're trying to enlist. I can't believe that our reliance now on composites compels us all to slavish adoption of unrelieved and visually boring white.

So, I believe Edgeley deserves an RAeS medal for challenging the dreary orthodoxy and coming up with a composite-airframe surface formulation, and the Optimist is an all-composite aircraft that you paint any colour you like.

And another nomination from me awaits the pilot who simply gets out a loaded spraygun and blasts his hitherto cherished white beauty right across the spectrum into an entirely new and more engaging persona.

Then we'll get some brightness, some interest and some optical variety back on to grids like Dunstable's. Gliding sites will again be places of visual pleasure, just like they used to be.

Henry Ford, who first put the greater American public on wheels, famously offered the Model T in any colour the customer wanted – provided that it was black.

Re-incarnated, he would warmly commend executives of today's glider industry for their attitude to customer choice on livery, while thinking their production volumes, and manufacturing cost control, were nothing to write home to Detroit about.

Nimbies' noses out of joint

Life must have been sweet on June 3rd for chairman Chris Price, CFI Paul Rice and other leading members of the Essex and Suffolk GC at Wormingford. They hosted BGA patron the Duke of Edinburgh, who flew in to open the hangar newly erected on the site.

The club's recent battle against very onerous operating restrictions imposed by an obstructive Colchester council and the vigorous opposition of a markedly well heeled and organised bunch of local Nimbyists resulted in what will probably prove to be gliding's key victory on the planning front for the next 20 years, as both Roger Coote and I have recorded here already.

So the Duke's visit must have been particularly welcome recognition at the end of a long, gruelling and costly fight. Royal patronage clearly got up the noses of the local opponents, who would normally be considered Establishment backers to a man.

'I'm disappointed that a matter which has been surrounded by so much controversy, and two public enquiries, should receive a royal visit', sniffed SWAT (Stop Wormingford Air Traffic) pressure group chairman Nick Durlacher, a City nabob, to the East Anglian Daily Times. 'My feeling is that there must be an enormous number of calls on the royal family to perform opening ceremonies and I would have thought they would have agreed to something less controversial.' Talk about being gracious in defeat!

Aerobatics: March 28-29th 1998
The Dan Smith Memorial Trophy

SOMEHOW JIM DUTHIE, CONTEST DIRECTOR, MANAGED YET AGAIN TO CHOOSE GOOD WEATHER FOR THE DAN SMITH AEROBATIC COMPETITION. IT WAS, HOWEVER, NOTICED BY MORE THAN A FEW OF THE COMPETITORS, THAT HE IS LOSING TOUCH WITH 'BIG G'; HE ONLY JUST GOT AWAY WITH THE WEATHER THIS YEAR.

A straw poll of pilots, before the start of the aerobatics, revealed that most of the assembled company had done almost no practice. A few of the instructors had cunningly arranged aerobatic courses during the weekends running up to the comp., and the two London Gliding Club competitors, Ray Stoward and Jerry Beringer even admitted to having practised the known sequences, which gave them a clear advantage (such unsporting behaviour should be discouraged).

With otherwise no practice, the two published 'known' programs were flown as 'unknowns' by the majority of pilots. Jamie Allen, current national unlimited-champion, pulled out at the last minute with suspected food-poisoning which left the way clear for Guy Westgate, John Gilbert and Ian Tunstall to take the first three places in the first program.

The results after the second known-sequence did not change the leader board although the Dan Smith Trophy itself would go to the highest placed novice pilot. To this end, first-time competitor Mike Edwards was showing a clean pair of heels to his nearest rival Dick Happs lower down the field.

The third and last sequence, the 'unknown', was published early on the second morning and although the competitors had to put up with strong winds and appalling visibility the flying standard was very high. Mike Edwards almost lost the trophy after blowing a stall turn but despite a very good flight by Dick, he remained top novice, to take the trophy. Ian Tunstall made a single, uncharacteristic, error mid-sequence that took him out of the medals and a very solid flight from Mike Woollard brought him up to third. John Gilbert cruised into second leaving Guy Westgate with the gold for the second year running.

Scoring was provided by Nick Buckingham of the British Aerobatic Association with a team of judges who braved the wind on the ridge above the site at Dunstable. Thanks must go to the London Gliding Club for the use of two K21s and their airfield.

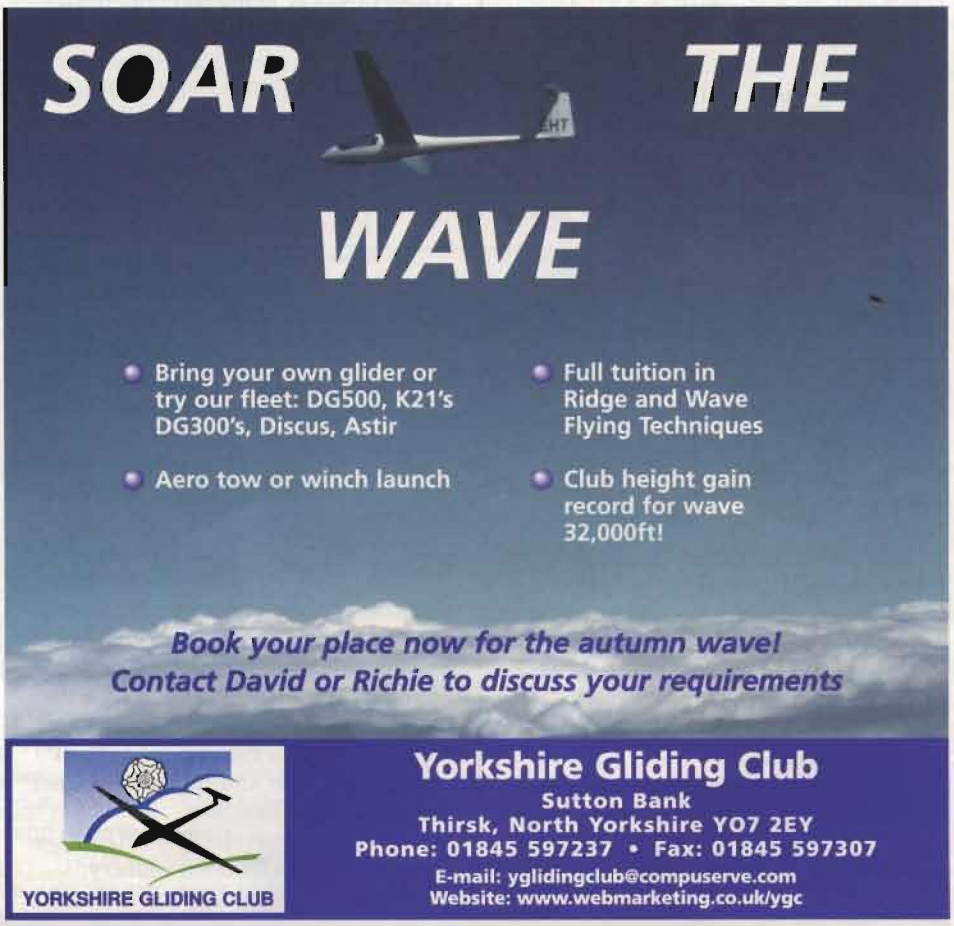
It was good to see that the competition attracted a few more spectators than last year. The competition will be held at Dunstable again during the last weekend in March 1999, weather-gods permitting!



Chris Pollard (Chief judge) and Chris Cain taking it all far too seriously.

1st	Guy Westgate	78%
2nd	John Gilbert	74%
3rd	Mike Woollard	71%
4th	Ian Tunstall	70%
5th	Debbie Bilham	69%
6th	Mike Edwards	68%
7th	Dick Happs	66%
8th	Jerry Beringer	64%
9th	Ray Stoward	64%
10th	Chris Cain	27%

–Guy Westgate



Span is for Wimps

Chris Davison is a thirty-something, ex-hang/paragliding, K6 pilot from Buckminster

THERE IS MUCH *TRUTH* TALKED THESE DAYS ABOUT MANY THINGS. 'WIDE-SCREEN TELEVISIONS', THE NEED FOR 'DOLBY PRO-LOGIC SURROUND-SOUND' AS A BARE MINIMUM, OR WHY A '24-SPEED CD-ROM DRIVE' IS AN ABSOLUTE MUST ON ANY MODERN PC. WE ARE TOLD THAT WITHOUT THESE ESSENTIALS, LIFE WILL JUST NOT CONTINUE.

The normal way to discover such truths is to pop into WH Smiths, buy a copy of *What Big Telly?* and spend the next few days getting to know the difference between your '100Mhz refresh' and your '400 memory fast-text'. There is a natural down-side of this process. Whereas before reading *What Big Telly?* you would have happily walked out of Dixons with a £400 colour model, you now realise that, at a bare minimum, any new purchase will cost £1200 and even that is skimping it a little.

To some extent gliding has always been isolated from this phenomenon. I don't suppose many people walk into Smiths, buy *S&G* and then order an ASW 27 from some outfit on the Edgware road. Most people who are in the market for a glider tend to have spent at least a few winters having the glamour and glossy pictures being frozen out of them. They know that you can have as much fun in a K6 as in a Discus, and after all fun is what it is all about, isn't it? Yes, what a sensible, knowledgeable lot we are. Not to be swayed by marketing or the desire for toys and gizmos that are anything less than essential.



...glossy pictures being frozen out of them.

My last statement is of course utter piffle. Ever since the Wright brothers went down to the Old Duck and Crumpet and discussed a new idea for wingtips over a couple of beers, Gliding Man has sought to eke every last percentage point of performance out of his pride and joy, and when ekeing just isn't good enough, then a quick phonecall and a new bundle of carbon fibre and joy can be yours for a few zeros. TINSFOS (There Is No Substitue FOr Span *[sic]*) rules, it always has done, it is the only way to fly. After all, so many trees have been felled to support the writing of it, so many beers have been drunk to support the talking of it, the entire German economy has flourished to support the making of it. Span *must* be the King. What other guiding principle can there be? Well folks, the time to rise up and reply has come, TINSFOS is dead, long live SIFOW.

Span Is FOr Wimps

There is a number of avenues by which I can progress my case, and I shall start with the basics: why do you glide? For the purposes of brevity, and avoiding the editor's snip, I will dispense with the 'inner freedom', 'fly like a bird' and 'just for fun' brigade, as clearly all their ambitions can be satisfied with any glider, irrespective of size; TINSFOS holds no claim over these fine pilots. The "I fly for fun, therefore I need a big glider" school of thought doesn't offer a leg to stand on; please read on and redefine your arguments or, to paraphrase a popular football chant, "you are wrong, and you know you are". If, however, you are in the subset that says "I fly for fun, and I can afford a big glider, so tough luck", then I have no argument; skip the rest and go to the classifieds; I doff my cap.

So, where do we look to find TINSFOS candidates 'ripe for the plucking'? They have to be in the club bar and among the "I live to fly cross-country" clique. An upwardly-mobile bunch if ever there were one. Are they the real "push myself to the edge and beyond, press on regardless" type or are they all GPS and turbulator tape? The game goes like this:

White: I worship at the TINSFOS altar because I live to fly cross-country.

Black: You can fly cross-country in any glider...

White: Ah yes, but I want to fly further and faster.

Black: Why? (excellent move this: White now on back foot). The alternative response is "Further and faster than what?", *then* follow with the question "Why?"

White: I want the thrill and challenge of flying further.

Black: But, more of a thrill and challenge can be had doing the same in a small span glider?

White: Ah yes, but I want to keep up in the pecking order of our club by flying the bigger tasks.

Black: Why not go for the real kudos; fly the same tasks in a smaller glider?

White: You don't have the good glide-angle in a small span ship to make the best of a good day.

Black: Try flying in lift then. 10% more skill on your part, could mean 20% more time in rising air, and a 30% improvement on your distances.

After this, the end is inevitable. Either White responds with "yes but I'm not capable of 10% more skill", (unlikely) or "yes, but I want to spend lots of money on a new glider", in which case Black has won by default and the original game was around White's love of cross-country flying and pushing himself further, not his love of new toys.

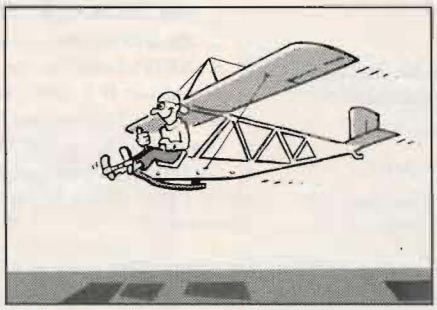
Span, span, span, span...

The real heart of the TINSFOS/SIFOW argument is, of course, not span at all, but performance. If RD Aviation sold a £5,000 widget that would improve any glider's performance by 30%, we would suddenly have TINSFOWidgets instead. No, the question of span is the fixed battleground, although I notice that Platypus has started to cheer the cause of water. I presume he is *spanned out*? I digress. For newcomers this argument is as follows:

Glider 1 is a small span (read 15m, more of which later) ship with a glide angle of 35:1. Glider 2 is an 18m span model with tips on, and screams along at 45:1. Mr 15m and Mr 18m are flying in the same air on the same summer's day. From this you can

deduce the following:
(i) Mr 18m feels smug that he has 3m more than Mr 15m and even more smug that he has the latest wing-tips.
(ii) Glider 2 (18m) can cover more air, looking for more thermals using up the same amount of height than Glider 1.
(iii) Point (ii) is the reason for point (i), apart from the tips which (probably) add no value at all: they just cost a lot.

After half an hour, Mr 18m looks out and, for reasons he cannot fathom, sees Mr 15m in the distance, ahead of him and higher; how can this be? The laws of thermodynamics, sub-atomic physics (or whatever) clearly forbid this? *Pah!* This is just the flawed thinking we have come to expect from the TINSFOS pilots. The truth is out there:



You can fly cross-country in any glider...

(iv) Mr 18m was flying along at a glide angle of 45:1, however, for reasons unknown, he was doing so in a mixture of sinking and still air with the occasional wobble into the edge of a thermal. His achieved glide-angle, in relationship to minor things like the Earth, was something other than 45:1.

(v) Mr 15m, seeing Mr 18m sinking on a linear path as dictated by his Garmin thought "I'm glad I don't have a GPS to tell me where to fly. I'm off to find some *rising* air".

(vi) Neither pilot did find a decent core, but Mr 15m used his inferior glide angle to descend through superior air masses and consequently thumbed his nose at Glider 2 and said pilot. His effective glide angle was far better than Mr 18m (now known as Mr Sink). Mr 15m was a gentleman-pilot and he had followed the energy.

Afterwards, in the bar (Glider 2 had been retrieved by this time) the two pilots chatted:
Mr 18m: "Ah yes, I saw you go by, I just missed that thermal. It arrived before I could centre in it. Still, press on, that's what I say".
Mr 15m: "Uh-huh".
Mr 18m: "Yes, still I marked it for you, saw you weaving all over the sky, thought you might need some help".
Mr 15m: "Uh-huh".
Mr 18m: "Still wing-tips are fantastic, honestly, the difference it makes when the MacReady is set to 5kts is really noticeable".
Mr 15m: "Uh-huh".
Mr 18m: "Ever thought of getting a proper glider like mine? There really is no substitute for span you know..."

