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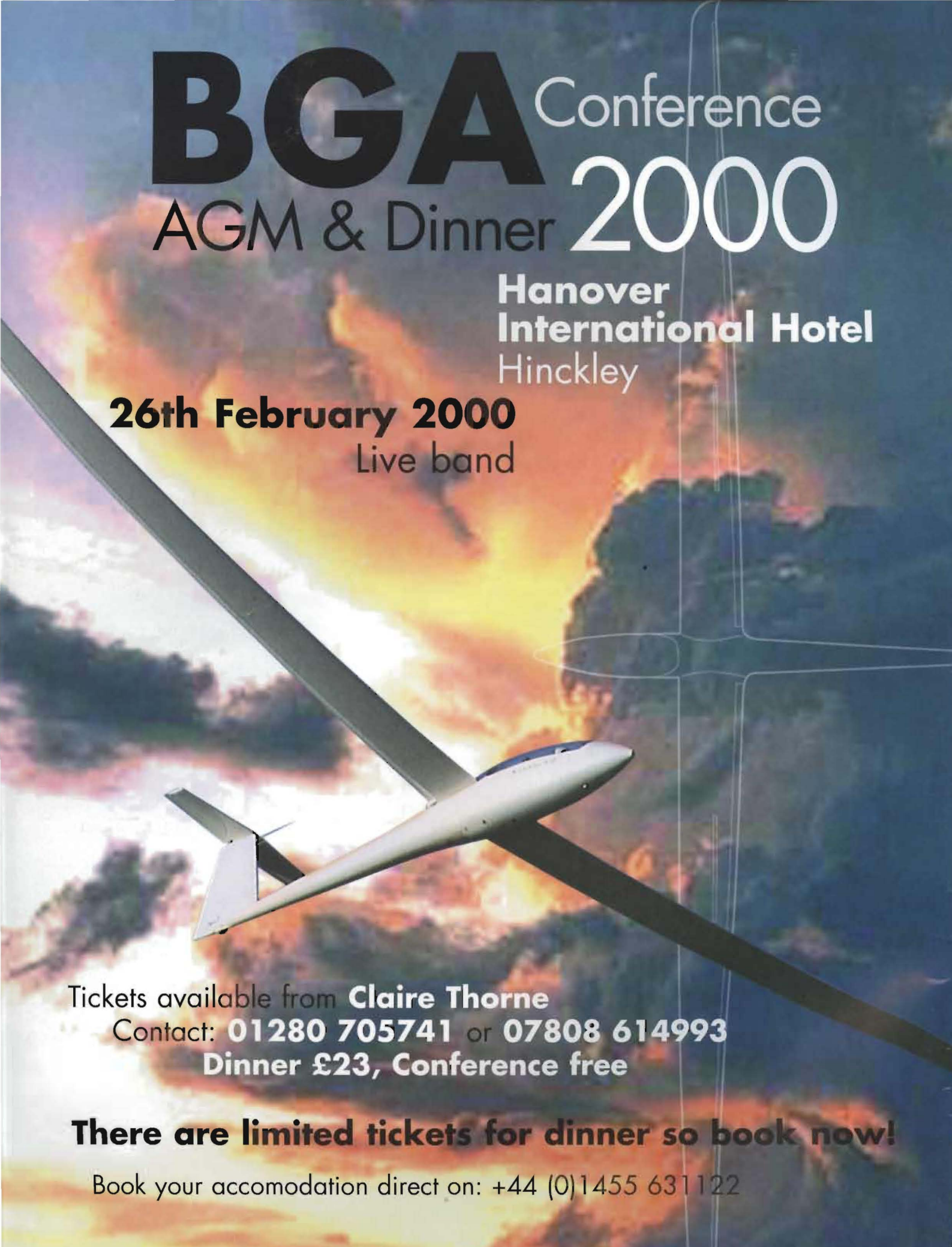
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The Magazine of the
British Gliding Association

December 1999 ~ January 2000
Volume 50 No 6

Editor
Helen Evans

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Your contributions are welcome. If you would like a guide for contributors or want to discuss your idea for an article with the editor, please feel free to get in touch by email, letter or phone.

Deadline Dates

February ~ March

Articles	December 13
Letters	December 13
Club News	December 13
Advertisements	December 20
Classifieds	January 5, 2000

April ~ May

Articles	February 15
Letters	February 15
Club News	February 15
Advertisements	February 25
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Colin Short soars over Hampshire in the new Genesis 2 on its tour of Europe this autumn. During its first visit to the UK, it went to Lasham, Gransden Lodge and Husbands Bosworth – see p26. Photo: the *white planes* picture co.

Sailplane & Gliding

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Join Justin Wills as he realises a lifetime's dream by soaring the magnificent mountains of the spine of South America

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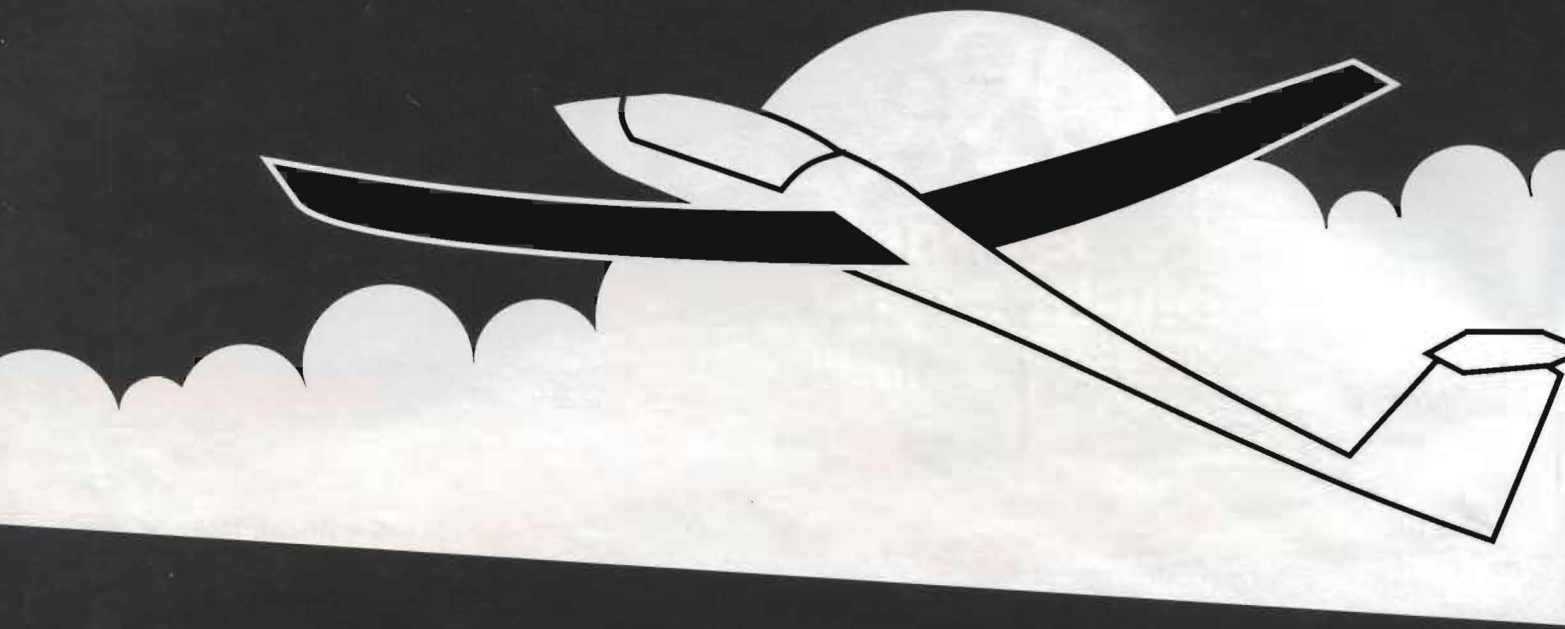


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BGA and General News

From the Chairman



FOLLOWING the BGA's successful involvement at the International Airsports Exhibition last year, we will again be exhibiting the Duo Discus at the Telford Exhibition and Conference Centre over the weekend of December 4 and 5, 1999.

The exhibition attracts a large number of aviation-minded visitors from far and wide, and presents us with a great opportunity to introduce potential new members to our sport. I plan to be present on both days with a team of helpers, and we will be showing videos and selling gliding items from the BGA shop.

We anticipate a high level of interest from an informed gathering of the public. The Duo will be prominently displayed in the main hall and I can thoroughly recommend a visit to this fascinating event. If you can make it, do drop by the BGA stand and introduce yourself.

Early in the new year we are holding the first BGA Conference and AGM of the new millennium on February 26, 2000, at Hinckley near Coventry – see the initial announcement on the inside front cover. The programme will follow the same pattern as in 1999, with a wide variety of exhibitors and trade stands, and some very interesting presentations complementing the AGM itself. I am pleased to report that Lembit Opik MP has agreed to join us again this year and to entertain us at the dinner dance. Make a note of the date in your diary. An occasion not to be missed!

The reader will, I am sure, be aware that with this issue *Sailplane & Gliding* has a change in editor. My thanks to Le Forbes for all her hard work over the last couple of years. Le's Blot Publishing continues to operate the BGA website and I am sure you will join me in wishing her all the very best for the future.

At the same time, we offer a warm welcome to Helen Evans, our new editor. We will be keen to give Helen our encouragement and support as we work together to widen the appeal and develop the circulation of this excellent publication.

Lastly, as this is positively the last issue of *S&G* in the 20th Century, may I take this opportunity to wish you all, wherever you may be in the world as you read these words, a Happy Christmas and a sensational new millennium!

Dick Dixon

National Ladder: 1999 results

Provisional final positions for the upper reaches of National Ladders for the 1998/99 season are as follows. Trophy winners' names will appear in the next issue.

OPEN LADDER

	Pilot	Club	Score	Flights
1	John Bridge	Cambridge	9485	4
2	Edward Downham	London	8780	4
3	Bob King	London	8469	4
4	Paul Crabb	Soaring Centre	8241	4
5	John Williams	Trent Valley	8171	4

WEEKEND LADDER

	Pilot	Club	Score	Flights
1	John Bridge	Cambridge	8556	4
2	John Williams	Trent Valley	8172	4
3	Paul Crabb	Soaring Centre	7594	4
4	Brian Marsh	Soaring Centre	7460	4
5	Edward Downham	London	7455	4

JUNIOR LADDER

	Pilot	Club	Score	Flights
1	Richard Hood	Four Counties	4366	4
2	James Clark	Cambridge	4186	4
3	Jeremy Hood	Four Counties	3521	4

John Bridge, National Ladder Steward

Who to contact at the BGA

S&G display or classified advertising
– *debbie@gliding.co.uk*
BGA courses, Cs of A, instructing
– *ruth@gliding.co.uk*
S&G subscriptions, competition numbers, Silver claims
– *beverley@gliding.co.uk*
Badge claims (A, B, Bronze, cross-country endorsement), competition licences, pilot's licences
– *gail@gliding.co.uk*
Any other matters, including sales and Gold/Diamond claims
– *bga@gliding.co.uk*

Gliding gremlins

APOLOGIES to Supacat Ltd for misspelling their product's name in the last issue of *S&G*'s club news and for wrongly stating in development news that Trent Valley GC had a new Skylaunch winch. It was, of course, a Supacat.

More gremlins in the production process affected Dave Unwin's article on radio procedure; the errors were *S&G*'s, not his.

Hearne new Vice President

PETER Hearne has recently been appointed Vice President of the BGA.

He did his first groundslide as a Air Defence Corps cadet in July 1939. Since then he has been a wartime ATC instructor and, apart from an eight-year period in professional airline flight operations and flying instruction, has been successively an active member of Portsmouth, Cranfield, London and, for the last 33 years, Lasham. Peter also flies regularly with his Ventus 2CT from a base in the Southern French Alps at Gap Tallard.

He has some 4,500 flying hours in powered aircraft and gliders and completed his Diamond Badge in 1988.

As the Assistant Managing Director of GEC Marconi before his retirement, he headed the aviation business groups of that company, a background which supports him in his negotiations to avoid excessive governmental regulation of UK gliding into the next century.

Motorgliding International

THE September/October issue of *Motorgliding International* was the last in its current format as the trial period has now ended. It will continue on the internet as a sole venture by the Soaring Society of America. The BGA would like to thank all those involved. Anyone with a subscription still to run has been offered *Sailplane & Gliding* instead.

BGA Lottery

Winners of the September draw were:

JA Cliff (first prize)	**£79.00**
Runners-up	
BA Kimberley	£15.80
RC Brett	£15.80
PL Bisgood	£15.80
JD Williams	£15.80
H Potts	£15.80

Winners of the October draw were:

JE Bowman (first prize)	**£76.50**
Runners-up	
DG Shepherd	£15.30
SD Brixton	£15.30
MP Mee	£15.30
L McKelvie	£15.30
Dr GHN Chamberlain	£15.30

BGA Conference 2000 – unique sponsorship opportunity

A REAL commercial opportunity to be associated with a unique event – the first BGA Conference of the new millennium! The BGA is inviting interest from commercial organisations in gliding to sponsor BGA 2000 on February 26.

There are various categories to sponsor from the main banner "Gliding into the Millennium" to the keynote speakers, the prize draw, to even the overall Conference itself.

If you want to be forever associated with this very special event contact the BGA Vice Chairman, David Roberts either by email on *d.g.roberts@lineone.net* or via the BGA office.

Don't hesitate, you might be too late! First come will get the pick.

Time to get your trophy claims in

THE competitions committee invites you to submit details of any flights you wish to be considered for a BGA trophy (awarded at the BGA dinner):

Wakefield: Longest distance; **Furlong**: Longest triangle; **California In England** Longest distance by a female pilot; **Volk** Longest O/R; **Seager** Longest two-seater distance; **Frank Foster** Fastest 500km; **Manio** fastest 300km; **Rex Pilcher** Earliest Diamond distance of the year; **De Havilland** maximum gain of height; **Goldsborough** highest-placed pilot in the most recent world championship team; **John Hands** for outstanding support to the organising or running of competitions; **Enigma** National ladder open section winner; **Firth Vickers** National ladder open section second place; **L. DuGarde Peach** National ladder club section winner; **Slingsby** National ladder club section second place.

Rules: All flights must originate in the UK in the calendar year. All speeds/distances are handicapped. Declarations NOT required, flights must be verified by logger or camera and barograph, landout certificate or Official Observer. All FAI badges, records, national ladder and competition flights are automatically considered.

Claims should be submitted by January 7 to Paul Crabb, 3 Salford Close, Welford, Northants, NN6 6JJ email *paulcrabb@dial.pipex.com*



YOU might be wondering who the new editor is, what qualifies me to edit *S&G* and how this change will affect the magazine.

I have 200 solo hours, a Gold Badge, and a third share in Discus 230 at Nympsfield. Work has stopped me flying it for a couple of years, but next season...

I studied journalism at postgraduate level before working as a reporter with the *Birmingham Post & Mail*. Most recently, I've carried out editorial/PR work for Oxford Brookes University and the National Physical Laboratory.

Editing *S&G* is my dream job. I want to improve the magazine even further during my two-year contract, and your suggestions are always welcome. You'll have noticed that I've already responded to requests for a full-page cover picture.

S&G is at the heart of gliding, and nothing could demonstrate that more than the unstinting help I've already had from more than 100 of you. I'm sorry I haven't got the space to name everyone individually, but particular thanks must go to:

All of you who have given me your views of *S&G*, before or since my interview;

In alphabetical order, the panel which appointed me: Mike Bird; Keith Mansell; Chris Pollard (committee chairman); David Roberts and Barry Rolfe;

S&G's former editor, Gillian Bryce-Smith, who has once again offered a new editor her sound advice, excellent contacts and kind support;

All the Dec-Jan contributors, who have worked hard to produce excellent material – Neil Lawson, for example, has done three photo shoots for this issue;

My husband, Nick Wall, production editor on *What Car?* His support of my gliding and *S&G* is invaluable.

Do let me know what you think of the magazine – by phone, fax, email, snail mail, or in person as I visit clubs and events. I welcome any message, kind or critical, delivered by any method – except a brick through the window.

Helen Evans
01793 783423 helen@sandg.dircon.co.uk

Letters to the Editor

Please send your letters (marked "for publication") to: Helen Evans, Editor, *S&G*, 6 Salop Close, Shrivenham, Swindon SN6 8EN or email *helen@sandg.dircon.co.uk*

Getting your bearings

I was astonished by Denis Campbell's letter (*Get Your Bearings Right*, October-November p10). John Hoskins was not over-complicating a simple matter, but was pointing out the correct, internationally accepted way of giving an aircraft's position – by bearing and distance FROM a known feature.

The reason this is standard is that VOR/ADF navigation is mostly TO or FROM a beacon, less often passing to one side or the other. To have aircraft navigating TO reporting distance and bearing TO, while those navigating FROM give bearing and distance FROM would obviously be rather unsafe, the little words TO or FROM could be misheard, or not heard and assumed wrongly. So it was standardised as distance and bearing FROM, often otherwise expressed as "YY miles on the XXX (degree) radial". Which enables, when passing to the side, "Crossing the ZZZ XXX (degree) radial at YY miles" and no ambiguity.

When telling you where they are, people don't say "ZZZ is YY miles north of me"! To suggest that glider pilots should do so when all the other airspace users are doing the opposite is courting disaster. Get used to it when talking to gliders and then turn 180 degrees when talking to ATC, or other users? Utter confusion. What if the aircraft asking you for your position is not another glider, maybe not using GPS either? And just try fathoming out where you are in relation to someone else, but not using the same waypoint!

As for the "debate on which units should be used" – well, the aviation standard is degrees magnetic and nautical miles.

May I suggest that, for position reporting and units, the KISS acronym can equally be translated as "Keep it standard..."

AHG St Pierre
BEDALE, North Yorkshire

Lookout and safety

I was very pleased to see the attention given to pilot lookout in the August-September issue (*Collision Avoidance*, p19). As the new BGA safety poster shows, 25 per cent of the 47 pilots killed in BGA-recorded accidents since 1987 have died in mid-air collisions.

There are two points I would like to add: 1: I would like to endorse David Urpeth's letter in the same issue (p10) *vis-a-vis* nose markings. Each year in the Alps I monitor closely the attention-getting qualities of the various schemes. This year's winner was a glider with a solid red dayglo colour all around its nose, extending some way aft of the beginning of the canopy. Although it could have been mistaken for a lost, out-of-season reindeer, its presence was very obvious even when it was just approaching a thermal; one was always aware of its position. Jacques Noel tells me that if you put this type of dayglo sticker on to glider surfaces which have a foam sandwich, serious shrinkage of the foam can occur. That really rules out wings and tails, so the BIG red nose seems a very good solution.

2: Jorg Steiber's excellent article did not, unfortunately, stress the point made by Peter Stratten in his footnote to David's letter, namely, that scanning is NOT a steady sweep of the eyes or head but a series of discrete stops when the eyes are focused to look in a particular direction. To quote from the currently out-of-print CAA Safety Sense leaflet 13A, *Collision Avoidance*: "Effective scanning is accomplished by a series of short, regularly-spaced eye movements that bring successive areas of the sky into the central visual field. Each movement should not exceed ten degrees and each area should be observed for at least one second to enable detection."

Peter Hearne
peter.hearne@aeroex.demon.co.uk

Stealth gliders and audio variometers

I was standing at the launchpoint at Husbands Bosworth looking downwind when suddenly two orange blobs appeared in the sky. These were obviously the coloured airbrakes of an otherwise all-white 'stealth' glider whose outline I could not see. A few seconds later they disappeared when the pilot put the brakes away, but despite scrutinising the area of sky most carefully, I was unable to spot the glider until the brakes came out again. I could not really see the glider until it was silhouetted below the horizon.

Why, then, with so much concern about air-to-air collisions, do we find so many gliders without red noses? Why, on a BGA course last year, was I flying a BGA glider which did not comply with the BGA's own recommendations in this respect?

The only answers I can guess at are either vanity or concern for the resale value of the machine. The owners of newer, posher gliders seem to be the worst culprits.

My other gripe is about audio variometers. Long before flying sailplanes, I learnt that my lookout is degraded if I am flying a paraglider with a visual-only variometer. I have found no difference on sailplanes.

Many clubs have K-8s and other older gliders in which early solo pilots fly on the most basic of instruments, or with poor audio variometers. I know there is great benefit in learning the sounds a glider makes in flight, but surely this must be of secondary importance in the light of current concerns?

Nigel Page
CHINLEY, Derbyshire

Pete Stratten, Chairman of the BGA Safety Committee, replies: *Nigel is correct on both points: in certain conditions, if a distant glider is in your very narrow cone of direct vision and is brightly coloured, it will be easier to see. But only if your glider is equipped well enough and you are trained correctly to ensure that your head is out of the cockpit most of the time.*

It must be emphasised that there is no substitute for effective lookout at all times, and, as most collisions occur turning into or pulling up in lift, then not having an audio vario is dramatically increasing the risk. During late September, the BGA followed up a recent Air Cadets trial, by fitting large dayglo patches to a well-utilised Puchacz. Any recommendations from these trials will be made before next Spring.

Low-tech, high-tech winching

Gordon Peters (*High-tech winching*, August-September, p9) rightly emphasises the need for a winch driver to be informed of headwind and type of glider before launch. While appreciating his encomiastic comments about our operation at the Long Mynd, and agreeing with him about the importance of the first 100ft of the launch, I must correct his inference that the simple, mechanical two-lever power pre-setting system fitted to Skylaunch winches is ineffective thereafter.

The airspeed remains reliably within bounds all the way up the launch because the petrol (propane) engine, matched with an ordinary three-speed automatic gearbox and torque converter, effectively powers the launch in direct drive; with cable tension established for the basic launch parameters simply by pre-setting the amount of gas to be gobbled, the cable slows down in response to increasing headwind and/or vertical pull component, maintaining a comfortable glider airspeed for a given climb angle, with gentle downshifts, if conditions so demand, into either of the two available lower gears to maintain the engine at a comfortable rpm.

As for the "exacting tests" Gordon suggests, a demonstration of an 8.2-litre, 400bhp Skylaunch at the Bayreuth Worlds, saw Duo Discuses and K-21s, a 1938-designed Mg 19a Steinadler and a Fauvel AV-36, pulled to previously undreamed-of heights off a comparatively short cable run.

Worthwhile benefits derive from reliable winch power control. With trust

Letters to the Editor

established between pilot and winch driver, the launch is safer as well as higher, fewer weak links are broken or strops lost and the driver can afford to release more attention to general safety.
Peter Salisbury
CHURCH STRETTON, Shropshire

Thanks, Mendip
As a trainee pilot with 23 launches and a grand total of 4hr 30min in my log book since 1988, I would like to thank the Mendip club for their most friendly welcome, extended to my wife and three bored children, during our West Country holiday.

They were experiencing winch problems and a long queue of other hopefuls, plus test flights of a Bocian with a newly-repaired airbrake, but they still found time for us. I would particularly like to thank the member who gave up his place on the list to let us fly. He thus enabled us to attend to the wants of our young family sooner.

On this day I had the longest flight in my log book (21min) and outlasted my wife's (17min). One day when my children are able to fend for themselves and money is more freely available, my wife and I will achieve solo status and maybe even fly cross-country. In the meantime, a couple of flights every so often will keep our hands in.
Mr & Mrs AJ Sharp
COLCHESTER

Mods for disabled pilots?
I am Gliding Representative to the British Disabled Flying Club and we are compiling a database of all the current modifications available to disabled pilots. We would like as much information as possible on physical and sensory mods for gliders (and, indeed, powered planes).

If any reader has details of mods, please send them to me at the above address or email *DeltaFTrot@aol.com*

Thank you very much.
Sandy Harrup
EXMOUTH, Devon

The gliding game
As a child soon after the war I was given the gliding game which was reproduced on the centre spread of *S&G*, October-November 1999. It was a board game played like Snakes and Ladders, and came in a box with an illustration in the same slightly forbidding style as the board.

I don't remember the name of the maker – it was unlikely to have been imported at that time, although the number font with crossed sevens, the gliders and the landscape suggest a German origin. Perhaps someone brought it back from occupied Germany and copied it, or it might have been pre-war stock. Do any German readers recognise it?
Alan Self
CONGLETON, Cheshire

We would also like to know more about the history behind the game printed in the last *S&G*. My father has a virtually identical game which my grandfather brought back from Germany in 1945, where he was involved in prisoner repatriation. I don't know if the game was manufactured by prisoners of war, as the game we have has the words "Start" and "Finish" on it. Had it been produced by the Germans I wouldn't have expected English!
Ian Banham
ian.banham@sherpa.co.uk

Thank you for the letters we have received about the game. If you would like to know more about it – and read the full rules – turn to page 28.

Your letters are welcome. Please keep them as concise as possible and remember to include your contact details (address, telephone, fax, email). Letters do not necessarily represent the views of the British Gliding Association.

BGA and General News

Radio agency won't make price waves

THE Radiocommuncations Agency, with whom few glider pilots will have had any contact other than buying a licence for their airborne set, is to spare the general aviation community – which includes us – from new "spectrum pricing" moves.

This was made clear during a series of nine roadshows the agency mounted throughout the UK in October and November under the title Making Connections.

The forums were to explain intended new pricing policies for non-aeronautical and non-maritime sectors of the entire radio spectrum which it polices for the Government. Once reclusive, the RA is now admirably up-front and eager to meet and discuss issues with radio users, as it demonstrated at the first roadshow, which I attended, and in communications since.

Amid a mass of esoteric detail, it emerged that the Ministry of Defence is currently conducting an audit of its radio spectrum and could release parts for civil purposes.

The intended phasing out of analogue TV in favour of digital early in the new millennium could also release hundreds of MHz for other users, while technical developments will also allow more traffic on the existing aeronautical VHF waveband.

So, all in all, prospects are good for radio congestion to be eased.

The RA should be congratulated on its new meet-the-user stance. You've missed this year's roadshow but phone 0207 223 9006 and plan to attend should the exercise be repeated next year.

Bob Rodwell

Recovery test spins

ELEVEN more flight tests of the Streifeneder Glider Recovery System (GRS) took place in September with high-speed runs (up to 162kt, probably unmanned) due as *S&G* went to press. Peter Selinger reports that the GRS parachute system functioned during spinning, at 60 degrees of bank and at the stall.

Turn point list

THE annual BGA turn point list review is taking place. Definitive UK data can be found at *www.spsys.demon.co.uk/turningpoints.htm* – which can be accessed via a BGA website link. Note that any other data on BGA TPs is second-hand and cannot be guaranteed as accurate. Several proposals for new points have already been received. Other suggestions should be sent to the BGA TP co-ordinator Ian Strachan at *ian@ukiws.demon.co.uk* or by fax to 01420 563140. There is no need to work out the grid ref or the WGS84 Lat/Long, that will be done when the point is agreed. However, a location on the 1:50,000 OS map will help.

Chairmen's conference

LAST year's conference was such a great success that the BGA is proposing to hold another on Saturday, January 15, 2000 at Husbands Bosworth. The programme and details will be circulated before Christmas. Please keep the date free.

Don't miss...

December 4 – Airsports Exhibition, Telford. See the Chairman's column on page 6 for further details.
February 26 – BGA Annual Conference, AGM and Dinner, Hanover International Hotel, Hinckley. See inside front cover.

Lottery grants update

The Community Projects Capital Fund

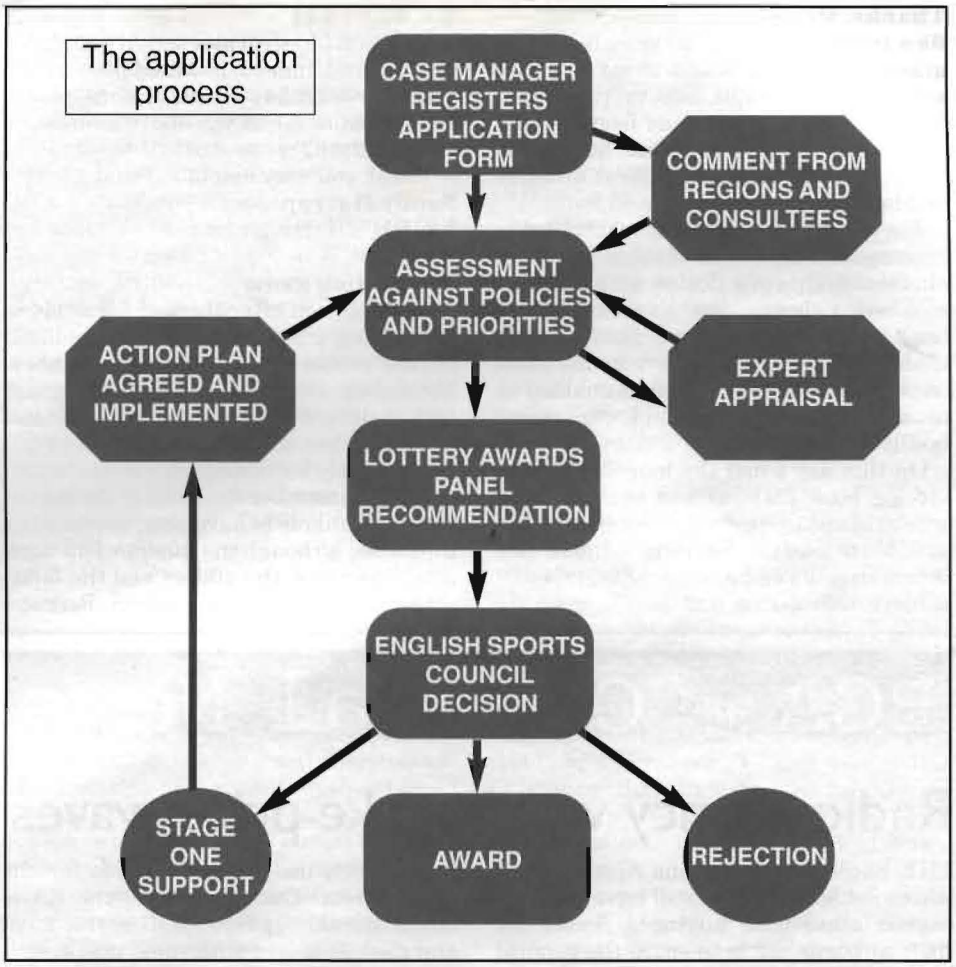
SINCE Lottery Sports Fund grants became available in 1995, gliding has benefited from more than £1million of capital awards. Sadly, the sport of gliding along with all other airsports has been excluded from Lottery revenue grants under the World Class Performance Plan and the capital funds remain our principal access to Lottery money.

The original Lottery Sports Fund capital grants scheme has seen several changes, both in structure and nomenclature. Gliding club officers who have applied for capital grants in the past will be aware of the huge amount of work involved in providing business plans, sports development plans and all the information required by the Lottery Sports fund.

All that has now changed!

The Capital Sports Facilities Awards Scheme, which was much criticised for unnecessary bureaucracy and over-assessment, has been replaced by the Community Projects Fund. The new scheme, which became effective on August 1, 1999, operates a two-stage application procedure, similar to Sportlot in Wales, and is intended to simplify the whole process and eliminate unnecessary paperwork.

The application process is explained by the diagram.



Stage One is the pre-qualifier. If your application gets past stage one to the Stage One Support stage, then the more complicated functions are dealt with under Stage Two, with close liaison and assistance from Sport England.

Stage Two deals with the details of the project. An **Action Plan** is agreed with Sport England, followed by a detailed business plan and management proposals which must all be approved before an award can be made.

In practice, the Stage One application form still requires a great deal of work. Some of the questions require a lot of thought, since they are clearly driven by the political principles of community benefit and sporting gain and detailed background information is also required. Assistance from Sport England's regional officers will be forthcoming, if requested. We strongly advise applicants to complete and return the optional Statement of Intent form before attempting Stage One.