This is exactly the same argument that keeps the golf industry so healthy: "I've been playing for years, but I can't seem to get my handicap any lower. I know I'll buy a new set of clubs" Brilliant! Obvious! The fact that, rather than shelling out £400 on a new set of bats, our golfer could shell out £40 on a couple of lessons is clearly irrelevant. The fact that the new skills would make a real difference whereas the new kit will be out of date in a year is also beside the point. It's not what you've got, it's what you do with it!

The last point I will make in my case for SIFOW is that Span tends to be bloomin' heavy. For technical, engineering reasons they don't make long wings out of marshmallow, they use really light stuff in the middle, then use so much of it, it becomes heavy, then they surround it with stuff that has always been heavy, and *then* they stick metal pins in it. This is the reason that on 'marginal days' (read MacReady set to <4), TINSFOS pilots only get as far as rolling the fuselage half way out of the trailer, and pretend to fettle the vario or install a new GPS bracket. Those of us with small gliders, can get the fuselage *and* the wings out, *and* rig. The point being that whilst the big boys are on the ground, thinking about their better performance, SIFOW brigade are airborne, *flying*.

Actions:

I could go on of course, but I won't. I will now assume, for reasons I cannot hope to justify, that after reading this far you have thrown out the lore of TINSFOS and become a seer of the SIFOW truth. What is the path you must follow to become a *true* believer? There are three paths you can take to fulfilment and enlightenment:

1) Do nothing: this is a cheap option, as you don't have to buy anything bigger or better. You could try to pick up a few flying-tips from those that know, but don't worry too much. As long as you no longer drool over tips or dream of span, I am happy and you are a SIFOW believer. Well done.

2) Do something. This is still significantly cheaper than the road to TINSFOS, but a tad more expensive than option (1) above. The 'something' you should do is to *go and fly with someone better than you are, and engage your brain.* The choice of guru is up to you, but I can think of worse places to start than a week at another club, flying new gliders, at new sites, and drinking new beer. Anywhere that can offer you a new challenge is a good place to begin; just remember to *learn something.* The inevitable outcome of this is that you will become a better pilot, and hence fly further, faster and happier (or whatever your plan is) when you get back in your same-spanned ship. Next week: World Peace.

3) Buy something *smaller.* This is the path that most appeals to me. I'm sure that for most people, their flying performance has mental, not glider-related, limitations. This means that if you buy something smaller, but in the future can still fly the same tasks you fly now, your skills will have increased, not to mention the extra points to be earned in a handicapped competition. You also have the added advantage of walking tall amongst all the pilots that took the TINSFOS route and have not actually improved. "I could have bought an ASW 27, but traded in my Astir for an Me7 instead". If you had flown 300km in the 27, no one would have given you any credit (snide remarks maybe, along the lines of 'anyone being able to fly 300km with twelve miles of plastic'). Fly the same task in the Me7 and you are SIFOW *personified.* Your wave flights will be talked about, your ridge flights will have the hang-gliders bemused, *and* you can rig the thing single handed.



...will have the hang-gliders bemused.

WOW! I want one. Where's my pen. "Dear Kenilworth, I'd like to place an order for...". TINSFOS is dead: long live SIFOW!
Phew!

GR 1000 IGC Flight Recorder

PLUS FREE TaskNAV for Windows 95

Special Offer until 31st August

£529 inc.



- 12 CHANNEL PARALLEL GPS BOARD. The latest and most accurate available today.
- ELECTRONIC BAROGRAPH to 40,000ft
- GNSS logger – massive logging capacity 24,000 fixes. NMEA interface.
- ENGINE NOISE LEVEL sensor
- Pre-loaded BGA UK TP list includes 788 TPs from the 1998 list in WGS-84 coordinates
- Supports an additional 200 private TPs
- CABLES are included in the base price
- Automatic switch to faster recording near task TPs and for pilot initiated marks on trace.
- Easy task programming using keyboard, or via the GR1000 PC software.
- ELECTRONIC TASK DECLARATIONS.
- ACCESSORIES
  1. Optional small remote navigation display and control unit – £95
  2. Smart carrying case – £14.99
  3. NEW! TaskNAV for Windows 95 with built-in IGC, DAT and Garmin log analysis.
- 102 x 42 x 162mm and 500 grams.
- Power – 9v to 18v DC at 145mA
- GR1000 IGC software included in base price

PLUS FREE TaskNAV for Windows during special offer period

The GR1000 is a maximum capability unit at the highly competitive price of £529 inclusive. For P&P UK inland add £8; elsewhere, POA. To order, or for further details, please contact the UK distributor:

D. J. Robertson, Elmstock House, 20 Duffield Lane, Stoke Poges, Bucks, SL2 4AB
Tel: 01753-643534 Fax: 01753-645218 Internet: 100327.2014@compuserve.com

Designed and manufactured by
***Print-Technik Special-Electronic and Satellite-Navigation** A-1060 Vienna*
HTTP://WWW.GPS.AT

Fresh from the catwalks of PARIS & MILAN the BGA presents

THE PLATYPUS SUMMER COLLECTION

PLATYPUS GLIDING HAT & T-SHIRT HUMOROUS DESIGNS!!!

WHITE HAT WITH GREEN DESIGN – £5.00 (inc. p&p)

T-SHIRT – £8.00 (inc p&p) (black & royal blue with white design)

Sizes large and extra large



Special introductory offer –
BUY HAT & T-SHIRT FOR ONLY £12.00

BRITISH GLIDING ASSOCIATION

SALES DEPT., FREEPOST, LEICESTER LE1 7ZB
or ask us to send you our complete sales list

Telephone 0116 253 1051
(MASTERCARD/VISA accepted)

'D-Day' Delayed due to Bad Weather on Dartmoor

THERE WAS HOPE THAT DANIEL MASSEY WOULD FLY HIS FIRST SOLO ON HIS 16TH BIRTHDAY (OF COURSE), EXACTLY 54 YEARS AFTER HIS GRANDFATHER, BARRY, TOWED GLIDERS OVER NORMANDY ON D-DAY. THE WEATHER DIDN'T STOP D-DAY, BUT IT STOPPED DANIEL.

At the time of the D-Day landings Barry Massey was a Flight Lieutenant with 299 Squadron based at Keevil, in Wiltshire. On 6th June 1944, Barry was part of the crew of H-Harry, a Short Stirling, that towed gliders over Normandy as part of the D-Day landings. He would have had a good view of the gliders: Barry was the rear gunner.

Fifty years later, Barry's grandson, Daniel (who had been born on 6th June 1982) flew for the first time, during the D-Day commemorations, in a Dakota at 300' over the Normandy beaches. The flying bug bit him.

In the autumn of 1995 Daniel, and his father, Guy, joined Dartmoor Gliding Club and Daniel took his second flight, this time in a Ka7 under the instruction of Alan Holland. Alan became Daniel's instructor.



Guy Massey, in a Ka7, at Brentor in 1995.



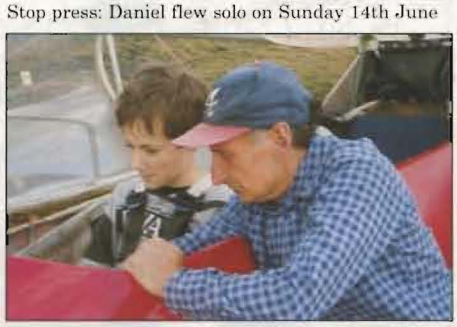
Flt Lt B. Massey (2nd from right) and fellow crew-members in front of Stirling, H-Harry, in 1943.

Having flown his first solo in a Kirby Kadet, from RAF Gaydon in 1973, Guy flew solo again in the autumn of 1996 under the watchful eye of Alan, who had become, by this time, the Family Gliding-instructor. Guy has since clocked up some wonderful wave-soaring flights.

Daniel's first solo was to have been on his 16th birthday, the 54th D-Day anniversary; but the weather intervened. Brentor has a single airstrip aligned east-west; the wind that day was a strong northerly. Alan made the only decision he could make in the circumstances; he did not send Daniel solo.

Not all of Daniel's birthday ambitions were dashed; he was finally able to buy his first lottery ticket. However, as only one of his numbers was selected by the draw, he has made his first contribution to the club's next hangar. Despite his lottery loss, Daniel has bought a share in BWK (a Swallow with quite a story of its own) and will fly it as soon as he can (weather permitting).

Stop press: Daniel flew solo on Sunday 14th June



Daniel Massey, with Alan Holland, in 1995.

Barry's logbook entry for D-Day (below).

299 SQDN — Time carried forward :— 228·45 | 134·30

Date	Hour	Aircraft Type and No.	Pilot	Duty	Remarks (including results of bombing, gunnery, exercises, etc.)	Flying Times Day	Flying Times Night
[illegible]	[illegible]	CANCELLED	ON FROM 5-6-44				
5·6·44	23·50	STIRLING	S/LDR DALE	A G	D-1 DAY 6th AB-DIV NORMANDY (10 TOWS)		04·30.
					HEAVY FLAK ENCOUNTERED. PARATROOPS DROPPED O.K.		
6·6·44	19·20	D STIRLING	S/LDR DALE	A.G.	D DAY GLIDERS NORMANDY (6 TOWS)	03·00.	
					SLIGHT FLACK ONLY ENCOUNTERED GLIDER LANDED O.K.		
7·6·44	16·40	STIRLING		A G	AIR TO GROUND 10 HITS.	00·50.	

The pilot's shop

JARDINE AVIATION





The real thing...

...genuine Anschau Komet Glider Trailers



Sole UK Distributor and only Authorised UK Agent

Plus a huge range of pilot's essentials...



Cenfis Flight Computer



Camelbak Hydrate System



Garmin III Pilot



ICOM Transceivers



Wide range of Headsets

Sole UK agent for the Cenfis Flight Computer with unique centring vario

- Final approach computer with integral GPS
- Virtual display of the instruments can negate the need for conventional instruments
- Centring vario displays vertical climb rate and after a 360 degree turn will display a vector to the point of the best lift
- 6 Analogue functions simultaneously in one display
- All functions and displays are controlled by software and can easily be upgraded.

Latest Garmin II+, II and III Pilot, 12 and 12 XL and 89-plus other GPSs available at competitive prices. Demos always here - test drive before you buy!

Camelbak Hydrate systems: fly without dehydrating

ICOM transceivers: IC-A3, IC-A22E, King KX-99

Headsets: Communica, David Clark, ANA or Normal

Services to Pilots

- Brackets for GPSs, cameras and other small items can be made to order
- EW hire service: Weekly - £18.00, Weekend - £8.00, Daily - £3.00. *(Returnable deposit of £250 required.)*
- Secondhand/Pre-owned: Leave accessories and equipment with us with guide prices and we will display them in the shop, and also in the Pre-Owned section on our Web Site

We are based at Lasham, next to Southdown Aero Services • Open every day, including Saturdays & Sundays • Ring 01256 381001 for our illustrated catalogue, or simply check out what's new on our Web Site: www.jardineaviation.com

JARDINE AVIATION
Lasham Airfield • Alton • Hants GU34 5SR
Tel: 01256 381001 • Fax: 01256 381008

The French are Different

Brenda Snook flies a Sport Vega from Heron Gliding Club at RN Yeovilton

ONE OF THE MANY INTERESTING THINGS ABOUT VISITING OTHER GLIDING CLUBS IS DISCOVERING THAT THEIR PROBLEMS ARE SIMILAR TO YOUR OWN; A KNOWLEDGE THAT SUGGESTS A SORT OF TOGETHERNESS THROUGH ADVERSITY PERHAPS. THE FRENCH, I FIND, ARE DIFFERENT.

My visit to a French club began around 7am when my hostess prepared 'le pique-nique'; my host, meanwhile, was collecting the morning's freshly-baked bread. Once our various preparations were complete, we set of for the gliding club, arriving at about 11am. The weather looked very promising indeed.

The first difference I noticed was in the people; they were smaller, the women were all beautiful and the men rather handsome. Their clothes were unlike those worn at British gliding clubs: well fitting, quiet, even chic. Friends greeted each other gravely with handshakes or three kisses (left, right, left) and talked about politics. I tried not to look out of the window; the sky was booming.

"Now," announced my host, "we have *lernch*." I desperately hoped that he meant launch, but no, out came the food. Fish salad, roast chicken, beans, brie, fruit, coffee, and wine. Yes, I know Lasham's rock-cakes are wonderful, but this was positively 'Glyndbourne-arian'. After coffee, and the obligatory cigarettes, I could bear it no longer. I asked, "Shall we rig?". I had already spotted the trailers nestling behind three enormous hangars (which obviously belonged to the airforce or some private enterprise). "Rig?" They looked surprised. "But the gliders are already rigged – in the hangars!"

The hangar doors slid open, with no squeaks, groans or jams of course, and inside there were about twenty modern gliders. They were all clean, polished and utterly serviceable. Had I found paradise?

My enquiry as to the whereabouts of the flying list was met with a puzzled look. We pulled the gliders a few yards to the launch point, and I listened for sounds of "Er, wasn't I here first?" After a wave and a nod, half the men slipped into the Nimbi and LSs and a couple of Pawnees materialised to take them away.

I wondered how the non-fliers would spend the afternoon; surely none of these paragons would land-out (most inelegant) and there was nothing left to fettle. I never found out; I was taken on a 130kph tour of the area in a Janus – they are very good pilots too!

Vive la difference!



SHENINGTON GLIDING CLUB

OPERATIONAL ALL YEAR – EXPERTS IN TRAINING

SOLO COURSES

- 5 day intensive course £200 to £325 (we guarantee 40 flights on 5 day course)
- 1 day course (8 flights) £80
- Your ambition achieved through personal tuition

POST SOLO COURSES

- One-2-one tuition • Winch/aerotow training
- Confidence building courses • Pre instructor training
- PPL conversion course
- Bronze and cross country endorsement courses
- Soaring courses
- Shenington is silver and gold country
- Talk to an instructor about your ambitions
- Club expeditions welcome • Accommodation facilities

Write - phone/fax

SHENINGTON GLIDING CLUB

Shenington, Oxon OX15 6NY • Tel/Fax 01295 680008

• ***All our instructors are specialists in training*** •

Winch Hunt

Next to flying, winch driving is probably the most skilful and satisfying job on the airfield. A busy session on the winch, launching a variety of gliders without getting many 'too slow' or 'too fast' signals can be a very satisfying experience.

Providing your fellow members with a smooth, high launch takes skill, training and time to perfect. A good launch could even lead to a task flight being completed. So, why do members seem to avoid winch-driving?

One of the main gripes is that people don't like being stuck in the winch for hours on their own (it can be a lonely task). If few members can drive the winch then those few have to shoulder the whole burden. Winch driving also has a reputation as a thankless task, with pilots quick to criticise but slow to praise. Constructive criticism is always welcome and is an enormous help on difficult days, but a rebuff after a bad launch can lead to a drop in confidence and a reluctance to drive the winch in the future. If you have a good launch, let the winch driver know (it cheers us up on a cold day!)

If we all share the job, we can all enjoy the satisfaction and rewards that winch driving can bring, without the fear of being stuck at the other end of the airfield for hours without hope of escape.

–Nathan Hanney

EB80 –

The Investment of your Life!



A Parachute designed to provide a safe exit and low speed descent to even the heaviest of pilots yet occupying minimum cockpit space and providing long duration comfort. Your life is too valuable to trust to an inferior design.

PERFORMANCE DATA

Max. operational height: 10,000ft
Max. deployment speed: 150 knots
Operational life now extended to 15 years.
Weight of assembly: 14lb
Rate of descent at 255lb: 17.7ft/s

Irvin Aerospace Limited
Icknield Way, Letchworth, Hertfordshire
Great Britain, SG6 1EU
Telephone: Letchworth 01462-482000
Facsimile: 01462-482007

HUNTING PLC

ESC

Fly from Mafikeng, South Africa. Site of 2001 World Championships

★ A Fleet of high performance gliders available.
Ventus 2, LS6, LS8, LS4, Pegasus, Discus, DG800, Nimbus 3.

★ Weather/Cross country briefings and cross country tuition by prior arrangement in ASH25.

★ Mid November 1998 – end January 1999. Avoid the depths of another UK winter with a gliding holiday in Africa. No jet lag and a local flight from Joburg to Mafikeng means that you can leave Europe in the evening and fly next day in Mafikeng.

European Soaring Club

Contact Elaine Townsend, 82 Bedford Road, East Finchley, London N2 9DA
Tel: 0181 444 6457 • Fax: 0181 883 8096 • Email 106163.1246@compuserve.com

Club News

Material for the next *Club News* can be sent to the editor before the **10th August**. Email: le@blot.co.uk (preferred)
Post: PO Box 2039, PULBOROUGH, West Sussex RH20 2FN (disk or *crystal-clear* hardcopy). **Please do not fax Club News**

Aquila (Hinton in the Hedges)

Our first *ab initio* course in May was a great success, with the best week of the summer so far. We're hoping for more of the same for our remaining courses.

Simona Latimer has flown solo, a couple of days after her husband Dave attempted his first 500km. Mick Love flew for five hours and Steve Blackmore joins the instructing staff.

At the AGM, Duncan MacKay took over as Chairman and immediately led a tidy-up campaign – we can see the hangar walls again! His new DG800E is almost certified in the UK, and a DG400 has joined the private glider-fleet.

Our club ASW19 continues to be little used; visit us and fly it for 20p/min.
M. Eastburn

Bidford

After seeing the trailer park awash in two feet of water during the Easter floods we have finally reclaimed our field. Congratulations go to Chris Thornhill, Gordon Cree and Gordon Horsecroft for achieving their Assistant Instructor ratings. Dennis Woodhams is now an AEI, and John Pride has his Silver height.

We welcome Dave "two hands" Bland, back for another season's course-instructing, and Raj Nunwa our new resident tug-pilot.

Incidentally, we always thought that 'rollocking' was rhyming slang.
J. C. W.

Booker (Wycombe Air Park)

Our airfield is at 500' and we escaped the awful floods that hit some of our neighbours in the spring. Athough we could fly unhindered, conditions have not been special. Total launches are down in number but we have a high number of bookings for trial lessons.

The Kay/Watt cross-country initiative is proving immensely successful, despite the weather; it caused no fewer than twenty-seven outlandings by twenty-five pilots on the last Saturday in May. We have a mobile phone at the launch-point for organising retrieves after the office has closed.

Plans are being discussed for a two-storey extension to the clubhouse, which will provide better facilities.

Al Kay, the best Briton in a strong field, came 3rd in the Hahnweide comp.
Roger Neal



Keith Simmons (Mendip) after completing his Silver at Talgarth.

Borders (Galewood)

Membership has increased to over 100, and we are continuing to attract new members with our new facilities.

Our good start to the year came to an abrupt halt when our Super Cub was damaged during a taxying incident in strong winds. As the Pawnee was still under repair, we were without launch facilities until early June. In the meantime our neighbours, Northumbria Gliding Club, hosted additional flying weeks for us, and opened their facilities to us at weekends.

We have access to a motor Falke and, with the help of Eric Boyle, we now have four instructors to teach gliding and cross-country exercises in it. Several tug pilots took the opportunity to add SLMG endorsements to their PPLs.
Bob Cassidy

Bristol & Glos (Nympsfield)

Treasurer Gordon Davis led a team that manned a fixed-price-to-solo promotion at Kemble Air Day in May. DCFI Pete Florence won huge applause for an aerobatic display in our DG505.

Congratulations to Simon Lemin and Kate Wheeler for going solo and to Jon Meyer, who gained his Bronze Badge only weeks after he went solo. Trevor Stuart (LS6) won the A class in Sid Smith's task week in May and Chris Huxley (Club Astir) the B class.
Bernard Smyth

Burn

578 Squadron has held a final reunion here at its wartime base. This was a solemn affair with visitors from all over the world, flypasts, speeches and an excellent band. Especially poignant was the sight of nearly 300 remembrance poppies, each bearing the name of a missing airman, dropping from the club's Falke on to the airfield.

BOOKER

- Open every day
- Benefits for annual club members include–
  - *Free* single seater soaring October to March
  - *Free* Bronze and Silver courses
  - *Free* Aerobatics courses
  - *Free* Field Landing courses
  - *Free* 1/2 day course bookings for ab-initio pilots (max. 2 students per instructor)
- Range of gliders from Ka8 to Discus, from T21 to Duo Discus
- Efficient launch system – why wait?

And for next season's budding and current cross country pilots:

- *Free* cross country instruction available every day
- *Free* supply of EW barographs, batteries and equipment for all club single seaters
  GPS and cameras also available
- Gliders allocated daily, max soaring fee 2 hours any one flight
- Task setting and soaring forecast daily

Does your club offer all this?

For more details on courses and/or annual membership please contact the office where our experienced staff will be able to help you

01494 442501/529263

Booker Gliding Club, Wycombe Air Park, Marlow, Bucks SL7 3DP
(5 mins from M40, 15 mins from M4 & M25)

View our new web pages on **www.bookergliding.co.uk**
E-Mail: office@bookergc.nildram.co.uk

Club News

Some of the veterans had great difficulty in recalling the station's wartime layout, but had no trouble in remembering that the WAAF quarters were close to the water tower.

The cross-country co-operative has taken off well; there have been a number of impressive flights despite indifferent weather. The PW5 and Me7 have been here on loan and were extensively flown by club members of all levels of experience. We are seriously considering buying this type of glider.

Cliff Robinson has flown Silver distance. Robert Maxfield has re-soloed after an eight year lay-off and Nick Heppleston and Robert Boughen have flown solo *de-novo*.

S. J. K.

Obituary - Bernard Wilson

Bernard Wilson, a founder member of both Burn and Doncaster Clubs, died in March at the age of 74. Bernard started his flying career at the age of 17 when he volunteered for the RAF. His training started in 1943 in Arizona where he soloed in a Stearman. He gained further experience in Harvards and was awarded his wings in 1944.

On his return to England the need was for glider pilots and Bernard took part in Operation Varsity in March 1944, crossing the Rhine in a Horsa glider and landing near Arnhem. It is reported that when he saw the machine gun set up at the end of the landing field, he circled twice in half a knot. No good ever comes from late thermals: he landed and spent much of that day creeping along a ditch under fire. In 1995 he took great pleasure in showing a group of club members 'his field' when we visited the area with him. In 1959 he helped to found Doncaster club and his skill at real gliding was soon apparent as we watched him soar his beloved Weihe. In 1968 he became an instructor and continued instructing until his 70th birthday.

Bernard's love of elderly gliders and membership of the Vintage club started an interest in repair and refurbishment. He was for many years a senior inspector, and Burn benefited from his skills. His blunt Yorkshire skill at extracting money from other Yorkshiremen was also used to good effect as he successfully collected membership fees, trailer rents and caravan fees. We shall all miss him greatly.

John Stirk

Cairngorm (Feshiebridge)

Resident instructor, Trevor Wilson, is running courses on most weeks. Places are still available for the autumn wave season. Enquiries can be made by telephoning 0370-454593.

Bill Anderson and Bernard Van Woerden have recently bought shares in a Std Cirrus and the latter has now achieved his Silver Badge; Steve Struthers now has an IS29 and Jim Riach an Astir. Farquhar McBain (a founder member) has re-soloed after a long break.

Alister Morrison

Cambridge (Gransden Lodge)

At our AGM Max Bacon, chairman of the BGA Development Committee, took over from Pat Harris as chairman, and John Morris is our new CFI. Keitha Bryce-Smith and Martin Whitehead have their Full Cat ratings and Brian Hooson is now an AEI.

Clevelands (RAF Dishforth)

Although we have had a quiet spring Ian Withers has gone solo and Lynne Walters flew 50km.

Jill Povall



RAF Cranwell's fleet on expedition to RAF Cottesmore (note Tornadoes).

Cornish (Perranporth)

Our cross-country task-week in May could have had better weather but most pilots managed at least one outlanding. The week was won by George Kosak and Gordon Hunter was runner-up. Visitors are welcome on any day of the week until September.

Shaunne Shaw

Cotswold (Aston Down)

Members' achievements include cross-country endorsements for Mark Verden and Andy Davey (Andy has just gained his Silver Height as well).

Our youngest solo pilot, Mark Parker, has completed his Silver distance and Monica Tucker has flown solo. Our Rockpolishers team won the first round in the interclub league at Nympsfield.

Cotswold's facilities have expanded with the addition of a purpose-built workshop for glider and motor repairs.

We have held two open days during the spring. The first was a public open day, when we flew over eighty visitors, and the second held was a PR day for local residents.

The objective of the PR day was to help our neighbours learn more about our activities, to help them realise that we care about them, and that we try to minimise our impact on the environment. The day was successful and we recommend such events to other clubs.

In order to remove uncertainty about the cost of learning to glide, we have introduced a £475 fixed-price-to-solo package, which includes unlimited training to a first solo flight during the first year of membership, plus the year's club membership.

Mike Shailes

Cranwell (RAF Cranwell)

Congratulations to Polly Salter on going solo and also to Andrew Beney who went solo on his 16th birthday. Well done to Al Clarke on reaching third place in the Overseas Nationals in Ocaña. Al Docherty is now a Full Cat.

Cranwell is enjoying taking part in the inter-club league where Dave Fidler, Ian Mountain and Angus Watson have already won first places.

Nobby Clark

Derby & Lancashire (Camphill)

Congratulations to Ernest Radford and Dan Reeves (first solos) and Brian Allen (Silver height)

The Vintage Glider Week was held here at the end of May. Five vintage gliders landed out in the same field within one hour. The week was completed by the Camphill Ceilidh which was a great success.

Club News

John Hogarth has organised a cross-country competition based on the the glider gaining points rather than individual pilot. The idea is to encourage early cross-country pilots to take part on an informal basis. The *Ken Blake* trophy will be awarded to the winning syndicate/glider.

Our workshop (once a bunk-house) has been demolished by Dave Martin in a JCB, and a willing band of vandals.
Wendy Thompson.

Devon & Somerset (North Hill)

The thermal soaring season appears to be on hold here with only a small number of cross-countries possible so far. Jill Meakin completed her Silver Duration on a difficult day. Sandy Harrup, Martin Callaghan and Mark Shotton have all flown solo. Gordon Bonny is now an AEI and Air Experience evening-activity is increasing.

A full programme of courses, task-weeks and open-weeks lies ahead of us, as does Competition Enterprise.
Simon Leeson

East Sussex (Ringmer)

Flight Level 55 has proved a problem since we became a premier wave site! An ASW 19 has been added to the club's fleet, and the private fleet now has a brace of ASW 20s and a ASW 15.

Terry Banks has his Diamond height, Gerry Gair his Gold, John King Silver distance and John Little and Maurice Hinton have flown solo.Lt. Commander Cliff Kindell has stopped gliding at the age of 80! Steve Jarvis and Sue Barter have become AEIs.

Those of you who have landed here will be pleased to know we are hoping to re-profile (i.e. flatten) the field.
A. W. L.

Enstone Eagles

Our season got off to a busy start with changes around the club. Mike Weston, who has taken over as Chairman, hopes to rejuvenate the club now that our lease has been renegotiated.

We are holding a task week from 15th - 23rd August. Visiting pilots are very welcome to come and fly with us. The week will be spent mainly aerotowing with Tom Miller's Dimona, so if anyone wants an aerotow behind a Dimona then come to Enstone.

Frank Burgess has generously donated an EW barograph and an audio vario, for use in the club's aircraft, in memory of his wife Betty who died recently. This will be a great encouragement for early solo pilots to help them get their badges.
Simon Tucker

Essex & Suffolk (Wormingford)

The Club was honoured on 3rd June by a visit from the BGA's Patron, HRH The Duke of Edinburgh, who opened our new hangar (see: *Development News* p.198). The Duke arrived by helicopter and, after the opening of the hangar and taking a tour of our other facilities, he watched our Twin Astir flying. Reports of the visit appeared in the local press and a short item was shown on the television news.

After the Duke had left, the club accepted gifts including the USA flag that flew at Wormingford during the Second World War, together with two Presidential Unit Citations, donated by Mr. Martin Lucash, who served with the 362nd Fighter Group of the US Army Air Force. An impressive number of war veterans visited us, including the Group's wartime commanding officer, Colonel Morton Magoffin.

A ceremony was held at the War Memorial to remember airmen from Wormingford who died during the Second World War.

First-solo flights have been made by Ken Rogers, Steve Grant, and Jean-Pierre de Tourtoulon. Rob Austin has re-soloed.
Andy Sanderson



The last job to leave Camphill's workshop: Ian Dunkley's Fauvel trailer.

Highland (Easterton Farm)

We started the year with our very own lake, complete with fountain and ducks, right in the middle of the airfield! Subsequently, Jacqui Webster and Denis Mackie went solo in March. David Chalmers has his Silver height and is poised to complete his Bronze. Andy Anderson and John Thomson have become AEIs and numerous bronze legs have been completed.
Angela Veitch

Imperial College (Lasham Airfield)

Our Easter trip to the Long Mynd was a success, although the closest we came to flying at the beginning of the trip was while sledge-riding at high speed behind a Toyota Landcruiser. The best soaring weather was on Easter Sunday, with strong thermals for most of the day, giving some members their longest ever flights.

Back at Lasham, the best weather so far this year was in mid-May, with Afandi Darlington flying our first 300km of the year on the 17th.

Places for our Summer course have filled up quickly. ICGC pilots will be flying in the Standard Class nationals, the Lasham and Midland regionals and the Junior Championships.
A. H.

Kent (Challock)

Martin Cooper and Martin Bradley have become Assistant Instructors with the help of Alan Garside, our recently retired CFI. Alan's successor, Bob Burden is continuing the good work; Vicky Grayson and Pete Carpenter have recently completed AEI courses. Richard Davis has become a tug pilot.

A number of visitors from other clubs haas taken advantage of our free reciprocal membership. Guy Westgate from Southdown flew the ridge to Rochester and back, in what we believe to be record time.

We are operating seven days a week throughout the summer months, and by the time this is being read we will have hosted a Vintage Glider Club rally. As well as visiting gliders we will be welcoming members of the Kent Vintage Car Club, the Kent Microlight Aircraft Club and our French sister club from Abbeville.
Caroline Whitbread

Beautiful gliders...