There are six sections, dealing firstly with the usual administrative details of your organisation and proposed project, followed by some fairly searching questions on Sports Development covering equity issues and club targets at participation, performance and excellence levels.

Capital costs and proposed partnership funding arrangements are required, together with budgeted running costs for the project and details of professional advice and assistance sought by the applicant.

Sport England undertakes to inform the applicant, within 16 weeks of receipt, whether or not the application is considered suitable for stage one support. During that period, no commitments can be made, and any negotiations must be conducted with great caution. The former arrangements enabling applicants to obtain "without prejudice permission to proceed" so that they could go ahead and place orders or exchange contracts have now been replaced by the Stage One Support process. Any commitments to purchase goods or services as part of the project are liable to disqualify the whole application, if made prior to stage two.

For all Sport England's good intentions, the initial application form is still rather daunting and one hopes that it can be further simplified.

Meanwhile, if your club is considering an application to the Community Projects Capital Fund, your BGA development officer is available to provide advice and assistance. Phone him on 01273 515373.

Remember that for small projects of £5,000 or less, finance is available under the Millennium Festival "Awards for All" scheme (see August-September *S&G*, p6).

Roger Coote



Still a winner, 50 years on

GRAHAM Saw demonstrated in the Aerobatic Nationals that you don't have to have the latest piece of kit to make your mark in the sky – he flew his 1949 Lunak to first place in the Intermediate Class.

It was his second win at that level and his beautiful bright yellow glider (above) was the only vintage glider in the competition.

The Lunak was restored by the Aeroclub Zbraslavice, about 80km east of Prague, and is now certified in the UK with its original registration: OK-0927.

The competition was held at Buckminster GC and consisted of three classes: Unlimited, Intermediate and Sport.

On Day One in the Intermediate, Graham flew a crisp sequence in the Lunak to take the lead for the day. Paul Conran (Fox) flew the figures well, but did most of them the wrong way round, zeroing them, because he missed out a stall turn.

Among the Sport Class competitors was first-timer Nicola Mills who had been practising the known sequences on a swivel chair in an operating theatre.

The Sport and Intermediate competitions were completed as planned, but the final round of the Unlimited, set for Sunday, was cancelled because of low cloud.

***Results**: Sport Class: 1 Glyn Yates; 2 Stephen Lewis; 3 Malcolm Hodgson.*
Intermediate: 1 Graham Saw; 2 Mike Woollard; 3 Paul Conran.
Unlimited Class: 1 Jamie Allen; 2 Ian Tunstall; 3 Guy Westgate

With thanks to Debbie Bilham

Photo: Paul Mellor Photography

The dream that finally came true

THE recent *Make Your Dreams Come True* poster campaign by Lloyds TSB, bringing what appears to be an ASH-25 to high street windows, attracted the attention of many glider pilots. But one in particular – Mike Young of Cambridge GC – was reminded of when he had just got his first job as an airline pilot.

"I decided that my first priority was to buy a glider, not a house," explains Mike, now a 747 pilot for British Airways. "So I went into Lloyds Bank and said I'd like to borrow so many thousand pounds for a share in a glider. The manager replied: 'We don't do personal loans for that kind of thing!' "

Eventually (it must have been Mike's boyish charm) the bank did lend him the money for a share in a Discus, thus launching his competition career.



Photo: the *white planes* picture co.

Mike finally gets his hands on an ASH

His second place at the 1999 Open Class Nationals, coincidentally, in an ASH-25 – means he will represent Britain at the European Gliding Championships next year.

But he couldn't resist the opportunity of a bit of fun when, 12 years on, he saw Lloyds TSB using a glider to advertise personal loans. "I went into my local branch," he says, "and asked if I could borrow £60,000 to buy one of them things on the poster." The surprised manager didn't know what to say – so Mike put him out of his misery by telling him the story.

"He thought it was quite amusing," adds Mike, "and I think I might have talked them into coming for an evening's flying at the gliding club."

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National Ladders
Club Directory
Mandatory Modifications
Competition Results
BGA Course information
BGA Newsletter

Book reviews

The Handbook of Glider Aerobatics
by Peter Mallinson & Mike Woollard,
Airlife Publishing, £21.50 inc p&p
from the BGA



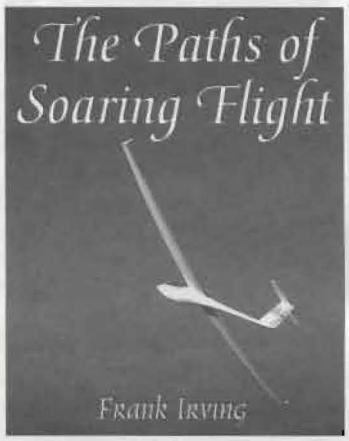
Aerobatics in gliders came back into fashion in recent years. Some of us involved in the instructional side of gliding were concerned about discipline and the risk to pilots teaching themselves. The development of this discipline was, in fact, well controlled with rated instructors and examiners. Now we have an excellent handbook to complete the package. It should be on every pilot's bookshelf, whether or not you are keen on aerobatics.

The content is well structured and the layout is good with four sections: safety, flight envelopes, glider design and Aresti. There's a strong emphasis on safety and knowledge. I particularly liked the section on flight envelopes, essential if you are going to fly near the boundaries of them. Should I admit to learning a thing or two? The diagrams are clear and there are some good photographs of gliders and manoeuvres. Usefully, the diagrams and text are on the same or facing pages.

The section on flying the figures again emphasises the safety aspects, and is logically progressive through basic to advanced manoeuvres. But you are left in no doubt that thorough training is essential. If you are not interested in aerobatics, you would still learn a lot from this book and may be tempted to try them. Either way, read the book first.

It's easy to read and concise; I liked the style of writing. The authors' enthusiasm comes through and you actually want to go flying. After a list of "Do's and Don'ts" the authors remind the reader to have fun.

Bill Scull



The Paths of Soaring Flight
by Frank Irving
Imperial College Press, £19

The early cross-country pilot is blissfully happy if arriving at the intended goal. Concern has been primarily to stay up, find the next thermal, locate turnpoints correctly, start the final glide a little on the high side and land neatly in the right place. The fact that the thermals on that day could have provided a longer and faster flight is immaterial. One has to start somewhere!

However, with improving skills and confidence it will not be very long before the pilot wants to find out more; about optimum rates of climb and best speeds to fly between thermals; about how much ballast to carry on an uncertain day and even the effect of C of G on cross-country performance.

Frank Irving considers these points, both mathematically and 'in clear'. Even if possessing a mathematical blind spot, the serious soaring addict should give this book bedside position and dip into it whenever curiosity about some aspect of soaring performance could benefit from analytical thought. As skill improves and ambition grows, the more informative this book can become.

There is a short errata sheet, almost inevitable in a technical volume printed in a faraway land. In one of my books, the printer tried to insist that my little 'g' (gravity) should be printed as grammes!

Ann Welch

(Thanks to Lasham newsletter *Rising Air*)

Navigating with GPS
by Ann Welch and Bill Scull
Royal Institute of Navigation
£1.50 inc p&p from the BGA

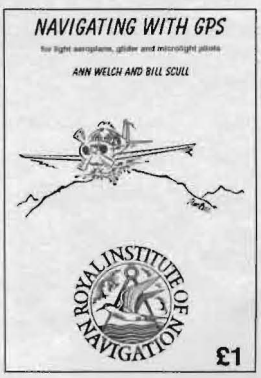
This 16-page booklet is aimed at light aeroplane, glider and microlight pilots and specifically covers hand-held GPS units. It contains lots of information which should be useful and interesting to the ab-initio GPS pilot, and is produced by the General Aviation Navigation Group (GANG?), of which the authors are members.

The booklet has clearly defined aims and is presented in simple text with large, easy-to-understand illustrations, interspersed with a couple of cartoons to keep the reader going.

There are two parts, the first being a technical section giving details of how GPS works, its accuracy and limitations. The differences between parallel GPS and differential GPS are explained, and it touches on future developments such as GLONASS and combining with Loran-C. Guidance notes are given on selecting a model that suits your particular needs, with warnings not to be drawn into multifunction units unless you really need the facilities.

There is a useful back to basics section explaining in detail the intricacies of latitude and longitude, and how to interpret these on an air chart.

Section two concentrates on operation, and consists of playing with the buttons.



The reader is taken through basic functions from start-up. Each function is described in order and accompanied by an illustration of the display from a typical unit, with details of what the digits and scales represent. The sequence is worked through in the safety of a walking exercise.

The authors have not overlooked the vital importance of keeping the head out of the cockpit, and this is stressed throughout the publication.

This work does not claim to be the GPS bible, merely an introduction and guide, particularly in choosing a unit suitable for gliding applications. Its no-nonsense language will appeal to most, and earns it the subtitle 'GPS for Dummies'. Every club should have a copy in its library.

Russell Hardcastle



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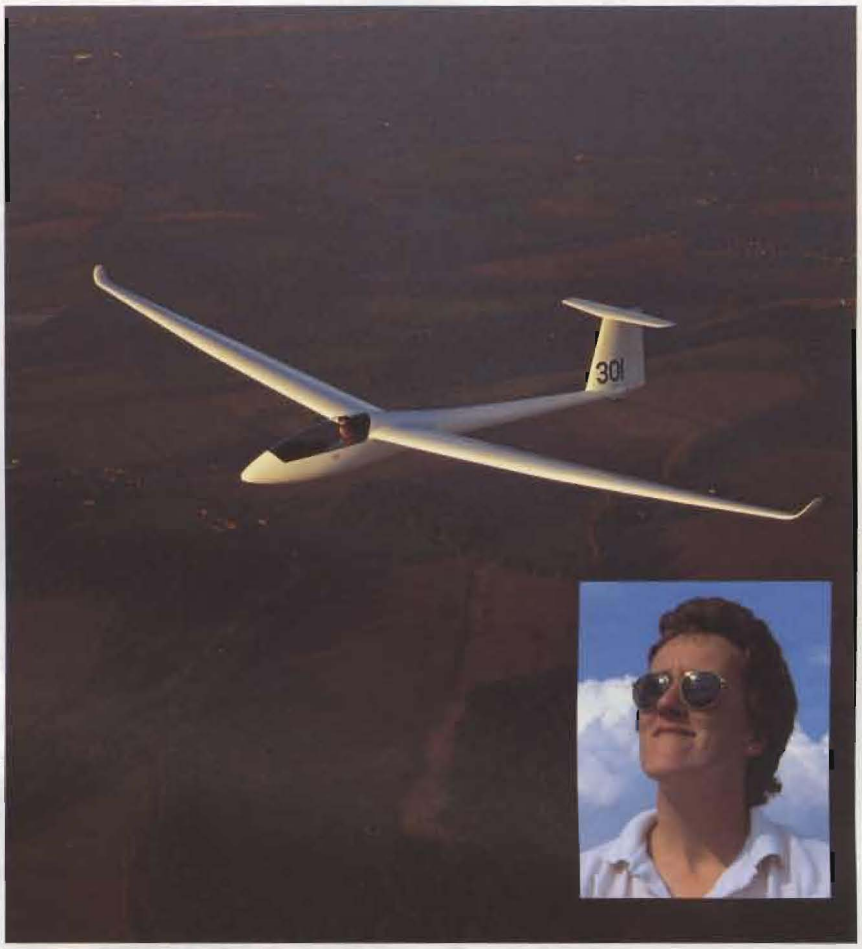
New British 750km record

Lasham pilot Jill Burry gathered eight new records in 1999 – including the new Standard Class 750km record – without really meaning to.

Jill, flying a Discus from Benalla, Australia on January 4, 1999, gained the British national 750km record at 119.42km/h. "I wasn't planning to go for a record on that day," she said. "The reason for wanting to do a 750km triangle was that I had previously done one with three TPs, and I knew the guys at home would say that doesn't count! It wasn't until the following morning at the field that somebody said my second one could be a record. I was really excited because I'd never broken an overall record before – they'd always been women's records."

On January 17, 1999, also in a Discus, she won the UK Standard Class 500km O/R at a speed of 129.21km/h. The other six records (UK Women's) that Jill gained in 1999 were for a 100km triangle flown at 114.67km/h in her LS-8, 301. "I hadn't flown it in 15-metre mode and I decided to race-track round the local triangle – Chilbolton-Hungerford-Lasham – as practice for the Lasham Regionals. I did it entirely by accident ... but you do need a logger!"

Jill (shown right flying her LS-8 in 18-metre mode) began gliding at Dunkeswell in 1982 and has been a Lasham member for 13 years. She has 1800 hours and all three Diamonds.



Photos: the *white planes* picture co.

Scrapheaps take to the sky – just







Photos: the *white planes* picture co.

A LADDER with no rungs, a tent pole, some bamboo canes, a length of sun-bleached plastic drainpipe, a discarded tarpaulin, lots of gaffer tape – and don't forget the Zimmer frame.

It sounds like a pile of old junk because that's what it was: the materials available to the *In A Spin* team on Channel 4's *Scrapheap Challenge*.

The team, led by hang glider designer and newly-solo sailplane pilot Darren Arkwright, had to build a flying machine from scrap in just one day. The next day, at Lasham, Ann Welch was to judge its televised airborne performance against the altogether weightier creation (see above left) of the opposing *Brainy Bunch*... And Darren was the one mad enough to test fly his team's Heath Robinson contraption in a strong, gusty wind.

"They didn't film just how inventive we had to be," said Darren, who admits this was probably his most madcap venture. "The frame was the sides of a ladder; the bottom bar, a tent pole; my harness, car seatbelts and Zimmer frame legs, the king post."

Darren, who was attracted to the programme because it offered a test of ingenuity, has 26 launches and four solo hours in sailplanes (at Rivar Hill) and 3,000 hours in hang gliders.

He is no stranger to television. Previous hang gliding appearances include landing on a raft in a lake, and simulating a crash into the sea having failed to cliff-soar (the first take wasn't quite right, so he obligingly did it again). Surprisingly, given his recent track record, the only TV show he turned down was *Blue Peter*... because filming clashed with a barbecue.

And what happened to the inelegant "one he made earlier"? Its 4.6-second flight after release from the winch gave it victory but sadly for posterity the winning team, in their excitement, trashed it.

COMPETITIONS IN 2000

Overseas Championships	Ocana	15/5-26/5
Eastern Regionals	Tibenham	27/5-4/6
Open Class Nationals	Cotswold	24/62/7
Standard Class Nationals	Dunstable	8/7-16/7
Midland Regionals	Husbands Bosworth	22/7-30/7
Western Regionals	Nympsfield	29/7-6/8
Northern Regionals	Sutton Bank	29/7-6/8
European Championships	Lussen, Berlin	29/7-13/8
18 Metre Nationals	Enstone	5/8-13/8
Club Class Nationals		5/8-13/8
15 Metre Nationals	Lasham	19/8-27/8
Lasham Regionals	Lasham	19/8-27/8
Dunstable Regionals	Dunstable	19/8-27/8
Gransden Regionals	Gransden Lodge	19/8- 27/8
Junior Championships	Weston on the Green	25/8-3/9

BGA COURSE PROGRAMME 2000

Basic Instructor

Course/Dates		Venue	Places	Price
BI1	1-5 May	Bicester	8	£60.00

Assistant Instructor

IC1	4-12 March	Bicester	8	£230.00
IC2	18-26 March	Bicester	8	£230.00
IC3	1-9 April	Bicester	8	£230.00
IC4	15-23 April	Bicester	8	£230.00
IC5	13-21 May	Bicester	8	£230.00
IC6	27 May-4 June	Bicester	4	£230.00
IC7	9-17 Sept	Bicester	4	£230.00
IC8	23 Sept-1 Oct	Bicester	8	£230.00

Instructor Completion

CC1	15-16 Jan	Bicester	4	£25.00
CC2	12-13 Feb	Bicester	4	£25.00
CC3	29-30 April	Bicester	4	£25.00
CC4	6-7 May	Bicester	4	£25.00
CC5	11-12 Nov	Bicester	4	£25.00
CC6	9-10 Dec	Bicester	4	£25.00

Full Category Preparation

FC1	28 Feb-3 Mar	Bicester	6	£60.00
FC2	12-16 June	Bicester	6	£60.00

Soaring Courses

Course/Dates		Level	Days/Venue		Places	Price
SC1	24-28 April		5		6	£85.00
SC2	1-5 May		5	Shenington	6	£85.00
SC3	8-12 May		5	Black Mountains	6	£85.00
SC4	22-26 May		5		6	£85.00
SC5	29 May-2 June		5		6	£85.00
SC6	5-9 June		5		6	£85.00
SC7	19-23 June	2	5	Bicester	10	£85.00
SC8	26-30 June	2	5	Bicester	6	£85.00
SC9	3-9 July	2	7	Bicester	10	£115.00
SC10	10-16 July	3	7	Bicester (comp training)	10	£115.00
SC11	17-21 July	2	5	Bicester	10	£85.00
SC12	24-28 July	1	5	Bicester	10	£85.00
SC13	31 July-4 Aug	1	5	Bicester	10	£85.00
SC14	7-11 Aug		5		6	£85.00
SC15	14-18 Aug		5		6	£85.00
YPSC	21-25 Aug		5	Bicester	10	£21.25
SC17	11-15 Sept		5		6	£85.00

Wave Soaring

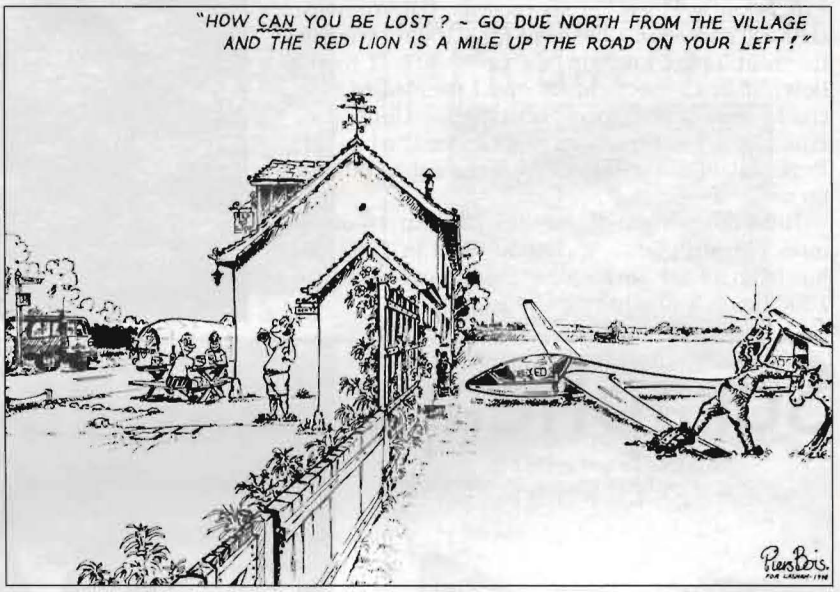
Course	Dates	Venue	Places	Price
WC1	8-14 Oct	Aboyne	8	£115.00
WC2	15-21 Oct	Aboyne	8	£115.00
WC3	23-29 Oct	Milfield	8	£115.00

Gordon Camp Trophy winner

LUKE Rebbeck (left of picture) received the Gordon Camp Memorial Trophy for being the highest-placed pilot aged under 21 in the Junior Nationals. The then 20-year-old came second in the comp and was presented with the prize by Gordon's former syndicate partner, Bidford pilot Peter Freeman (right). The silver trophy, a scale model of Gordon's glider, was made by another Bidford club member, Chris Vincent.



Smile, Lasham's celebrating



THIS cartoon by Piers Bois is one of 12 on a calendar produced by Lasham to mark 50 years of gliding at the airfield. A celebration is being planned for the weekend of June 24-25, 2000, with a Grand Ball on June 24. They hope to hold an aerobatics display, but due to the nature of the CAA certificate, if granted, only members and their guests will be able to attend. The calendar, however, is available from Lasham office on 01256 381322 at a cost of £5 inc p&p. *With thanks to Piers Bois, 01534 871149.*

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Field landing to pay gliding's dues

ONE hundred years to the day of Percy Pilcher's death in a prototype glider, 15 vintage and modern gliders took off from Husbands Bosworth (right) to land by his memorial at Stanford-on-Avon.

They were joined by six hang-gliders, plus a Piper Super Cub and a Taylorcraft from Leicester Aeroclub. The pilots and crews, together with representatives from the RAeS and RAF Association, laid tributes and some 200 people took part in a memorial service.

Lawrie Watts, of Husbands Bosworth gave a short and moving address pointing out that by the pilots' presence they had shown the fulfilment of Pilcher's dreams. The gliders flying in ranged from Ted Hull's Scud to a modern Duo Discus.



Photo: Alan Self

Earlier in the week The Soaring Centre played host to the Vintage Glider Club for its Annual Dinner and Achievement Awards. VGC President Chris Wills paid tribute to the many excellent restorations and to member Graham Saw, who won a National Aerobatic title in his 50-year-old Lunak glider (see page 11).

Guest of honour and main speaker was Derek Piggott, who gave an entertaining and fascinating talk on his flying career and some of the interesting, and sometimes too interesting, types he had flown over the past 50 years. The final toast was to Percy Pilcher's memory and was given by Lawrie Watts. As the renovator of the Pilcher Hawk at Stanford Hall, Lawrie was able to give an insight into Pilcher's life and his plans for powered flight. He pointed out that had he not met with his fatal accident he would have beaten the Wright brothers by three years.

Taking part in the fly in were: Scud 3 (1935): Laurie Woodage; Viking 1 (1937): Norman James; Petrel 1a (1939): Graham Saw; Kite 2a (1948): Peter Warren; Kite 2b (1949): Bill Tonkin; Tutor (1949): Keith Nurcombe; T-21 (1951): Tom Burton & Haydon Macevaddy; T-34 Sky (1952): John Tournier; Mu13: Geoff Moore; T-49: Andy Parish & Lou Glover; Libelle 201: Rolf Tietema; ASH-25: Richard Blackmore; Duo Discus 895: Chris Simpson; Duo Discus HB1: Martin Chamberlain & Alan Foxon.

Ron Davidson

RAFGSA is 50

FIFTY years ago, on December 15, the RAFGSA was formed in the back of a London taxi, much to the disapproval of a policeman who reprimanded the driver for overcrowding. This postmark is from a First Day Cover published on its Silver Jubilee. Today, the Association has 12 clubs and more than 70 aircraft.



cover was flown by glid
AF Swinderby on 15th
Midlands Gliding C

Gap gets bigger

PHILIPPE Tarade's aerotowing operation at Gap Tallard has acquired the private hangar and site area immediately to the north of the airfield.

He is also developing more of the site as a camping area which should be ready for the 2000 season.

Gap now has the type of co-located social and technical area, popular elsewhere, which has been impossible until now because of airfield layout.

This new operation is in parallel with Jacques Noel's mountain flying courses and the continuing activities of the gliding section of the Aero Club Alpin.

Address: Aerodrome de Tallard, RN85, 05130 TALLARD, France. Fax numbers (all begin with 00 33 4 92): Tarade Aero Services, 54 04 39; Jacques Noel, 64 07 12; Aero Club Alpin, 54 02 56.

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Tail Feathers

Platypus

Pandora's box

Every household has in the loft, hanging on a nail or lying in a box of other junk, a bunch of old keys, which nobody dares throw away. The day after you jettison those keys you are bound to find a lock that refuses you entry. Or so you fear. The bunch of useless keys will steadily grow as you and the house age together.

Similarly I have acquired over the years a box full of – what? chargers? transformers? adaptors? – I don't even know the proper terms for these chunks of black plastic with wires coming out of them, inscribed with Input in AC volts, hertz and watts and Output in DC volts and milli-amps.

What these devices, which I am coming to hate as much as Nickel-Cadmium batteries, do not have inscribed on them is any useful clue as to what appliance they were originally connected to. Probably some hand-held radio or electric barograph or musical synthesizer that I trashed decades ago, in which case this charger-thingy can be thrown in the bin. But I don't know for sure, so I'd better hang on to it. I daren't experiment by plugging one of these things into various bits of equipment at random just to see what happens. The insurers of your home and chattels are not going to pay for the results of such tests, especially if one of them, instead of immediately blowing up the hi-fi in a cloud of acrid smoke, quietly burns the house down while you are out.



A bunch of keys nobody dares throw away

For all I know some of these are now collectors' pieces. Don't laugh; for example there is a thriving international hobby of barbed-wire collecting, with exhibitions and conventions and auctions, and the same for time-expired telephone cards. There is nothing too trivial, too ugly or too pointless to become the object of acquisitive lust.

I can imagine some nerdy enthusiast drooling over my collection. He (this sort of lunacy is exclusively male) cunningly realises that I am unaware of the difference in rarity-value between a 12-volt, 43-milli-amp output – common as dirt – and a six-volt 57-milli-amp output – like hen's teeth. Might I be persuaded to part with the entire box for £500? He slaps the money into my hand and scampers off in high glee, leaving me wondering if haven't made a terrible mistake. However, it is a risk I am willing to accept. Before the anorak-clad vultures descend, I offer readers of *S&G* a Victorian brass-bound chest full of electrical items of literally inestimable worth: reserve price just £499.

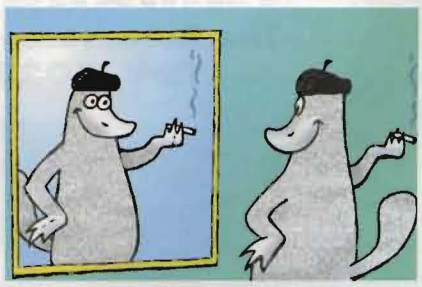

A nerdy enthusiast drooling over my collection

The auction will begin just as soon as I can find the key to the damn chest.

French without tears

I am not joking when I say that if I had not been born British (I am in fact 45% English, 48% Scots, 12% Norwegian and 11% Irish – no, don't bother to write in) I would like to have been born American or French. The Americans I admire for their energy, enthusiasm and restless pursuit of perfection; the French I envy for their culture, sophistication and their confident assurance that they are already perfect.

I am receiving from my good friend (well, he was until five minutes ago) Jean-Renaud Faliu a wonderful aviation magazine called *Volez!* It is lively and good to look at. It is so attractive I am almost inclined to go back to France to glide after a lapse of some years. However, the bureaucracy – and I am talking of the country that taught the world the meaning of bureaucracy – a British pilot now has to go through to be allowed to aviate in France is so tedious you begin to think they have mistaken the poor guy for a lorry-load of condemned beef. Why French physicians have to probe every alien orifice to determine whether a visitor is a hazard to aerial navigation, and are not prepared to take the word of a British doctor, I don't know. No wonder they got a Nobel prize for boldly going where nobody else is prepared to venture. But *Volez!* makes flying in France look enormous fun and I may decide it is worth the hassle. So I am reading it avidly not just to find out what exciting things are going on across the Channel – like mid-air collisions between gliders and airliners – but to acquire some vocabulary before a future visit. *Volez!* is written in a breezy style, a bit like Pete Harvey in a beret with a Gauloise stuck to his lip, very colloquial. Even my Distinction in School Certificate French in 1949 isn't up to capturing the nuances without a lot of help from a charming French-born female neighbour here in London. (And you can wipe that smirk off your face, too. These translating sessions are hard work.) Here are a few phrases that I found in *Volez!* that caught my eye.


I am almost inclined to go back to France

What, for instance, is *trou bleu?* Since the context of the article indicates serious concern amongst the pilots involved in the world's first ever 500km cross-country, this is clearly something worrisome. Should we pack all our *trou bleus* in our old kit bag and smile, smile, smile? No, a *trou bleu* is, of course, a blue hole. *Trous bleus* is therefore not the standard dress worn by generations of French farmers but a multiplicity of blue holes.

Rues de cumulus is so obvious I won't insult you by translating it. But I might mention that an Australian play called *Cloudstreets* is being highly acclaimed in London this month, and because of the title I am inclined to go along to see if they try to launch a glider into the auditorium in Act Two. It's astonishing what stage effects they can get these days. I went to *les Miserables* some years ago and I could not remember a single tune, but came out whistling the scenery instead.

What is a *coque*? As Mrs Platypus found out years ago, after being asked by a Frenchman to hold it firmly as we

de-rigged in a wheat field, that is merely the fuselage. As in monocoque construction.

A deux doigts de vacher. That ought to mean it takes just two fingers to milk a cow. But I think it really means to be within an ace of landing out.



Launch a glider into the auditorium

Treuil bitambour From the picture in *Volez!* I can see that a *treuil* is a winch, but what is *bitambour*? Well I guess it breaks down into bi-tambour – sounds like two tambourines. Two-drum winch, of course!

Un bon vent dans le dos could mean "I really had the breeze up" but no, it means "a good tail wind". Likewise to suffer from *prise au vent* does not mean those haricots in garlic butter you had at lunchtime are working overtime: it means Drag. (Sorry, Interested of Bedfordshire, dressing up in women's clothes is not *prise au vent*. No I am not going to ask my French neighbour what it is either.)

I am sure that the punishment squad of the Academie Francaise will pounce on the Anglo-Saxon "logger" and drag the editor of *Volez!* to Devil's Island or to compulsory cultural re-education classes ("Devil's Island, any time!" shrieks the editor as we see his heels disappear through the doorway.) Yes, "logger" means logger. Soon the Academie will up with a three-word, ten-syllable expression that means the same.



They rip out the chest hairs...

I bet *lancer au sandow* has you stumped. I knew by pure chance. I had tried for my height Diamond over 20 years ago at Sisteron many times without success, and got to 20,000ft in my Nimbus 2 on the very last day of my third visit to that site. Kiki, later the manager of several victorious French World Championship teams, produced an oxygen set and said he would secure it into the space behind my head with what he mysteriously called *sandows*.

These turned out to be bungies. But why *sandow*? Then I remembered that Eugene Sandow was a famous strong man a century ago, who was a whiz at self-promotion. He must have built his pectoral muscles with chest-expanders made of rubber shock cords, and marketed them on the "You too can have a body like mine" theme, so his name stuck.

The usual chest-expanders one sees in sports gear shops use spiral steel springs, but they rip out the chest-hairs and pinch the nipples if you let go of them too suddenly, and whatever you might think to the contrary, that really is not my idea of a good time. Rubber is safer, though I still think you might catapult yourself out of the window if you are careless, so strenuous exercise should be restricted to the ground floor till Bronze C standard is gained. (*What the heck has this to do with gliding? New Ed.)*

Sorry, all I meant to say was that *lancer au sandow* is to bungy-launch.

Now you have perfected your word-power, you are fully prepared for a soaring expedition to France. Well, apart from the medical, and how you practise for that is your business.

A new hand on the tiller

Or a new face under the green eye-shade. I welcome *S&G*'s new editor, Helen Evans. In addition to being a professional journalist she is distinguished in some important respects. First, she has a degree from Clare College, Cambridge. Secondly, she has a Gold Badge. Probably she is the first occupant of the *S&G* editorial chair to have one. She has even flown in contests, though finishing so low as to have no delusions of grandeur. That's good. There's only room on this journal for one pilot with delusions of grandeur, or even delusions of adequacy, and the place is taken.

Thirdly, her husband Nick produces motoring magazines at Haymarket Publishing and is a keen cross-country and competition pilot. Don't get too close in the gaggles, though. They learn to be very aggressive at Haymarket.

"There are them that have done it, and them that are going to do it"

Fourthly and best of all, Helen flies a glider with a retractable undercarriage. All editors of aviation journals should be made to fly aircraft with retractable undercarriages. It makes them cast around for something more edifying and, shall we say, uplifting than white streaks on runways to put on the front cover.

email: *TailFeathers@compuserve.com*

Who needs a GPS for Gold?

GETTING your Gold distance using a map you traced on the greaseproof paper from your sandwiches would no doubt be frowned upon today; but Nick Goodhart's Gold Badge, No 9 (see blue card, bottom of page) was achieved in



Photo Ann Welch

just that way – as Wally Kahn relates in his book *A Glider Pilot Bold . . .*

Nick Goodhart, who is also the UK's first Diamond Badge holder, celebrated his 80th birthday this autumn. And 1999 is the 40th anniversary of his epic competition flight from Lasham to Portmoak in a Skylark 3 – a record which still stands. Nick (pictured above with sandwiches and a Skylark 3) gives hope to lesser mortals by admitting that this flight happened only after two relights. "It was a very interesting flight," he says. "I remember being struck by lightning, being astonishingly cold and wet, and a certain feeling of enthusiasm when I realised I had enough height to make Portmoak."

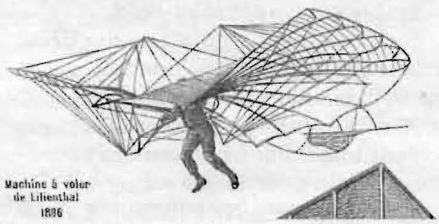


100 superb years of

Gliding came to us by chance. People didn't want the challenge of flying without an engine: they wanted aeroplanes. As we enter the year 2000, Ann Welch reviews a century of motorless flight

1894-1904: In 1894 Otto Lilienthal built a 30-metre high hill near Potsdam from which to fly his machines. He now had three years' experience of designing, building and piloting, and was to make 2000 flights before his fatal crash in a new biplane in 1896. He had studied the work of Sir George Cayley from some 40 years earlier and Percy Pilcher learnt about building his Hawk and Bat gliders from Lilienthal – the first true test pilot.

There were many in the 19th Century who dreamt of flying but had no suitable



Lilienthal – one of gliding's earliest pioneers

engine. The Wright brothers first built gliders and their aeroplane only because small petrol engines were being made for the new automobiles. With the arrival of the aeroplane, gliders were forgotten.

1905-1914: By 1909 aeroplanes had advanced enough for Bleriot to fly across the Channel to England, where another Frenchman, Jose Weiss, still believed in gliders. He made many bird-shaped models before building one big enough to carry a man. Weiss understood the need for stability and built a swept wing with dihedral and washout. His only controls were bendable wing tips. Weiss, Gordon, England and others flew the glider without harm from the South Downs and in 1912 formed probably the first gliding club – the Amberley Aviation Society.

In Europe, others experimented with bird-like gliders. Etrich made his Taube (Dove) in Austria and a Wolf Muller built a 36ft span stork. Only Frederic Harth in



Gutemuth in the FSV X: it flew for 1min 42sec

Germany made a 'conventional' wing. Near Darmstadt teenagers built gliders which they flew from the Wasserkuppe. They received valuable help as the father of Hans Gutemuth was the professor of engineering at the university. Before WWI, which killed all five of the youngsters, Gutemuth flew their FSVX for 1min 42sec and a distance of 838m.

1919-1929: WWI had been a forcing house for aeroplanes, and at its end the Treaty of Versailles forbade the Germans to build them – but gliders were not aeroplanes. Frederic Harth got airborne again and Oskar Ursinus, editor of *Flugsport*, called a get-together on the Wasserkuppe in 1920. Twenty-four people turned up, some from universities and others, such as Wolf Hirth, Peter Riedel and the Swiss Jacob Spallinger, came to learn. Late in the meeting Wolfgang Klemperer arrived from Aachen University with his Schwarzer Teufel (black devil). With its low wing, cockpit and aerodynamic controls it was no hang glider and was launched with a rubber rope. It set a world record of 1.83km distance and was seen to rise above its take-off height.

The following year another meeting attracted 50 people with 45 gliders.



The Vampyr with its innovative D-nose wing

Klemperer brought his improved version, the Blaue Maus (blue mouse), and flew for 13 minutes, but he was beaten by Arthur Martens from Hannover University in his Vampyr. This was the first glider to have a single spar D-nose wing.

Darmstadt University came to observe and in 1922 brought an 18 metre span Konsul. Its clean, high-aspect ratio wing together with Hannover's single spar wing determined classic glider configuration for more than 40 years. Soon pilots learnt to soar in wind rising over the hill, and in that year F H Hentzen set a duration

Photo: Adrian Hobbs



Aviation journalist and author Ann Welch

record of 3hr 6min in the Vampyr.

Gliding meetings were also held in 1922 at Combergrasse in France and at Itford, near Lewes, on the South Downs. Thirty-five gliders were entered, including ones by de Havilland and Fokker, with the *Daily Mail* offering £1000 for the longest flight over 30min. One enthusiast brought a flying bicycle built from a Fokker D7 top wing and a Bristol Fighter fuselage. It cost 18/6. The £1000 was won by Frenchman Alex Maneyrol, flying a tandem wing glider, who soared for 3hr 21min and landed in the dark.

Itford attracted great publicity but nothing came of it. Gliding almost died away except in Germany led by its universities. They taught aeronautical engineering in specialist glider design groups called Akademische Fliegergruppe (Akafliegs). With their expertise performances at the Wasserkuppe competitions rapidly advanced. In better gliders younger pilots explored lift under cumulus to gain height to cross gaps in the hills. On May 13, 1929 Robert Kronfeld flew the first 100km distance in his Lippisch-designed Wien.

In Britain nothing happened until Kronfeld brought his Wien to England and flew it along the South Downs. This brought isolated enthusiasts together and on December 4, 1929 Doug Culver

being free as a bird

organised a gliding lunch at the Comedy restaurant in London for 30 people he thought might turn up. Fifty-six arrived and started the BGA.

1930-1939: On May 24, 1930, this time at Dunstable, Henry Petre beat Maneyrol's record of eight years before by seven minutes and on September 6 the first issue of a weekly magazine, *The Sailplane and Glider*, appeared, price 3d. Clubs now sprang up all over Britain with little except enthusiasm and many soon disappeared leaving only stalwarts like Barrow-in-Furness, Derby and Lancs, Dorset, Dunstable, Newcastle and Southdown. The only university club was Imperial College. Instruction was given solo on primary gliders launched by bungy. It cost 3/- a day to get as much flying as the enthusiast was prepared to work for.

Fred Slingsby began building copies of the German Falke and Grunau Baby, later moving to his Kirby Kite, Falcon III and Gull. The first Silver C was gained by Eric Collins in 1934, international number 26. Philip Wills, Kit Nicholson and others vied for the British distance record, Philip also gaining the first British Gold C, international number 3.

Gliding worldwide was still led by Germany. Hans Jacobs, product of Darmstadt Akaflieg, gave us the Rhonadler (1932), Rhonsperber, Rhonbuzzard, Reiher, Olympia, and in 1938 the Weihe. Wolf Hirth produced the Minimoa and gliding was to be included in the 1940 Olympic Games. The 500km distance barrier had been broken in 1934



Getting a primary glider up to the launchpoint

by four pilots on the same day from the Wasserkuppe to Brno and the exploratory delights of distance flying were all any pilot wanted. In Britain clubs had no shortage of new members, gliders were cheap and farmers were friendly. On April 22, 1939 Geoffrey Stephenson soared across the Channel in his Gull. These golden years ended on September 3 when hangar doors shut for WWII.

1940-1949: Gliders built for the war were not elegant. Britain made the Hotspur, Horsa and Hamilcar which carried a seven-ton tank. USA built the Hadrian and Germany went over the top with the Messerschmitt Gigant. It needed four Me 110 tugs to get it into the



air, but they ran into each other. Two Henkel 111s were then stuck together wingtip to wingtip with a fifth engine at the join. This was no good either so six engines were fitted to the glider. At home the Glider Pilot Regiment was effectively started at Thame aerodrome by gliding club members disguised in uniform. They first flew camouflaged Kirby Kites with some pilots eventually piloting Halifax tugs before D-day.

In 1945 sorting out the peace began. Most pre-war gliders were no more and others had suspect glue. A few German gliders came to clubs going through the slow process of getting their sites dereq-uisitioned. In 1946 Elliotts of Newbury, having built wartime aircraft, produced over 100 Olympias, based on the Jacobs Meise, until they could restart making furniture.

The first post-war Internationals were held in 1948 at Samedan in Switzerland, to which the BGA sent a strong team. Sadly Kit Nicholson and Donald Greig were killed on the same day in unrelated accidents. Sweden's Pelle Persson won and Sigi Maurer, flying his Swiss Moswey, established the new 100km triangle record set up by FAI. His speed was 69.9km/h.

1950-1959: This was a great decade for clubs back in business with plenty of customers: young newcomers and ex-wartime pilots wanting to get into the air. Affordable Olympias and Skylarks were easily available and the excellent Slingsby T-21 put paid to solo training.

In 1952 Philip Wills became world champion in Spain flying a Slingsby Sky. In 1956 Nick Goodhart and Frank Foster won in France flying the first production Eagle (Beagle) and in between, in 1954, the Worlds were held at Camphill (known as Damphill due to the rain). Every other summer there were well attended enjoyable Nationals – though often with distance tasks and long retrieves.

The only problem seemed to be that gliders had become stuck at an L/D of about 30. Wood, even with sandwich backing, did not allow the needed fair surface finish. Cost and complication were beginning to creep up so in 1958 FAI introduced a 15 metre Standard Class. Some gliders were designed for it like the Polish Mucha and the K-6, but the 1953 Skylark 2 was not so competitive with its smaller span. On the plus side total energy variometers arrived to defeat 'stick thermals'.

1960-1969: Ten years which began with performance stalemate and ended with a huge breakthrough – the arrival of the



The excellent T-21 put paid to solo training

glass glider. The Stuttgart Akaflieg gave us the Phoenix, designed by Eppler and Nagele. Its appearance at the 1960 Worlds in Germany produced a mix of admiration and suspicion, but before long glass gliders were being built in many countries – and showed that ➢



Photo: Ann Welch

Jan Wroblewski, 1965 World Champion

➢ strength without stiffness was not enough. Flutter was a big problem, fortunately overcome by the well-timed arrival of carbon fibre. In 1965 the world championships were held at South Cerney, together with the OSTIV Standard Class competition. Over 100 gliders entered, the champions being Jan Wroblewski, Poland, in the Open Class flying a standard class Foka 4 and Henry, France in a 15 metre Edelweiss. Neither were glass gliders; not from lack of interest but manufacturers were finding the learning curve steeper than expected, and costs higher. L/D of 40 was now available at higher cross-country speeds, but only some manufacturers were able to make the jump to glass successfully. Others concentrated on club and training gliders and some went out of business. This decade would have a greater effect on the future of gliding than was realised at the time.

1970-1979: The 1970s were a decade of optimism. Glass gliders, like the Std Libelle, added a new dimension to club and private owner flying but at the same time bright-coloured wood gliders were everywhere. The real excitement was the great performance jump for the record breakers. In April 1972 Germany's Hans Werner-Grosse flew his K-12 from Lübeck to Biarritz – a distance of 1460.8km (still a record in 1999). In January 1978 three New Zealand pilots beat the goal record with a distance of 1254.2km and before the decade was out Werner-Grosse had gone to Alice Springs with the 29-metre span SB-10 to fly the longest triangle distance so far, of 1254.2km.



Photo: Frank Irving

Libelle and K-6: the era of wood and glass

Unnoticed in the glass revolution was that the widening performance range was also altering the long-established structure of gliding itself. The obtaining of ultimate performance was affordable by few people – and they were getting older. The average age of glider pilots in USA was found to be 45 and rising. Younger people were still attracted to gliding but found a yawning gap between their gliders and those the record breakers flew. At the same time hang gliding was rapidly growing in popularity, being affordable, sociable and fun.

1980-1989: The magic L/D 60 had been achieved – a glide slope of one degree – but R&D was slowing with ever rising costs. World records were still falling to a few contenders, though only in large countries with the best weather.



Photo: the white planes picture co.

An ASW-17 flew 1250km at 133.26km/h

In 1984 Hans Werner-Grosse was back in Alice to gain the 300km triangle record with 162.2km/h in an ASW-25. Then in January 1987 he took the 1250km triangle speed at 143.46km/h, beating his own 1980 record of 133.26km/h in his ASW-17. He also collected the triangle distance of 1379.3km in the ASW-25 to beat a record gained by five pilots in the USA of 1362.68km. For ordinary weekend fliers such achievements were remote. Young newcomers got on fine with Bronze and Silver and maybe a 100km triangle or so, but what then? With so many calls on their time it was easy to drift away to something more accessible or less vulnerable to the weather.

1990-1999: For the ultimate performance pundits this last decade was great. In 1993 the brothers Herbaud flew their ASH-25 from Vinon in France to their goal of Morocco in North Africa, a distance of 1383km. Klaus Holighaus in his Nimbus achieved a triangle distance record of 1400km and in 1997 Terry Delore, the New Zealand hang gliding champion from the 1970s, beat the 300km triangle speed with 179.3km/h and established the 3TP distance record with 2049.4km. But in one International competition the average age reached 60.



Photo: the white planes picture co.

Nimbus 4 – for ultimate performance pundits

So what is there in 1999 for newer, younger pilots who enjoy their soaring but need attainable objectives? In the 1930s the national distance record was within reach of almost any competent pilot in the right place at the right time. In 1959 Nick Goodhart beat both national distance and goal records by soaring 579km from Lasham to Portmoak in an ordinary Skylark 3. But today several months in Australia with a Nimbus is almost a must for even a national record.

Gliding still has only its single track to ultimate performance, but sailing has its yachting fraternity and its dinghy enthusiasts with neither superior to the other. Good ultralight gliders, like the Silent, and microlight motorgliders like the Czech Samba with its Discus-like wing exist. There is now a kit glider, the Optimist. Maybe there could be a form of all-summer cross-country touring competition for pilots flying middle performance gliders (L/D 30 – 45) for number of clubs visited or total distance flown between them. It would need enthusiasm within the clubs and promotion by the BGA, but it could provide the challenge which makes for the fun.

Seventy years ago in 1929, almost to the day this magazine comes out, the BGA invented an enterprising club structure. The future is in its hands.



An ultralight glider, the Silent, on tow

London wins the final

IS IT global warming making the season longer? Or is it improving skills and equipment – or just desperation? Whatever the reason, more and more competitions are held in late August, running into the Bank Holiday and making it harder to find a venue and sufficient tugs for the Inter-Club League Final.

Bristol & Gloucestershire GC invited us to Nympsfield in enthusiasm boosted by their own participation as winners of the Rockpolishers League.

For Day One the Novices were set 143km (Sandhill Farm, Didcot); Intermediates, 215km (Sandhill, Basingstoke, Didcot); and Pundits, 306km (Didcot, Lasham, Buckingham).

Improving conditions were reported on track and soon all 18 competitors were away. The cumulus disappeared on the last leg producing nervous final glides – with a few landings below the ridge.

In the Novices **Hywell Moss** flew his ASW-15 into 3rd place at 52.1km/h for **Bristol and Glos**; 2nd at 53.9km/h in a Sport Vega was **Graham Drinkell** of **Essex & Suffolk**, while Novice winner was **Maz Makari** of **Oxford** at 52.7km/h in a Pilatus, the only non-glass glider.



Photo: Karen Lingafelter

Bannerdown's Simon Foster (Ventus a) was 3rd at 69.9km/h in the Intermediates; **Doug Lingafelter** of **London** (Discus) was 2nd at 71.3km/h, beaten on handicap by **John Patchett** of **Bristol & Glos** (Open Cirrus), at 70.9km/h.

Bannerdown's pundit **John Arnold** (Janus C) came 3rd at 75km/h, while **Ed Johnston** of **London** (LS-6) was second at 86.8km/h. Pundit day winner was **Andy Davis** (Discus 2) at 96.2km/h. That gave **Bristol & Glos** an overall lead with two 1st places and one 3rd. **London** was second, followed closely by **Oxford** and **Bannerdown** in joint third.

Day Two promised awkward conditions, a weaker start than Day One and the prospect of an early cut-off. A number of Pundits limped off on a 205km triangle (Honeybourne, Moreton-in-Marsh), then the challenge locally was to stay in the air, with many failing. Then the airborne task-setter scrubbed the Intermediates and Novices. **Doug Lingafelter**, eager to improve **London's** 2nd place, set off with the promise of three prizes but no points if he completed the task. It was good of him to provide the hindsight confirming the validity of the scrub.

Four Pundits had landed early, with **Willie Hackett** of **Bannerdown** (Janus C) taking a second launch to fly 22.4km, enough for 3rd place. **Andy Davis** flew a Duo Discus 194km to take 2nd place for **Bristol & Glos**. The finish line's patience was finally rewarded as **Ed Johnston** was cheered back in his LS-6 to 1st place for **London** at 60.2km/h. The low scores were insufficient to change the overall positions leaving **Bristol & Glos** still ahead of **London**.

Monday's weather prospects were better than expected. Novices were set 135k via Winchcombe and Enstone, Intermediates, 225km (Gaydon, Stoney Stratford) and Pundits, 274km (Hus Bos, Newport Pagnell). After an energetic start under good clouds, the sky turned blue and awkward. Diversions to cumulus over the Cotswold edge didn't provide reliable lift and a steady stream of out-landing calls began.

Intermediate **Simon Foster** (Ventus a) with 136km gave **Bannerdown** 3rd place, beaten on handicap by **Doug Lingafelter** of **London** (Discus) in the same field. Intermediate winner with 161km was **Steve Veness** (Std Cirrus) for **Oxford**.

Graham Pursey (Pegasus) gave **London** 3rd Novice place with 104km, **Derek Seager** (Discus) took 2nd place for **Bannerdown** with 125km. Novice winner **George Crawford** of **Oxford** (Astir) was the only finisher at 40.9km/h.

Three Pundit scores were very close, with place determined by handicap. **Andy Davis** (Duo Discus) at 100km was 4th, **Mel Dawson** (ASW-24) at 97.6km was 3rd for **Bannerdown** and **Martin Hastings** (Std Cirrus) at 94.5km was 2nd for **Oxford**. **Ed Johnston** (LS-6) struggled on for a total distance of 240km to win the Pundit task for **London**.

With scores computed, it was a shame that only one day winner, **George Crawford**, was present at prize-giving to say how he did it. His 1000 points for the day had brought **Oxford** into 1st place for the weekend in the Novice Class and, with 4th place in both Pundit and Intermediate Classes, scored a total of 12 League points for 4th place overall. **Bannerdown's** Novice, **Derek Seager**, had taken 2nd place for the day and the weekend. Their 3rd place in both Pundit and Intermediate classes gave the club 13 points for a very close 3rd place. **Bristol & Glos**, leading after Day Two, finished 2nd in Pundit and Intermediate classes and 4th in the Novices. Their 13 points referred the scorers back to the cumulative 1000-point scores to place them 2nd overall.

Overall winners for 1999, taking 1st place in both Pundit and Intermediate classes, were **London** with 14 points. Congratulations to all pilots (pictured with crews) for impressive and tenacious flying, and thanks to John Taylor, owner of Stemme S10-VT G-JCKT on the Isle of Man, who generously paid for the prizes.

Good luck with plans for 2000. If you want information or help, particularly if you hope to resurrect the Northern or Yorkshire Leagues, please contact Mike Jefferyes at Tanglewood, Fingrith Hall Road, Blackmore, Ingatestone, Essex CM4 0RU. tel/fax 01277 823066 or email *MikeJefferyes@compuserve.com*

Mike Jefferyes

If you've ever wondered what the Inter-Club League can do for you, turn over the page to read Chris Davison's inspiring story – Ed

Breaking the site barrier

Chris Davison tells how, after a gap of nearly 14 years, flying in the Inter-Club League helped him break away from the airfield for only the second time.

July 22, 1985: *North Hill, Silver Badge attempt. K-8 launches, soars locally, flies downwind and lands at Compton Abbas airfield. Distance 79km. P1 flying experience 49 hours. Time out of gliding range of site, circa 1.5 hours.*

July 18, 1999*: Dunstable, Inter-Club League. Libelle launches, soars locally, then flies to Didcot and back to Dunstable. Distance 155km, P1 flying experience... 241 hours. Time out of gliding range of site, circa two hours.*

STANDING on Compton Abbas airfield, I felt the world was at my feet. Silver Badge in my pocket, I was lost in dreams: the first Nationals pilot to win in a K-8 – the greatest pilot the world had seen.

Life, however, is less predictable. To summarise ten years in three words: job; wife; kids. At first I made it clear that gliding would not suffer from my having a family. But, as came to be the norm, I made the decisions and my wife said yes or no to them. Then I rejoined at Saltby, bought a K-6CR, lied about the cost and started getting a life.

At first, the fact I wasn't "going cross-country" didn't dawn on me. In my K-6 I could fly where I wanted, whenever I wanted; that I chose to stay local was irrelevant. It was only when people started asking where I'd been that I started to query my flying: what did they mean? I went out to the mast, up to Belvoir Castle and sometimes to the A1. The castle was a good 8km away from the site – and you had to get back.

Then a BGA soaring course was held at Saltby. I learned more that week than in years of local flying. The trouble was, it was all theory – the great British summer had arrived. We did get one flying day, I took the BGA Discus. Wow! It went forward into a headwind or when you put the nose down. It had a trimmer.

I made a chart for the K-6 which showed how far I could glide at a cautious 25:1 for every thousand feet. I checked the maths and my map three times, but it still said I could get back from the castle from 1000ft plus circuit height. I'd never been over the castle at less than 3500ft. One windless day I tried it, allowing a good 1000ft for a circuit, just in case. I flew out, and out, and out. I arrived over the castle at 2000ft and turned for home. Home? There, barely visible behind what must have been the curvature of the earth, some 8km away, was Saltby.

I think they call it a "rush". Despite flying at what felt close to VNE, I arrived with height to spare: it had worked. Next, I bought a GPS. They have two wonderful functions: a big pointy arrow that shows where home is, and little numbers that tell you how far it is. This meant I could fly much further (okay, a bit further) and still not get out of range. Now if only I had one of those Discuses, I could fly for miles and stay in range.

Then our CFI asked if I would fly in the Inter-Club. At last, my trips to the castle and beyond had been recognised and the Nationals dream, albeit in a K-6 now, was rekindled. As an Inter-Club pilot I was bound to do it, fly cross-country.

But I'd underestimated both Britain's weather and my natural cowardice. The

"Didn't they know there were dragons out there?"

novice class was cancelled due to high winds. Two Discuses and an LS-7 were not happy; one K-6 was. On the second attempt, at Cranwell, it was windy again, but we flew anyway. I landed at another airfield about 10km away into wind. Had I engaged my brain I could have got back with ease. I debated whether landing in range of where I had launched, at an airfield with more than a kilometre of runway, counted as a cross-country. I decided it probably didn't. And that was it. 1998 was windy and I had a K-6CR.

Fed up with flying backwards in wind I sold it and found a nice Libelle. (I lied to the wife again.) It was a revelation. It went forward in wind and only slightly nose down when you went faster. I could go places in this. I made a new chart (goodbye 25:1, hello 35:1) and discovered a new rule: the higher performance glider you fly, the further you have to go to be out of gliding range, so the less inclined you are to fly cross-country at all. I flew over my castle at 1500ft and got back with height to spare. A whole new territory and no danger of being out of gliding range. I was happy.

This idyllic picture was smashed by another tap on the shoulder: would I organise an Inter-Club team? I was delighted and said yes. Then the awful truth dawned. Not only was I exposed to the possibility of having to fly cross-country, but all my stock excuses had gone when I sold the K-6. I had to think fast. Yes: unfamiliarity with a new glider. Phew. A brilliant plan evolved: using a two-seater and a real live pundit, I could fly Inter-Club, go cross-country and still avoid doing it myself. The day came, the sun shone, I did my captain's bit. The team seemed happy to set off with only the vague promise of lift, let alone a retrieve. Didn't they know there were dragons out there? We got back in the Puchacz, no dragons encountered. Now all I had to do was ditch the pundit.

Over the next few weeks I flew locally and on a couple of occasions almost pressed on. I got so close to rounding a turning point at the next Inter-Club it was untrue, but I wimped out at the lack of fields and headed home. So close yet so far. I had it all, glider, crew, task, weather and a motive, but just could not do it. I was getting annoyed, seriously annoyed. And so came the last Inter-Club of the year, at Dunstable.

On Day One the thermals were not brilliant. The first turning point of Leighton Buzzard, 8km away, was within gliding range. I rounded it three times. Others landed out. I spent a happy hour soaring the bowl – now that *is* local soaring.

On Day Two, my crew mutinied. I was to fly and not come back. The start time was put back and put back – then someone said "go". I launched, called start and headed towards a solitary cloud.
It didn't work and was off track, anyway. I took some deep breaths and headed back. Then I hit a corker, or rather it hit me: 3,000ft, it was now or never. I called start. The first turning point was out of range. I was halfway there but there was no lift. Should I press on or turn back? If I turned back I could start again; if I pressed on into a field at least I'd have some honour. Then, in the distance, I spotted the glint of a circling glider. I pressed on. I was out of gliding distance. I had done it.

The rest of the flight is a blur. The thermals got better and better. (I should know, my logger shows I circled in 11 in the space of 30km!) Didcot was turned at cloudbase and I was on the way back. I calmed down a bit then. I finished last but didn't care: I was just so, so happy. Nearly 14 years to the day after finishing my Silver I had flown out of gliding range again. The gap to my next cross-country will, I hope, be a little shorter.

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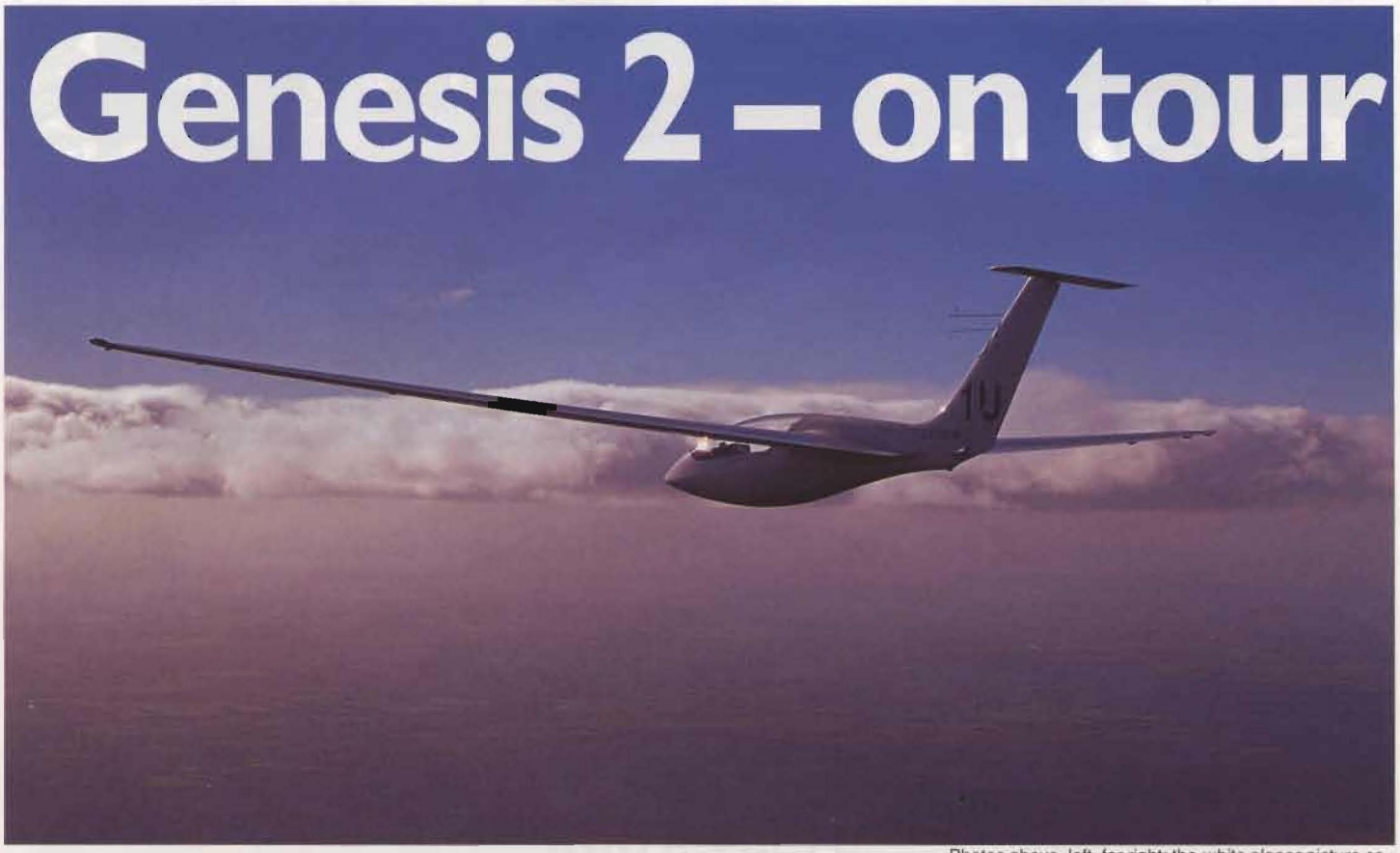
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Genesis 2 – on tour



Photos above, left, far right: the *white planes* picture co.

by Jochen Ewald

IT'S A completely new shape in the skies of Britain – but will it be the shape of things to come? Group Genesis and Sportine Aviacija finally brought their unconventional Standard Class glider to the British market with a club tour this autumn.

A definitive judgment will not be possible until Idaflieg comparison flight tests have been finished, and we see how the glider performs in competitions, but my first impression is that the Genesis 2 should be taken seriously as a Standard Class competitor.

The Genesis 2 fits into a normal trailer, its short fuselage leaving room in front for a comfortable bed! The build quality appears good, robust and clean. All the materials used in construction (at the Lithuanian factory which also produces LAKs) come from JAR aeronautical certified production. Rigging is easy, although the forward-swept wings and depth at the root mean your wingtip holder may need talking forward.

Its empty weight, 239kg, is at the lower end of the range for its class and it can take up to 196 litres of water ballast in integral wing tanks. Because of the swept forward wings, the C of G is a little aft, so no tail ballast is needed.

Without a pilot in the cockpit, the 4.81-metre fuselage rests nose up on the small tail-wheel and the well-sprung main wheel: getting in, you need a helper



to hold the nose down; getting out, you have to be careful not to let the tail hit the ground hard.

In flight

Aerotows, on a nose-hook, are straightforward. During the first part of the ground run, the stick is held slightly forward to avoid stalling the lower elevator surface, which would make the nose rise late and suddenly. The ailerons soon become effective and the wings' dihedral gives good ground clearance. On tow it feels stable and, flying in a gusty 15kt cross-wind, the Genesis 2 was easier to control than a "long-tailed" glider. In free flight, even at high speed, it feels stable.

Stalling is gentle. With a cockpit load of 83kg, the controls began to feel mushy and the airflow started to separate at 40kt, before stalling at 38kt. A wing drop can easily be countered. With airbrakes out, stall speed is about 3kt higher. The 45 degree to 45 degree roll rate is 3.8 to four seconds, an average value for its class. To roll the glider on a straight line from 30 degrees bank to 30 degrees bank, yaw-string centred, full rudder is used the whole time, while the aileron starts with 100 per cent, goes to 50 per cent when horizontal, and up to 100 per cent again as bank increases. This unusual co-ordination is a result of the short fuselage and spoiler-aileron tips.

Entering a thermal the Genesis 2 behaves differently to other gliders. Instead of the nose rising and the glider losing a little speed, it just rises while the nose lowers slightly. With lots of rudder and aileron, turns are easy. If you make small corrections while thermalling, aileron drag can be felt and plenty of rudder is needed to compensate. You can, however, use this drag by making a small opposite movement on the stick to increase the turn rate. While circling, a little amount of opposite aileron is needed and the spring force disturbs the light, harmonious feel of the controls a little. It takes only a short time to get accustomed

to the handling in thermals and, flying with other modern standard class gliders, I felt no disadvantage.