...courtesy of London Sailplanes & Schleicher



Beautiful gliding...

...courtesy of London Gliding Club

Find them both at Dunstable... you can't do better!

Dunstable Downs • Tring Road • Bedfordshire LU6 2JP
Tel: +44 (0) 1582 663419 • Fax: +44 (0) 1582 665744
e-mail: info@gliding.powernet.co.uk
Web Site: http://www.powernet.co.uk/gliding/

LONDON GLIDING CLUB
- DUNSTABLE -



Ian Dunkley (again) in a primary at Camphill.

Lasham (Lasham Airfield)

Sadly, Lorne Welch has died after a long illness. He flew Wellington bombers in WW2, and was a noted resident of Colditz. He helped introduce gliding to Lasham Airfield. Lasham members extend their sincere condolences to Ann and the family. (The obituary which accompanied Lasham's *Club News* has been reprinted on p.196.)

A British Aerobatic Association (BAeA) training camp was held here; it was attended by pilots from Booker, Cambridge, London, and the Midland gliding clubs. Over thirty aerobatic flights took place during the weekend.

Eighteen pilots visited the European Soaring Club's new site at Ontur Airfield, Spain. The mountains were interesting but not frightening. There was flying on all days except one. A 10,000' cloud base and 10kt thermals were had on the best day. The local population was friendly.

Anthony Segal

Lakes (Walney)

Our club trip to Hus. Bos. during Whitsun week was well attended, despite bad weather. Flying was scarce and we decamped on Wednesday, only to hear that Friday and Saturday were 300km days. Our thanks to The Soaring Centre for their hospitality.

Visit our club web-site at http://www.lakesgc.force9.co.uk

Alan Dennis

Mendip (Halesland)

Our (two-day) Soaring Week gave Silver claims to Mike Bridges, Keith Simmons and Gordon Dennis (whose barograph wiped out a Silver-height trace, but kindly recorded a 50km flight the following day).

Brian Dymock flew to Rivar Hill for his Silver Distance, and repeated all three Silver legs four weeks later in one six-hour marathon.

Bob Merritt and Mick Longhurst were intermediate winners at the first inter-club at Rivar Hill. Bob also finished as second pundit on both days. Dave Hatch was 3rd in the novice class.

Local TV station HTV West invited us to display a glider on their stand at the Wiltshire Show. Our Astir generated a lot of interest and plenty of opportunity to promote our forthcoming open day.

K. S.

Norfolk (Tibenham)

Our runways have had cosmetic work to remove ridges lifted by weeds. We are very pleased with the finish.

Thanks to good weather during Roy Gaunt's cross-country course, we have flown hundreds of kilometres using the BGA's DG 500, our K21, and a variety of single seaters. Steve Cattermole and Andy Volp completed their Silver badges.

The following week the law of averages asserted itself, giving us only three flying days during the Eastern Regionals. Our thanks to the pilots who maintained good spirits throughout the disappointing weather, and congratulations to Peter Stafford Allen and Richard Maisonpierre who won their classes. Thanks to Woody and his team for their organisation.

Bonnie Wade



Richard Scott from Currock Hill: first solo.

Northumbria (Currock Hill)

We held a week of celebration to welcome our five new cadets and acknowledge the accomplishments of the previous cadets, including Jamie Norris who narrowly missed his silver distance when he landed in a field near Darlington; he felt amply compensated when a journalist arrived to cover the event and his photograph was published in the local paper.

We welcomed a number of pilots and their gliders from our neighbouring club, Borders. Having once experienced the climate here at Currock Hill, they continued to visit for several weeks. Some new interest in reciprocal visiting has been generated.

Dave Humphreys

Peterborough and Spalding (Crowland)

Manuel Williamson, Alan Flintoft and Paul Davey have all completed an AEI course at Tibenham. The heavy rains left our field flooded; several enterprising members went for a jaunt, in a canoe, around the newly formed Crowland lake. Our first away fixture in the interclub league was well attended; well done to all the pilots who took part, especially Sheena Fear who won the novice class.

Phoenix (RAF Bruggen)

The airfield control caravan has been in use for almost a year and the new bus needs only a few more weeks' work. Having had a drop in membership we sold a K21 at the beginning of this year; now we have had an influx of both military and civilian members and find we need three two-seaters again. The newly repaired Motor Falke (G-BUDB) has returned. The glider's wings were tattered by birds last season, angry at the removal of their nest from the engine bay.

Shalbourne (Rivar Hill)

Although the club's expedition to Portmoak was washed out, Easter Sunday saw a silver height, a silver duration, 57 launches, all club gliders in use, and, completely unexpectedly, outstanding weather.

Shenington (Edge Hill)

Phil Miles and Paul Green have their bronze badges, while Dave Heath and Damien Dyer both completed their Silver badges with 50km flights. Silver distances were also flown by Dave Gould and John Vella Grech; Robin Adams completed his Silver duration. Mick Phelps has just gained his Assistant Instructor rating.

Club News

We have bought another quad bike for glider retrieving, and completed the purchase of a Ka7.

We welcome Rowan Griffen as our new DCFI and Course Manager. Our courses are booked up many weeks in advance, and the site remains very busy in spite of some fairly miserable weather; being at the top of our (small) ridge proved very useful during the floods in April! Visitors from other clubs are welcomed. Please contact our office if you are interested in bringing a midweek expedition. Further details on the club and what we're up to, can be found on our website at http://freespace.virgin.net/fisher.m/sgc/

T. G. W.

Southdown (Parham)

Our May cross-country course was successful, with each pilot averaging about two hours per flight. Despite the absence of the summer, course-members flew cross-country *every* day. The flight log suggests that one pilot had more field landings than launches, which just goes to show what a difficult subject statistics can be.

Our bursary students for this year are Alex Dean, Hannah Lord, Greg Kearl, Melissa Hughes and Gareth Carthew. Tony Poundsberry and Julian Hitchcock have their Half Cat. Ratings and Howard Aldridge has returned to flying after a long break. The 150' drilling rig, over the oil well to the west of the airfield, has been replaced by a respectable gas flare. This bodes well for still-air conditions and has the advantage of being completely free.

Parham Park's Steam Fair brought a Gypsy Moth in to land at the airfield one evening. It was attached to tow-out gear, had its wings folded up and was towed across the road to the fair-ground in the space of half and hour.

Peter Holloway

Staffordshire (Seighford)

You may now be aware of the loss of two of our Club Members, Ian Andrews and George Askew, in a mid-air collision on 2nd May 1998. We have all been greatly shocked by the accident. *Club News* seems of little importance by comparison.

Our AGM has been held and a few committee changes were sanctioned: Glyn Yates: Vice Chairman; Andy Oultram; Executive Committee member; Roy Goodwin: Treasurer.

Simon Kirkland has received the Churchill Award for completing his Bronze Badge before his 18th Birthday. Andrew Kirkland, Glyn Yates and David Gill had a good weekend at Syerston after taking our K21 for an Aerobatics Course with Ian Tunstall, the Aerobatics Regional Examiner. Ian is hoping that more clubs will take the course and promote the "Safe Aerobatics" message. Many thanks go to the RAFGSA for providing the aerotows.

Lara Davies has completed her Cross Country endorsement and made the first field landing of the year with Glyn Yates. Ian Davies has completed the AEI Course and, after recently buying a share in a K6, Mel Chapman clocked up two hours towards his Bronze and is now doing his impression of the Cheshire Cat.

Obituary – Ian Andrews

Ian was one of those friendly faces at Seighford, who was always willing to share his knowledge of any aspect of gliding, but with modesty. He was a quiet character who was intensely serious about his flying.

Ian's attention to detail and the studious way in which he approached new experiences was impressive; he attended a radio course last year, and it was some weeks before we learned that he had passed the written test with 100%.

Although he could be justifiably proud of himself, Ian didn't boast; his modesty always took precedence.

Chris Jones

Obituary - George Askew

Ten years ago George turned up at Booker one Wednesday evening. We flew together and, when we landed, he said "I have been looking for something. This is it". From then on he flew with us on weekday evenings, returning home to Staffordshire at weekends where he joined his local club.

On retirement from his work as a quarrying engineer, George turned his energy and enthusiasm to the benefit of the Staffordshire Gliding Club. He was Secretary as well as editing the club's Newsletter.

His love of gliding was surpassed only by his devotion to his family, of whom he was immensely proud, and his work for the village of Brewood.

Chris Ellis

Stratford On Avon (Snitterfield)

Bookings for courses and trial-lesson evenings are good. Jim Tyler and Phil Pickett are resident course instructors with Martin Greenwood and Barry Monslow driving the winches Mondays/Fridays.

Two weeks are reserved for club flying: weeks ending July 6th and August 10th. The usual good weather forecast is assured.

A number of members enjoyed trips to Sutton Bank and Camphill taking syndicate gliders including a Dart 17, two Olys, a Ka6e, an Eagle, a Capstan and a ASW20. Thanks are due to Yorkshire, and Derby & Lancs, for their excellent hospitality. Congratulations to Richard Storry for his first solo flight.

H. G. W.

Surrey & Hants (Lasham)

Although the weather has been poor so far this season, several S&H members have flown tasks of 200km or more and R. Abbott has flown a 50km to complete his Silver Badge. Dave and Pete Masson are competing in the club Disci at the Standard Class Nationals.

R. J. S.

Surrey Hills (Kenley)

Our Annual Charity Day on Spring Bank Holiday Monday was a great success. We flew over ninety trial lessons, raised £1,365 for Marie Curie Cancer Care's 50th Anniversary appeal, created some additional local goodwill for the club, and found more than a few potential members.

By the time you read this, our next mega-event will have also taken place. On *our* longest day we plan to fly from dawn until dusk, but it will be a week later than you might expect, to coincide with the 50th birthdays of Mick Hughes (instructor in charge for the day) and our beloved T.21.

We have had plenty of evening flying this year, which is important for a weekday-only club. A replacement SF27b, once again from Germany, has been added to our fleet.

The Soaring Centre (Hus Bos)

Ewan Videon, who originally soloed on his 16th birthday, has returned, after some years' absence, as this year's course tug-pilot.

We had our peritrack completely resurfaced to give us an all-weather flying capability; it served us well during the winter and wet spring. The

field was ploughed, flattened, and reseeded over the winter.

Our last but one Chipmunk has been converted to a Supermunk over the winter. A Vintage gliding rally in June was well-attended, despite the poor weather.
Toby Wright

Vale of White Horse (Sandhill Farm)

Our vintage weekend was held in May; club members and visitors alike were able to see Richard Moyse's Cadet and Sky. There was considerable interest in gliding over the weekend and many members of the public bought trial lessons. We also attracted the local press, which resulted in an article and several photographs.

Graham Turner has gained his Assistant Instructor rating. Graham, John Ashcroft, Pauline Leach and Tony McNicholas will be taking part in the Cotswold Regionals in the BGA's DG500. A BGA Soaring Course was run here in June.
G. T.

Ulster (Bellarena)

Our latest arrival on site is a very smart, syndicated Robin DR.300, G-BVYG, to help our hard-worked Super Cub, G-TUGG. It will reduce our launch queues on stonking days (not that there were many of those during an indifferent spring).

With just the Super Cub in use we bought 4-star Mogas at the local forecourt, but the arrival of the Robin has necessitated the installation of a 1,250-gallon AVGAS store. It was finished by mid-June.

Recent accomplishments include a first solo for Frank Cassidy; a Gold height in wave for Tom Snoddy; five hours for Ricky Logan. About five hours is what Jim Lamb, and his crew Bob Cochrane, had to spend in a Spanish prison, after landing an LS3a in a wheat field during the Overseas Nationals at Ocaña, near Madrid. They were eventually 'sprung' before HM Consul or the Foreign Office had to become involved.
Bob Rodwell

Vectis (Bembridge)

Miraculous! We've had three successive soarable bank-holiday Mondays. At Easter we were able to fly some tasks, with turning points on the Island and mainland, and everyone got home. Good flights were made by Chris Stanton, Pete Tuppen, Mike Squibb and John Leonard. A 6,000' cloudbase gave Silver height gains to Mike Squibb, and to Darren Card who also has a Bronze leg.

The Spring holiday gave wave off the South Downs on Saturday, cliff-lift on Sunday and thermals on Monday. Phil Kirby has flown solo, Lesley Tuppen resoloed as has Peter Ward, who instructed on the island in the 1950s. The Whitsun weekend produced some good sea-breeze fronts.

Malcolm Huddart has his PPL, three pilots have just returned from a soaring course at Bicester and four are shortly on their way to France – quite active for a club with 35 members.
J. E. K.



Northumbria proving that they fly all year.

Welland (Lyveden)

We recently enjoyed a weekend in the company of Derek Piggott, and were appreciative of his talks and films.

A memorial to three aircrew who died when their Lancaster crashed near here in December 1943 has been erected at the entrance to our airfield. It will be dedicated later in the summer.

Our CFI, Werner Leutfeld has been appointed a BGA AEI-coach. Mark Prickett and Steve Algeo have completed an Assistant Instructors' Course. Mark Nunley has passed an AEI course. Club Chairman Robert Learcroft has completed his Silver with a 50km flight. Alex Strachan, Howard Barnard and Frew Thomas have completed their Bronze badges. John Parsons and Paul Cronk have flown solo.
Dick Short

Wolds (Pocklington)

The annual club expedition to Portmoak this year was a great success, despite a lack of wave, many hours of ridge and thermal flying were had.

Although only one task was set during our recent task-week, social events were very successful. A GPS treasure-hunt was devised and there were many barbeques held over a grille constructed out of a pile of bricks and the borrowed lid of a cesspit.

The following people have flown solo, each receiving a hefty bar bill in the process: S. Brennan, R. Cook, J. Tillson, M. Pagram, and M. Fryer. Silver badges have gone to F. Davidson, J. Lee, S. Campbell and T. Mottershead.

Our residential courses, run by our new Course Instructor, the lovely Jill Povall, are going well.

We may be acquiring a BP gas pipe under Haystacks runway next year, in a deal that will benefit the club.

We hope you will visit our National Two-Seater Competition, held at the end of August, for endless fun.
Duncan Bradshaw

York (Rufforth)

Rather poor soaring weather seems to have dogged us in the first part of the summer but, nevertheless, Kevin Jackson flew his silver distance to Catterick, Peter Cole has gone solo and our CFI Andy Todd now has a motor-glider examiner-rating, so SLMG tests can be conducted on site.

Andrew Dunn is preparing to claim his Churchill Award from the BGA as he finishes off his bronze certificate at the age of sixteen.

With buoyant numbers of evening flying groups, and a growing interest in trial flights, there has been a useful boost to the club's coffers.
Mike Cohler

Yorkshire (Sutton Bank)

The summer programme continues with club flying on Wednesday evenings. We will be hosting the Inter-University competition in August.

The clubhouse improvements include a revamped briefing room and work on the upstairs kitchen. Gavin Ward has completed his Silver badge and Bill Payton has flown 50km, less than a year after he starting learning to glide.

Motorgliding International

THIS BI-MONTHLY MAGAZINE, TO BE PUBLISHED JOINTLY BY THE BGA AND THE SOARING SOCIETY OF AMERICA, WILL BE LAUNCHED AT THE END OF OCTOBER.