The undercarriage and airbrakes are easy to operate and landing is not difficult. Sideslip is possible but not very efficient. Speed close to the ground should not be excessive or the Genesis 2 will flare longer in ground effect than other gliders. At the right speed, the main wheel touches down when you would expect and the glider soon nods on to the nose wheel.

The elevator's position on top of the fin means its efficiency is not influenced by ground effect during take-off or landing. Another common problem of flying wings, directional control, has been addressed by dividing the ailerons into two parts: the small outer ones move only upwards, at about double the angle of the inner ones. When the aileron is deflected too far they stall at the lower surface and become small braking spoilers.

The future

The Genesis 2 looks different and flies differently. It doesn't take long to adjust to its thermalling style, though: a short conversion period is all that's needed.

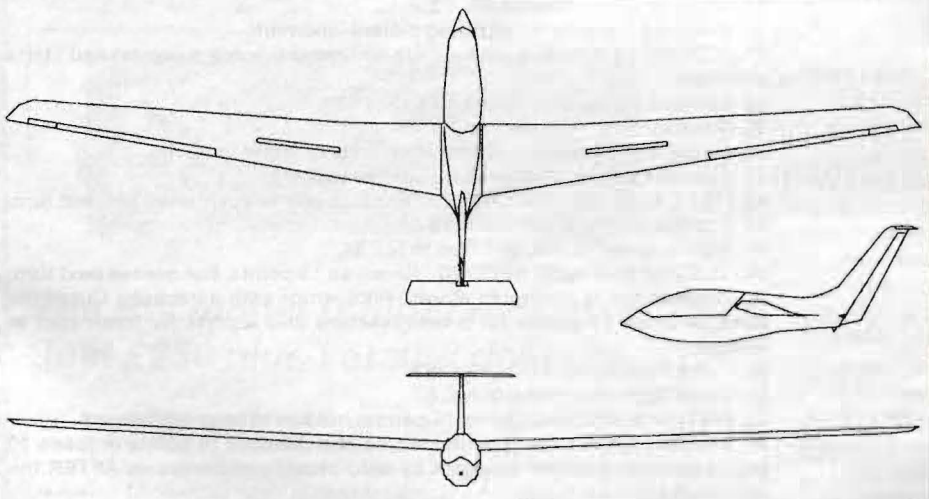
At the time of going to press in October there was no winch hook and a prototype system was being fitted. Group Genesis was talking to a number of people about a UK agency, and the price was $39,900. Around 15 gliders had been delivered so far in North and South America.

More information about the glider can be found on *www.groupgenesis.com*

Pihotos above and below: Jochen Ewald



The big, front-hinged canopy gives excellent visibility and the cockpit is as roomy as an Astir CS. Ballast fittings, backrest and rudder pedals cater well for individual ergonomics. The panel can take a full set of instruments. The only real fault is the canopy jettison, which Group Genesis plans to modify: currently, two levers have to be swung forward and then the emergency knob, too close for my liking to the right-hand lever, has to be pulled backwards! And there is no attachment point at the rear of the canopy to stop it hitting the pilot in the event of a bale-out.



Technical data:Genesis 2

Wing Span	15m	49.2ft
Overall Length	4.81m	15.75ft
Overall Height	2.21m	7.25ft
Wing Surface Area	11.15m²	120 sq ft
Aspect Ratio	20.2	
Empty Weight (Approx.)	240kg	530lb
Maximum Weight	525kg	1157lb
Maximum Wing Loading	46.6kg/m	9.6lb/sq ft



It's designed to cut high drag over the tail

THE Genesis is a fascinating design by Jim Marske of the USA. The reasoning behind the design is to use a stable aerofoil so that only a small stabiliser/elevator is needed for control. Normally, the aerofoils used on gliders are unstable. At high speed they are trying to pitch the aircraft further nose down and a large down-load is needed from the stabiliser to prevent this happening. Because tails are just small wings, they are very inefficient and create high drag when producing big loads.

The Genesis uses a small all-moving T tail for control, to avoid the need for elevator flaps on the wing itself. The wing aerofoil has reflex camber giving laminar flow over a large portion of both the upper and lower surface. The very short fuselage reduces the wetted area further reducing the parasite drag.



I was impressed by the good handling and control response. In every way it is comparable with the best of our conventional sailplanes. The aileron response is good and helped by making a small portion of aileron at the tip move up to a large angle to create extra drag to reduce the adverse yaw. The tail fin is perfectly adequate.

In the air it thermalled very well. The stall was gentle and it was reluctant to spin. The airbrakes were very effective and the side-slipping was normal. It seemed a perfectly straightforward machine to fly although perhaps the elevator control is rather too light for beginners.

Comparison tests done in Germany this summer should tell us more about its competition potential. It deserves to be a winner.

Derek Piggott

Game on

LAST issue *S&G* printed the board for a gliding game and asked whether anyone knew of the rules and its history. Thanks to Tim Buckley, who flies at Vectis GC on the Isle of Wight and who was given it by his sister-in-law (she found it while browsing in an antiques shop), *S&G* can now print the full rules (see below) for you to enjoy it over Christmas.

We also heard from Professor Naftali Kadmon, who lives in Israel and took up gliding 50 years ago near Mt Thabor in the Valley of Esdraelon (Northern Israel) on a Polish "Wrona" (Zoegling or Dagling-type) still preserved in Israel's aircraft museum at Hatzerim near Bersheba. He sheds a little light on the game's possible origin.

He says: "It seems to be an old German game board. The Sam Browne belt of the chap at the wing-tip (although green, not brown-shirted) fits in nicely, as do the knickerbockers of the nearest spectators. The landscape could be that seen from the Wasserkuppe in the Rhoen. But chiefly it is the style of the numerals which caught my eye, with the stroked-through sevens (and the not-quite-concentric red rings around the 70), and the nearly-closed sixes and nines. It is quite characteristic of German mid-Thirties game-boards. What speaks against it? No swastikas on the sailplanes. So it might be a "laundered" post-Second World War version *(The box is marked Made in England, Tin Figures Foreign – Ed).* No 6 (a glider landed at the bottom of the ridge) is typically me. I belong to the old bungy brigade."

If you missed the October-November issue with the board printed in full, you can contact the BGA to buy one.



The illustration on the box's lid is based on the Fafnir launching at the 11th Gliding Competition at the Wasserkuppe. A virtually identical photo is on the front cover of the first issue of The Sailplane and Glider *(1930).*

Gliding is wonderful sport. Quietly and safely the wind carries the glider through the air. No noisy motors disturb the stillness. The pilot enjoys the conqueror's pride and the excitements of flying. The space belongs to him, whilst the machine responds to every touch of the joystick, like a willing horse. Man flies and so the dream of his life comes true. We will try while playing to follow the flight of a glider from the very start to the finish and go through all the various experiences, some pleasant, some less happy.

Rules: The number of players is limited only by the number of planes or men provided. These are distributed and each is placed on one of the fields (1-6) at the side of the hangar. A sheet of paper for recording the scores is required with a column for each player in which the gains and losses are entered. The game is played with one dice. Glider No. 1 throws first. The machine can only be brought to the starting point if "one" or "six" is thrown, and at the same time the player has to call out loudly "Glider No. 1 (or 2 or 3 as the case may be) is ready to start." Whoever forgets to call out loses 1 point. Once at the starting place the player has to wait his next turn, but must not take off before he has issued his starting commands "TAKE THE STRAIN", "PULL", "OFF", throwing the dice with the word "OFF". Anyone forgetting these commands loses a point and his throw does not count. In the course of the game it will happen that a player has to start again from the hangar or starting place and the same rules mentioned above will still apply. Should a glider land on one of the numbers edged black it signifies nothing, but should he land on one with a RED CIRCLE THE FOLLOWING INSTRUCTIONS MUST BE OBSERVED. If he lands on a number already occupied by another player, he places his machine (or man) alongside. And now for a jolly gliding flight! Is the first one ready to start? "TAKE THE STRAIN", "PULL", "OFF".

1. FALSE START, remains stationary at starting place.
6. Landed at bottom of slope returns to start and loses a point.
9. Following wind to No. 18.
13. CRASHED. Loses 5 points for haulage and repair. Has to start again at the hangar.
16. Is awarded a point for skilful piloting. Goes back to No. 11.
21. Encounters down current & lands on distant slope. Has to pay haulage (loses 3 points) and returns to starting place.
23. Good up wind, soars to No. 33.
25. Received 2 points for attaining distant landmark.
27. FORCED LANDING, pays haulage and repairs (loses 5 points) and starts at hangar.
29. Up wind, rises through clouds to No. 33.
31. Down current, falls back to No. 26.
35. Moves with strong up current from edge of cloud to No. 45.
37. Cumulus clouds give good up current to No. 41.
40. FIRST ALTITUDE RECORD. Receives 15 points but misses his next turn.
43. Loses up current and drops to 34.
46. Tries to avoid storm, and flies to No. 54.
50. SECOND ALTITUDE RECORD. Receives 15 points, but misses next turn.
55. Crashes out of control in storm. Pilot jumps with parachute. Out of the game or loses 15 points for a new machine and reports for fresh start at hangar.
57. Quick flight downwind to No. 62.
58. Quick flight downwind to No. 67.
66. DISTANCE RECORD (gains 15 points) but has to miss next round
70. DISTANT LANDING. Either he retires and receives 10 points or loses 10 points (for being towed up again by aero-plane) and continues AFTER the next round.
72. LOST ABOVE CLOUDS. Is passed over in next round.
80 GOAL. Must be reached by a direct throw of the dice. If anyone is for instance on 78 and throws a 5, he gets to 77 (2 forward & 3 back), cruising until the landing ground is free & the wind more favourable for successful landing.The one who lands at the goal first receives 30 points, the next 20, and the third 10.

ALL PLAYERS SHOULD BE ALLOWED TO FINISH THEIR GAMES.To conclude, the points of each player are totalled and the lost points are deducted. THE PLAYER WITH THE HIGHEST SCORE IS THE WINNER.

Collision at Montpellier

ON FEBRUARY 12, 1999, at 14.59 UTC an Air France Airbus 320 left Paris Orly with 163 passengers. Its route was approximately south, descending over the south-west corner of the Alps then the foothills into the Mediterranean airport of Montpellier.

At 14.52, a Grob 103 with two experienced pilots was towed out of Saint Martin de Londres aerodrome on the edge of the coastal plain, towards the slopes of Pic Saint-Loup. It climbed in thermals then wave in class G (uncontrolled) airspace to 8,600ft in a restricted (military) zone, inactive at that time.

The air was clear, visibility was 100km and the wind northerly 35-40kt.

At 15.28, the Airbus captain heard a message from Montpellier ATIS alerting him to gliders around Pic Saint-Loup and he advised the co-pilot. The Airbus descended through Class A airspace, then Class D. At 15.37, under IFR, and the direction of Montpellier Approach Control, it entered Class G airspace at FL115, at 250kt with 38nm to go. Landing lights were on.

At 15.39 and 21 seconds, the Airbus pilots looked out for Pic Saint-Loup and ten seconds later the co-pilot saw gliders in the distance. Twenty-one seconds later the captain observed a glider on their left. Fourteen seconds after that the co-pilot shouted "Hey! There's a glider right in front – there!" He had seen one flying from right to left at a constant relative bearing. The captain turned the Airbus hard right, reaching maximum roll six seconds later.

The pilots, not knowing whether contact had occurred, transmitted an airprox message. The leading edge of the Airbus's left wing struck the left of the glider's tailplane, shearing off the tip, a 77cm length of elevator and a hinge. The Airbus received a deep dent 23cm x 15cm with a surface tear and damage to internal structures. The glider pilots were unaware of the Airbus until they felt the heavy blow, after which they saw it descending on their right. Both aircraft landed safely.

An inquiry discovered that the glider pilots were not aware that IFR flights crossed the area. In 1988 a protocol was agreed between the gliding club and the civil air authorities to protect the approach/departure path passing directly over the club between two radio beacons, MEN-FJR. This protocol never changed. Club members learned only informally, through an airline pilot member, of the establishment in 1996 of a second approach path a few miles to the west, MEN-VALAG-FJR. They did not know that IFR traffic was being directed away from the western route, by way of a short cut, across the uncontrolled airspace in which they soared.

It was estimated that the aircrafts' closing speed was 300kt or 150 m/sec; that the co-pilot first saw the glider at 15.40'05", a second before he shouted and three seconds before the controls were moved; and that the collision occurred between 15.40'09" and 15.40'11". The time between detection and collision was between four and six seconds during which a gap of between 600m and 900m closed.

The Investigation Bureau repeated recommendations that the DGAC (the French CAA) acts to ensure every passenger aircraft flying under IFR be aware of every aircraft representing a potential collision risk. It also recommended measures to ensure that IFR flights do not receive clearances away from published routes (except for operational or safety reasons); that inactive military airspace crossed by airport approach and departure routes be used by it; and regular meetings be held by the civil aviation services on GA airfields so that protocols are modified as necessary; and that the French glider pilots' manual should explicitly point out that IFR traffic can fly in uncontrolled airspace. Abridged and translated from *Vol a Voile* by Alan Montague.

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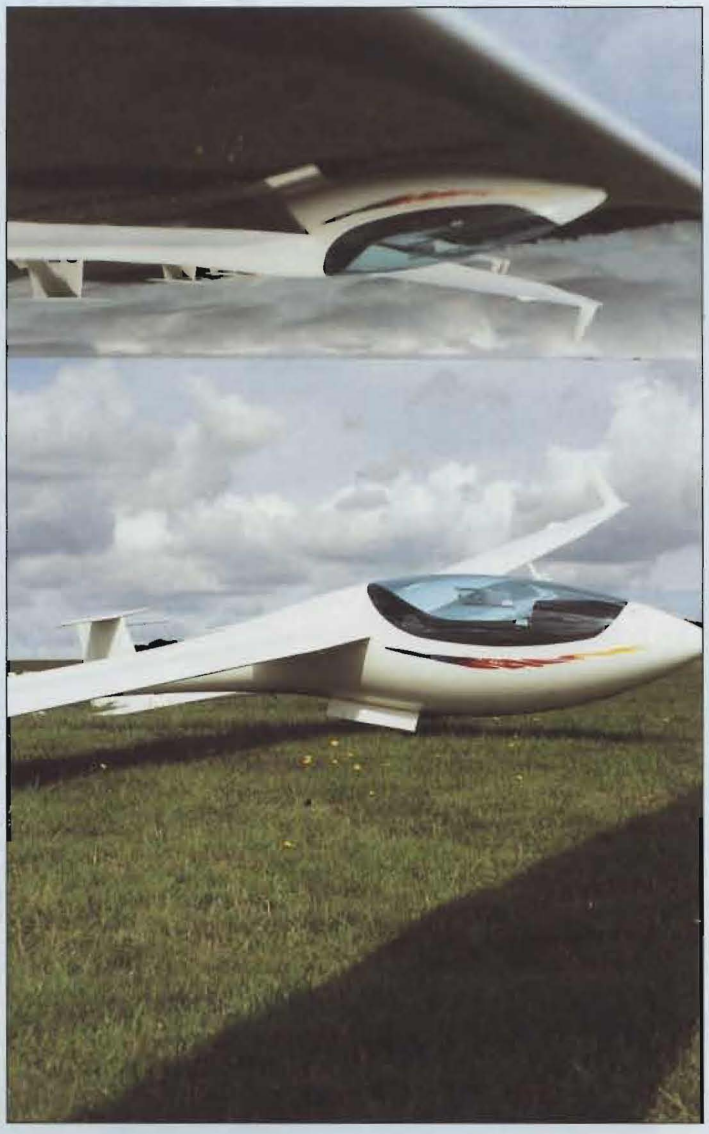
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Gliding gallery



Pete Wells gets inventive with his camera to show off an ASW-27 – its new sister ship, the standard class ASW-28, is expected to fly in December



A cloud with a definite personality problem looms over the launchpoint at Rufforth, but wouldn't you like to be soaring underneath it right now? *Photo: Mike Cohler*



Alan Self took this atmospheric photo of a rain-spattered Pegasus – the grey skies say it all



Lined up in Monument Field after flying in to pay tribute to Percy Pilcher are, from the left, a Kite 2a, Petrel, Tutor, Viking, and Scud 3. (Alan Self)



Yes, it's Jill Burry again in her LS-8 – but we couldn't resist the subtle colours in this beautiful picture *Photo: the* white planes *picture co.*



Gliding in the winter can be fun: snow doesn't stop the Midland GC *Photo: Paul Garnham*



The shape of wings to come? The gull-wings of Hanko Streifeneder's Albatross glider. A parachute recovery system is fitted under the solar panel *Photo: Jochen Ewald*

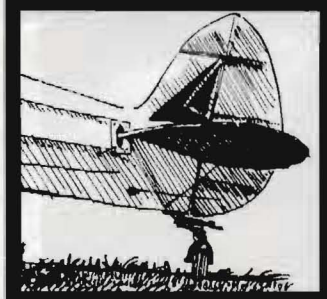
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How to not crash your trailer

AFTER the shiny new tow hitch on Alpha Papa's trailer parted company with its less shiny axle, giving owner Stuart Meier a grandstand view of his trailer racing past him and arriving three feet up a grass bank, he decided to fit a stabiliser as part of the overhaul.

It proved very successful last winter on the long trip north from Shenington, his home site, to Feshiebridge. Unfortunately, on the return journey, as he overtook two articulated lorries on a downslope, horrible snaking was followed by a second bit of overtaking...

Yes, the trailer swung the whole combination through 180 degrees, before 'parking' on the central reservation pointing back uphill.

It was all so neatly done that when the police arrived, they thought Stuart WAS going north and asked incredulously: "How did you get that lot over the central reservation, then?"

Stuart, thanking his lucky stars that the damage was only minor, offers the following advice:

DI your trailer

Drive at 10mph slower than the combination feels safe at

Fit a stabiliser (and still drive 10mph slower than the combination feels safe at)

Finally, DON'T overtake going downhill.

Thanks to Stuart Meier and Tess Whiting

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Don't forget the box

by John Whiting

THE trailer is the most neglected part of any glider deal. Like airbags in a car, it lacks glamour; like reliability in your central heating it's not exciting. But when you find yourself in a field at the furthest TP, it suddenly becomes the most important part of the equation.

A new trailer for a K-6CR costs the same as one for a Discus, and the fittings aren't cheap, either. So, whether you want to save a fortune or your back, what do you look out for?

The easy one is condition. If it's wood, is it rotten? If it's steel, is it rusty? Has it been regularly on the road, or just decaying in the corner of the field? Does the right indicator indicate right? Do the brakes work? Has it even got brakes?

Many trailers appear odd – just look down the trailer park – like refugees from the set of Mad Max or Waterworld. They may be perfectly sound, but will they be easy to sell on?

Examine the trailer as thoroughly as you do the glider. At least one trailer (see left) has parted company with its car because the hitch came adrift. How does it tow? A trip to Feshie at a maximum speed of 40mph because anything faster makes the trailer snake so much that you're threatening to do a quick pirouette on the M6 could turn your week's holiday into three days' driving there – and three days back with a day in the middle for a quick counselling session. Take a test drive, or get the seller to do one.

Fittings. These can be amazingly simple, easy to use and actually help you rig. Or they can be fiendishly complicated: a danger to your back and a threat to your chances of finding a willing crew... or even a crew which responds to only moderate amounts of force, blackmail, and so on.

Look out especially for the continental trailer: most of the time, the glider is kept in a hangar and the trailer gets used only for the occasional retrieve (or moving house, or taking rubbish to the tip). Foreign trailers can be very complicated. I sometimes fantasise that this is all part of a nefarious plot by the gliding teams of other countries. Sell a cheap glider to some aspiring future world champion and then make sure the trailer and fittings are so horrendous that he or she never flies it or, even better, gives up any idea of gliding cross-country altogether.

Anyhow, you should begin to get the idea by now. Look at the trailer. Look at the fittings. Go to see your prospective future glider thinking: "trailer, trailer, TRAILER". And then do what I do – admire the gleaming white wings, drool over the 747 instrument panel, dream of the 500km you could do in just five hours... and forget about its box.

Watch out for...

- **Back-to-front trailers where the glider has to be taken – or carried – out over the tow hitch**
- **Wings that go in on slings and can bash the sides as they go in or out**
- **Trailing edges that, if you lift three inches too high, will scrape the top of the trailer**
- **Leading edges that, if not supported three inches from the bottom, will scrape against the trailer's floor (in combination with trailing edges, above)**
- **Trailers where you can rig only on the trailer – great if you can get the trailer in to a field, or if you don't want to rig next to a similar type of trailer**
- **Fuselages that go in on a single rail so the glider is unsupported when you take the wings off.**



It could happen to you... check, check, check the trailer – and the car combination



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Soaring th

by Justin Wills

FOR AS long as I can remember I have been fascinated by the idea of gliding in the Andes. In 1997 I had the good fortune to meet Carlos Schmidt who was representing Argentina at the World Gliding Championships in St. Auban. He told me of his plans to start exploring the Andes around La Consulta. I asked whether a foreigner would be able to join the expedition, and he confirmed that it should be possible provided we allowed sufficient time to organise everything. I realised this was excellent advice and we agreed to remain in contact following his initial visit to La Consulta in October 1997.

His report arrived in December that year, full of enthusiasm. At the same time I made contact with Eduardo Toselli in Cordoba, whose address I obtained from a Swiss gliding friend who had met him during a visit to Cambridge Instruments in the USA. Eduardo in turn put me in touch with Ulderico Pace, President of the Aero Club de San Martin, close to Mendoza. Such is the brotherhood of gliding!

A great deal of correspondence ensued: I contacted Rodney Witter and his wife Sue in Britain to join us on our expedition; Carlos negotiated tirelessly with the authorities in Buenos Aires to obtain for us Argentinian gliding licences; Eduardo arranged all the details for us to join the camp at La Consulta in November 1998, organised a hire car, suggested our itinerary and even located a Janus which we could fly with Mauricio Delfabro who brought it 900km to La Consulta; finally Ulderico bravely allowed us to use the San Martin Std Jantar 3 and even permitted us to join the club's internal insurance scheme, as commercial glider insurance in Argentina seems unavailable.

The end result of all this preparation was that Gillian and I arrived at Mendoza Airport after travelling for 18 hours from New Zealand, yet according to the calendar we had arrived two hours before we had started. In the interval we had discovered that Aerolineas Argentinas often arrives late, that the Information Centre at BA International Airport speaks only Spanish, that the transfer bus to the domestic airport operates to a schedule known only to the driver who constantly reinvents it, and that mini-skirts are alive and well in Argentina, and worn with great style and grace.

Because of our late arrival we had expected to search for a hotel, so were completely unprepared for the large



El Portillo Argentino

THE final slope up to the pass named The Gateway of Argentina consisted of a snowfield whose surface had eroded into innumerable small sharp pinnacles. These made my progress rather uncomfortable, especially when I broke through the top crust and floundered up to my waist, but at least it was safer than the steep face of loose rock I had traversed earlier during the two-hour climb.

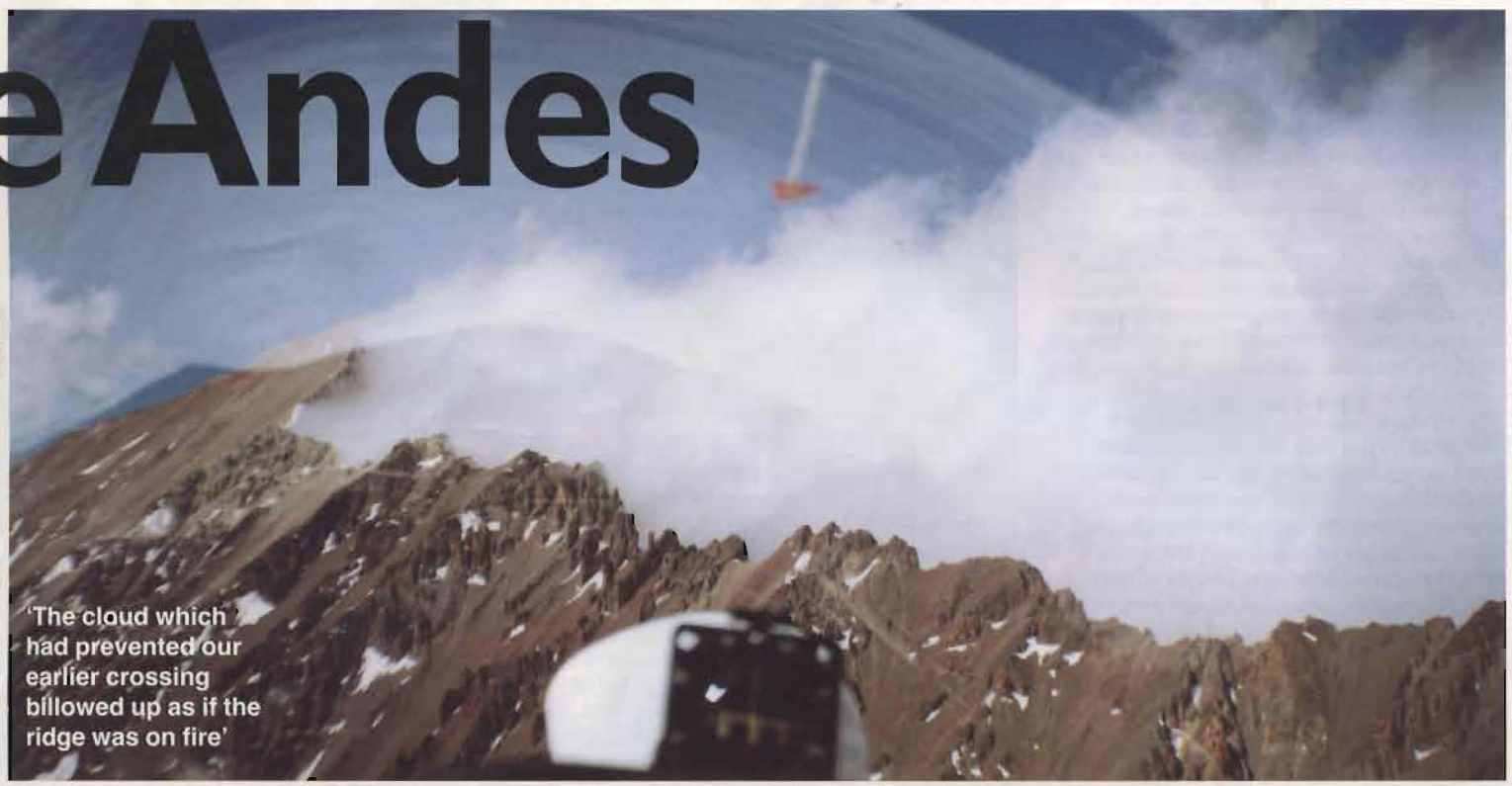
The pass itself at 15,000ft was a narrow defile between two rock walls which rose a further 100ft to join the main ridge line above. Long ago someone had hollowed out a recess in one of the rock faces and covered the opening with a metal grille. Behind lay some simple offerings: three candles, a strip of coloured cloth, and some dried flowers.

It is an historic spot in Argentine history for a curiously negative reason: it was this pass that San Martin, the great South American liberationist, chose not to use when, having won freedom from Spain for Argentina, he sought to do the same for Chile by capturing Santiago.

Having crossed the Pampas with his army he consulted the local Indians at the village now called La Consulta, who told him of this pass. After seeming to accept their advice, he waited until they disappeared to sell this valuable information to the Spanish, and then did a lightning forced march 100km to the north and used an alternative route which now carries the main road from Mendoza to Santiago. He thus arrived from the north-east while the Spanish garrison was shivering in the mountains to the south-east waiting to ambush him as he emerged from El Portillo Argentino.

Bracing myself against the piercing wind I looked out to the north-west across the snow-filled basin below toward the towering bulk of Mt Tupungato, rising up into cloud to its summit at 22,300ft. Inwardly I sympathised with the Spanish colonial militia who, after three weeks' fruitless wait in this remote cold landscape, returned to Santiago to find it already taken and promptly surrendered. Above all I marvelled at how gliding had brought me to such a beautiful place and to meet such good new friends.

e Andes



'The cloud which had prevented our earlier crossing billowed up as if the ridge was on fire'

reception committee that awaited us, including Eduardo Barrera, president of the Argentinian Gliding Association and Javier Cappelan, president of La Consulta Aero Club. Gillian was presented with a bouquet of flowers addressed to 'Lady Wills', cameras flashed and it was all confusing and wonderful. Soon we were in our hire car with Rodney and Sue (who had arrived earlier) and we set off in a large convoy towards La Consulta in the midst of a gigantic thunderstorm.

Most of the vehicles on the roads seemed rather elderly, and the exceptionally heavy rain had reduced their lighting to, at best, pale green glimmers. Thus it was after two rather exciting hours of driving that we arrived outside some very impressive gates which were opened by two heavily armed military guards. We stopped outside a magnificent porch leading into a large chandeliered hallway full of enthusiastic glider pilots. Carlos Schmidt was awaiting us and he explained our accommodation had been arranged in the Officers' Mess of the local army battalion, all for the price of US$12.50 per night including breakfast, with dinner if required for an extra $7. Despite our exhaustion, dinner was definitely a requirement as it was now 10pm, and in a remarkably short time we found ourselves sitting at the head of a great horse-shoe shaped table surrounded by new friends. It all seemed, indeed it was, a miracle.



Map: Steve Longland

The next morning it was still raining; I recalled Ulderico's advice that "it never rains in Mendoza" and noted that the 'gliding effect' works even in Argentina. We drove to the airstrip where we found a simple hangar, clubhouse and enormous barbecue all prettily situated beside some trees. A dignified opening ceremony at mid-day was followed by an excellent lunch. Soon after the sky began to clear and, for the first time, we could see our surroundings.

To the east the Pampas stretches away 1,200km sloping imperceptibly from La Consulta at 3,400ft down to the South Atlantic Ocean. But to the west, less than 20km away, the Cordillera De Los Andes rise almost vertically like a huge wall to an average height of 16,000ft with many individual peaks over 20,000ft. A further 20km west across a totally uninhabited area of high plateaux lies a second parallel ridge of very similar height marking the border with Chile.

From here there are numerous long ➢

➢ spurs and valleys which run down towards Santiago and the Pacific Ocean. The total width of the Andes at this point is only 100km.

On the first day I made a short test flight with Mauricio in the Janus to check the installation of my Cambridge GPS system. It worked well, but in the process we had inadvertently disconnected the variometer system in the front cockpit, so it was only with Mauricio acting as the audio variometer that we managed a brief cloud climb to 10,000ft over Tunuyan.

The condors

The next day it was my turn to fly the Std Jantar. Following the rain, cloudbase was still below 9,500ft and the Cordillera was wreathed in cloud. Accordingly I set off northwards parallel with the main ridge towards Mendoza. The wind was from the north-east, and as the sun swung to the west the cloud shadows spread out to cut off the thermals at their roots, making my progress rather slow. Near Mt Colorado, about 150km north of La Consulta, I pulled up into weak lift above a spur running east from the ridge. Looking up I saw two large birds above me, with black plumage except for white collars around their necks. My first condors!

They appeared content to maintain their altitude in weak ridge lift, so by flying to the tip of the spur where there was some sunshine I was able to find a thermal and climb above them. I immediately noticed that the birds were now far more visible, as the upper surfaces of their wings included large areas of white feathers, and I speculated on the reasons for this.

As I approached, I was interested that they remained imperturbable. Clearly they regarded themselves as kings of the air, and expected everything else to avoid them. Weighing around 10kg with a wingspan of more than 10ft this is understandable, but it also allowed me to get quite close. I observed that turning was accomplished by twisting their large wedge-shaped tail. At the same time the bird turned its head in the direction of the turn, but also inclined it so that its eyes remained parallel with the horizon.

Most interesting of all was the complex interaction of the eight big wingtip feathers, resembling long fingers at the end of the broad wings. These feathers seemed to flex dependent on the angle of bank and the speed; I wondered if the bird could physically control this or simply utilised the natural flexibility of the feathers' quills. I would love to know what it feels like to be a condor in flight. Perhaps in another life...



Justin and Mauricio abandoned the wave climb at 28,000ft under curiously-shaped lenticulars

The gift of Mt Tupungato

Tuesday, November 3 was unforgettable. I had begun to understand that the weather system on the eastern side of the Andes around La Consulta works quite differently to other superficially similar areas in the New Zealand Alps.

This is mainly due firstly to the relatively weak upper winds at these latitudes (33 degrees south) compared with those of the Roaring Forties, and secondly to the great height of the Andean chain, which acts as a gigantic windbreak. Thus the winds on the Pampas at the foot of the Cordillera tend to be light and generally north-easterly, caused by the uplifting effect of the mountains themselves.

This regime persists up to the height of the main ridge line, above which the westerly wind takes over. This upper air is also drier, resulting in a higher cloud base. Thus in the evenings we were treated to the spectacle of the clouds over the Pampas moving towards the south-west, whilst far above clouds off the Andean peaks drifted towards the east. The challenge, therefore, was to find a way of transiting from the lower system on the east to the higher system to the west.

Mauricio and I took off in the Janus at 13.20hrs, and commenced thermalling above the initial slopes south-west of the airfield. Here the Tunuyan River emerges from a narrow gorge that leads into the central mountain area, but with cloud base at only 9,200ft we simply could not penetrate far enough to reach the better conditions that should exist further into the mountains. Our decision to retreat was made easier by the total lack of any habitation or landing possibility, and the eerie feeling of flying low in a narrow gorge with its unpredictable swirling winds and the mountainsides towering 7,000ft above us.

So we returned to the Pampas and began flying northwards parallel with the Cordillera, searching for some way to cross on to its western side. We passed west of the Tupungato township, but here the north-easterly wind had produced an unbroken band of cloud pressed against the adjacent mountain sides, forcing us to use the thermals off the Pampas along the edge of this cloud sheet up to 10,500ft.

However, as we approached a ski resort called Vallecitos, 90km north of La Consulta, the Cordillera turned slightly more north-westwards. Beside the deserted village we found a humpbacked spur with some sun on it, which



Aconcagua at 22,834ft is the highest mountain outside the Himalayas – cloudbase is 20,000ft

produced a good thermal to 12,500ft. We carefully followed the contours of the slope and, after 20km, we found a large cloud-filled bowl with a low point in its centre at 12,800ft, through which we could just glimpse clear air beyond and therefore must lead to the western side of the Cordillera. The air here seemed a little drier, and by hugging the higher slopes we were able to climb slowly to a point where I was confident we could clear the pass, and we dived across it into another world.

For the last hour we had been flying along great dark slopes shrouded in cloud. Now we were in brilliant sunshine above the low point of a gigantic copper coloured ridge which ran on both sides of us to individual peaks above 18,000ft. With the combined effect of sun and wind we could feel the glider surging upwards. Above, the deep blue sky was studded with cumulus based at 20,000ft. To the west the skyline was dominated by Mt Aconcagua, at 22,834ft the highest mountain in the world outside the Himalayas. To the east behind us the cloud which had prevented our earlier crossing billowed up in an unbroken plume behind the ridge making it look as if its whole length was on fire.

Mauricio was equally impressed, and I reflected what a privilege it was to share this moment with a young man seeing his own country this way for the first time.

Heading south-west we used the ridge to climb to 18,000ft, and then pushed forward to the cumulus to gain a further 1,500ft. Soon we found ourselves approaching Mt Tupungato, distinctive not only by its great height but also by its conical shape, evidence of its volcanic origin. However, I was particularly interested by the cap cloud which concealed its summit. I told Mauricio this was usually a sure sign of wave; two minutes later the variometers swung to maximum climb, the air went completely smooth and we rose to 26,000ft.

I then decided to see if the wave system extended north-west, but after flying to within 30km of Aconcagua I came to the conclusion that it was related to individual peaks rather than the whole chain, and we returned to our original position to climb again, using the Cambridge GPS 'mark this spot' feature. Climbing at 7kt I debated with myself how high we should go. I was concerned both by the cold, and by the uncertain oxygen system. This appeared to be a recent installation consisting simply of a bottle on Mauricio's lap and some lengths of plastic instrument tubing leading to two medical-type face masks. Despite Rodney Witter having introduced some vital improvements the previous day, my mask still smelt as if it had last been used in a fruitless attempt to revive a very old donkey. This, coupled with no means of checking the flow rate, led me to abandon the climb at 28,000ft and we headed south under newly-formed lenticulars at least 3,000ft above us. These were a most curious shape, with short straight leading edges, and then long tails tapering gently to the east.

This confirmed my earlier impression of individual mountain generation, but we were now also able to prove that one could fly at high speed from one to the next and re-contact the lift easily.



When we opened the canopy, the air felt like warm velvet

By now our cold feet were making their presence felt, so we began the long descent to La Consulta. We landed at 18.30hrs and when we opened the canopy to be greeted by our friends the air felt like warm velvet.

The banquet

Our last few days in Argentina were spent visiting Cordoba and Buenos Aires. Here we not only enjoyed further numerous examples of the tremendous local hospitality, but also gained some insight into the historical development of Argentinian gliding.

It seems to me the first era covered the period from the 1940s until the triumph of the 1963 World Championships in Junin, during which conditions over the Pampas were explored in wooden gliders. The second era was marked by advances in aircraft performance using composite structures and better instruments which produced great improvements in speeds and distances flown, but still largely over the Pampas.

The third era is now dawning, perhaps the most exciting of all: the exploration of the soaring potential of the Andes. Hitherto this has remained largely unknown (despite a few remarkable flights) due to a combination of their geographical remoteness, the scarcity of good roads, lack of communications and absence of outlanding possibilities.

But now many of these obstacles have been lessened by social and economic progress, and technological advances such as the cellphone and GPS. The equipment available is more than adequate. Autocratic military-style governments often encourage aviation sports, and up to 1990 the importation of gliders was subsidised in Argentina. Today such items are taxed as luxuries, but as a result of the former policy there is a fair number of ASW-20s, LS-4s, Std Jantars and their like available, together with GPS-integrated instruments.

Sometimes I think competition gliding does us a disservice, taking up a disproportionate amount of publicity and attention. Contest flying, like technology, should always be the servant not the master of the gliding movement, which depends not on lists of results, but on our love of flying, our appreciation of the beauty of our planet seen from the unique viewpoint of a sailplane cockpit, our understanding of natural forces, a feeling of harmony with our environment, and the establishment of friendships and camaraderie with those who share our passion for all this.

Argentina may not currently be head of the international gliding competition results table, but in the areas that really matter Argentina is top of the super league. The prospect of exploring the Andes by glider raises the dilemma confronted by diners at a huge, glorious banquet: where to start? The range of courses seems almost infinite, from the tropics in northern Salta to the ice fields of southern Patagonia.

Happiness and fulfilment in this extraordinary experience we call human life depend to a significant degree on good fortune to find oneself in the right place at the right time. Sharing some part of the Andes exploration with our new found friends was an enormous privilege. We cannot wait to go back.





Photos: the white planes picture co.



MORE people than ever before could follow the 26th World Gliding Championships, thanks to the information revolution which took gliding not only onto our television screens, but onto the internet.

Coverage in five languages – German, English, Dutch, Italian and Spanish – on satellite television brought the thrill of international gliding competitions to a Europe-wide audience.

The *Eurosport* programme, broadcast to the UK in August, filmed on several days of the contest. It featured interviews with leading pilots, including New Zealander John Coutts, and their crew.

In-cockpit and air-to-air shots and reports of the results gave a good overall impression of what it's like to be flying with the best pilots in the world.

Meanwhile, for those of us trapped at our desks, the official website offered real-time monitoring of selected competitors. Loggers collected information in two-minute bursts then transmitted it to the organisers, who put it on the internet. Average speeds, distance to fly and tracks superimposed on maps of the tasks were some of the features on display on the web and on dozens of screens at the airfield itself. More than 85,000 spectators made more than two million visits to the website.

Worlds '99 – Bayreuth

THE 26th World Gliding Championships, held at Bayreuth, Germany in August, were won by the host country, with Britain coming 4th in the World Soaring Cup behind France and the Netherlands.

Britain's best individual result was in the 15 Metre Class, where Justin Wills, who has twice come second in previous Worlds, finished sixth. The other British placings ranged from 9th (Russell Cheetham, flying his first Worlds) to 32nd.

There were two controversies. In the 15 Metre Class, Belgian Patrick Stouffs landed out before the start, possibly because he was not dropped close enough to the official drop-point. He made an official complaint, which the organisers did not uphold, then a protest. The International Jury upheld his protest and cancelled Day Four for his class – much to the chagrin of the Poles and Czechs who had done well.

On Day 9, Open Class competitor Bruno Gantenbrink stayed airborne after the class's task was cancelled and flew for 20km on a parallel track to competing 15-metre gliders – including two flown by his team mates. The American Team protested to the competition organisers and then to the international jury. The official conclusion was that there was no proof that his team mates sought or obtained help from Bruno Gantenbrink or that he gave or intended to give help. However, it added, as an experienced competition pilot he must have know that continuing the flight while the 15 Metre Class was on task, and flying for 20km parallel to competitors, would arouse suspicions that he had been helping his team mates. A letter expressing disapproval of his behaviour would be sent to the German Team captain and copied to the chairman of the German Aero Club. No action was taken against the 15-metre pilots.

With thanks to Bob Bickers

Standard Class (47 competitors)				
Pilot	*Pos*	*Glider*	*Country*	*Points*
Jean Marc Caillard	1	Discus 2a	FRA	6616
Andy Davis	11	Discus 2a	GBR	6333
Brian Spreckley	32	LS-8	GBR	5825
15 Metre Class (43 competitors)				
Giorgio Galetto	1	Ventus 2a	ITA	6618
Justin Wills	6	ASW-27	GBR	6337
Al Kay	10	Ventus 2a	GBR	6257
Open Class (32 competitors)				
Holger Karow	1	Nimbus 4	GER	6623
Russell Cheetham	9	ASW-22BLE	GBR	6304
Tim Scott	14	Nimbus 4T	GBR	6209

About the gliders

In the **Standard Class**, honours were split between Discus 2s and LS-8s, with five of each in the top ten. Fourteen Discus 2s and 27 LS-8s entered. In the **15 Metre Class**, Ventus 2s and ASW-27s battled it out: there were 7 Ventus 2s (out of 24) and three ASW-27s (out of 13) in the top ten. Nimbus 4s (12), Nimbus 3s (6), ASW-22s (8) and ASH-25s (6) competed in the **Open Class**: six Nimbus 4s took top ten places (including the top three); four ASW-22s joined them.



Satellite television coverage on Eurosport *used animations based on logger data from flights*

Juniors drop in on Arnhem

Peter Masson, National Junior Champion, reports on the young Brits' success at the World Junior Gliding Championships

AFTER team training in Bicester and Spain, we turned up at Terlet airfield near Arnhem, Holland, in practice and with high expectations. But when we arrived, it was hard to tell where launching and landing would take place.

The airfield is in a National Park, and appeared to be covered in heather and on a hillside (or "mountain", as they call it in Holland). However, on the hilltop was over a kilometre of grass runway. Other daunting features included a line of 200ft high-tension power cables across the main finish line. Locals revealed that the forest in this direction was unlandable for 12km. The organisers threatened penalties for going under the cables. This seemed to rule out marginal final glides.

At briefing during practice week we were introduced to the tradition of the "Vache" (an inflatable cow): the Dutch version of our "Dick of the Day" award. Luke set his heart on one.



Photos: Reb Rebbeck

Jay Rebbeck, sole finisher on Day Three

The opening ceremony included an airshow, with a Minimoa, a Fox, two Dutch air force F16s and an Extra towing a K-21. I did this last year, but felt a little outdone when they did a pass at 200ft and the Extra rolled inverted.

Day One taught us about flying in the area. The rivers, forests and big towns influence conditions an incredible amount: if you crossed the rivers in the wrong places you struggled along in 1kt thermals, which died low down.

Day Two's tasks, threatened by thunderstorms, were short; all the Brits got back and managed to put the gliders away just before the first cu-nim drifted over ...

On Day Three the British Club Class pilots all made it back, but the Standard Class task took them into spread-out. It seemed the whole class would land out when Jay called a marginal five minutes and managed to scrape in. The only finisher, he won the day. On Day Four, everyone landed out.

On Day 5 Owain Walters found 3kt of shear wave (in *Holland*?) in front of a cumulus and climbed to 6000ft for an excellent start on a Free Speed Task.

Then four days were scrubbed in a row. We went to the Van Gogh museum for a spot of culture: it's not true what they say about us Juniors – honest!

The Day Six forecast, for spreadout and strong winds, was right. Owain won the day, moving him to 1st place overall. In the Standard Class, Jay and Dave claimed 2nd and 3rd to take them to 2nd and 5th overall. At prize-giving the next day Luke's desires were fulfilled when he collected a blow-up cow for landing just 13km from the site – on the way out!

Day Seven spread out. And how it spread out! I spent 45 minutes groyelling before getting away. Once again everyone landed out. Luke came 3rd in his class, but Jay had landed out early on.

Owain arrived in the same field as Robert Scheiffarth (then second) and was left with a cruel wait to find out how his higher handicap would affect the scores. It finally emerged that Owain's handicap had been just too much, but we had five out of six pilots in top ten places! Best British results before had been a handful of day wins, and a few top ten places.

Thanks to everyone who helped with team training (special thanks to Brian Spreckley and Al Kay) and all of you reading this for helping to fund us. Reb Rebbeck was an excellent team captain: thanks! In future, we hope to learn even more about how we can train to excel in international competitions.



Jay, Dave and Luke plotting in the shade

Club Class: *1, Robert Scheiffarth (GER), 4199; 2, Owain Walters, 4178; 5, Jeremy Hood, 4012; 6, Peter Masson, 3984;* ***Standard Class:*** *1, Gunther Stahl, (GER), 4924; 2, David Allison, 4762; 8, Jay Rebbeck, 4612; 26, Luke Rebbeck, 3883.*

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NEWS REPORT, GLIDER INSURANCE AGENCY CHANGES

There have been some changes recently within the UK Glider insurance market.

As some of you will know Lambert Fenchurch International Group Ltd, Aerospace Group (Formerly Lowndes lambert Ltd) have withdrawn from the UK Glider Insurance market. They have written to all of their direct clients and requested that they contact Joint Aviation Services Ltd for their renewal quotations. The main reason for this is to enable the clients to continue to insure through their current underwriter and retain all of their well deserved no claims bonus. This is only available through Joint Aviation Services Ltd and all existing lambert Fenchurch direct clients have to do, is to call Joint Aviation Services Ltd and request their renewal quotation.

Through this scheme the clients will have direct access to a 24 hour, 365 day per year accident help line in association with GAB Robins, plus the normal benefits of insuring through what is now probably the largest single Sailplane Insurance agency in the UK.

Next year, at the time of writing this, there will be two less Glider Insurance underwriters in the market. At a time like this it is doubly important to obtain quotations through an agency that has access to ALL the major UK and German underwriters. Only at Joint Aviation Services Ltd are you able to search ALL of the SECURE market both in the UK and Germany, after all Germany does have over 1150 Gliding clubs and about 10,000 sailplanes. The German market is especially capable at Club insurance, so if you feel your club is paying too much please give Joint Aviation Services a call to explore both the German and UK markets. Please also remember, Joint Aviation Services Ltd is the only insurance agency to actually offer a free replacement two seat aircraft to any club that insures through them that loses the use of one of their two seat aircraft after an accident. (At the time of writing we have one spare two seater so availability is subject to first come, first served.)

INSURANCE HEADLINE NEWS

Flight Insurance Services, in Thirsk, Yorkshire, has agreed with Joint Aviation Services Ltd to place all of their new and renewal business through Joint Aviation Services Ltd.

After some considerable number of years in the Glider Insurance Market, Carol Taylor, owner of Flight Insurance, will be handing the day to day responsibility of looking after his clients to Joint Aviation Services Ltd. Administration will be completed by Joint Aviation Services Ltd as well as claims and general enquiries, but Carol will still be able to advise clients, as always, and indeed obtain quotations for new business. For the future this gives clients the satisfaction of knowing that their needs are being looked after by perhaps the most complete team in the glider insurance market.

To contact Flight Insurance please use the numbers below, if Carol Taylor is busy or away on business your call will automatically divert to Joint Aviation Services Ltd in Hampshire.

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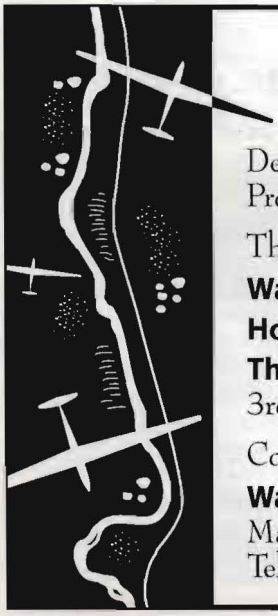
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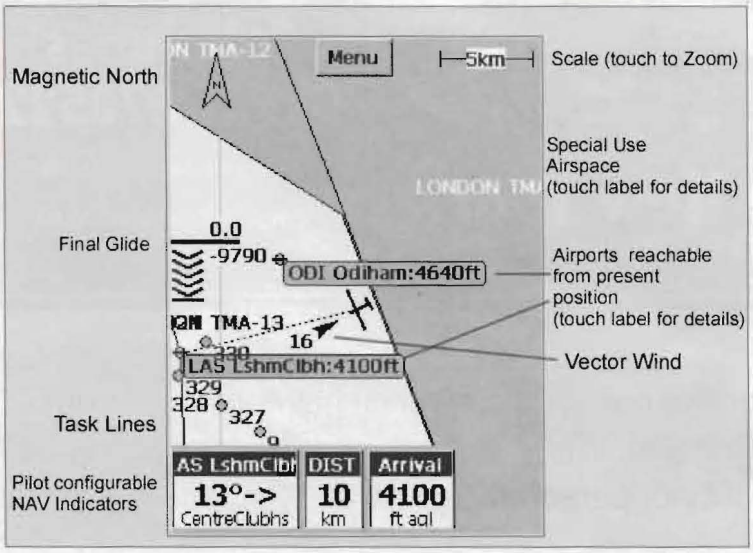
WinPilot

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www.winpilot.com

see the article in this issue

The Next Generation Instrument - Powerful, fast, intuitive, clear - information at your fingertips (literally)



http://www.crabcom.demon.co.uk

WinPilot is the most powerful glider computer software available, designed to be used with an external GPS data source. It provides friendly user interface taking advantage of high resolution 240*320 (60 x 80mm) graphic display, Color or B/W that is also touch sensitive. The hardware is a palm-sized computer Casio E-10, E-11, E15, or Compaq Aero 2100, running Windows CE operating system.

Christmas Offers: (until Jan 31st, prices excl VAT,p&p)
All systems include cable and mounting bracket

Lite	~~£329~~	£269	needs GPS NMEA input only
Std	~~£399~~	£339	needs Volkslogger or Colibri
Pro	~~£439~~	£379	needs Borgelt B50 and logger

Crabb Computing
3 Salford Close
Welford, Northants,NN66JJ
Tel/Fax +44 (0) 1858 575665
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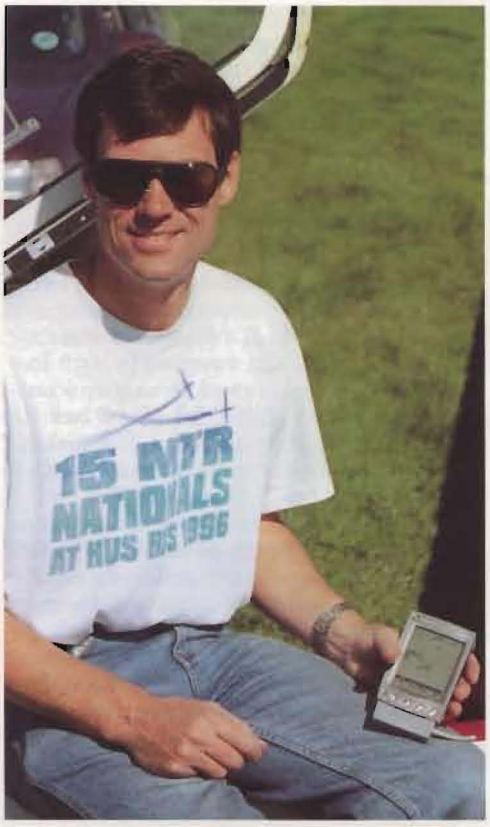
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The world in your Palm



Photos: Karen Lingafelter

Standard Class champion Ed Johnston explains below how palm computers are revolutionising the cockpit; overleaf he and British Team member Andy Davis review two navigation software programmes

IT STARTED with two balls in a tube. Some of you might never have enjoyed a stonking thermal with a Cosim vario. My memory of it is the little green ball rising to the top of its tube during a wire launch, and resolutely staying there – until the ground run shook it loose.

By the time that air pressure-driven mechanical devices had reached their zenith with torque band varios such as the Schumann, electronic devices were on the way.

Early versions measured airflow with hot wires and resistance bridges. Some became quite sophisticated, but their output was usually simple dials and audio tones.

Electronic varios really started to sing with pressure transducers and microprocessors. They could derive altitude and airspeed and had the processing power to calculate useful information and display it on a screen. This digital dead reckoning of wind and distance led to some truly horrible final glide experiences. And, unlike the old John Willy calculator, it wasn't even any good for scraping the mud off your boots after landing one field short!

Then came GPS, another source of electronic information to digest. At least now the final glides tend to end in line with the target airfield. Also, it provided opportunities for a host of new facilities such as real-time mapping.



Photo: Dickie Feakes

Gliding folklore says that "stonking" thermals came from the Cosim vario. It had two tubes, one containing a red ball and the other, a green. The only illustration *S&G* found has a scale from 0.5 to 20ft per second between the two tubes, but legend says that it was marked KNOTS... and when the little green ball reached the top letter - S - you were in a STONKing thermal. Can anyone supply a picture as proof? A fiver to the developer who produces a digital version of the Cosim!

However, there are two obstacles to making these facilities available. Firstly, the computer power needed goes up and up. Secondly, as instruments become more sophisticated they get more complex to use, distracting the pilot from the sky and sometimes simply failing altogether.

Early digital electronic instruments were built from component parts. Some electronics genius would start from a microprocessor and some pressure transducers and go for it. Designers have to make compromises. Building from general-purpose components is cheaper but may result in less pilot-friendliness. Custom-built ones are excellent to use, but very expensive and if you sell too few you can lose money.

We needed the reliability and quality of mass-market electronics, but the compromise on ergonomics and performance was too great. Until now.

Hand-held computers have changed all that. Suddenly, for a few hundred pounds you can buy a computer that fits in the cockpit, has a touch-sensitive, high quality screen and bags of power and memory.

On top of that there's a massive bonus for the designers: these devices are designed to link to other devices, and there are lots of developer tools to help them write software. The mass market suddenly provided us with a computer we can use. All you need to do is write the software then link the Palm PC to one of your other instruments.

Unfortunately you have to give up the integration of an instrument into a single panel-mounted unit. On the other hand, you get much more quality, functionality and flexibility for your money than otherwise would be possible and a much easier upgrade path. ➢

Turn the page for software reviews.

WinPilot

WHEN you buy WinPilot, you get software, a cable or two and a mounting bracket. To make it work, you need a Palm PC and a GPS.

The software comes in three versions depending on the GPS device you use. For the moment, I'll talk about the set up I have which is WinPilot Standard and the Volkslogger.

My WinPilot package cost $599 direct from Jerry Plaszowiecki in the US, the Palm PC just under £300, but these prices are tumbling all the time.

Getting started

I already had the Volkslogger, but to make it work I needed an upgrade to firmware version 3.5 which Crabb Computing did for the price of the postage. The software, cables and mounting bracket came from the US. I bought a Cassiopeia E11 palm PC, which comes with all the equipment and software to link it to my PC.

It took me two or three hours to get the software onto the Cassiopeia and make up the cables. Crabb Computing has now taken the UK agency, and I am sure will be able to supply any of these component parts, or the whole thing made up.

WinPilot is supplied with a bracket that sticks to the canopy. I don't like this, but at least you can use the kit until you work out where to mount it properly.

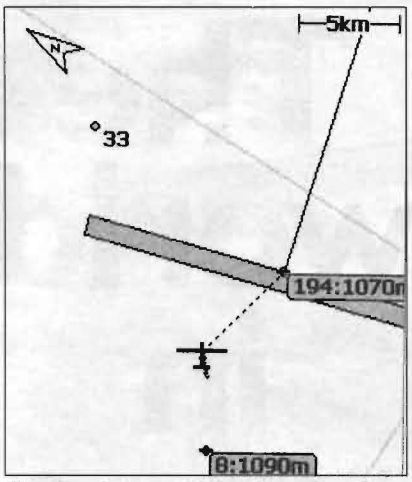
First use

When you start the software, it asks you to enter the airfield height, then opens the map screen. The display is much what you would expect with airspace and turning points shown.

The nav. boxes at the bottom of the screen can be chosen from a variety of options. The whole screen is touch sensitive. By touching the area of the nav. buttons you are given the choice of which to display. The 20km at the top allows you to change the map scale. Other configuration options are available through the menu.

Everything else you see on the screen is touch sensitive, too. Touch a TP, and its name and your arrival height are shown for zero, 2kt or 4kt MacCready settings. Airfield details can include the radio frequency. Airspace labels show its name and its maximum and minimum heights. You can shift the centre of the view by pressing your finger on some empty space then dragging it to where you want it to move.

It's all a little complicated at first, but WinPilot has a simulator mode. This



Startline feature with height and track

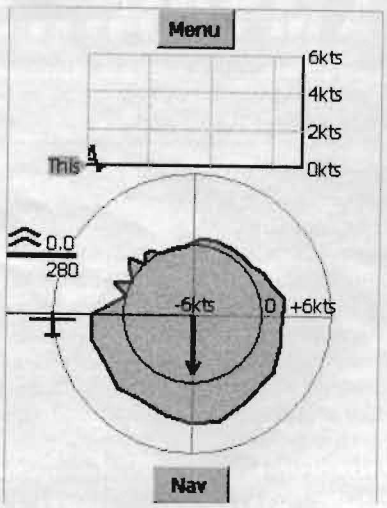
allows you to get used to the system in the safety of your own armchair. All becomes clear very quickly.

Configuring

There's plenty that can be configured and it's far too boring to describe in detail. For instance, you can turn blocks of airspace on or off, change the font sizes or the units from km/h to kts (I told you it was boring). You can enter the glider's polar into the machine for final glide calculation. The type and size of turning point sectors and start lines can be set up as well. Setting a task is also done through the touch screen. To be realistic, you need a stylus rather than your finger and it is not something to be done in the air. However, there is a facility called One Touch TPs. When active, the nav. information is set to point you at any turning point you touch.

In flight

My main criteria for judging a good instrument are how much you get from it and how little you have to touch it. I found I looked at this quite a lot, but fiddled with it very little. I would switch map scales in flight using a switch on the side of the Cassiopeia, up to zoom out, down to zoom in. Typically I would zoom in to see the glider going through the line (a really useful feature), then use the 20km scale in flight.



Thermal analyser in WinPilot Pro

When you get within 1km of a turning point it changes automatically to 1km scale and you can see yourself fly through the zone. The map is quite fast, refreshing every second and taking two or three seconds to change scales.

Once in the air, WinPilot calculates the wind speed and direction by drift in thermals. This is shown as an arrow on the screen and, optionally, a nav. box and is surprisingly accurate. The task is shown graphically, as is the start line, really useful for competitions. The height needed to complete the task is very useful. As you rise above final glide height it increases its MacCready setting to show the optimum speed to get home.

WinPilot also uses the Cassiopeia's main buttons, so pressing them brings back the map screen, avoiding searching for the right spot on the screen.

WinPilot Standard can be connected to either the Volkslogger, the Filser Colibri or SDI PosiGraph. There are plans to connect it to other flight recorders.

There are two other versions of WinPilot: WinPilot Lite can connect to just about any GPS, but, of course, you do not get the height information so some related features are not available. WinPilot Pro takes both height and airspeed from the Borgelt B50. This has some great features such as whole climb and flight averages. It also has a graphical thermal analyser display that gives you a best estimate direction to centre.

Summary

WinPilot is an excellent way to get a quality moving map with a really good user interface. On top of that, you get final gliding and startlines as well as useful airmass and nav. information.

There are a few niggles and things I would like to see improved. When you zoom out to 100km the turning point text causes too much clutter. Currently you can set the map for either North or your direction to be at the top. I would like a third option of next goal at the top. Also, you can see airspace details only when you touch the airspace label which can be off the screen.

The good points, however, outweigh the minor issues. Overall, it's useful in the air and very low workload. What's more, the system has huge upgrade potential. If and when the software is improved, I can upgrade it at home easily.

Finally, because the Cassiopeia is an electronic diary, it is the first gliding instrument I use every day in the office.

Ed Johnston

Cambridge Palm-NAV

I DISLIKE gadgets. Especially in my glider's cockpit. They use up mental capacity and draw a pilot's eyes inside, when they should be outside looking for other gliders and studying the sky. However, with the GPS logger recording every move and airspace restrictions in the contest area, it was obvious that to avoid a real competitive disadvantage I would need some kind of graphic airspace display for the World Championships. So I reluctantly decided to equip my Discus 2 with the Cambridge Palm-NAV.

Two flights converted my initial scepticism to outright enthusiasm. The Palm-NAV boasts a large graphical navigation display which clearly shows the glider's position relative to a startline, track, turning points, airfields and restricted airspace. All normal inputs are via a touch-sensitive screen and the system provides both aural and visual warnings as the glider approaches restricted airspace. Airborne, it's simple to use and if properly set up on the ground it actually reduces cockpit workload, especially in critical phases of flight.

Nav. programme

Essentially, the Palm-NAV is software written for the Casseopeia E10 and E11 or Compaq Aero Palm PCs. It enables the Palm PC to interface with, and act as control and display for, the Cambridge GPS-NAV units. It replaces or can be used in addition to the nav display.

Cambridge supplies a cable that connects the Palm PC to the GPS-NAV unit allowing data transfer (and to an LNAV if fitted). The connection cable also supplies power to the Palm PC from the glider via the GPS-NAV.

In addition, you'll need one of the Palm PCs mentioned above. My syndicate partner and I chose the Compaq Aero 2100 with colour screen and 16mb of memory. Although the nav. programme currently only requires some 4mb of memory and a black and white display, we felt there was a possibility that with future development the colour display and extra memory might be useful.

The Cambridge programme and data can be loaded from a home PC, laptop or a flash card. It takes about five minutes.

Rather than use the manufacturer's suction-cup bracket, we made our own lightweight version mounted on the right-hand cockpit side. The touch-screen is readily accessible and surprisingly easy to read at a glance in all light conditions.

The Cambridge Palm-NAV programme changes the function of the keys on the front of the Palm PC. Touching any key allows instant access to the Palm-NAV programme. There's no boot-up delay. The main flying screen appears instantly. All normal in-flight functions are carried out on this screen by touching the appropriate prompt. I particularly liked the fact that all in-flight prompts are in large boxes easy to touch by finger, even in turbulence.