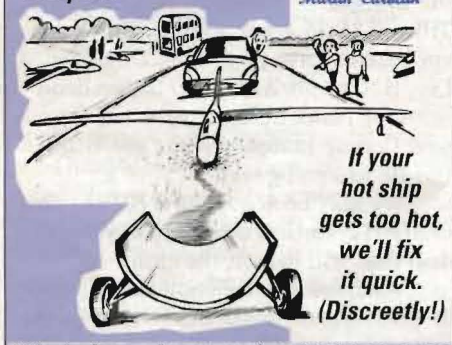
We welcome your views, comments and articles. To keep letters concise we are limiting them to 300 words – longer than this and we have an article. If committed to a block of paper and a biro then we would still like to hear from you. Colour prints are acceptable but please write the captions and the name and address of sender on a label before sticking it on the back of the picture.

Contributions can be sent:

- by email (much prefered) to: bryce.smith@virgin.net
- on a Mac or ASKII formatted disc,
- by fax (01223 413793) backed up with hard copy,
- by hardcopy to: the Editor, Gillian Bryce-Smith, 281 Queen Edith's Way, Cambridge CB1 4NH.

• High quality workmanship at affordable prices.
• Full workshop facilities to cover all jobs big or small.
• C of A due? Phone for the best price.

SEVERN VALLEY SAILPLANES
Martin Carolan



If your hot ship gets too hot, we'll fix it quick. (Discreetly!)

Workshop phone or fax 01452 741463
Home 01453 544107 Mobile 0860 542028
Passage Farm, Arlingham, Glos GL2 7JR

The FAI's New HQ

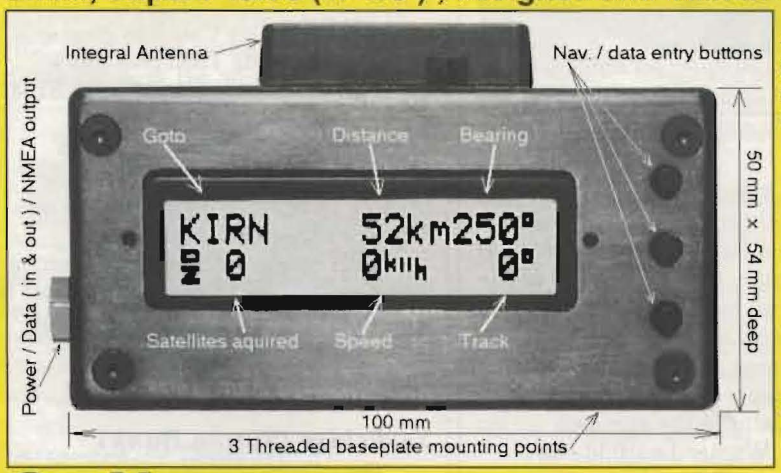
THE FAI, WILL SHORTLY BE MOVING TO NEW HEADQUARTERS IN LAUSANNE, SWITZERLAND.

The Council of the Fédération Aeronautique Internationale (FAI) has selected Lausanne from a list of bidders, including Geneva, Monaco and Vienna. FAI President, Eilif Ness of Norway, explained that there were several reasons for the decision to move to Lausanne including:

- The need, shared by all international sporting federations, for a good, stable business environment with an international atmosphere.
- FAI's requirement for status befitting its position as an international non-governmental organisation, recognised by the UN and the ICAO.
- The effect of being co-located with numerous other International Sporting Federations already based in Lausanne, including co-location with the International Olympic Committee, emphasising FAI's primary rôle as the air-sport governing body.
- Easy access for delegates, through Zürich and Geneva.

Details of the precise moving date and the FAI's new contact address will be released later in the year.

VOLKSLOGGER - IGC logger, Barograph, GPS nav. display - ALL in one unit, Small, Superb value (£ 489) , designed and built in Germany - *ideal replacement for cameras*



A NEW IGC data logger designed by glider pilots for glider pilots. It's simple, rugged and compact construction allows you to replace your cameras with an instrument that navigates and confirms arrival at TP's.

- 500 internal waypoints - BGA waypoints available
- Fast 12 channel GPS and integral antenna
- Simple installation - ideal for a camera mount
- 25 hours logging at 12 sec intervals, 12 hours at 6 sec
- On screen task declarations and GOTO function
- Loud beep when logging in TP zone (**ideal for comps**)
- Input information using buttons OR PC software
- NO internal batteries - power 125 ma 9v - 24v

£ 489 p&p £10 + vat (includes all Cables & PC software)

GarMax Maximise your GARMIN 89,90,45,38,12xl,II,II+,III

GarMax gives pilots the ability to easily upload airspace maps and turnpoints to their existing Garmins - providing a cost effective moving map display.

This unique software and cable kit gives you :-

Airspace moving map display
- UK Competition Airspace
- UK Prohibited Airspace
- Class B gliding areas for wave flying
- *** Airspace updates available ***

Turnpoint functions
- Upload/Download/Edit Turnpoint lists
- BGA Turnpoints (1998) and airfields
- User definable Turnpoint areas
- European and Worldwide lists

GarMax Software....£56.50 GarMax + PC cable....£76.50 (p&p 2.50 +vat)

CRABB

Crabb Computing
3 Salford Close
Welford, Northants, NN6 6JJ

Tel/Fax +44 (0)1858 575665
e-mail:-
garmax@crabcom.demon.co.uk

An Equal Opportunity

A Review of a PC gliding flight-simulator, by John Kenny

WE DON'T HAVE HEROES ANYMORE, WE HAVE ROLE-MODELS: WHO IS YOURS? BRIAN SPRECKLEY? JUSTIN WILLS? PLATYPUS? MINE IS JOHN WILLIAMSON.

Whether or not you become a hero depends on your opportunities. When pop stars were first invented most of them appeared to be morons but after a few years travelling the world some of them appeared almost civilised. The result of travel, experience and money? Given world-wide gliding experience, an expensive glider and a portrait by the superb Peter Fuller, I too could be nearly as amusing as Platypus. Those of us who believe in a meritocracy know that, given the time and money, we would all be at the top.

The revolution has begun

The revolution has begun, if you can afford a reasonable computer. At last there is a good gliding program on the market. Most pilots have at some time tried Microsoft's offerings and become bored with the fact that there are only five thermals in the world.

The new program comes from Germany. The cockpits are pretty good and early solo pilots will at once feel at home in the K8 cockpit, complete with a club type electric vario with audio and T.E. There are three other gliders, LS1, SB10 and ASW27 which have instrumentation to satisfy most, can carry ballast and have flaps where applicable.

What of the weather?

Hill lift works pretty well and can be a life-saver on cross country flights. Thermals can be as ill-mannered as in real life; they are stronger over high ground and south facing slopes and you can get big blue gaps between them. Virtual sink exists.

Using the realistic mode cloud flying without instruments is disastrous. Cloud base varies diurnally. The stronger thermals give a kick as you enter and leave the cores, and tilt a wing if entered at a tangent. Most centring techniques can be used.

There is an easy mode in which thermals are marked by dotted lines. Clouds are not very convincing and although they cast shadows on the ground it is very difficult, in the realistic mode, to judge how active they are and locate the lift; it's not very easy in real life either. The position of the lift varies with wind and the shadows vary with time. Interestingly enough, with the thermals made visible, it is possible using appropriate MacReady settings to dolphin fly almost continuously on a day when it is nearly impossible to stay airborne on unmarked thermals.

It is possible to fly tasks starting through a gate, taking T.P. photos and being timed. The O.O. is very tolerant in easy mode but a real stickler in the realistic mode.

How do the gliders handle? The programmers have tried very hard in this respect with pre-stall buffets, sensitive elevators, tug slipstream effects etc., but I must admit that I found difficulties. It took much longer to learn to aerotow and land than in real life and the inside of the computer is cluttered with wreckage. My C.F.I. would not be impressed that I was unable to recover from an inadvertent spin in the K8 started at 9,000ft! As one is unaware of the g. forces being pulled in tight thermal turns, it comes as a shock to spin out of them at speeds of nearly double the unaccelerated stalling speed.

Eat your heart out Brian Spreckley

Other Criticism?

The program's background scenery is crude (compared with later versions of Microsoft's Flight Simulator) and even our Pentium cannot run at its best resolution without jerkiness. However, field landings are easy, you only have to get the colour and slope right; a bright yellow surface is acceptable!

Eat your heart out Brian Spreckley, I've beaten your 300km record for about £30.

SFS PC version 3.02 costs £30 +p&p and it is available from: RC Simulations, The Hangars, Lulsgate Airport, BRISTOL BS19 3EP.

FLIGHT SIMULATION – COMPUTER PILOTS

★ Get the realistic Soaring Simulator: £29.95 + £3.50 p&p
★ Fly photorealistically on your PC. Everything that you require in terms of software, hardware and advice. A very specialist mail order service for all FS98 addons, FUN2, Pro-Pilot, 747 PS1.2, Soaring Simulator and real pilot training.
★ We are the UK distributor of the "Computer Pilot Magazine". £4.95 + £1 p&p.
★ Bristol-based Flight Sim Centre for a different gift on that special occasion.

For our free newsletter, please send an SAE to:

R.C Simulations
The Hangars, Bristol International Airport, Lulsgate, Bristol, BS19 3EP
Tel: 01275 474550 • Fax: 01275 474855 • *www.rcsims.com*

VISA MasterCard

XK10 "CLUB" VARIO SYSTEM



XK10 "CLUB" VARIOMETER
- Audio codes climb rate
- No Flask Required
- AVC on Down Tone • Gust Filtering

£249



DEDICATED AVERAGER OPTION
- Battery Volts
- Three Averager Modes
- Thermal Total Average
- Speed to Fly
- Climb/Cruise Mode
- Auto Shut Down Overnight
- High Sink Rate Alert
- 0 – 5kts Wave Mode

£149



REPEATER METER OPTION
- 60mm Mounting • No Mods Required
- Loom Included
- Metric Version 0–5m/sec

£89

★ *Over 400 units in use in the UK alone*
★ *Metric export model available*

Prices shown exclude VAT and carriage

from Cair Aviation Ltd.

"You can bank on us"

✦ **New Instruments:** PZL Expanded Scale ASI's. 1.5 Turns 0-140kts £109, 1.75 Turns 0-200kts £119, PZL Vario with zero reset, Flask and Ring, 80mm £189, 57mm £219, PZL T.E. Unit £19.90, PZL 12V Mini T/S £249, 12V Mini T/S £211, Sensitive Altimeters £149-£156, Mini Accelerometer £159, IFR Pedestal Compass £57, CM24 Bullet Shaped Pedestal Compass £59, Airpath C2300 Panel Compass £59, LC3 Panel Compass £49.90, Vertical Card Compass £139, T/S 28V Converter £19.90 ✦ **Surplus Tested Instruments:** Horizon with new Solid State Inverter, Ferranti Mk6 £299, 80mm Glider Rate Turn/Slip £89, Mini American 12v Glider Turn and Slip £249, 80mm Altimeters from £89, Miniature Accelerometers £89 ✦ **Radios:** ICOM IC-A3E £255, IC-A22E £290, Delcom 960 £219.90, Delcom 960 80mm Panel Mounted Version with Speaker/Mike £247.90, PYE MX290 Compact Mobile/Base TX/RX, All gliding channels certificate of conformity £150, Mobile Magnetic Mount Aerials £26 ✦ Glider Battery Chargers £24.50 ✦ **Parachutes:** SK94, Type Certified, State of the Art, Rapid opening, low descent rate, Steerable, Comfortable, Lumbar Suppart, Bag. £485 ✦ **"Ottfur" Releases:** Manufacturers Exchange Service incorporating the latest modifications £89, New original "Ottfur" Releases £169, Latest "Ottfur" releases for modern gliders – Aerotow CW400 series £169, C of G CW300 series £199

COLIN D. STREET, 7 Sharpthorne Close, Ifield, Crawley, Sussex, RH11 0LU, England Tel 01293 543832 • Fax 01293 513819



Choice soaring at Aboyne

COMPETITION

UK Mountain Soaring Championships – 6th - 12th September

Take this chance to extend your X-country experience in an organised and friendly atmosphere. Entry forms available

Autumn Wave

Slots still available for September and October. Call our Wave Booking Secretary now.

1999 season: Booking opens 1st September 1998.

Make Aboyne your first choice - we'll help you get more out of your gliding.

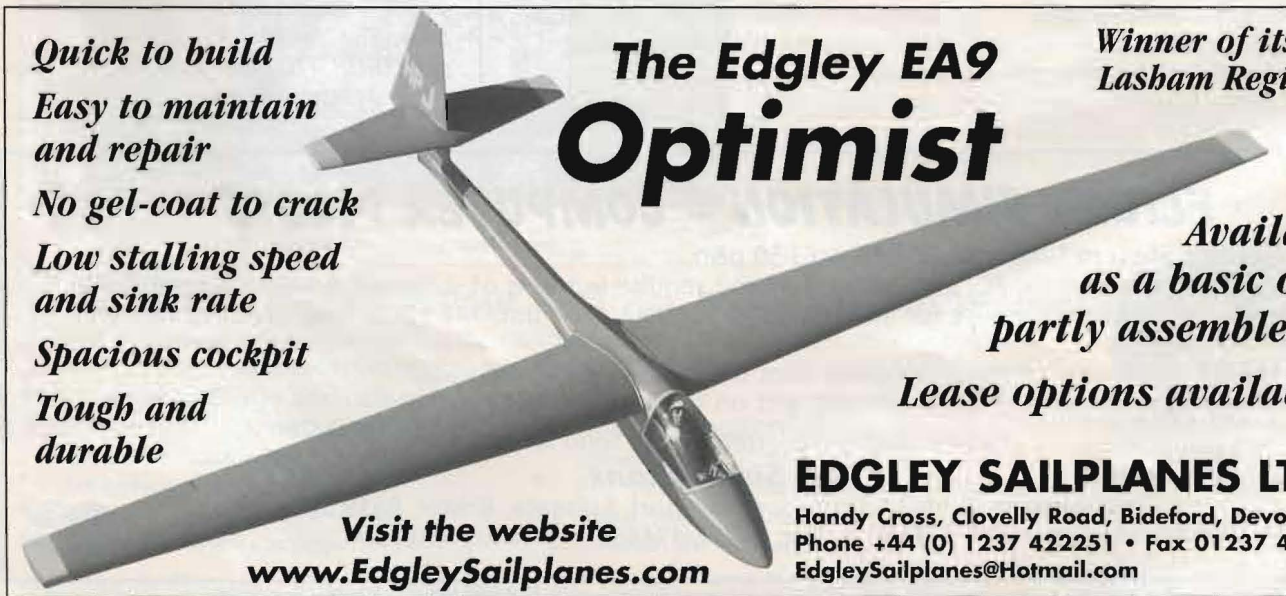
For full details please contact
Deeside Gliding Club
Aboyne Airfield, Dinnet
Aberdeenshire AB34 5LB
Tel/Fax: 013398 85339

DEESIDE GLIDING CLUB

Quick to build
Easy to maintain and repair
No gel-coat to crack
Low stalling speed and sink rate
Spacious cockpit
Tough and durable

The Edgley EA9 Optimist

Winner of its class at Lasham Regionals 97



Available as a basic or partly assembled kit

Lease options available

Visit the website
www.EdgleySailplanes.com

EDGLEY SAILPLANES LTD
Handy Cross, Clovelly Road, Bideford, Devon, EX39 3EU
Phone +44 (0) 1237 422251 • Fax 01237 422253
EdgleySailplanes@Hotmail.com

IFR Procedures

This article first appeared in Gliding Kiwi Magazine.