Turning points appear on the screen as a dot with an abbreviated identification; airfields as a symbolic cross. Airspace is shaded grey inside its boundary. Distance to the active waypoint is shown in the top right corner of the display, which can be orientated track up or north up. In my preferred north up orientation, the glider appears as a black arrowhead tracking in the direction of flight.

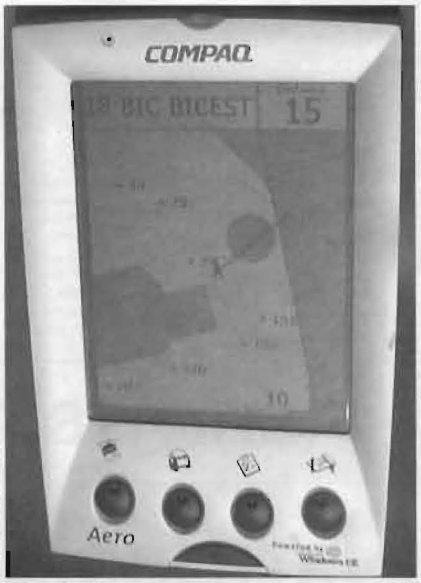


Photo: Dickie Feakes

The glider's instantaneous track and desired track to the active waypoint are clearly shown. If a task is loaded, the legs and start line appear as light grey dashed lines. The four-tone grey display clearly differentiates between the glider symbol, track lines, startline, turning points, airfields and airspace. It's also possible to load other features such as roads, rivers, towns and coastlines.

Touching any symbol calls up full details of the airfield, turning point or airspace with an appropriate prompt, such as GO TO in the case of a turning point. The scale of the display can be zoomed in and out using a thumbwheel on the case's side. If the auto-zoom option is selected, the scale zooms in at turning points so that you can clearly see the glider enter the TP cylinder.

Touching the distance box in the top right corner calls up the main menu screen. Prompts enable tasks to be created and edited, turning points to be selected, the Palm-NAV to be configured to personal taste, GPS position to be viewed, and to quit the programme so that you can use the other functions of the Palm PC (diary, calculator, games, retrieve crew phone numbers, etc).

The configure option allows the pilot to select units, startline length, turning point radius, waypoint files (the Palm-NAV can store up to 6000 waypoints) and special use airspace files. To reduce screen clutter, airspace above a certain level can be removed – and readjusted in flight if you climb higher than expected. Vertical and horizontal warning margins around airspace can be set as required.

The actual route flown by the glider remains on the main flying screen as a dotted line until the Quit Palm-NAV box from the main menu is touched (normally after flight). This means the pilot can see where he's been and easily return to a previously located area of lift.

I found a few minor software glitches. The Pilot Event (PE) box on the main flying display didn't always activate a PE mark on the flight record (a requirement to record a valid start in World Championships). I had to connect a button to the GPS-NAV to record a PE. The horizontal approach to airspace warning would occasionally go off much too soon and, having been cancelled, go off again, which was rather annoying.

Summary

The Palm-NAV software is very new and I'm sure Cambridge will quickly correct things. I would also like to see a facility to enable the pilot to declare a task via the Palm-NAV. At present, this can only be done by the normal GPS-NAV display or loaded by laptop or PC. As for the future, the possibilities are endless and I'm sure software development will continue.

So, how much does it all cost? The system is based on and will only operate with the Cambridge GPS-NAV IGC approved flight recorder upgraded to the latest version. Current prices from RD Aviation, are: Cambridge model 25 GPS-NAV £798 inc VAT. Palm-NAV software, security code and connection cable £348 inc VAT. The going rate for the Compaq Aero 2100 is around £375 inc VAT.

When connected to a Cambridge GPS-NAV, the Palm-NAV provides pilots with an IGC-approved flight recorder system with graphical navigation display. It will also interface with the Cambridge LNAV. The large clear display is by far the best I've seen. For the competition pilot it reduces workload at critical points in the flight, particularly around the start-line and TPs. After my reluctance to fit such a system, I can honestly say I would not now be without it. Well done, Cambridge.

Andy Davis

The racing year

ED JOHNSTON, who flies from Booker and London GCs, has five Regionals wins to his credit; this year he won his first Nationals.

"I'd had a pretty dismal season in 1998: minor errors and 50/50 decisions cost me enormous numbers of points, and I seriously considered not entering the 1999 Nationals. This year, though, similar close calls and minor errors cost very little and some of my decisions really paid off. It's a funny old game!

The weather at the Standards was some of the strangest and most spectacular of any competition I have entered. One day when I thought we had little chance of flying, we ended up with 8000ft cloud bases. Another day, we went from clouds to blue to rain within 150km. Much credit is due to Ron Bridges and his team for getting such good tasks from the conditions.

After Day Two, I was 15th. A few little mistakes and bad luck cost some time, but not too many points; I had to just forget placings and press on. I started to feel more comfortable with the glider, making it climb better, and I put a bit less water in it. Then I had one of those days when the analysis is right, the plan works and you get the break when you need it. I will long remember the last thermal from 800ft that picked me off the floor and back into the good weather. Day Three won me the comp.

At the end, four of us were very close, others having dropped away in the rain. I chose the more cautious – and what turned out to be the best – route home. Sitting at 60kt as the rain dried off, with the final glide steadying on 300ft to spare, was wonderful. Pete Harvey finished within five points, a margin of perhaps 45 seconds over 15 hours' racing! I stayed ahead partly by making him take the risks – which nearly paid off for him, with two fantastic wins on the last two days. Mike Young had a very consistent competition: he just didn't get the usual day when he is the only finisher. Pete Sheard's nightmare third day cost him the comp.

I'm delighted and a little surprised to have won – and immensely grateful to Ted Coles and friends for lending me the LS-8. The closest I've been before to the British team is voting for someone else; I most certainly will go to Berlin for the European Championships. It's such a nice town and I might not get the chance to see it again!"

STANDARD CLASS (HUSBANDS BOSWORTH)

Pos	Pilot	Glider	Points
1	Johnston, E	LS-8	3731
2	Harvey, P	LS-8	3726
3	Young, M	LS-8	3706
4	Sheard, P	LS-8	3688
5	Nicolson, K	LS-8	3470
6	Jordy, M	LS-8	3444
7	Wells, M	LS-8	3438
8	Hackett, N	LS-8	3415
9=	Coward, P	LS-8	3408
9=	Clarke, A	LS-8	3408
11	Barker, K	LS-8	3376
12	Browne, R	LS-8	3366
13	Wells, L	LS-8	3365
14	Metcalfe, G	ASW-24	3361
15	Smith, G	LS-8	3339
16	Allison, D	LS-8	3309
17	Freestone, I	LS-8	3308
18	Gorringe, J	LS-8	3279
19	Jeffery, P	LS-8	3244
20	Spencer, J	LS-8	3238
21	Thirkell, B	LS-8	3220
22	Rebbeck, H	LS-8	3200
23	Redman, S	LS-8	3191
24	Campbell, D	LS-8	3187
25	Rebbeck, J	LS-4	3175
26	Darlington, A	ASW-24	3161
27	Marsh, B	LS-8	3091
28	Luxton, J	LS-8	3089
29	Glossop, J	Discus	3023
30	Edyvean, J	Discus	3018
31	Harland, S	ASW-24	2994
32	Marczynski, Z	SZD-55	2970
33	Booth, D	LS-8	2967
34	Nunn, A	ASW-24	2952
35	Murphy, T	LS-7	2948
36	Stephen, J	Discus	2916
37=	Withall, L	Discus	2907
37=	Stingemore, G	LS-8	2907
39	Tillett, N	Discus	2904
40	Dawson, M	ASW-24	2884
41	King, P	LS-7	2837
42	Pike, M	LS-8	2797
43	Westwood, D	LS-8	2487
44	Baker, A	Discus	2106
45	Hicks, P	LS-4	1793



Club Class Nationals

THE youngest pilot in the competition won the 1999 Club Class Nationals.

Richard Hood, 24, an aircraft technician from Long Bennington near Newark, failed to return on just one day and temporarily lost his lead, but a convincing win on the last day re-established his position.

Richard went solo in 1991; his father, Leigh, also flew the Club Class Nationals at Nympsfield, coming 12th. Both fly at the Four Counties club at Syerston.

"I'm surprised but incredibly pleased to have won," said Richard. "It's the first competition I've won and I hope it's the first of many."

It's been a good gliding year for the family: Richard's brother Jeremy came 5th in the Club Class at the World Junior Gliding Championships (see p39).



CLUB CLASS (NYMPSFIELD)

Pos	Pilot	Glider	Points
1	Hood, R	LS-4 352	4241
2	Cuming, M	Std Libelle HAV	4220
3	Jordy, M	Pegasus 285	4124
4	Macdonald, G	Std Cirrus G81	4025
5	Williams, J	Std Libelle 937	3898
6	Wedi, N	LS-4 EN	3879
7	Dale, G	DG-100 274	3811
8	Alldis, C	LS-4 646	3738
9	Wall, N	ASW-19 193	3673
10	Rollings, C	Pegasus Club 318	3629
11	Fritche, P	LS-4 LS4	3596
12	Hood, L	Std Cirrus 806	3579
13	Fox, R	Std Cirrus JHH	3366
14	Darlington, A	SZD-59 HVA	3302
15	Hodgson, K	Std Libelle 948	3196
16	Freestone, I	Std Cirrus C7	3137
17	Smith, A	Std Cirrus 477	3121
18	Emson, C	Std Cirrus 278	3037
19	Mee, M	LS-4 Z4	2908
20	Nunn, A	SZD-59 HWX	2865
21	Stephen, J	DG-100 DHL	2791
22	White, M	Std Cirrus 16m JEV	2772
23	Heriz-Smith, N	ASW-19b 882	2746
24	Drury, G	Pegasus 101a 841	2615
25	Hoskins, J	Std Cirrus JH	2480
26	Moulang, A	ASW-15 105	2466
27	Wright, J	Pegasus 742	2465
28	Staley, J	LS-4 379	2236
29	Ward, O	Std Cirrus 703	2140
30	Andrewartha, R	Std Cirrus 822	2014
31	Meagher, M	Pegasus 987	1659
32	Hitchcock, J	LS-4 55	725

15 Metre Nationals

JUSTIN Wills,who came sixth in the 15 Metre Class at the World Gliding Championships, won the Nationals in this class a month before.

"At Dunstable,' he says, "we faced interesting, variable weather which cycled extremely quickly. Despite good task-setting, there was a sizeable element of luck in one's results.

"I felt in my own case that I had bad luck on one particular day but that was more than overwritten by good luck on another couple of days... often, of course, it isn't."



15 METRE CLASS (DUNSTABLE)

Pos	Pilot	Glider	Points
1	Wills, J	ASW-27b PS	5179
2	Kay, A	Ventus 2a K1	4997
3	Watt, D	Ventus 2a DW	4925
4	Scott,T	ASW-27 Z2	4916
5	Jones, S	Ventus 2a I10	4687
6	Johnston, E	LS-6a 721	4680
7	Strathern, M	ASW-27 280	4501
8	Cheetham, R	ASW-27 Z1	4485
9	Jones, P	Ventus 2b 210	4463
10	Stone, A	Ventus 2a K4	4337
11	Brice, P	LS-8 325	4333
12	Harvey, P	LS-8 H2	4296
13	Jordy, M	LS-8 676	4249
14	Barker, K	LS-8 KM	4106
15	Davies, F	LS-6c 25	4095
16	Hood, R	LS-4 352	4067
17	Durham, M	LS-7 952	4023
18	Cooper, B	LS-6b 68	3972
19	Wells, M	LS-8 321	3926
20	Wells, L	LS-8 LS	3888
21	Marsh, B	LS-8a D7	3838
22	Nicolson, K	LS-8 SK1	3762
23	Downham, E	ASW-27 N5	3717
24	Kay, W,	LS-8 75	3696
25	Howes, N	ASW-20F 76	3597
26	Coward, P	LS-8 L88	3564
27	Stafford Allen, P	Ventus b 333	3488
28	Bromwich, R	LS-6c 855	3309
29	Spencer, J	LS-8 601	3289
30	Dawson, M	Ventus a 840	3288
31	Masson, D	Ventus c 391	3239
32	Morris, G	ASW-20L 172	3226
33	Hall, A	LS-6c 241	3174
34	Macfadyen, T	ASW-20WL EEE	3155
35	Smith, G	LS-8 42	3075
36	Newland-Smith, M	Discus CS 73	3073
37	Rebbeck, H	LS-6C L8	3035
38	Rebbeck, M	LS-4 ETG	2990
39	McAndrew, G	LS-8 P2	2961
40	Luxton, J	LS-8 685	2948
41	Westwood, D	LS-8 D4	2946
42	Gardner, D	LS-3a EFZ	2806
43	Murphy, T	LS-7WL 34	2711
44	Alldis, C	LS-4 646	2635
45	Stuart, T	LS-6c 621	2371
46	Johnson, R	LS-8 S6	2223
47	Dobson, J	LS-6c 126	236
48	Smith, R	ASW-27 Z9	0

18 Metre Nationals

STEVE Jones won the 18 Metre Nationals for the second year in a row – and attributes his victory to consistent flying during the six-day competition at Booker.

"I nearly blew the last day by starting too late," he says. "The weather deteriorated rapidly around the task and I landed out when some people got back.

"I almost managed to snatch defeat from the jaws of victory, but just held on to a 13-point lead over Dave Watt."

Although Southern Sailplanes has the agency for Schempp-Hirth, he borrowed the Ventus he flew from Ray Ashurst.

Fans of the Jones clan will join *S&G* in congratulating Steve and Laura on their first child, due to arrive just before Christmas.

Steve, who also won the Open Class Nationals this year, adds: "I definitely qualify for both comps now, because I've got a Volvo Estate, a labrador and a kid on the way."

18 METRE CLASS (BOOKER)

Pos	Pilot	Glider	Points
1	Jones, S	Ventus 2c 584	4443
2	Watt, DS	Ventus 2a DW	4430
3	Aspland, W	LS-8 325	4420
4	Davies, F	LS-6c 25	4354
5	Wells, MD	LS-8 321	4329
6	Smith, R	LS-6 941	4200
7	Wells, LM	LS-8 LS	4192
8	Pozerskis, A	Lak 17a L17	4178
9	Gorringe, J	LS-6C HL	4135
10	Hall, AG	LS-6C 241	4125
11	Payne, GK	ASW-20L 268	3996
12	Jones, H	Ventus 2c 71	3955
13	Tanner, L	LS-8 LT	3892
14	Langrick, J	LS-8 781	3887
15	Foreman, M	LS-8 F3	3856
16	Masson, D	Ventus c 391	3846
17	Cooper, BL	LS-6b 68	3640
18	Spencer, J	LS-8 601	3245
19	Browne, RA	LS-8 L58	3240
20	Jelden, A Hilton, D	LS-6b KW	3144
21	Corbett, G	Ventus 2CT 170	3069
22	Luxton, J Byass, D	LS-8 685	3045
23	Johnson, RA	LS-8 S6	2765
24	Bromwich, RC	LS-6 855	2752
25	Campbell, DR	LS-8 370	2748
26	Jefferyes, M	DG-600 656	2730
27	Mountain, AR	LS-8 R5	2722
28	Brooks, M	LS-6c 335	2584
29	Bridges, R	LS-8 676	2502
30	McCoshim, J	LS-8 161	2391
31	Lyttelton, C	ASW-27 CL	2303
32	Hatwell, R	LS-6C 203	2088
33	Hardwick, MH	LS-6C Z29	1990
34	Dobson, JB	LS-6C 126	1877
35	Witter, RB	Ventus W54	0



Perfect finish for Enstone winner Steve Welsh

Regionals

Bidford Motorglider: 1, R Jones & G Seaman, 4336; 2, D Findon, 4145; 3, F Jeynes, 3956.
Dunstable: 1, J Spencer, 4585; 2, A Hutchings, 4571; 3, RA King, 4480;
Enstone: 1, S Welsh, 4840; 2, P & S Wells, 4035; 3, M Wilson, 3904.
Gransden (Sport Class): 1, M Strathern, 5687; 2, S Redman, 5542; 3, P Stratten, 5346; **(Club Class)**: 1, A MacGregor, 5865; 2, A Watson, 5747; 3, D Smith, 5549.



Nev Weir, three times Inter-Services winner

Inter-Services, Bicester (Sport Class): 1, R Gaunt, V Stroud & P Todd, 2677; 2, P Whitehead, 2597; 3, G Rooke, 2498; **(Open Class)**: 1, N Weir, 3576; 2, S Harland, 3535; 3, Heames & Aram & Chapple, 3435.
Lasham (A Class): 1, B Thirkell, 4170; 2, G Dale, 4166; 3, R Pentecost & H Kindell, 3701; **(B Class)**: 1, G Macdonald, 3742; 2, B Morris, 3685; 3, D Le Roux, 3541.
Midland: 1, P Crabb, 5346; 2, S Crabb, 5339; 3, N Hackett, 5336.
Northern (Sport Class): 1, R Johnson, 3154; 2, P O'Donald, 2954; 3, R Fox, 2895; **(Open Class)**: 1, M Thick, 3539; 2, RC Bromwich, 3492; 3, I Evans, 3458.

Please forgive the truncated coverage of this year's UK competitions, S&G's new editor arrived after the competition season ended and the intention here is to record results which have slipped through the net. Next year it will be done differently – and better. Your views, of course, are always welcome.

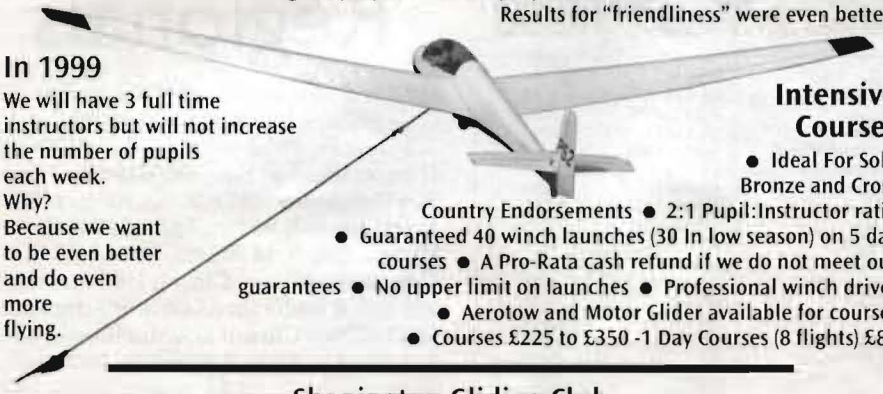
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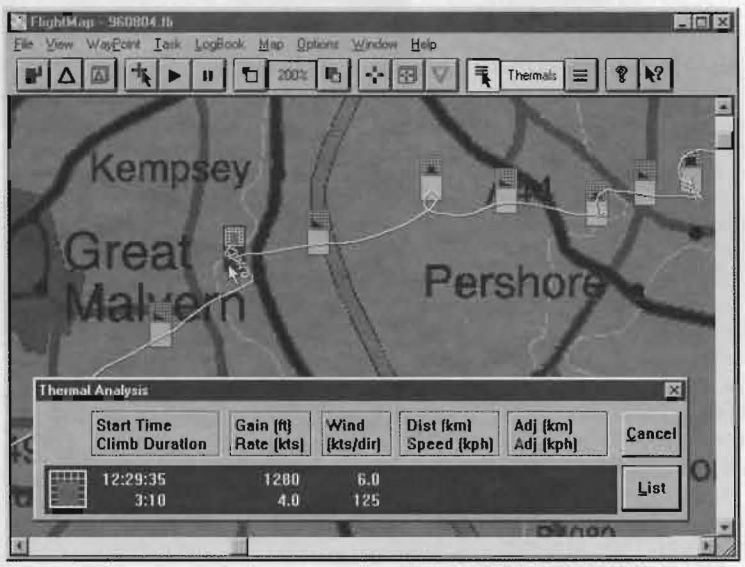
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Illustration shows the new thermal analysis feature and includes maps which are copyright © Bartholomew Digital Data (1998)

Junior Nationals '99



Old and young: a 1943 Tiger Moth tugged

by Mike Fox and Pete Thelwall

THE Junior Championships at Bidford again proved itself to be more than just a contest for young pilots.

It was a closely-fought competition, marked by a high standard of flying and excellent organisation. But, above all, it offered an outstanding opportunity for training and advancement. Justin Wills led highly-informative debrief sessions each day, so that we could discuss, analyse and identify the key decision points of a successful flight. The BGA two-seaters provided *hors concours* cross-country training for ten less experienced pilots.



Photo: the white planes picture co.

Second-time Juniors winner Pete Masson

The flying was good, yet often challenging, and the weather gave six flying days with two tasks over 300km. One was on a day with a 100km-long cloud street, followed by a rapid change in conditions two-thirds of the way around that left a few pilots struggling. On another day Andy Davis called in with some local knowledge, as we were tasked across the Severn valley.

On one of the trickier days Luke Roberts identified a new thermal source – the combine harvester – and managed to scrape home. The next day everyone seemed to be trying the technique. The last day was especially memorable. Despite a dismal forecast, Director Phil King optimistically set 236km. This kamikaze-style task was greeted as a joke, until the tugs' engines started, and off we went into the darkening skies.

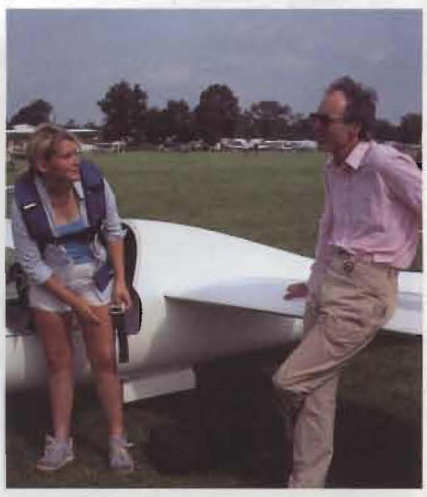
On such a tricky day there was a significant advantage in team flying and most joined in. Many of us were surprised at how far we got, but everyone (even Justin!) landed out. Pete Masson kept his lead to become Junior Champion for the second, well-deserved, time. After a very late prize-giving the party began, aiming to prove that the Juniors is a breeding ground for the future world team.

The most was made of scrubbed days, with presentations by the British Team who flew the Junior Worlds (see page 39), and discussions of the future organisation of our competition. A popular suggestion was that ex-Junior pilots might become more involved with running it – as did Gordon Smith, Met. man this year. Next, an ex-Juniors director, perhaps?

The competition's success causes a problem, with more than 60 applicants for 35 places this year. Next year it is at Weston-on-the-Green, promising room for a much larger entry. The possibility of a two-class competition received a mixed response. Most people worried this would affect the training side.

Access to gliders was also a problem; at best, some pilots could get only a low-performance glider. We hope that the high standard of flying (no damage to gliders, no airspace penalties) will encourage clubs to support members in future Juniors.

At least a third of the pilots this year flew club or loaned gliders. Special thanks to all who helped in this way. If you are on a club committee, perhaps you might suggest sponsoring one of your young members by lending a glider? You will be investing in the future of gliding.



Justin Wills advised pilots on the grid

If you are under 26 and have a Silver badge, why not consider entering the Juniors? The BGA has entry forms. And if you don't have a Silver, ask about the BGA two-seaters. You will learn more than you can imagine.

OLIVER Peters was one of ten lucky non-competitors who flew *hors concours* in two-seaters.

"The BGA's young pilot training scheme happens every year alongside the Juniors. You race the tasks from the back of the grid on competition days, and have training flights in the evening on scrubbed days – it's almost like being in the comp!

I have always wanted to be a cross-country pilot; this scheme gave me a chance to be shown how it's done... and for FREE! When Terry Slater (the main organiser) told me I had a place, I knew I was on the way to some top cross-country and comp flying. I was right.

I arrived the night before, complete with food, tent and beer – essential accessories, since the Juniors is one of the best social gatherings of the gliding calendar. I was warmly welcomed and introduced to the pilots who would be my tutors for the next nine days. It was an all-star cast.

The ten learners took it in turns to fly. We were given talks on task planning, crewing, glider preparation, flight computers and GPS, and even after-task analysis by Justin Wills. This and the comments from the pilots while flying, led to a super, informative week. I flew about eight times in various aircraft, and went up to 300km in distance. In the air I learnt about cloud selection, thermal entry, and pacing the glider to the weather: all essential to help pilots to perfect the art of distance flying.

The Juniors is an excellent experience – for crews, learners and pilots. The social aspect is second to none and the flying even better."



Leigh Wells, who came fifth, waits for a launch on the final Sunday



Macfadyen prize-winner Shelly Dawson with Claire and Charlie Hart

Photo: Richard Parker

Priceless hours in a two-seater

FIVE years' crewing for her brother, Gordon, led to Jen Stuart-Smith's transformation from wing-washer to solo pilot and to competition training flights in BGA two-seaters.

"It's mostly thanks to the Juniors that I decided to follow in his footsteps and take up gliding. At this year's competition, flying *hors concours* with the BGA, I clocked up 12 hours in various gliders, including an ASH-25 and a Nimbus 4.

After a fantastic flight at last year's Juniors, I had a good idea of what was in store. It's a pretty unbeatable feeling, thermalling in a gaggle with familiar gliders all around you. As P2 I could get away with number spotting and waving – more formally referred to as "keeping a good lookout" – while P1 did the work.

Joking apart, the experience was invaluable, if only as a confidence-booster and insight into flying safely in a tight situation. At my level of flying it seems to be a lot about addressing fears and mastering situations which may intimidate you at first: be it group flying, field landings or comp flying in general.

I was not there just for the pretty view, I was thrilled to do so much of the flying, especially in a high-performance, flapped glider such as the ASH. Being left to my own devices to some extent, and allowed to work things out for myself, made the flights all the more interesting and useful.

Despite my lack of hours I only ever felt encouraged rather than ignorant. The people I flew with were ideal for the job: relaxed, skilled, but most of all good teachers. The thorough daily de-briefs demonstrated how and how not to do it.

On the social side, ten days' camping, flying and hanging out at a spot as nice as Bidford Gliding Centre can't be bad. This year's interesting incidents included an exploding retrieve car and trailer, plus Jay Rebbeck's prize land-out at a sewage works.

Thanks to Terry Slater and his elite team, we BGA lot had a brilliant week. One of us (not me) was fortunate enough to fly with Andy Davis in the Duo Discus.

Our thanks to everyone who flew with us, including the national coaches, Simon Adlard and Dave Bullock, as well as Lemmy Tanner and Ray Hart."

JUNIORS RESULTS 1999

Pos	Pilot	Glider	Points
1	Masson, P	Discus 399	5063
2	Rebbeck, L	LS-8 232	4990
3	Pennant, J	Nimbus 2 145	4870
4	Hood, R	LS-4 352	4855
5	Wells, L	LS-8 LS	4854
6	Tanner, J	LS-8 LT	4657
7	Rebbeck, J	LS-4 ETG	4548
8	Birlison, BA	Discus 565	4477
9	Hood, J	Std Cirrus 152	4273
10	Chappell, DC	Discus R10	4088
11	Goudie, G	Discus 381	4081
12	Perkins, A	Cirrus 17.7 917	4024
13	Cook, M	Discus 19	4021
14	Parker, M	Discus 183	3731
15	Fox, M	Libelle HWG	3548
16	Clark, J	ASW-20 481	3531
17	Wells, A	LS-8 321	3465
18	Garner, RP	Discus 314	3394
19	Irving, AD	Discus T3	3311
20	Pitman, D	Mosquito DWP	3308
21	Roberts, J	LS-8 379	3202
22	Gilbert, J	LS-8 T2	3197
23	Brenton, TJ	DG-202 201	3171
24	Roberts, L	DG-100 274	3012
25	Wardrop, D	Std Cirrus C7	2840
26	Morecroft, S	LS-7 425	2514
27	Thelwall, P	Cirrus 17.7 BZ	2457
28	Walters, O Murdock, J	K-21 GAM	2366
29	Dawson, SL	ASW-24 W2	2302
30	Shah, S	Astir CS FEF	2130
31	Garner, E	Pegasus 318	1990
32	Meyer, J	G102 Club EKF	1792
33	Dadd, G	Junior 394	1258
34	Gillson, A	ASW-20 408	1235
35	Armitage, SJ	Discus TL2	891

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New ratings for 2000

Henry Rebbeck

FOR THE year 2000 we have changed the old promotion and priority lists to an improved version ranking all pilots who flew in BGA-rated contests.

How does it work? Well, for the true spotters among us check out the full details in the BGA *Competition Handbook*. Here's a brief overview.

Firstly, each contest is rated so that the biggest comps with the best pilots get the highest rating and the small regional contest gets the least. This year, as expected, the Worlds gets the biggest ratings. The 15 Metre Nationals is the highest-rated UK based comp as it had the largest field with numerous pundits – a pundit being a pilot high up the previous year's list.

Once the contests are rated, the points are dished out to competing pilots. If you win, you get all the points. Those not so lucky get an amount depending on their position. The pilot's rating is then their score from their best contest result.

To maintain some continuity and let pilots have one bad year, your rating from the previous year is reduced and used for your score if it is better than any of your results in the current year.

You can also get bonus points if you have performed exceptionally well in more than one contest. The factors involved mean you have to be roughly in the top ten of two Nationals.

The pilots are then ranked depending on their score. So this year Justin Wills takes top spot thanks to a huge score of 1348 from placing sixth in the Worlds and a bonus of 145 from wining the 15-metre Nationals, giving a total of 1493.

So, what does all this mean? Who gets to fly the Nationals? This depends on who enters. Looking at previous years, I think you need to be in the top 125 to get straight into the Standard Class and 15-metre Class. The Open Class tends not to have a great demand, so the top 300 should get you a place. All the other nationals have up to now been under-subscribed so everyone has got in. However as it's a selection year for the Club Class Worlds and an increasing number of 18-metre gliders are entering the country, it may not be so easy.