OF THE MANY SKILLS DEMANDED OF THE SERIOUS GLIDER PILOT, A KNOWLEDGE OF IFR PROCEDURES IS ONE OF THE MOST USEFUL. OVER THE YEARS, A WEALTH OF INFORMATION HAS COME DOWN TO US CONCERNING THIS SUBJECT, NOT LEAST VALUABLE OF WHICH IS THE MEANING OF THE INITIALS. IFR OF COURSE, STANDS FOR IN-FLIGHT REFRESHMENT.

In the earliest days of gliding, In-Flight Refreshment training was hard to come by. With the bungee launch from a 30' hill, the hapless aviator hardly had time to peel a banana before splintering to a stop. However, as equipment and soaring techniques improved, the store of data on IFR procedures increased.

A milestone was reached in 1914 when Helmut Steurer was able to consume an entire apple during a slope soaring flight. The hazards of IFR were demonstrated on the same flight, when Steurer hooked a wing tip during a re-supply pass at an apple tree.

During the 1920s, a feverish development of IFR procedures occurred. Numerous exhaustive tests proved the unfeasibility of such foodstuffs as ice-cream and watermelon. By trial and error, statistical analysis and scientific deduction, the boiled sweet was established as an airworthy snack.

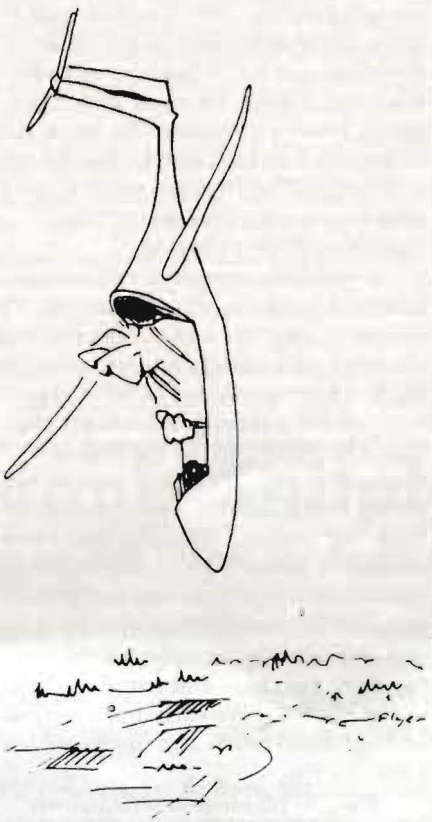
Log-book entries made during the tests indicate that sweet wrappers were no easier to remove in those days than they are now, and it is significant that scientific papers dealing with recovery from unusual attitudes flourished during this same period. All the IFR test gliders were open cockpit designs, ruling out the consumption of candyfloss; it is a curiosity that, in spite of today's enclosed cockpit, there is apparently a blind adherence to tradition; no one ever sees a pilot carrying candyfloss aboard a sailplane.

Development of IFR procedures slackened off somewhat during the early 1930s but, nonetheless, there were a few significant developments. Merton Gnepser carried two pints of chocolate milk to 23,000' in wave and, following descent in rotor, discovered the chocolate milkshake. Rolk Resnik followed suit by carrying a carton of orange juice to 27,000', and discovered the ice-lolly. Not to be outdone, Harold Veeble placed two gallons of apple cider in the coldest spot of the aft fuselage and discovered the flat spin.

In the years that followed, experimentation showed that for severe turbulence, eating oranges provided pilots with a non-slip grip on the stick. The opening of a fizzy drink container under the same conditions was found to produce a non-slip cockpit, with the added advantage of evaporative cooling.

the effects on instrument sensitivity

By the end of World War II most of the dangers of IFR had been documented, ranging from the minor irritations of popping a large piece of toffee into one's mouth just prior to seeing the ground crew take the wrong road, to the more insidious dangers of licorice whiplash. Inadvertent connection of the drinking water tube to the electric variometer and the subsequent effects on the instrument sensitivity was also studied carefully.



...recovery from unusual attitudes.

Of recent work accomplished in the field of IFR, that of Dr Hudspeth Nangle is of paramount importance to glider-pilots. The following information is taken from his Technical Note *An investigation of Sub-Surface Thermoplastic Flow and Cyclic creep in Non-homogeneous Isotopic Chocolate Bars Subjected to an Integrated Rayleigh Load Spectrum*. In this work, Dr. Nangle states:

> "Following exposure to solar heating, chocolate bars subjected to high g-loads may suffer stratification of ingredients. The effects of stratification may be minimised by placing the plane of the bar normal to the acceleration vector, so that if stratification occurs, any random bite has a high probability of containing all the initial ingredients. However, when the acceleration vector lies along the axis of the bar, transverse stratification may occur. In this case, a bite may contain only one ingredient, resulting in unpredictable facial contortions and loss of concentration. It is, therefore, of the upmost importance to their survival that glider pilots properly align their chocolate bars before attempting loops or steep turns."

As a direct result of these findings, an airworthiness directive will be issued requiring mandatory replacement of chocolate bars subjected to loads in excess of 3g.

Also of interest is the following excerpt from the February issue of 1987 *Dirigible Navigator's Digest*:

> "... magnetic disturbances affecting the compasses were traced to the foil-wrapped chocolate bar placed on the instrument panel. The pilot was found guilty of negligence and fined £500."

As a result of this event, a confectionery licence is now required, renewable annually for £16. The revenue thus collected from pilots will go to the C.P.F.S.O.F. (Committee to Promote Flying Safety by Outlawing Flight). Furthermore, two years hence, all sailplanes must be equipped with magnetic sweet wrapper warning devices.

So, with the addition of 'E for eventualities' to the pre-flight checks, remember to consider IFR with your low cable-break and wave-off possibilities for the remainder of this summer.

Silver Distance – Gold Retrieve

Rob Thompson is a member of Bristol & Gloucester Gliding Club (Nympsfield)

I HAD BEEN GETTING REALLY EXCITED ABOUT DOING MY SILVER DISTANCE AND SEEING WHAT THIS CROSS-COUNTRY LARK WAS ALL ABOUT.

Although I'd done my navigation exercise to Enstone, (a Nympsfield 50km-favourite) I had been studying the map and I preferred the look of The Park, near Longleat, for my Silver Distance attempt.

I discussed the arrangements in detail with Ken Weaver, who was to be my retrieve crew. I'd decided to fly our club's Grob rather than the ASW19; I had flown forty-five hours in the former and two hours in the latter. I smoked a barograph, picked up the trailer keys and watched the cumulus popping at 9.30am; everything was going perfectly. I found the trailer, gave it a look over, kicked the tyres, and checked that there were lots of bits inside.

I asked every pundit I could find what The Park looked like. Sid said watch out for Lyneham, Rob H. said it was difficult to spot from the air, but to look for the lane from Longleat house. Rob S. said that all the little towns on route looked the same – all helpful advice. It was Derek Vennard who said "look for Westbury chimney and on the north of The Park there is a small, perfect square of trees next to a hangar". Having told the CFI what I intended to do, I was able to answer 'yes' to all his questions about my retrieve arrangements; I had a crew, the trailer had been checked and I was ready to go.

I took a tow to 1,200' and noticed a big bump at 600ft; it was nice to know things were working low down. I pulled off in six down (as you do) and headed for the pundits in a thermal. I knew Phil Dunster was also aiming for The Park, and there were about four other gliders heading in that direction. I took my first good climb to 3,000' before making a deliberate turn away from Nympsfield and the others, and there I was, going cross-country. I felt sick.

After a couple of failed thermals, and poor flying, I was back down to 2,000' with a fairly unpleasant field selected. The vario chose that moment to go 'ballistic' and I decided that, this time, I was going to cloudbase. This was against the pundits' advice: at cloudbase the lift is poor and you can't see the clouds for your energy line. Like any honest, novice Silver-pilot I ignored this advice and climbed as high as possible. The rest of my flight would be at 4,000', looking for shadows on the ground to find the next cloud.

I was at 3,000' when I saw the M4 and realised that I was 'some way' off track. I flew directly over Hullavington and spotted the Westbury chimney; my spirits soared. Looking at the map I could tell that Hullavington was on the edge of Lyneham airspace. I looked across and saw a Hercules doing circuits in the distance. There was something intimidating about seeing an active RAF base from the air on my own.

I found an eight-knot thermal over Westbury that I took to 4,900' for my Silver height gain. My height gave me valuable time to look over the area where The Park should have been!

I located Center Parcs and I could see Frome in the distance, but I couldn't see The Park at all. After ten minutes of panic, Derek's words came back to me, "Look for the square wood and the adjacent hangar". There it was! I stuck the glider's nose in the right direction and didn't take my eyes off the wood; I knew I'd never pick it up again. Once I'd reached the north side of the site I relaxed and looked for my colleagues. Phil Dunster arrived and I gave him a wing rock which was enthusiastically returned.

I watched a couple of two-seaters land and looked for circuit hazards. The field was long, flat and manicured, with the wind surprisingly straight down the track. There was a line of 30' poplar trees on the approach that might provide a bump or two. At the beginning of my downwind leg, I looked outside the circuit at the unfamiliar surroundings from 700' and was thankful that I was landing at an airfield. My approach was beautifully smooth, as was the ground run, and Yippee! I'd done it.

Phil and I were collected by smiling Park members and towed to a corner of the field. We exchanged congratulatory handshakes and discussed our experiences.

We had planned to organise an aerotow retrieve, but when we phoned home they said it was snowing! I phoned Ken Weaver instead and Phil persuaded someone to organise him a retrieve. While we waited we had three hours to look round the site. We were impressed with the immaculate condition of their Bocians, K8s, K6s (even their skids were clean!), and their Astir. All their little recovery tractors were parked next to each other with the ropes neatly gathered. The members seemed to take real pride in their club and its facilities. They were very helpful and an OO signed all our bits of paper and our barographs.

After three hours we were eager to get back to Nympsfield for our celebratory beers and heroes' welcome and were excited when our crews arrived. We each went about our de-rigging activities while relating our already exaggerated tales of how hard the flight had been.

I looked at the Grob and I looked at the recently emptied trailer and thought that something was missing. "Where's the belly dolly, Ken?" When he replied, "Where's the what?" my legs went to jelly. I sat down heavily on the trailer wheel and started to whimper into my hands. Ken incorrectly apologised and I stopped him, saying it was my responsibility and my fault, not his.

Ken was sure we'd get back somehow, but that wasn't what I was most worried about; I had explicitly assured the CFI that I'd checked the trailer (which I had, but ignorantly!). I phoned the club and Paul Ivens agreed to meet us in Bath with the offending article. We finally de-rigged in a heavy snowstorm and set off for the fifty-mile journey home.

When we got back at 9pm it wasn't to the heroes' welcome, but to well-deserved mickey-taking and a note that I'd left the upwind window of my car open in the snow all afternoon. The gain had been marred by some considerable pain. I will be deeply indebted to Ken Weaver, who didn't fly the Silver distance but drove more than 300km on a Gold-distance retrieve, for a long time.

Next time I fly cross-country, I'll do so with the belly dolly fixed into position under the glider, just so I don't forget it.

This article was originally printed in *Severn Skies*, Nympsfield's club magazine.

Accident Summaries

by Dave Wright

141	SZD Junior	4138	Minor	25.7.97	Portmoak	52	None	62

After two 1hr flights in a K-8 the pilot was briefed about the likely wind gradient in the gusty conditions and given permission to fly the Junior. Joining the circuit the pilot allowed extra height and consequently made a full airbrake approach. He did not realise the powerful brakes required an earlier flare and the glider landed very heavily.

142	K-6CR	2870	Minor	27.7.97	Challock		None	50

The landing was normal but just outside the take-off and landing area marked out by a plastic "conduit strip". As the glider's wheel ran over the strip it flicked up and hit the underside of the wing and tailplane.

143	Skylark 4	1019?	Minor	19.7.97 1445	Camphill		None	119

The pilot overestimated the strength of the wind and overshot the landing area. He had to groundloop the glider to avoid the airfield boundary wall and this broke the nose skid.

144	Std Elfe	3374	Minor	3.8.97	Camphill	45	None	73

During the landing run the glider crossed a slight depression just before a tarmac road and the undercarriage collapsed. The glider cleared the road before it dropped on to the fuselage and stopped. The cast aluminium alloy undercarriage bracket had failed near a previous repair.

145	Not known		None	28.8.97 1620	Camphill	57	None None	973

After a normal winch launch the cable parachute did not deploy, allowing the cable to fall faster than normal. This, and a change in the wind direction due to a local cu-nim, caused the cable to drift over a public road despite a fast wind in of the cable by the winch driver. Five metres of cable fell across the road and was hit by a passing car.

146	K-21	4198	Minor	11.8.97 1732	Gransden Lodge	59 13	None None	961 0

The young P2 was briefed before the flight and flew an excellent circuit and approach with good speed control and aiming technique. P1 was happy that he continued until the flare when he failed to respond to instructions to leave the brakes in their current setting. A hard, tail first landing followed. It transpired that P2 had hearing problems.

147	Not known	G-JTPC	Minor	10.9.97 1445	Sutton Bank	69	None	

The aircraft was being flown to another site for refuelling. While on his downwind leg the pilot was distracted from his pre-landing checks by a radio transmission. During the approach he did not use the airbrakes, the warning buzzer did not sound to warn him and he landed with the wheel up, breaking the propeller.

148	Motor Falke	G-BMBZ	Minor	30.8.97	Perranporth	69	None	1952

The experienced glider pilot was carrying out SLMG training when initiating a planned "go-around" let the airbrakes close as he changed hands from airbrake to throttle. The motor glider ballooned into the air and landed in a slightly nose down attitude. After another circuit and landing the engine was stopped and both prop tips seen to be damaged.

149	DG-500	3715	Minor	10.9.97 1600	Tatenhill	75	None	235

Before flying the two-seater solo the pilot secured the rear straps and locked the rear canopy. He then had to switch on the rear vario and after doing this forgot to relock the canopy. At about 200ft on the aerotow the canopy opened and shattered the perspex. The tug turned back to the field and the glider landed safely downwind.

150	Fauvette	2915	Minor	21.9.97 1600	Long Mynd	50	None	

The visiting pilot had flown good check flights before flying his own aircraft in which he had only six previous flights. Approaching into a 15kt wind too slowly at 45kts, he rounded out about 6ft off the ground and stalled in to a heavy landing that broke the undercarriage mountings.

151	K-21	2591	Subst	19.9.97	Booker	40	Minor Minor	785 0

The pilot made a low and steeply banked final turn at about 60kts and with the airbrakes about 2/3 open. The glider developed a high rate of descent, probably due to stalling of the wet wings, and he failed to shut the airbrakes. The glider impacted with a nose down attitude of about 10°, smashing the fuselage.