If you have any questions, contact Henry Rebbeck on 0115 951 3824 or at *eaxhar@nottingham.ac.uk*

Pos	Name	Rating Score
1	T.J. Wills	1493
2	A.E. Kay	1397
3	R.A. Cheetham	1305
4	A.J. Davis	1259
5	T.J. Scott	1247
6	S.G. Jones	1212
7	P.G. Crabb	1175
8	M.J. Young	1174
9	E.W. Johnston	1155
10	P.J. Harvey	1138
11	D.S. Watt	1122
12	S.J. Crabb	1102
13	M.J. Jordy	1087
14	D.W. Allison	1054
15	R. Hood	1019
16	P.R. Jones	1014
17	S.J. Harland	1008
18	M. Strathern	1001
19	P.G. Sheard	993
20	G.E. McAndrew	993
21	M.D. Wells	986
22	O.J. Walters	977
23	K.J. Hartley	971
24	K. Nicolson	966
25	M.F. Cuming	964
26	C.C. Lyttelton	948
27	A.J. Stone	933
28	G.M. Spreckley	932
29	P.F. Brice	914
30	G MacDonald	911
31	P.J. Coward	902
32	J.M. Hood	893
33	K.D. Barker	890
34	A.J. Clarke	881
35	N. Hackett	878
36	P.J. Masson	877
37	J. Williams	875
38	L. Withall	868
39	F.J. Davies	863
40	J.P. Gorringe	858
41	W. Aspland	848
42	N. Wedi	845
43	J.D. Glossop	835
44	B.T. Spreckley	834
45	R.A. Browne	818
46	G.G. Dale	815
47	M. Bird	812
48	N Weir	810
49	B.C. Marsh	810
50	J.N. Rebbeck	809
51	L.M. Wells	797
52	M.W. Durham	795
53	C.J. Short	790
54	C.J. Alldis	786
55	R. Thirkell	786
56	R. Johnson	785
57	G.C. Metcalfe	776
58	G.P. Stingemore	775
59	B.L. Cooper	775
60	E. Downham	773
61	J.D. Spencer	771
62	R. Smith	767
63	P.C. Fritche	766
64	Rose Johnson	763
65	M.G. Thick	761
66	N.H. Wall	756
67	C.V. Heames	756
68	P.M. Shelton	755
69	G.N. Smith	754
70	B.C. Morris	754
71	A. MacGregor	754
72	R. Gaunt	754
73	L.M. Rebbeck	753
74	S Welsh	750
75	R.J. Hart	747
76	A.R. Hutchings	745
77	D.E. Findon	744
78	H.A. Rebbeck	744
79	S.J. Redman	743
80	I.P. Freestone	735
81	P. Jeffery	729
82	R.C. Sharman	729
83	C.C. Rollings	726
84	J.H. Pennant	726
85	R. Kalin	722
86	R.A. King	720
87	P. O'Donald	718
88	P.J. Stratten	716
89	D.A. Booth	715
90	D.M. Byass	713
91	A. Pozerskis	713
92	R. Pentecost	712
93	A.F. Watson	710
94	P.F. Whitehead	710
95	A.D. Tribe	709
96	R.C. Bromwich	705
97	D. LeRoux	704
98	L.E. Tanner	703
99	M.I. Pike	701
100	T.J. Parker	699
101	S.R. Ell	695
102	W.T. Craig	694
103	K. Tipple	689
104	R.D. Payne	689
105	S.M. Wells	687
106	J Bell	677
107	P Naegeli	676
108	R.L. Fox	674
109	J.A. Tanner	674
110	P. Healy	673
111	D. Hilton	671
112	P.R. Stafford-Allen	671
113	M. Newland-Smith	668
114	G Rooke	667
115	D.W. Smith	667
116	L.S. Hood	667
117	P.S. Kurstjens	667
118	J.N. Wilton	661
119	T.J. Murphy	659
120	A.G. Hall	658
121	W. Kay	656
122	J.R. Edyvean	656
123	R.H. Blackmore	654
124	I.M. Evans	649
125	D.P. Francis	647
126	J. Langrick	643
127	A.V. Nunn	641
128	E. Smallbone	639
129	O.M. Ward	639
130	N.J. Howes	637
131	R.J. Knight	634
132	G.K. Payne	631
133	P Kite	630
134	D Sharp	627
135	A Sommerville	624
136	I. Forster-Lewis	624
137	M.J. Wilson	623
138	P. Rackham	617
139	J. Whiting	614
140	P Davis	609
141	P. Davis	609
142	I.R. Cook	609
143	A.A. Darlington	608
144	S.R. Housden	608
145	H.E. Cheetham	607
146	H. Jones	604
147	J.A. Hallam	598
148	D. Westwood	598
149	J.R. Burry	595
150	M.C. Foreman	593
151	K. Hook	593
152	R.I. Davidson	591
153	B.A. Birlison	590
154	B.R. Forrest	589
155	A.P. Hatton	586
156	D.P. Taylor	584
157	T Milner	582
158	G. Thomas	581
159	C.M. Davey	580
160	K. Hodgson	578
161	S. Ayres	566
162	R.M. Evans	566
163	A Brown	566
164	D.R. Campbell	564
165	R. Jones	563
166	D. Matson	560
167	P. Thelwall	553
168	P.W. Armstrong	553
169	A. Laylee	546
170	D.S. Innes	544
171	R.C. May	541
172	G.D. Morris	540
173	G.W. Craig	540
174	G. Tucker	539
175	R. Croker	538
176	N.V. Parry	538
177	M.R. Dawson	538
178	R.J.H Fack	537
179	D.C. Chappell	536
180	M.J. Miller-Smith	530
181	R.C. Bridges	526
182	A.P. Moulang	522
183	J. Welsh	519
184	A. Smith	519
185	D. Masson	518
186	S.P. Robertshaw	518
187	P Robinson	514
188	G Bradley	514
189	J.P. Popika	513
190	N.D. Tillett	513
191	D Fidler	511
192	G. Goudie	509
193	Z. Marczynski	508
194	P Onn	506
195	R Masonpierre	503
196	J.R. Taylor	501
197	J. Stephen	501
198	P.E. Rice	499
199	J.B. Giddins	496
200	P Brown	494
201	D.H. Gardner	494
202	M Judkins	493
203	S.M. Bateman	492
204	M Dale	492
205	C.R. Emson	489
206	R Puritz	489
207	P Reading	483
208	A. Perkins	481
209	J Hoye	481
210	K. Lloyd	481
211	J. Luxton	480
212	A. Elliott	473
213	J Smith	472
214	J.R. Lewis	472
215	A. Baker	471
216	J. Ashcroft	468
217	G.D. Sutherland	465
218	J.A. McCoshim	463

Club News

Send entries to *helen@sandg.dircon.co.uk* or Helen Evans, 6 Salop Close, Shrivenham, Swindon SN6 8EN, to arrive by **Dec 13** for the February-March issue. If I don't have your contact details, please include them.

Angus (Drumshade)

We have had an eventful season at Drumshade. Launches are up and we have more junior members than at any time before. Gliding is now no longer a sport for the more mature person: 16-year-old Derek Russell will go solo imminently, as will Richard & Rebecca Jones (who are sponsored through the Scottish Gliding Association), so we hope to add to the total of new young glider pilots very shortly. (See also p54.)
Colin Wight

Aquila (Hinton-in-the-Hedges)

Our fleet upgrade programme continues with the acquisition of a K-21, our first club glass two-seater. It joins the ASW-19 we bought last year and will replace one of our excellent K-13s. Our next step is to replace one K-8 with a glass glider for early solo flying though, by popular demand, the other K-8 remains.

The summer has had only a few brilliant days, but we've used them well. Congratulations to Des Holdcroft and Dave Latimer for their 500km flights which completed their Diamonds. Joe Hall flew his first Bronze leg on the day he soloed and the second the next. Our wholly aerotow approach on summer courses has proved increasingly popular. Work on our new workshop is proceeding ready for winter overhauls.
Mel Eastburn

Bath, Wilts & North Dorset (The Park)

Congratulations to Bob Bromwich who came second in the Northern Regionals and did well in the Open Class Nationals in his LS-6c. Ian McDougal, our junior bursary member, completed his Silver before leaving for university. Tim Hollis, another junior bursary member, went solo. Richard Wellbourne, who has only been with us for a few weeks, resoloed after flying with the ATC 25 years ago. Martin Kennard soloed recently and is well on the way to his Bronze C.
JL

Bidford Gliding Centre (Bidford)

The club's brand new Puchacz has had plenty of work to do over the last two months, with good soaring weather & lots of BI flights. Another Puchacz is due to arrive soon. We held the Junior Nationals in August, the full results are on our website at *http://members.aol.com/Bidford/juniors.htm* or see p50. Well done to all – I've never seen the club so busy!
Nigel Howard

Black Mountains (Talgarth)

The autumn wave continues to give good flying with Adrian Thomas and Tony Burton both going to over 18,000ft. Word must have got out because we were full to capacity and unable to accept any more pilots one weekend shortly afterwards. Our tug has returned to site with a new engine. We are planning a club expedition to Spain after the successful trip to Cerdanya last Easter where we enjoyed good thermal and wave flying whilst most of Wales was under water!
Mike Tomlinson

Booker (Wycombe Air Park)

Congratulations to our successful pilots in the National Aerobatic Championships: Graham Saw (Lunak) and Nikki Mills (K-13). Paul Brice, who has held many club posts including treasurer and chairman, is replaced by Mike Emmett. Thanks to Paul, who is offering to run aerobatic courses this winter. This winter's programme will also involve: lectures including professional tuition in sports psychology and coaching for our instructors; possible expeditions to other sites such as Shobdon; and a visit to Ontur next spring. At least 18 gliders are booked for next year's Aboyne expedition. There are plans to take a Discus to South Africa again the following winter. A substantial increase in first solos and our achieving budget targets are welcome as we await a rent review and the rebuilding of the main hangars this winter.
Roger Neal



Richard Starey in the Junior with partner Tanya Bates. Both joined ***Booker*** *late last winter and are already on single seaters*

Borders (Milfield)

Keith Latty restored club honour by retrieving the inter-club Hotspur trophy from Northumbria GC in his Skylark. We await their return! Andy Henderson is now a Full Cat. A Club Astir has replaced our Pirat and we hope to have a second glass two-seater by the end of the year to replace our Bocian. We will host a BGA wave week in the new millennium, and look forward to offering visiting pilots a taste of Borders hospitality, fully Y2K compliant...
Bob Cassidy

Bowland Forest (Chipping)

August's annual trip to Shenington was a great success. Thanks to Rowan Griffin, Paul Gibbs and others for their hospitality. Phil Atkinson flew Gold distance in his K6E. Emma Norris and Tony Stansfield flew Silver distances to Sackville Farm where CFI Tim Wilson gave them a wonderful reception. Ian Bannister flew the first part of his cross-country diploma, and Roy Tasker gained Silver height. Our pilots also enjoyed trips to Feshiebridge, Husbands Bosworth and Talgarth.

Chris Burrows, Nigel Dickinson, Ian Pendlebury and Paul Stowell have soloed; Andy McKay, Alan Simmonds and Sandy Todd have resoloed.

Paul Myers has retired as CFI after 12 years; the members have appreciated all his hard work. Geoff Guttery replaces him.
Derek Littler

Bristol & Glos (Nympsfield)

Congratulations to: Mike Strathern, for winning the Gransden Regionals; Richard Smith, who did 715km on a 750km attempt in a Ventus in May; Andy Davis for his 11th place in the Worlds; and Helen Evans on becoming *S&G* editor.

To make P2 flying more efficient, having a launchpoint organiser again has been proposed. A rota of all members is one idea to be discussed by a sub-committee set up by Paul Leonard. A gliding evening organised by treasurer Gordon Davis for a singles club was a success but a second was rained off. Alison Moss, Hywell Moss and Rob Thompson have completed their BI training and Russell Francis has started on the Assistant Cat trail.
Bernard Smyth

Buckminster (Saltby)

Members have achieved more Bronze and Silver legs, and the club entered Pocklington's two-seater competition. Les and Jane Merritt's K-7 won first place for wood gliders (7th overall) and the club Puchacz with Dave Sharp as P1 came 5th overall. We hosted the Aerobatic Nationals in September (see p11). A visit to Portmoak is due in October.
David Brinkworth

Burn (Burn)

Our PW5 has been so popular that we have bought another. Roger Coote has given us invaluable advice on how to best buy our field: many thanks.

The club is making renewed efforts to recruit young, female and/or disabled members who are somewhat under-represented at the moment. In view of the resurgence of interest in cross-country flying, Bill Thorpe is planning a series of Beyond the Bronze Badge lectures.

We enjoyed the Pocklington two-seater competition, Dave Peters and Mat Ellis coming 15th and 32nd respectively. Steve Elsey has retired as winchmaster after serving the club for many years and is replaced by Danny McNeill and Dave Chafer. Roger Idle has the first part of the 100km diploma and Alan Hopkinson has soloed.
Stan Kochanowski

Club News

Cairngorm (Feshiebridge)

Our CFI, Trevor Wilson, has left us after five years to fulfil a lifetime's ambition by buying a pub (The Craw at Auchencraw). We owe Trevor an immense debt of gratitude for his commitment, professionalism and enthusiasm, and for the many hangovers he has induced.

Thanks are due to Barry & Maureen Meeks, who ran another successful Octoberfest. They created an excellent ambience in our new clubhouse/hangar, keeping visitors supplied with good food and drink.

Congratulations to Jim Riach for completing Silver in his Astir with a 7000ft climb over Feshie, followed by a 64km glide to Easterton. We have a DG-600M on site, imported from Germany, the first in the UK. It has already travelled to Chauvigny, France and Jaca in Spain, where Alan Mossman came third in a competition behind two other DG-600Ms!

Ray Lambert

Cambridge (Gransden Lodge)

The weather was kind to the Gransden Regionals this year with six competition days. Peter and Richard Baker managed to set quite long tasks, averaging just under 300km per day for the sport class. Not bad for the last week in August.

Recent newly-solo pilots include Philip Redman, Neil Rider, John Harbird, David Cann, David Dunwoody, David Mawby and John Wright.

We are sad to record the recent death of Joe Whelan, a popular CFI from 1978 to 1980, and an enthusiastic member of the Skylark 3G (198) syndicate. Joe also spent a season as course instructor at the Derby & Lancs GC.

John Birch

Cambridge University (Gransden Lodge)

Seven universities and 13 gliders took part in the Inter-University Task Week. Task-setting proved tricky with gliders ranging from K-8s to the BGA's Duo Discus but Steve Longland did a great job and a good time was had by all. Southampton took home the glass class trophy and Nottingham had a well-deserved win in the wood class – managing to fly their K-13 home to Syerston on the last day. Many thanks to all at Cambridge GC who helped. The university year is off to a great start with trial lessons for more than 70 prospective members in three days.

We're hoping this year will be as successful as the last although 1400 launches and 20 members solo by the year-end is a hard act to follow!

Debbie Thomas

Channel (Waldershare)

We welcome six new members to the club. Members are constructing a new building to house the winches and serve as a workshop: our thanks to Ian Dawkins and those who have helped. Several members attended an aerobatics course at Lasham in October. Congratulations to Ian Keyser, who gained his SLMG licence at Enstone on October 6. All committee members were re-elected at the recent AGM.

Colin Harwood



*Alex Maitland's solos at **Angus** (winch) and **Deeside** (aerotow) on his 16th birthday made his local paper. He flew 233km P2 in the Scottish Sports Council ASH at the Juniors the next week!*

Clevelands (Dishforth)

The army has reclaimed part of our vast hangar. However, we will relocate to another section of the airfield, and build our new hangar and accommodation. The annual wave camp will go ahead as usual – visitors are asked to contact the club on 01423 324053, or the CFI, Mark Desmond, on 01522 730471.

Trailers are appearing outside our hangar doors early in the mornings as some of our more regular winter visitors dash up the A1 following promising weather forecasts. Remember the old Yorkshire saying: "if t'wind's in t'West, t'wave works!" This helped Ged McKnight on the weekend of October 9, when he missed Diamond height by 400ft but claimed Gold as consolation!

Doug Stewart and Mac (Ken) MacKenzie have completed their Assistant Instructor courses, and two members are being trained as Basic Instructors. This will help enormously with the influx of students following the start of the university year.

Polly Whitehead

Cornish Gliding & Flying Club (Perranporth)

We have settled down to our three-day week winter routine, accompanied by some very damp and drizzly non-flying weather. However, two members have managed to achieve objectives: congratulations to Nigel Climpson, our latest Basic Instructor, and to Shaunne Shaw who has become a tug pilot.

Shaunne Shaw

Cotswold (Aston Down)

We have taken possession of another 30 acres of our airfield so that when the lawyers have finished we shall own the majority of land within the perimeter track as well as our clubhouse and hanger. This will give more flexibility when we use the shorter of our two tarmac runways. We should shortly take delivery of our new Skylaunch winch, which will supplement and possibly replace our reverse pulley launch system. Courses have been well supported and our two open days have been a great success. Two of our young pilots were successful at the Junior Nationals. Brian Birlison and Mark Parker achieved 8th and 14th positions respectively. We hope to have a tug available this winter to chase the elusive westerly wave.

Frank Birlison

Dartmoor (Brentor)

Well done to Ray Dawson on going solo.

The west end of the airfield has been widened, and work continues to level launch and landing areas. When conditions permit, the top field is used for launching. The extra height gained is providing us with more chance to soar. Recent easterlies triggered the Dartmoor wave; most pilots have flown in it.

Frans Lotze will shortly have produced tow-out gear for all the club gliders, and other members have employed their skills building and fitting guillotines to our old winch. Thanks to all those who have helped. This hard work benefits all members and it would be nice to think that their enthusiasm might rub off on others. The refurbished clubhouse has hosted several very successful functions.

Guy Massey

Deeside (Aboyne)

The Mountain Soaring Championship Trophy (sponsored by Marsh Insurance) was won by two golden oldies; Sam St Pierre and his DG-200, EDM! Pete Roberts won the Best Height on Task shield with more than 14,000ft. Mark Jerman (best-placed first-timer) completed a South of the Border hat-trick. Entries have been received for September 2000.

Sue Heard and Brian Rogers, from our post-solo to Bronze evening party, completed their cross-country endorsements: Sue celebrating with a Diamond height and Brian with his five hours. The party continues this winter with dinner-cum-lecture evenings.

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The 'wave season' has produced the usual crop of height claims. Diamonds have been a bit thin on the ground but Gold heights abound. Our thanks to Dave Bull and Tom Moutre (tuggies), Mike Till (instructor) and Judith (log dragon) for their unstinting work.
JD

Derbyshire & Lancashire (Camphill)

Congratulations to Jerry Benton and Jonathan Thorpe on completing their Silver and John Klunder and Richard Baker for going solo. Both John and Richard joined our successful flying start scheme back in May and have flown regularly over the summer. We are holding two more membership recruitment evenings during October. We are sorry to report the death of Doug Holmes (please see Obituaries, p61).
Tamsyn Cook

Devon & Somerset (North Hill)

The new hangar is now finally taking shape allowing all club aircraft to remain permanently rigged. Members have ventured to Talgarth and North Wales and at the time of writing Oscar McMillan, Steve Bushell and Anthony Leech were enjoying a BGA wave course at Aboyne. Latest news was that Oscar obtained his Gold height and Anthony was last seen at 10,000ft in our Club Junior. Closer to home, Mark Courtney and Fred Marks completed Silver distances with a trip to the Park. Everyone is looking forward to our AGM on Saturday, December 11. Our thanks to Ron Johns who will be standing down as CFI after three years, and congratulations to Malcolm Chant, our safety officer, who completed his Full Cat earlier this year and who takes up the CFI's role in December.
Simon Leeson

Dukeries (Gamston)

Our trusty winch is in the process of being re-engineered and we have finally moved to using stranded cable. Since the club's formation, piano wire had been the norm; the change to stranded was greeted with some delight by the knot tiers amongst the members.

Dave Urpeth and Mick Burrows have started giving Bronze C lectures. Roy Lunn has done his first 100km. Peter Uden is the latest member to get his PPL with Trevor Pond close to completing his.

The committee has decided to further promote the club on local radio stations and in the local press. Watch this space for the results.

Another successful flying weekend was held in September. Most members stayed on site in caravans and tents.
Dave Hall

Enstone Eagles (Enstone)

With reduced numbers it has been a relatively quiet summer. We hosted a Regionals in August: our thanks to Steve and Jane Nash for heading the team and all the members who helped. Alan Jenkins and Hugh Gascoyne entered it as their first rated competition and found it rewarding and instructive.

Demand for five-day ab-initio courses has picked up and we offered a mix of winch and aerotow training. Thanks to Peter Kelly for doing the lion's share of the course instruction. The club's K-8 has been sold and the Twin Astir is on the market in order that the committee can adjust the operation to better suit the present membership and make provision for the future shape of the club.
Geoff Dixon

Essex (North Weald/Ridgewell)

Congratulations on first solos to Tony Andrews and Maurice Quire, to Peter Gardner, who also obtained a Bronze leg, and Cathy Dellar, our first lady soloist for many years. Peter Berridge completed Bronze C and Silver duration. Roy Briggs did Silver distance to Tibenham in a Skylark 3 and Mark Defendi completed Silver in a Skylark 4. Well done also to Geoff Martin on his Assistant Instructor rating, and Andy Hart and Tony Brook on their BI rating. Don Ling has taken over as CFI from Ian Barnes, who continues as DCFI. The club featured on BBC Radio Essex in July when several members were interviewed at North Weald. Displays at other meets at North Weald also resulted in enquiries. Thanks to all those involved. (See also *Club Focus* on p56).
Peter Perry



*The winning team from **Fenland** with the Anglia TV trophy (right) they earned at **Norfolk**. The other trophies are RAF and RAFGSA ones awarded to Mark Pickersgill (front, 3rd from L)*

Essex & Suffolk (Wormingford)

Cross-country pilots using the local TP (WRM) please note that this has been moved approximately 1km east from the runway intersection to our new hangar.

At the last AGM Chris Price retired after seven years as chairman and was appointed vice-president. Paul Foulger was elected chairman and John Bone, membership secretary. Twenty-five members went to Aboyne earlier in the year to explore the wave. Many high flights were recorded including 9000ft from Rob Nunn, Gold claims from Mike Friend, Bob Adams, Chris Nunn, Chris Price and a Diamond claim from Andy Sanderson (19,800ft).

A visit from veterans of the USAAF 3rd scouting group who flew from Wormingford in WW2 added to our items of airfield memorabilia. For the fourth consecutive year E&SGC won the local Inter-Club League. Phil Duffin and Rob Lockett both flew 300km. Ken Rogers, Chris Smith, Sergie Kotomin and Steve Jones all gained Silver legs and Andy Booth got Silver badge on one flight. Soloes include two cadets, James Wilson and George Green, as well as Harvey Watts, Kevin Holden, Kim Smith and Eric Lowe. The latter two soloed on consecutive cables and have since formed a K-6 syndicate.

Chris Nunn and Dennis Heslop have gained Assistant Instructor ratings and Mike Benson is a Full Cat. Robbie Nunn and Tom Brenton are the latest additions to the ranks of our Basic Instructors.
Steve Jones

Fenland (RAF Marham)

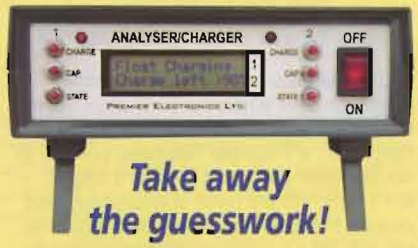
Ian Stafford Allen completed his Silver with a six and a half hour flight (just to be sure); durations were also flown by Darren Raffen and Tim Edmunds. Tim did five hours and six minutes on a conversion flight to a K-6E. Fenland pilots Al & Chrissy Thomson, Darren Raffen, Del Ley, Mark Pickersgill, Colin McCinnis and Mitch Middleton won the Anglia TV trophy.

A group of hardy pilots made the long trip north with hopes of high flight. The wind blew from the SE all week. They managed nine flights - the longest, 21 minutes. Darren Raffen got the highest by cycling to the top of the ridge. Those on cross-country next year in our area look out for the giant windsock to the east of our airfield, a 300ft wind turbine at Swaffham.
AJ Padgett

Imperial College (Lasham)

Summer was busy and successful, despite the early departure of captain Andy Holmes for pilot training with BA. ICGC wishes Andy all the best for the future. Our long-standing president, Frank Irving, retired from the post and is replaced by Afandi Darlington. Duncan

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Club Focus: Essex

We believe Essex GC is the only UK club which operates routinely from two sites. For many years, we were based at North Weald – a superb field for ab initio training, but which was encroached upon by airspace. So in 1990 we purchased land at Ridgewell, previously used by the old Ridgewell Oatley gliding club. With 3200ft above site, 5200ft a mile north, and unlimited areas nearby it is an excellent starting point for badge and cross-country flights.

On first sight there appeared to be little at Ridgewell - just a field much, much smaller than we had been used to. Further inspection unearthed an old combine harvester converted for use as a winch, a monstrous beast with levers and bits of wire sticking out all over. We no longer use it. The lack of facilities meant aircraft had either to be trailed or, expensively, aerotowed some 40 miles from North Weald. Long-distance aerotows, sometimes in very thermic conditions, certainly concentrated the mind!



First soloist Cathy Dellar and CFI Don Ling at Essex (Geoff Martin)

Congratulations to those dedicated members who, since the early days, have worked so hard to enhance both sites. At Ridgewell, a T-hangar has been erected to house either our Super Cub or a rigged K-13 (much to the relief of everyone!) and despite the lack of planning permission as yet to build a permanent clubhouse we do have tea, coffee, sweets and, if you're lucky, cake from Geoff and Sue Martin in our mobile club room.

North Weald's concrete runways are a great advantage in the winter. The acquisition here of a blister hangar meant members had to do various Tarzan acts to rub down and paint the framework's far high corners. We think Ivan Stirling wore anti-gravity boots. This hangar now houses two rigged K-13s and the Super Cub. During the soaring season, our other two K-13s and our K-8 stay at Ridgewell; the tug operates between both sites.

Come and visit us at either site; you can be sure of a friendly welcome. We fly:

Apr-Oct inclusive: weekends at Ridgewell (aerotow and winch); Weds at North Weald (aerotow).

Nov-Mar: Weds and weekends at North Weald (aerotow).

Ashley and Hemraj Nithianandarajah are solo. We are replacing our Grob 102 with a Discus to keep the club's equipment up to date for competitions. Luke Rebbeck took our ASW-24 to the Junior Worlds (see p39); he was the youngest pilot there and was 2nd in the Junior Nationals.

Chris Smart

Kent (Challock)

CFI Bob Burden in his Nimbus 2b won our Task Week. One of the best days was the day of the solar eclipse when soaring conditions quickly returned.

One of our scholarship members, Steve Clark, achieved his ambition of soloing on his 16th birthday. His instructor Mike Miller took advantage of a short dry spell. The field was set up in what must be record time and Steve was able to get a check flight and two solos in before the rain started again.

We were very shocked and saddened by the sudden death of George Costin in September. A keen member, George contributed much to the club, most recently being responsible for our new Skylaunch winch. George will be sadly missed not only by us, but also by his friends in the Vintage GC.

Caroline Whitbread

Kestrel (RAF Odiham)

A successful week's course was run at Upavon thanks to Wyvern GC's equipment and facilities. Eight students of varying experience enjoyed an instructor/student ratio of almost 1:1 and most got at least one soaring flight. Alan Somerville and Dick Milton managed fourth place in the sport class of the Inter-Services. Slim Whitman has taken on the mantle of club hog with a 7hr 15min flight in the Discus. Work has started replacing the floor in the clubhouse in order to provide a firm footing for the Christmas party. Our thanks to the Rubb building company for their continued support in keeping our tent hanger serviceable and to our MT team for their work on the winch and flatbed retrieve vehicle.

Simon Boyden

Lakes (Walney)

We had some terrific flying in May; a couple of gliders made it across the Pennines. Keith Butterfield and Andy Tebay landed at Sutton Bank in the K-21 and Peter Lewis made it back. Sadly the tug engine then expired and was out of action for most of the summer.

Graham Welch completed his 100km diploma on the club trip to Hus Bos. John and Lyn Martindale did 300km flights in Spain. Keith Whitworth did his five hours at Walney; Peter Seddon got Silver and Gold heights and five hours in one flight at Portmoak; where Roy Jones also gained his Gold height.

We have discovered that Pilatuses (Pilati?) breed after a second B4 joined the private fleet recently. We left the two of them together on the trailer park and when we came back a week later we found a third one there... Obviously still a very popular glider.

Alan Dennis

Lasham Gliding Society (Lasham)

This year's 47 new members have been given a new publication *A Guide to Lasham* designed by Nan Worrell with photographs by Neil Lawson.

Our Pawnee has been re-engined with a 260hp engine, giving a high rate of climb that should help to reduce noise disturbance to our neighbours. White cones, supplied by Southern Sailplanes, mark the available landing area at the east end of runway 27, and to the east of runway 23. The safe area is on the runway side of the line of cones. More of the south side of the airfield is being made available: derelict structures are being removed and the ground levelled.

Eight members of the Thursday morning group, led by Bob Vaughan, will be wave flying at Minden, USA. Chris Lovell climbed to 20,700ft at Sutton Bank in a wave bar that extended from north of Barnard Castle to south of Leeds. Alan Purnell reports flights of 850km, 750km, 700km, and several of 600km and 500km from Fuentomilanos in Spain; his average cross-country distance was 500km!

Tony Segal

Lincolnshire (Strubby)

Thanks to the Sports Council, a new Blanik has joined our faithful Bocian, K-7 and re-finished K-8. We fly at weekends and on Wednesdays. Jane Ruttle and Mo Haddon, flying their Janus, won the Pocklington two-seater cup. It's a first for Lincs; I only hope it can be repeated next year.

It is with great sadness that I have to report the sudden death of Colin Watmough (see obituaries, p61).

Mike Fairbairn

London (Dunstable)

Congratulations to Ed Johnston, winner of the Standard Class Nationals and to everyone who flew the Inter-Club League this season, especially Doug Lingafelter, who led us through to national victory (see p23).

We have a new CFI, Andy Roch, and a new Chairman, Mark Newland-Smith.

We owe a huge debt of gratitude to Bill Craig, CFI for the past year, for his enthusiasm, his energy, and the way in which he led by example.Thanks, too, to our ex-chairman, Robert John, for his work this summer. We wish him the very best of luck in future.

We now have a Venture, a T61. All the usual courses continue through the winter (navigation, instructors', etc) and we've scrapped all reciprocal membership charges. So come and fly on the Downs, and if you can make it here on December 4 you'll have the opportunity to hear George Moffat speak.

AH

Mendip (Halesland)

Our annual dinner/dance was very well supported. Undisputed top award winner was Bob Merritt for his Diamond goal flight from Halesland – the first club member to complete all three Diamonds. Brian and Jean Headon organised the event and Brian also managed to find time to clock up his 5,000th launch.

Jackie Pickles, a teenage member back in the Weston super Mare days before motherhood intervened, has rejoined, re-soloed and did a bronze leg on her second K-8 flight.

Keith Simmons

Midland (Long Mynd)

Please note that our airfield control frequency is 129.975 MHz, for use within a radius of ten miles.

Our end-of-summer task week was successful with six flying days. Iain Evans won and most pilots got home except on the last day

when there was a fun-filled mass landout near Abergavenny.

Our motor Falke has arrived and is already well used. It has usurped a K-23 in the hangar which will soon be hung from the roof. As yet no member of the committee has been invited to join it.

First solo congratulations to Jose Alcarez, Tim Marris, Rob Kronenberg and Peter Greaves-Tunnell.

We are winding up to a memorable millennium night. Rule number one is that no-one tries to bungy launch the chairman at midnight. If you want to break it, come and join us.

Roland Bailey

Needwood Forest (Cross Hayes)

We are approaching our first anniversary of moving to Britain's most beautiful gliding site (well, we think so - come along and see for yourself!). Compared to a year ago the field is much firmer, which should give us more winter operations.

We have started a new, computerised logging system, which we are currently running in tandem with the paper forms.

We recently had a visit from some glider pilots who flew operationally at Arnhem. Glider performance has certainly improved in the last 55 years, and the landing areas are safer!

Grant Williams

Nene Valley (Upwood)

Despite a dull start and strong crosswind, our open day went well and we gained some new members. Exactly one year behind schedule our hangar doors are finally up which should relieve the strain on members' backs.

Our annual task week in August was well attended; a start-of-week barbecue was held at Welland and an end-of-week one, despite torrential rain, at Nene Valley.

Eleven members attended a basic first aid and life-saving course at the club: one managed to inflict brain damage on the practice dummy and a second let it die by stopping CPR to answer his mobile phone.

Chris Higgins and Steven Myall have soloed. Les Seymour re-soloed and found out the round of drinks cost more than £1.2s.6d this time. Richard Aylesbury and Tony Challis did their 50km; Barry Meech and Peter Blacker achieved Silver heights.

Graham Woodward

Newark & Notts (Winthorpe)

Good soaring conditions have allowed members to complete tasks and claim badges. Dave Kassube has gained his five hours, having missed it by four minutes last month, and completed Silver. Nicola Greenfield went solo on August Bank Holiday Monday, her 16th birthday. Congratulations, too, to Wally Fisher for his Silver distance and Markus Willet for going solo. The club was actively involved in Balloon Fest99 at the Newark and Notts showground. This event covers just about every aspect of aviation from kite flying to display aerobatics, and gliding was well represented. Thanks to Noel Kerr for producing a club website which can be found at: *www.newarknottsglidingclub.freeserve.co.uk/*

Barry Patterson

Norfolk (Tibenham)

Our Harvest task week gave us many enjoyable tasks, including 306km in a K6E. The week concluded with our hosting the Anglia Cup. Three representatives from six local clubs flew each day but there were a lot of land-outs. The trophy was carried off by Fenland GC. Matthew Cook did well in the Junior Nationals; the Discus made a nice change from his Oly2B.