152	Astir CS77	2340	None	13.9.97 1500	Portmoak	44	None	650

After a normal approach and landing the pilot found he could not lock the airbrakes shut. Upon inspection it was found that the thin cord that retains the "R" clips used to lock the hotellier fittings had caught on the airbrake bellcrank.

Classifieds

FOR SALE

NIMBUS 3 TURBO. Complete outfit. Ideal cross country sailplane for UK; 57 to 1. Kept privately hangared, excellent condition and competition record. In region of £41 000. David Innes. Tel: 01420 88664 Fax: 01420 542003

K8 Fully refurbished, new CofA. £4000 Tel: 01793 790160

TRAILER (Wooden). Roof - Fibreglass. Suitable for Ka6cr, weather-proof, well ventilated. £300 for quick sale. Tel: Eves 01392 462379

DART 17R (ex Philip Wills) 1/2 share available. All mods. Sandhills Farm. £3500. Tel: 01793 612583

SECONDHAND TRAILERS usually available. Tel: Schofield Aviation 01793 790160

LS4 Good condition. Panel including M-NAV and 720 radio. Fin tank. One man tow-out. Lift top trailer. Tel: 01903 249031 (evenings)

ASH25M, self launching with MIDWERST AE50R-AB, special profile finish guarantees gliding angle 1:59, Winglets, X-Ponder TRT 250 D, Solar cells, C4-Competition, Dittel FSG 71 M with panel mikes, Schuemann vario, Schroeder trailer, One-man-rigging-system and more if desired. 900 hrs., 120 launches, motor: 10 hrs. See report in SAILPLANE & GLIDING, Aug-Sept 97, p223, and picture in AEROKURIER, 04/97, p62. Klaus Wedekind, Germany. Ph. xx-2741-63033, Fax xx-2741-63268.

PEGASUS 101A, LX1000, Bohli, Becker 720, EW Barograph, parachute,one man towout. Comet type lift top trailer, oxygen, built 1984, 1300 hours.£18 500 ono view Lasham. Tel: 01705 356146 or 01926 462063

OLY 463 Good original condition, basic panel including XK10 vario, mainspar passed inspection 1997, fresh fabric on wings and tail, nose hook, oxygen, dry steel/alloy trailer, regularly used. CofA July, can renew. Offers on £4500. Tel: 0140 3891752 (Sussex)

M-NAV and **PRONAV GPS-100** (with cockpit bracket). EW Electronic Barograph. First reasonable offers accepted. Tel/Fax: 0033563587759 Email 100705.562@compuserve.com

H36 DIMONA MK II MOTORGLIDER, 1987, Becker VHF & VOR, Transponder, New 3 year CofA, New prop, 700 hrs, good condition. £28 500. Tel: 0039 761 345371 (Italy – Will Deliver).

VENTUS C TURBO 17.6/15M, 1989. Excellent condition, recently regelled. Full competition panel, parachute, rigging and man tow-out aids. Superb full cover. Schroeder trailer. £52 000. Tel: 0181 458 2155 or 0181 449 4386

K8, K13 SUPER CAT WINCH. Offers. Tel: 01278 722335

WITTER

TOWBARS TO TRUST

- First choice for safety-conscious drivers with over 4 million towbars supplied.
- Safety testing to B.S. and I.S.O. standards.
- Guaranteed for life.

See Yellow Pages for your nearest specialist fitter or stockist.

WITTER TOWBARS, CHESTER CH1 3LL
Telephone: 01244 341166

International Sailplane Services

STILL NEED A GOOD SAILPLANE FOR 1998 SEASON? JUST FOLLOW THESE STEPS FROM THE WORLD'S LARGEST SUPPLIER OF PRE OWNED SAILPLANES.

1. **Decide how much your budget is (remember insurance etc.** Joint Aviation can advise lowest quotes available) or ask for our fully inclusive price.
2. **Select types, Choose one or two.**
3. **Call International Sailplane Services as soon as possible.**
4. **Sit back and wait.** (Normally not longer than 28 days)
5. **Take delivery, Go flying.**

Simple as that, no travelling around sites, aircraft quality guaranteed full back up service.

Terry Joint, 3a & 3b Old Aylesfield Buildings, Froyle Road, Shalden, Alton, Hants GU34 4BY • joint.aviation@virgin.net

Telephone: +44 (0) 1420 88664 • Fax: +44 (0) 1420 542003

GLIDER/AIRCRAFT INSURANCE?

Contact:
Tony Fidler

Glider pilot for 30+ years

35+ years insurance experience

Telephone/fax/write to:

ANTHONY FIDLER & CO
27 High Street, Long Sutton
Spalding, Lincs PE12 9DB
Tel: 01406 362462
Fax: 01406 362124

PEGASUS. 15M Retractable with water ballast. LX100 vario. Radio, basic instruments. Trailer with jack up belly dolly. Available with new CofA and numbers of your choice in November. David Richardson 01494 529 263 office hours. £16 500 + VAT ono

DART 17R probably best in the world. Trailer and glider recently refurbished. Comprehensive panel, oxygen, radio, parachute, barograph, GPS, CofG hook fitted. £8500. Tel: Bath (01225) 31402

LS6c 18W. 15m/18m wingletted tips. Immaculate. 1992, c 700 hours/200 launches. Factory panel includes Becker 3201, Peschges VP3E Comp, RC Allen horizon. Wells Aluminium trailer, all rigging aids and tow-out. Price £43 500 complete. Tel: 01926 842340 or 01789 766516

K6CR Excellent condition, aero tow hook, closed metal trailer, parachute, barograph, XK10 vario, radio. £4750. Tel: 01952 727791

FOKA 4. Comp No. 77. Wooden trailer. Basic instruments plus audio. Easy 2 man rig. Added belly-hook for good wire launches. Tow out aids. Lasham based. K6E rated performance for £4900. Tel: 01344 843637

ASW19 in excellent condition, metal framed glassfibre trailer, good panel including audio vario with averager, realistically priced £17 500. Tel: 01908562592

ASW 15b (1972) for sale. Very good condition, recently re-finished including metal trailer (with excellent rigging aids), barograph and parachute. Ring for more details 01279 659989

DG200. (1979), Excellent condition, 1100 hrs, 540 launches, full panel, 720 CH. Dittel FSG40, Pesches VP4 (1993), parachute. Excellent fibreglass trailer. Rigging/Tow out gear. £17 950 ono. Tel (Eves) 003531 4935901. Based at Dublin Gliding Club

ASW 22, Gransden based: superb T-hangar; Cobra trailer; long CofA. Competition panel: CAI & L-NAV, dual GPS (CAI/Garmin), AH, new EB80. OUTRIGHT SALE around £36 000 ono: or haggle for shares and join us: Mike Russell on 01328 830518

K-13, Good condition recent C of A. Two complete instrument panels. No trailer. View by arrangement at Long Mynd. Contact Dave Woolf (h) 01902 747798 (w) 0121 256 1028

COME GLIDING



with the **CORNISH GLIDING CLUB**
at **Perranporth, Cornwall**
5 day Aero-tow courses, £285.00
(1, 2 or 3-day courses **£58.00** per day)
BGA Instructors. Beginners and reciprocal members welcome.

MOTOR GLIDER COURSES including Silver 'C' conversion to SLMG **£45.00 hr**

MAY–SEPTEMBER

RUTH PHILLIPS, Boswens, Wheal Kitty, St. Agnes
Cornwall TR5 0RH • 01872 552430
If no reply please phone (01726) 842798

Main St. Models

Scale Model Gliders hand-crafted from wooden resin, painted in your colours and mounted on a hardwood base.

£50 + £3 p&p for 1/50 scale, £70 + £5 p&p for 1/32 scale, £95 + £7 p&p for 1/25 scale.

Please contact Pete Storey on (01302) 750472 (evenings) at Bienvenue, Main St., Styrrup, Doncaster, S Yorks. DN11 8NA.
Web Site: http://www.mainst.force9.co.uk

PEGASE 101B. Why buy a new Pegasus when you can buy this one for £23 000. 1992 built, under 100 hours (yes !). Never raced nor rallied, she comes with lots of kit including one year old trailer, parachute, oxygen, etc. She has to be seen ..... Tel: Bob or Christine on (01295) 780036

DISCUS Bwl. 1988, 1200 hrs, Excellent condition, Schroeder trailer, view at Nympsfield, Tel: 01666 577706

OPEN CIRRUS. Good instruments, parachute, excellent metal trailer, fuselage requires attention, £9500 ono Tel: 01302 845578

ASW 19B. 1980. Only 306 hrs ! Immaculate condition throughout. No accidents, Basic instruments. Lift-top trailer. Tow-out gear. New C of A. £18 000. Tel: 01495 785499

ASW 19B. Excellent condition. Refinished gel-coat. Lifting instrument panel. Zander vario/director. Becker radio. New C of A. £16 500. Tel: 01495 772437

LIMBACH 1700 EA. Engine for sale. Fits into motorglider Scheibe Falke SF25C or similar. TT1000hrs since factory overhaul. Runs superb, good condition. £1700 ono. Fax 0049-6131-961642 or michael.baumann@csd.de

74 STD.CIRRUS. 2521 hrs, good condition, standard instruments, turn coordinator, Bohli Variometer, Becker 720 Ch. radio, Filser LX 100 Variometer and averager, 89 Schroeder Trailer, wing and tail dolly, £9990. Phone +491712309163, Fax +497112260910

STD CIRRUS 75. Comp No 680. Airframe in first class condition, new aluminium trailer with full rigging/towing aids. C of A, full instrumentation and parachute. Contact Steve 01225 482549.

PAWNEE 235 SUPERTUG: Loadsagrunt ! probably the best glider launching machine in the business. With GOMO-ZOLIG silencer and 4 blade prop can launch 12 gliders/hr to 2000 ft. Fuselage tank, runs on MOGAS or AVGAS. 11,900 airframe house, 740 engine hours since overhaul. 3yr. CofA Sep 1996. Becker 720 ch radio. £29 500 + VAT. Tel: 01224 325730

NIMBUS 4 TURBO

1993 total time 500 hours. Perfect condition. Engine 2 hours only. Schroeder trailer. Peschges VP6 inc GPS. Bug Wipers. Covers. Tow out Gear. Complete outfit would cost over £100,000 at today's prices.

£85,950 OVNO View at Lasham

Call Terry Joint
+44 (0) 1420 88664 Days
+44 (0) 1420 544397 Eves
+44 (0) 802 708670 Mobile

EX ATC VENTURE - MOTORFALKE: Superb condition with wings recovered by David Bullock 2 years ago. 4500 airframe hours, engine 450 hours since overhaul. Becker 720 ch. radio. £11 450 +VAT. Tel: 01244 325730

K13 1967. A superb example of this much sought after glider. Instruments front & back. See it at Lleweni Parc Wave Site. £10 950 +VAT. Tel: 01244 325730

Ka7 A very nice example of this excellent Club 2 Seater with sprung undercarriage. Priced for quick sale at £2250 +VAT. Tel: 01244 325730

NIMBUS 3/25.5M 1988, 1000 hours. Full competition panel inc. GPS and logger, tinted canopy, fin tank, brand new trailer, all tow-out gear. Complete outfit in immaculate condition, no accidents and NO LAND OUTS ! View at Lasham. £35 000 ono. Tel: 01420 80527 anytime.

NIMBUS 2. Very good condition. Panel includes Filser LX4000, GPS, Bohli, Oxygen and Horizon. LD 48:1. Tow out gear and metal trailer £17 200. Tel: 01235 533113 / 01865 372987.

PROFESSIONAL INSTRUCTOR

We are seeking a BGA Rated Instructor for the permanent position of Staff Instructor. Reporting to and deputising for the CFI, you will be responsible for organising and supervising all week-day flying activities including club flying, courses and trial lessons. Applications are invited from suitably qualified instructors, who hold an unrestricted CAA Class 3 Medical Certificate. Further qualifications, (e.g. PPL, PPL/SLMG or MGIR) may be an advantage.

Remuneration is negotiable and commensurate with experience and qualifications.

To apply or for further details please write, in confidence, to:

The Chairman
C/o 79, Angusfield Avenue, Aberdeen AB15 6AT

Applications must be received before 15th August 1998

OLYMPIA 463. Complete with instruments, radio, CofA & spar mod. only £2250 for quick sale. view Cambridge. Tel: 01920 467430 or 01707 320730

K13. Overhauled, excellent condition, £14 500 inc open trailer and parachutes, 01295 678004.

STD LIBELLE 201b. Excellent condition, good panel with Cambridge director, Dittel 720 radio, oxygen, parachute, purpose built aluminium trailer, new CofA. £11 200 Bob Fox 01482 846127.

K8. Good ,conition, £3250 ono, 01295 678004.

SLINGSBY VENTURE. New CofA, new fabric, 200-hour engine, £14 000, 01295 678004

K6CR. Good condition with aluminium trailer. XK10 vario and averager plus radio. £5000 ono. Parachute available. Tel: 01550 777718.

K6E. Excellent condition, Schofield aluminium trailer, Cair vario & digital averager, tow out kit, £8000 Tel: Derek 0181 560 6177

FOOTLAUNCH GLIDING! WITH SKY SYSTEMS

PARAGLIDING, PARAMOTORING AND HANG GLIDING

The UK's leading centre. Our team includes some of the UK's top instructors; all teaching is to British Association syllabus. Sky Systems are based on the South Downs near Brighton, open 7 days o week:

Call for an information pack, or visit our website!

Camelbak
Pakteen hands-free insulated drinks system.
1.5 litre capacity, easy to fix in cockpit. £27.95



GPS III & III-Pilot
Full moving-map functionality. NOW IN!

SKY SYSTEMS LTD
Edburton, Near Henfield, West Sussex BN5 9LL
Tel: Brighton (01273) 857700 • Fax: (01273) 857722

A German gliding club near cologne is selling a **Twin Astir Trainer** (DM 45 000), **Jeans Astir CS** (DM 19 500) and a **DG100** (DM 33 000) all including full equipment, trailer and accessories. For detailed information contact feybonn@t-online.de or call +49 6747 932127 or +49 2223 91710 (Fax - 917191)

VENTUS CT as new, VERY low hours Cobra trailer etc, etc. Call 01420 88664 days, 01420 544397 eves, 0802 708670 mobile.

GROB 103 TWIN 11 ACRO. excellent condition with trailer and instruments. New interior and new blue canopies. Lovely aircraft. Call 01420 88664 day, 01420 544397 eve, 0802 708670 mobile.

ASW 20CL. Masak winglets, GPS, Bohli, Cambridge, Dittel 720, Horizon, Oxygen, Barograph, covers, tow-out gear, Cobra. Excellent. Tel: (W) 0171 423 4080 (H) 01440 785662

ASW 24E. 10/90, self launching, 225 starts - 535 hours, full panel, tow out gear, covers, parachutes, Cobra trailer, outfit in very good condition. For detailed info Tel: 01203 382 190.

Nimbus 3DT

1/6 Share

This meticulously maintained aircraft which is fully instrumented has been returned from Southern Sailplanes, Schempp-Hirth authorised UK dealers, who incidentally have a share, having had wings and ailerons refinished and a host of other improvements to bring it to A! condition at a cost of £6,000. Sale includes part share of hangar where it is left fully rigged with single ground handling equipment at Lasham.

All for £13,000

First call 01306 881777 or 01189 813640

STD CIRRUS 74. 450 starts/750 hours, beautiful original finish, never damaged, basic instruments, 720 Dittel radio, towing out gear, dust covers, Pfeifer trailer, full C of A. Further info Tel: 01203 382 190

ASK 18. Insurance write off for sale, complete with all components, Repairable, including wooden Trailer. £3000 Tel: 01908 504024

LS4. 600 hrs. Glider and Trailer in good condition. Instruments including nearly new Borgelt B50 electronic vario and 720 radio. £24 000. Tel: 01327 261948 or 0468 515653 (M)

LS4. v.g.c, Complete outfit including aluminium trailer tow-out rigging aids, Garmin GPS, VP4, a/h, radio, parachute, wing and fuselage covers,C of A March 99, view Booker Tel: 01844 351929 or 01628 529658

L23 SUPER BLANIK 1993 TT430 Hrs, the GLIDER most Pilots enjoy flying. Price negotiable, make an offer, a bargain in excellent condition. AMF DROOP SNOOT trailer. PETER CLIFFORD & Co, 15 Home Farm, Crowmarsh Gifford, Wallingford, Oxon OX10 8EL. Phone/Fax 01491-839316

GROB 109B motorglider. Airframe 3200 hrs TT. Engine 1000 Hrs 720 radio. New C of A.
Venture motor glider. Recently recovered. Engine refurbished. New C of A. £12 500.
Scheibe SF25 B motor glider. New C of A. £11 000.
K8B recently refurbished. Basic instruments. Closed wooden trailer. £3500.
Open Trailer suit K6 or K8. £175.
Fibre-glass Trailer. Double axle. Suit 2 seat glass glider. Good condition.
Winter ASI 0 to 160 knots. One and half revolutions. Never used. £125.
Stamo engine Complete and serviceable.

Ken Ballington • Tel: 01283 563054

STD CIRRUS. Excellent condition, fibreglass trailer, basic instruments plus LX 1000 and horizon, C of A. Buy and Fly, Serious enquiries only please £11 500, 01623 420453.

M100S. K6 performance with good visibility and excellent airbrakes. XK10 Vario/Averager, GPS, Radio, Parachute and superb trailer. New C of A. £4500. Tel: 01759 371143.

PIK 20 E. Self launching motor glider. Rotax engine, full panel, parachute, barograph, factory trailer, one man rig, superb condition with new C of A from date of sale. Price negotiable. 0131 556 7563 daytime, 0131 447 4227 evening.

JANTAR 1

19m 45-1 @ 50 knots • Competition No. 240
950 Launches/Hours 1700

Must be one of the best equipped jantar 1's in the country: LX4000, Barograph, Datalogger, Parachute, GPS, Compass, Oxygen • All modifications complete • Winch Hook modification • Aluminium Trailer • Easy two man rigging aids • Full one man tow out gear • Very good 'scratching' glider, for racing just add water • 50% Share Based (South West) or, complete sale available.

Price £12,950.00
Telephone: 01752 778584

GLIDING & SIGHT-SEEING TOURS IN CHINA

I wish to make contact with experienced cross-country glider pilots who may like to join an exploratory gliding and sight-seeing tour of China in the second half of this year, or follow-up tours in May-July 1999.

Gliding would be from the Sports Aviation Centre at Da Tong in Shanxi Province (300km west of Beijing) where the weather and terrain is highly suitable for cross-country soaring. Da Tong is the site of the Chinese Gliding Nationals each year. On visiting the site in March I found the conditions, equipment and facilities to be of an international standard.

The planning for the exploratory tour is at an early stage and we are open to suggestions from would-be participants.

To receive information about gliding conditions around Da Tong and the ongoing arrangements for the gliding and sight-seeing tours send your contact details (e-mail address, fax number, or postal address) to Robert Dorning at softdawn@ozemail.com.au, fax: +61 3 9489 4298, or PO Box 206, Brunswick East, 3057, Australia.

To find out more about gliding at Da Tong visit our web site at:

http://www.ozemail.com.au/~softdawn

SHK. Trailer, OK barograph, electric/audio vario, A/H, T/S accelerometer.VGC due to recent refurbishment. Only £6500 for quick sale. Contact Tony Frazier on 01759 318703 (Day) or 318602 (Eves). View at Wolds G.C.

SKYLARK 4. Complete kit including metal trailer, tow out gear, parachute, barograph, radio. Centre section and rudder re-covered 1996. Ideal first cross country glider. £4900. Contact Colin on 01327 341366 any time.

JANUS C. Recently rebuilt/refinished by Southern Sailplanes. New-shape Janus fuselage. Full kit including UK instrument panels, GPS, barograph, new canopy, Cobra trailer and two GQ parachutes. £49 000 ONO. 0117 968 2257 or 01252 614207 eves.

PIK 20 D. 1976, complete outfit inc fibreglass trailer, parachute, barograph, 720ch radio, Bohli compass, T&S, a/h, £15 950 or near offer or sell two shares, based at Bidford. 01664 567171 or 01279 724016 or 0181 341 2774

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 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 .....

.....

.....

REFINISHING WORK

on glass- and carbon-fibre aircraft carried out to best factory-new standards

Over 70 examples seen nationwide and in National and International competitions for eleven seasons

Acclaimed even by potential rivals as "probably the best in the country" and "We can't match him for price or quality"

Cracked gelcoat always totally removed to bare structure (most people paint over the cracks - it doesn't last)

Competitive for (fixed) price and quality in Western Europe

Ring for a chat

Andy Lincoln 01628 819100

from Australia

BOOM MIC
- longer 40cm boom
- dual muffs
- reinforced base
- £40 or £52 (pre amp)

760 Ch TRANSCEIVER
- 57mm hole mount
- 4 watt xmit. 90ma rec.
- 25ch mem. & scanner
- £540 inc mic delivered

Details fax +61 29 777 0331 or E-mail iankmcphee@hotmail.com

ASH 26. As new 100 hrs TT 7 hrs engine. 4 wheel Cabra. Covers tow out gear. Full comp panel. Cambridge Vario/Sat Nav, Schueman Vario. Becker radio, wing fuel tanks and water ballast and lots of extras. View to buy.

£65,000 ono

01844 201028 (H) 01844 208157 (W)

Advertiser	Page
Affinity Select	195
Airborne Composites	228
Alpine Soaring	219
Benalla GC	219
BGA	236
Booker GC	241
Bristol & Glos GC	227
Bruno Brown	214
Cair Aviation	250
Cambridge Gliding Club	218
Cambridge Instruments	218
Cornish GC	254
Costwold GC	214
Cotswold Gliders	206
Crabb Computing	248
Deeside GC	250
Derby & Lancs GC	230
Dorning, Robert	255
Edgeley Sailplanes	250
Enstone Eagles GC	219
European Soaring Club	240
Fidler, Anthony	254
Flight Insurance	211
Glider Instruments	230
Hill Aviation	230
Irvin GB	240
Jardine Aviation	238
Jaxida Cover	230
Joint Air Services	226
Joint, Terry	253
Kenilworth International	224
Kent GC	227
Lasham	Inside front cover
Loch Kinord Hotel	219
Lomond Country Inn	219
London GC	244
Mallettec	214
McLean Aviation	206
Met Fax	199
Midland GC	218
Nevynn International	215
Norfolk GC	219
North Yorkshire Sailplanes	224
Oxfordshire Sportflying	227
Pawnee Tugs	218
Peschges Variometer	226
Pilot Flight Training	230
RC Simulations	249
RD Aviation	Inside Back Cover
Rematic	219
Roger Targett	225
Schofield Aviation	256
Scottish Gliding Centre	227
Sedgwick Aviation	194
Severn Valley Sailplanes	248
Shennington GC	239
Shirenewton	224
Sky Systems	254
Skycraft Services	239
Smoker, J. L.	206
Southern Sailplanes	Back Cover
Specht, Ernst	206
Stemme Motor Gliders	231
Stratford on Avon GC	227
Task Nav	236
Thomas Sport Equipment	195
Turnpike Technics	230
Wells Design	230
Witter Towbars	253
Yorkshire GC	233
Zulu Glasstek	195

VENTUS C. sn 308, MFD 1986, TT 3037, 920 starts. Winglets, basic instruments, VP3 and COBRA trailer. Fax: # 358 20410 6349 (FINLAND)

CS ASTIR. excellent condition, parachute and super metal trailer. Dittel radio, usual instruments. Looking for £9k but make an offer! (0171) 602 0814

DG500M/93 Complete. Tel/Fax: 0033 492 65 16 02

NIMBUS 2b. L-Nav, Dittel 720, Bohli, oxygen, EW barograph, tow out gear, Shofield trailer. £18 000. French bureaucracy forces reluctant sale ! Tel: Geoff 01582 729 880 (home) or e-mail Nigel 2jennings@compuserve.com

DISCUS with full comp fit and Trailer - £27 000. K8 - basic instruments, no radio, no trailer - £3500. Contact Ted Norman on 01869 252493 or Mick Mahon 01296 623535 Ext 6593.

NIMBUS 4DT. Brand new and fully equipped seeks partner (s). Oxford area preferred. Outright sale considered. John Delafield Tel: 01865 374125 or Mob 0850 950349.

DART 15. with wooden spars in good condition, C of A to February 99. Trailer included. £4900. Contact 01668 281914 Fax 01668 282426

WANTED

WANTED DISCUS & TRAILER in very good condition. Now or at end of season. Max £30 000. Tel: John Whiting 0976 357 885

WANTED: Trailer - 15m ali, or f/glass, Altimeter, Artificial Horizon, Accelerometer (57mm), Panel radio (e.g. TM6), Audio vario. Panel compass. Tel: 01495 772437

WANTED CAMBRIDGE MNAV or similar vario system. Bob Rice, 01588 650206 or 650344 (daytime only)

ACCOMMODATION

ABOYNE self catering cottage, sleeps 4, central heating, washing machine, phone, TV. 2 miles from Deeside G.C.. Tel: 013398 86257 or 0121 7057900

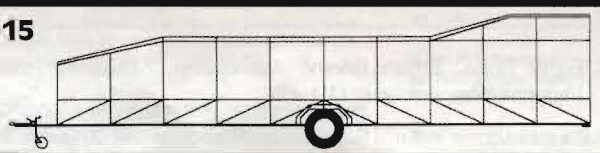
MISCELLANEOUS

GLIDING IN THAILAND ? We are looking for partners to buy a motorglider GROB 109 B and start gliding operations near Bangkok (Chonburi). Sylvieand Roland fax (662) 940 06 25. poss@ksc15.th.com

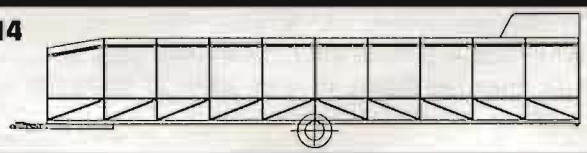
▼ SCHOFIELD AVIATION ▼

We can provide all your trailer requirements, giving you excellent choice throughout the range. Kits, spares and excellent service - phone today

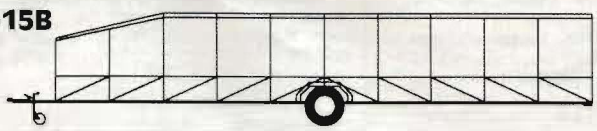
DS-15



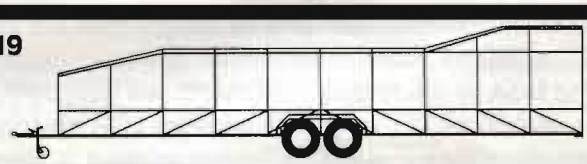
DS-14



DS-15B



DS-19



Lotmead Farm, Lower Wanborough, Swindon, Wilts, SN3 4AJ • Tel: 01793 790160, 01793 771699 or 0973 838695
Fax: 01793 790826 - Freephone Number: 0800 163 629 - web site: www.gd-ind.com/schofieldaviation - e-mail: schofieldaviation@gd-ind.com

RD AVIATION LIMITED

HORSES FOR COURSES



We do not sell gliders
We do not mend gliders
but
We do instrument gliders
and
We think we do it well



Generally, if you purchase a full set of instruments and avionics for a new glider the complete installation will be free.

An installation by RD Aviation Ltd gives you a single point of support.

Professionally fitted instrumentation is a soaring multiplier

---

MH©

A great addition to our range of oxygen equipment
RD Aviation Ltd
are pleased to be able to offer

MOUNTAIN HIGH
ELECTRONIC PULSE-DEMAND DELIVERY SYSTEM

The basic portable EDS package comprises: Cylinder (Kevlar or aluminium), with integral on/off valve and regulator, low pressure service line, EDS unit (ext. power or 9v internal giving up to 40 hours), Cannula (up to 18,000ft), Mask (18,000ft+). Typical systems and prices are:

EDS-011 311 ltr Kevlar cylinder (92mm x 480mm .91kg) EDS, Can, Mask **£846.81+VAT=£995**
EDS-180 180 ltr aluminium cylinder (81mm x 350mm 1.41kg) EDS, Can, Mask **£531.91+VAT=£625**

BORGELT

STRONG POUND = NEW LOW PRICES
B40 £299 B50 £685 B57 £650 *inc VAT*

QUALITY SUPPLIES AND SERVICE

FREE 56-Page Catalogue

RD Aviation Ltd.
25 BANKSIDE, KIDLINGTON, OXON OX5 1JE, ENGLAND

FREE 56-Page Catalogue

Web Site: www.rdaviation.com * E-Mail: help@rdaviation.com
Tel: 01865 841441 * Fax: 01865 842495 * Shop Hours 0900–18.30 Mon-Fri, 10.00–12.30 Sat

SOUTHERN SAILPLANES
GLIDER REPAIRERS

MODIFICATIONS:
MINOR MODS, WINGLETS, WING EXTENSIONS (AND REDUCTIONS)
"TURBO" ENGINE INSTALLATION

REPAIRS ON ALL TYPES

INSTRUMENTATION & OXYGEN EQUIPMENT
Peschges, Winter, Cambridge, Becker, ILEC, Icom, RC Allen, Airpath,
cannula masks and lightweight kevlar bottles

WE CAN OFFER A COMPLETE SYSTEM PACKAGE TO SUIT YOUR REQUIREMENTS

TOP QUALITY REFINISHING

GLIDER & MOTOR GLIDER PARTS

COBRA TRAILERS
(including spares and support)

A WIDE RANGE OF USED SAILPLANES AVAILABLE FOR SALE

GLIDER INSURANCE
We have entered an arrangement with a Lloyds Broker which enables us to offer insurance cover avoiding most of the pitfalls which have become evident in the last few years

We are UK agents for Schempp-Hirth Sailplanes and Motor Sailplanes
The latest being the **Discus 2** which has won all 3 competitions it has entered, including the British Standard Class Nationals

For more information contact:

SOUTHERN SAILPLANES
Membury Airfield, Lambourn Woodlands, Hungerford, RG17 7TJ
Tel: 01488 71774 or Fax: 01488 72482