We now have an ongoing maintenance programme for our three tarmac runways, to treat cracks and ridges, and the latest increment has recently been carried out.

We are preparing to host the International Vintage Glider Rally next summer.

Bonnie Wade

North Wales (Llantisilio)

We are still waiting for Denbighshire CC to grant permission for our new site and have to provide them with yet more information. Meanwhile we continue to have some good flying. Liz Silverstone has flown the Llantisilio Range down to Corwen and also the Clywdian Range.

By now we should be enjoying the winter wave! Individual members of other clubs are welcome on weekends and Wednesdays but we do not yet have the facilities for visiting groups. For information, phone Chris Bolton on 07930 905088.

A core of members has worked hard to get the site flyable and the equipment checked and refurbished. Special thanks to Ken Fixter who seems to be working more since he retired! Congratulations to Ian Skinner on gaining his CPL.

Gill Pennant



***Dunstable** cadet Mark Watson photographed when he soloed on his 16th birthday by grandfather Pat Hill. Pat, who introduced Mark to gliding, soloed 7 years ago on his 65th birthday.*

Oxford (RAF Weston on the Green)

Perhaps our largest ever contingent of 19 people made the 500-mile trek to Feshiebridge. Everybody had had a tremendous time – except for the flying. Thanks go to Barry and Mo Meeks and all the Feshie members who made our stay so memorable. For those whose memorable bits have gaps, the photographs show you enjoyed it.

Garry Cuthill, Matt Gage, Lynne Jones and Alan Lapworth managed to get their Silver badges, while Tony Hoskins, Mark Thomas and Steve Trusler, fed up with flying the K-8, all got their Bronze badges so they could use the Astir. Norman Hedge finally bought a map and, realising there's a whole world out there, flew a slightly extended 50km.

The competition pilots didn't do too badly either. Unable to repeat last year's stunning success of winning the Inter-Club final they still put some bigger clubs in the shade. Well done to George TMB Crawford, Cris Emson, Steve Evans, Martin Hastings, Dave Nesbitt, Maz Makari, Howard Stone, Steve Verness and everyone who took OGC to the finish line this year, even if it was in a trailer.

Steve McCurdy

Peterborough & Spalding (Crowland)

Congratulations to Peter Kettle on his Bronze C and cross-country endorsement. Congratulations and commiserations to Gerry Pybus for his Silver duration on an unpromising day. Unfortunately, Gerry missed completing his Silver badge due to the 1% rule. Beware of marginal tasks when carrying an EW, they are very accurate. Still, we all look forward to drinking his beer again next year.

We had good results in the Anglia Cup with 'Big Al' Flintoft taking 1st place in the intermediate class on the Sunday in his K-6E and Kev Fear 2nd on the Saturday in the pundit class flying his Libelle. Manuel Williamson flew Sunday's pundit class and came 3rd, adding another landout to his collection of East Anglian fields.

Clubhouse renovations are taking shape fast, with the new kitchen in place and new boiler, shower room and outside porch to follow.

Christmas dinner has been arranged for 9th December at the Castle Inn at Castle Bytham.

Peter Goulding

Portsmouth Naval (Lee on Solent)

The sunny days lasted well into October giving us good flying days before the onset of winter. Our three courses this year were very successful with many pupils going solo. Congratulations to Jamie Steel on completing 50km and to Dave Ingledew for his five hours.

Yvonne Watts

Scottish Gliding Centre (Portmoak)

We enjoyed fine weather during August and September, with many cross-countries.

Neil McAuley and George Ross have started a Saturday morning pre-solo syndicate; several of its members are now approaching solo standard.

Several pilots have enjoyed flying in competitions recently. Gavin Goudie and Alan Irving peformed commendably in the Junior Nationals.

Congratulations to Gerry Marshall and Alan Irving (both Gold distance/Diamond goal), Alastair Wilson (Silver distance and Silver height), Ross McIntyre (Bronze) and Ron Finch (first solo). Tony Brown flew a 500km, but missed out on a Diamond distance due to a logger error.

We have had some good wave in recent

weeks, with visitors gaining at least two Diamond heights, and several Gold heights.
Neil Irving

Shalbourne Soaring Society (Rivar Hill)

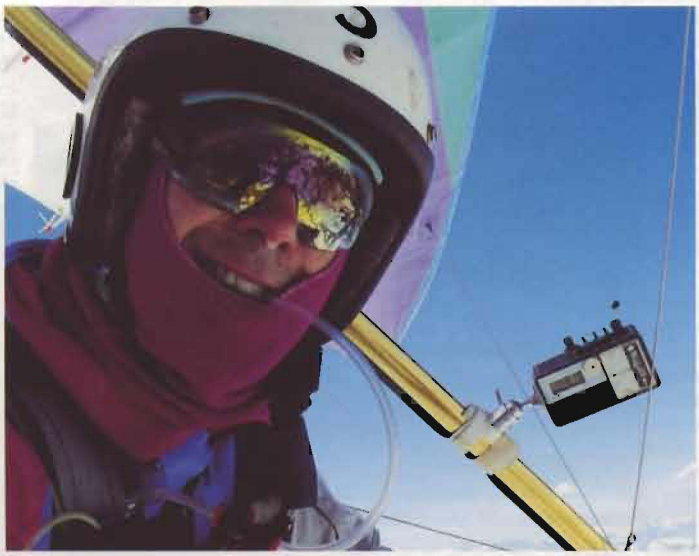
From the 40 or so people flown on our June open day, we gained at least four new members.

Three members achieved Diamond goals on the same day this summer, all flying Astirs. Congratulations to Kay and Dave Draper and Jerry Pack. The August task week, won by Hugh Harwood, was also successful despite three days' bad weather. Liz Sparrow set excellent, Enterprise-style tasks, and there were a number of successful excursions, with the K-7 duo of Alan Pettit and John Day retrieving the Come And Get It Trophy from the Park. Dave Draper demonstrated you don't need a hot ship to go cross-country by achieving 180km in a K-8.

New solos include Dave Morrow and Darren Arkwright. Alan Sparrow finally did five hours to complete his Silver, following extreme pressure from his full cat wife, Liz.

Congratulations also to Michael Edmonds for getting his Gold height at more than 11,000ft over Shalbourne. As we don't get wave over the site, Michael had to make use of a cloud climb through a rapidly-expanding CuNim.

We are unfortunately no further ahead in securing a long-term lease but hope to have some positive news for our AGM in November.
Clive Harder



*Darren Arkwright of **Rivar Hill** at 17,000ft over California in a hang glider. For his other exploits, see p15*

Shenington (Edgehill)

Martin Beddows has gone solo and Simon Whittaker has resoloed. John Donovan gained silver height, Paul Barnes completed Silver with his distance and Dave Heath flew Gold distance. Stuart Meier completed his Gold badge with distance in his K6E on the same day as Phil Atkinson (visiting from Bowland Forest) also flew 300km in a K6E – congratulations both! Pete Mann completed his SLMG rating, and Roger Hurley is Basic Instructor.

Our joint task week with Bowland went well in spite of the weather; Bowland won. Club members represented Shenington at many Regionals this summer, though our Inter-Club involvement faded out!

Full week courses ended in October, but we're still flying midweek and hoping for plenty of ridge days. Visitors are welcome. You can keep up to date with our activities at *http://freespace.virgin.net/fisher.m/sgc/*
Tess Whiting

Southdown (Parham)

An Astir and a K-21 have joined the club fleet, just in time for winter ridge soaring. Congratulations to Alan Irving for his Diamond goal and Mike Brady for his Silver distance. Bronze badges went to Dave Pond, Martin Smith, Eugene Hamblett and Peter Grundwell. James Lord, John Gowdy, Justine Perkins and Melissa Hughes are now solo.

Congratulations, too, to Shona Buchanan who leaves us to become a First Officer with British Midland Airways, and Cathy Buchanan (no relation) who has won a scholarship to Harvard University.

Gallant near-misses include Stewart Domoney's Gold distance attempt. Dennis Ratcliffe, who rarely leaves the vicinity of the airfield these days, was so inspired that he set off to land only 0.7km down the road, and Guy Westgate who came third in the National Aerobatics championship, put on a magical display at the Shoreham Air Show.
Peter Holloway

The South London Gliding Centre (Kenley)

The Surrey Hills Gliding Club Ltd will be trading as The South London Gliding Centre, which the committee feels better reflects both our actual geographical location and the main emphasis of our club as a centre of excellence for training.

An Indian summer has produced a spate of solos: congratulations to Barry Hughes, Colin Fretwell, Bob Sluman, Liam Kiernan, Dennis Barton, Bob Phasey and Geoff Bloomer. Membership, at 90, is the highest ever. An expedition of cross-country cleared pilots is planned for next Spring to Jaca in the Pyrennes so our new solo members have a lot to do over the winter.

Ben Watkins and Michael Brady had a successful soaring course: Michael did his Silver distance in the BGA Discus. As we at Kenley expect Silver distance to be done in a K-8, he promptly flew 65km to Challock in one! Congratulations to Richard Fitch on his half cat. The Club will fly five days a week throughout winter; visitors are always welcome.
Tricia Pearson

South Wales (Usk)

We regret to report the deaths of Malcolm Uphill and Earle Duffin (see obituaries, p61). Our sympathies go to both their families.

The task week had more competitors than ever – Justin Fitzgerald, Tony Hooper and Enzo Casagrande won pundit, intermediate and novice classes respectively.

The club ran its first Youth Flying Programme where four youngsters were given six free evenings flying and a year's free membership. Two were rewarded for their hard work and dedication by soloing on the final day.

Brian Compton, Andrew James and Steve Jenkins have Silver badges, Dave Brown has flown Silver duration and height, Hugh Rattray has Diamond goal, and Colin Powell, Joe Smith Hadden and Steven Cone have gone solo.

Allan Donnelly has a Basic Instructor rating and Rod Weaver a Full Cat rating.
MPW

Staffordshire (Seighford)

Soren Ebser, a very active, helpful and popular club member, has returned to Germany: we hope he will visit us again.

Thanks to Brian Pearson and team, and to Lara Davies, Shaun and Darren Longden, Paul (Barney) Crump and Joe Westwood for successful displays which resulted in more visitors and new members. Our August Bank Holiday Open Days were well attended and we appreciated Cosford's tug.

Our Chairman, Glyn Yates, is now the National (Novice) Aerobatic Champion, a feat which he performed in the famous FOX; the operation to surgically remove him from it has been partially successful.

Rob Rolfe completed his first Bronze leg at Shenington. His father, Nick, gained a Bronze leg and Silver height in one flight. Jon May completed his Gold distance/Diamond goal.

Twenty aircraft joined the annual expedition to Borders GC and some of us even found the elusive wave. Paul Crump and Chris Jones flew their first solo aerotows. We look forward to next year's visit.
Chris Jones

Stratford on Avon (Snitterfield)

According to the VGC magazine we have the highest proportion of VGC members of any BGA club, thanks to the efforts of Derek Phillips and Jeff Gale. We certainly enjoyed the July visit to Camphill. Highlight of the week was when Ian Dunkley landed at the foot of the ridge one evening with a 17-year-old female pupil, which resulted in great hilarity from onlookers when the retrieve attempted to put the fuselage in the trailer before the wings – see photo in last issue's club news.

Back home we experienced the best soaring conditions since moving to Snitterfield, with more cross-country kms flown plus more pilots on the club ladder. Congratulations to Tim Bradley on first solo and to those who completed Bronze cross-country endorsements. Both Chris Wooller and Dave Johnson have Silver badges. Finally, our appreciation of the volunteer crews who manned the flying evenings and assisted with summer courses run by Phil Pickett and Jim Tyler.
HGW

The Soaring Centre (Husbands Bosworth)

The week of events held to celebrate Percy

Pilcher and 100 years of gliding were a big success (see picture below and p17). Thanks to all those who put in so much effort.

Congratulations to: Loughborough University's team (Ed Foxon, Mark Irvine and Jenny Leacroft) who won the Inter-University competition; Richard Blackmore, who won the European two-seater competition; Ken Payne who finished 4th in the Cambridge Regionals Sport Class and Graham Thomas, 5th in the Gransden Regionals Club Class. Pete Skinner received his Silver badge, Joe Vickerstaff completed his Bronze C and Paul Howard has flown solo. Mick Nunley is now an Assistant Category instructor.

Well done to Paul Crabb (1st) and Brian Marsh (2nd) in the overall club ladder (open and weekend), and Malcolm Guard (1st) and Rolf Tietema (2nd) in the club ladder for gliders with a handicap of 95 or less (open and weekend).

The visiting Genesis 2 was warmly welcomed and club members had the chance to fly this unusual looking machine (flight test, p26).

At the time of going to press Andy Parish and Mike Jordy have completed what look like being the last cross-countries of the year:108km on October 12.

Our Annual Dinner will be held this year on Saturday, January 8 in the clubhouse – don't forget to book early if you want to come!

Siobhan Hindley

Trent Valley (Kirton Lindsey)

Three aircraft from Kirton entered the two-seater competition, the Marianne team of Robin Parker, Barry Rendal, Ted and Colin Crooks collected second place.

John Williams has dominated the club ladder and made his mark on the national one, with several flights over 400km. Paul James has his five hours; Bronze legs and one-hour durations go to Ian Dawson and Tom Mckinley jnr.

Many rowdy drunken reprobates (members) spent a week at Portmoak where they enjoyed flying the ridge.

The clubhouse has been given a new lease of life with a new roof.

John Kitchen

Ulster (Bellarena)

An unusual promotional stunt during an indifferent season is recorded below. By mid-October, things were looking up with two successive weekends of widespread if modest wave from which Michael McSorley and Stephen Johnston obtained their Silver heights. Earlier, Martin Earle had become our latest soloist.

A safari to his home club at Walldurn in Southern Germany, arranged and led by our resident German member Martin Feeg, proved to be a great success, with cross-countries of up to 300km in borrowed machines and some memorable socialising. More of the latter was scheduled for November 12, when our annual dinner was due to be held.

Bob Rodwell

University of the West of England (Keevil)

We recruited 71 new members in our first two weeks (51 at Freshers' Fair). We were lucky enough to have the use of Bannerdown's Discus, which created much interest. Bob Brain's help was greatly appreciated. Fun was had by all, except the barman at Trader's when we asked him if we could take a glider through his bar. We aim to get a few more solo pilots.

Pippa Franklin



*Members of **The Soaring Centre** and the **Vintage GC** were among those who flew in to a centenary service at the Percy Pilcher memorial. For more details of the centenary week, see p17. Photo: Alan Self*

Vale of White Horse Gliding Centre (Sandhill Farm)

We have had a rather better summer than last year. Although we do not seem to have managed as much cross-country flying as we might have hoped we are pleased that Pete Hogan is now an Assistant Category Instructor and Andy Vallis a Basic Instructor. Much to everyone's delight Bill Bolton has flown a Silver height in our K-8, and Clare Knock enjoyed her two-hour soaring flight in the K-18.

Graham Turner

Vectis (Bembridge)

The two club visits, to Husbands Bosworth and Aboyne, produced mixed fortunes. Husbands Bosworth was more successful in that all eight club members had reasonable flying, with Peter Tuppens 15th overall in the task week. The weather in Scotland allowed only local flights. We have flown more than 50 BI flights since the start of August - a considerable improvement which shows the value of obtaining our second two-seater. At the beginning of September, Martin Parsons successfully completed his Assistant Instructor's rating.

Peter Seago

Vintage GC

Our 27th International Rally in Schleswig-Holstein was at Aventoft on the Danish frontier; more than 80 sailplanes entered. Winch launching actually took place in Denmark with co-operation from a Danish gliding club. Despite coastal weather mostly from the Baltic, there were five flights of more than five hours. Our Rendez-Vous 99 before the rally took place at Achmer Osnabruck and was very successful. A fleet of vintage gliders welcomed us along with a FW Stieglitz vintage towplane.

Our rallies in Britain were again mostly graced with bad weather, except for our traditional May Bank Holiday weekend at Haddenham Thame. Our national rally at Bicester was a success with a Condor 4 from Germany and K-4 from Holland joining us. New on the British scene was John Tournier's Sky, which had once been flown by the Empire Test Pilots' School at Farnborough. We also welcomed the arrival of the 1953-built Swiss Elfe PM-3. Its owner and pilot, Graham MacLean, brought it from the USA and has repaired it. Its wingspan is 16 metres, its wing loading is over 6.8lb/square ft and its max L/D is 1:44. Such performance had only been matched (in theory) by the 24-metre span Horten flying wing of 1944.

Well done to Graham Saw for his national aerobatics win in his Lunak (see p11).

Chris Wills

CLUB committees racking their brains for a good wheeze to publicise next year's recruitment drive would do well to take a lead from the **Ulster GC**'s effort in August, just ten days before our scheduled summer open day.

Get into bed with your local radio station and then, if ATC permits, orbit overhead your catchment area's largest population centre with a tug and two-seater on tow, while the station's most popular personality rabbits to the audience in real time from the front cockpit and is broadcast live.

The wheeze was dreamt up not by us, but by BBC Radio Foyle character James 'Scordie' Doherty. It filled Derry's streets with crowds of people – office workers and shop staff who left their posts in droves; shoppers, tourists and layabouts alike – all gazing skywards to watch our Robin D300 Yankee Golf with the K-13 on tow overhead.

The combination flew over the city and its suburbs at 1,700ft for some 15 minutes on a Wednesday afternoon, flying orbits and random turns to ensure no neighbourhood was missed. With its position broadcast constantly by Scordie, it was seen by tens of thousands while probably even more heard all about our intended open day on air.

Scordie had expressed on air the wish to fly over his native city in a glider and the idea just grew from there. CFI Harry Hanna flew him in the K-13 while Laurence McKelvie drove the donkey in front. Radio Foyle's afternoon chat-and-records show was almost constant Scordie commentary, with short musical inserts, from when Scordie took off, against the aural background of the Dambusters March and was towed the 25 miles to Derry. The club's existence, and our open-day, were plugged repeatedly.

Feedback from Derry suggested it was rated an infinitely better spectacle than the solar eclipse exactly one week before, the two-minute manifestation of which took place over cloud with only scattered breaks and was, for most in Northern Ireland, the over-hyped disappointment of the year.

Bob Rodwell

Welland (Lyveden)

More than 20 members enjoyed the annual trip to Aboyne in October, taking with them the BGA Duo Discus, DG-500, Discus, and the trusty club K-7. Several members achieved personal successes flying new types at this challenging site. Warmest wishes go to Ann Mackey who spent her week in Scotland in hospital, and to our tug pilot's wife, Pat Wilcox, who has been missed during her recent illness.

Congratulations to Dick Short, who has been made a senior inspector. As we prepare for the annual dinner in November, we reflect on a season when several members have experienced the thrill of flying cross-country for the first time.
JC

Wolds (Pocklington)

Rather than winding down, we have geared ourselves up for a hectic flying and social schedule this winter. Although they don't know it yet, we are about to invade several local clubs (Sutton Bank and Burn) to introduce early solo pilots, or anyone else, to flying from other sites.

Congratulations to Brydan Mossop on soloing and Sue Webster for that elusive 300km goal. Les Wright also achieved his double goal, and probably a club record, with the last field landing of the summer – the nearest to the airfield.

We have converted one of our K-21s for flying by individuals whose lower limbs are disabled; we plan to convert a single-seater as well. The K-21, one of only a few in the country which makes our sport more accessible to an otherwise excluded group, is already in use.

Our Millennium bug-swatting brain-draining celebration which aims to make inebriation accessible to an otherwise sober group is being planned. Anyone silly is welcome to come along.
Ged McCann

York Gliding Centre (Rufforth)

The club is grateful to instructors Brian Pritchard and Mike Munday, and examiners Eric Boyle, Chris Heames and Dick Cole, for ensuring that 18 candidates for motorglider licences finished in time for the deadline at the end of September. Congratulations to the new licensees, one of whom, Victoria Wiseman, is only 17! From October only holders of the UK glider pilot licence can be trained for the UK SLMG licence.

The ladder entries for the club contain a remarkable number of flights this year despite its not being the best of cross-country seasons. Congratulations to Craig Olley, Steve Hord and Hugh Wright on soloing. Our website *www-users.york.ac.uk/~mdc1/ygc.html* is yielding lots of interest in the club. It's encouraging to have at least four members aged under 20, and we hope more will join us. BI flight numbers have been exceptional this year.
Mike Cohler

Yorkshire (Sutton Bank)

The recent BGA soaring course was a great success with three completed Silvers: Marian Stanley, Robin Straup and Alan Crowley. The annual dinner and prize-giving was held recently; the following people were presented with prizes: Robin Straup, Andy Wright, Bill Payton, Marian Stanley, Sam St Pierre and Gary Harvey. The occasion was also used to mark the retirement of Jim Hill, club chairman for five years.
Marian Stanley

BGA Certificates

ALL THREE DIAMONDS

No	Pilot	Club	Date
566	Green, Philip	Lasham	11/2
567	Latimer, Dave	Aquila	21/8

Diamond distance

1-805	Minary, Mark	Bicester	1/8
1-806	Green, Philip	Lasham (in Australia)	11/2
1-807	Latimer, Dave	Aquila	21/8

Diamond goal

2-2681	Rooke, Graham	Phoenix (Germany)	25/7
2-2682	Marsden, Kenneth	Wyvern	24/7
2-2683	Mann, Peter	Chilterns	24/7
2-2684	Duffin, Philip	Essex & Suffolk	24/7
2-2685	Lockett, Rob	Essex & Suffolk	24/7
2-2686	Fidler, David	Cranwell	20/8
2-2687	Rattray, Hugh	South Wales	21/8
2-2688	Irving, Alan	SGU	21/8
2-2689	Tietema, Rolf	Soaring Ctr	21/8
2-2690	Webster, Susan	Wolds	22/8
2-2691	Wardrop, David	Yorkshire	28/8
2-2692	Forster, Michael	Booker	21\8
2-2693	Parker, Mark	Aston Down	21/8
2-2694	Knowles, David	4 Counties	28/8
2-2695	Heath, David	Booker	28/8
2-2696	Clarke, James	Cambridge	21/8
2-2697	Meier, Stuart	Shenington	21/8
2-2698	Payton, William	Yorkshire	21/8
2-2699	Perkins, Malcolm	Yorkshire	21/8
2-2700	May, Jonathan	Staffordshire	21/8

Diamond height

3-1494	Crosby, Dean	Yorkshire	24/7
3-1495	Bedingfeld, John	Yorkshire (in USA)	21/4
3-1496	Heard, Sue	Deeside	10/9

GOLD BADGE

2098	Crosby, Dean	Yorkshire	24/7
2099	Fidler, David	Cranwell	20/8
2100	Forster, Michael	Booker	21/8
2101	Marshall, Gerald	SGU	22/8
2102	Meier, Stuart	Shenington	21/8
2103	Martindale, Lyn	Lakes (in Spain)	29/6
2104	Perkins, Malcolm	Yorkshire	21/8

Gold height

	Brown, Stephen	Stratford on Avon	25/5
	Harvey, Gary	Yorkshire	17/7
	Heard, Sue	Deeside	10/9

Gold distance

	Crosby, Dean	Yorkshire	24/7
	Cooper, Martin	Bicester	1/8
	Harrison, Peter	Rattlesden	25/5
	Rooke, Graham	Phoenix (Germany)	25/7
	Marsden, Kenneth	Wyvern	24/7
	Mann, Peter	Chilterns	24/7
	Duffin, Philip	Essex & Suffolk	24/7
	Fidler, David	Cranwell	20/8
	Lockett, Rob	Essex & Suffolk	24/7
	Rattray, Hugh	South Wales	21/8
	Irving, Alan	Scottish GC	21/8
	Webster, Susan	Wolds	22/8
	Wardrop, David	Yorkshire	28/8
	Atkinson, Phil	Bowland Forest	21/8
	Forster, Michael	Booker	21\8
	Parker, Mark	Aston Down	21/8
	Knowles, David	Four Counties	28/8
	Heath, David	Booker	28/8
	Clarke, James	Cambridge	21/8
	Marshall, Gerald	SGU	22/8
	Meier, Stuart	Shenington	21/8
	Payton, William	Yorkshire	21/8
	Reekie, Ian	London	28/8
	Haughton, Dominic	Midland	6/8
	Martindale, Lyn	Lakes (in Spain)	29/6
	Anson, Bernard	Chilterns (in France)	22/6
	Perkins, Malcolm	Yorkshire	21/8
	May, Jonathan	Staffordshire	21/8

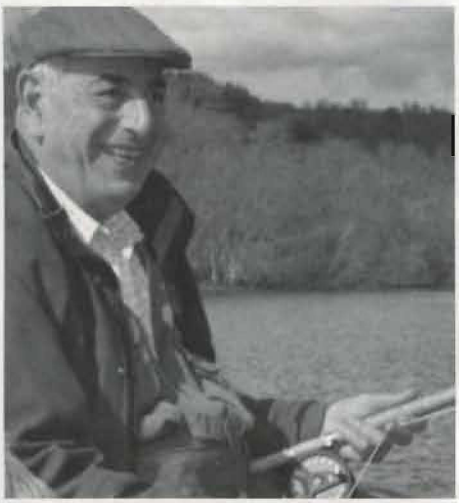
SILVER BADGE

No	Pilot	Club	Date
10608	Edgar, Philip	Welland	24/7
10609	Barlow, Graham	Derby & Lancs	26/7
10610	Jenkins, Peter	Wyvern	18/7
10611	Stokes, Andre	Shenington	26/7
10612	Ellis, Barry	Shenington	26/7
10613	Challis, Robert	Nene Valley	24/7
10614	Kearsley-Wooller, C	Stratford on Avon	27/7
10615	Chapman, Melvyn	Staffordshire	30/7
10616	Porter, Simon	Bicester	31/7
10617	Dry, Stephen	Portsmouth Naval	29/7
10618	Wilson, Alexander	Clevelands	25/7
10619	Packham, Ellen	Bicester	31/7
10620	Kendall-Torry, Terry	Lasham	31/7
10621	Sturdy, Christopher	York	31/7
10622	Wood, Kevin	Lasham	25/7
10623	Homan, Thomas	Newark & Notts	26/7
10634	Mare, Janet	Shenington	27/7
10625	Darton, Brian	Essex & Suffolk	6/8
10626	Paylor, Christopher	London	30/7
10627	Caithness, John	Highland	5/8
10628	Devine, Charles	Angus	24/7
10629	Stoves, Colin	Burn	6/8
10630	Lockhart, Edward	Lasham	30/7
10631	Warwick, Justin	Lasham	31/7
10632	Lodge, Darren	Burn	6/8
10633	Foxon, Edward	Soaring Centre	1/8
10634	Hathaway, James	Soaring Centre	24/7
10635	Yarwood, Andrew	Buckminster	6/8
10636	Buxton, Alexander	Soaring Centre	16/8
10637	Skinner, Peter	Soaring Centre	30/7
10638	Waugh, David	Soaring Centre	15/8
10639	Dadd, George	Lasham	20/8
10640	Hyde, Nicholas	Bath, Wilts, N Dorset	7/8
10641	Connor, Glenn	Bicester	21/8
10642	Westlake, Robert	Lasham	20/8
10643	Stansfield, Malcolm	Bowland Forest	15/8
10644	Nichols, David	Cotswold	20/8
10645	Readman, Nigel	Wrekin	21/8
10646	Langford, Richard	Midland	21/8
10647	Smith, Bryon	Peterborough	2/8
10648	Paul Hayward	Surrey Hills	21/8
10649	Ingleden, David	Portsmouth	21/8
10650	Booth, Andrew	Essex & Suffolk	1/8
10651	Fry, Ian	Lasham	31/7
13652	Clarke, Phillip	Portsmouth	20/8
10653	Bridgeman, Gary	Four Counties	28/8
10654	Kasube, David	Newark & Notts	21/8
10655	Jones, David	Oxford	21/8
10656	Stafford Allen, Ian	Fenland	28/8
10657	Cooke, Julian	Bannerdown	25/7
10658	Thorpe, Jonathan	Derby & Lancs	22/8
10659	Spriggs, Brian	London	21/8
10660	King, Michael	Welland	25/7
10661	Brown, Rachael	Bowland Forest	21/8
10662	Maxey, Nigel	Southdown	25/7
10663	Hill, Alastair	Bidford	28/8
10664	McDougall, Ian	Bath, Wilts, N Dorset	20/8
10665	Cuthill, Garrick	Oxford	28/8
10666	Fisher, Charles	Newark & Notts	4/9
10667	Benton, Jeremy	Derby & Lancs	27/8
10668	Jenkins, Stephen	South Wales	9/9
10669	Aylesbury, Richard	Nene Valley	28/8
10670	Gilbert, Nick	Booker	6/9
10671	Martin, Robert	Kestrel	21/8
10672	Brown, David	South Wales	21/8
10673	Rance, David	Midland	28/8
10674	Deane, Gavin	Wyvern	24/7
10675	Gagg, Matthew	Oxford	28/8
10676	Searle, Colin	Booker	21/8
10677	Marshall, Alexander	Booker	12/9
10678	Starey, Richard	Booker	12/9

UK CROSS-COUNTRY DIPLOMA

No	Pilot	Part	Club	Date
528	MacKenzie, Alastair	Pt2	Burn	10/7
529	Heard, Jeffery	Pt1	Staffordshire	29/7
530	Maddex, Shirley	Pt1	Newark&Notts	26/7
531	Brown, Stephen	Pt2	Chilterns	18/7
532	Penney, David	Pt1	Lasham	1/8
533	Edwards, Michael	Pt2	Bath&Wilts	25/7
534	Stanley, Ian	Pt1&2	Southdown	25/7
535	Hill, Keith	Pt1&2	Anglia	24/7
536	Williams, Randall	Pt1&2	East Sussex	29/7
537	Heaton,Derek	Pt1	Staffordshire	29/7
538	Maxey, Nigel	Pt1	Southdown	29/7
539	Bowsfield, Ralph	Pt2	Cotswold	20/8
540	Rance, David	Pt1	Midland	28/8
541	Smith, Christopher	Pt1	Essex&Suffolk	28/

Obituaries



Lionel Alexander – Cambridge University GC

Writing on gliding in the 1966 RAeS Centenary Journal *A Century of British Aeronautics*, BGA Chairman Philip Wills mentioned Lionel Alexander (above) by name as one of the post-war generation who would "carry on the torch" from the pre-war pioneers.

Lionel, often known as Alex, joined Cambridge University GC in 1947/8 after entering St John's College where he took an excellent law degree. He quickly made his mark, often composing libellous club songs along the way:

– as soaring pilot, winning the 1950 Brunt Trophy: *At Dunstable when it's unstable they foam at the mouth and run/but mad dogs and Cambridgemen...*

– as pioneer of club expeditions, usually to far-off hill sites: *The gliding sites of England, how beautiful they are/Convenient to get to provided you've a car/With four-wheel drive and track-grip tyres/And picks and spades and towing wires...*

– as an engineer, rebuilding the club's elderly Rolls-Royce: *The Cambridge Gliding Club is haunted by a Silver Ghost...*

– As a cabaret performer at a Park Lane BGA Ball, when his spoof ministerial speech brought the house down... fortunately the ministerial guest of honour had a sense of humour, too.

In 1952/3 he piloted a Slingsby Sky with the BGA No 2 Test Group, measuring its polar to new levels of accuracy. Meanwhile, he had won the hand of one of the club's most enthusiastic and attractive members, Barbara Ramsay-Green, who bore him three charming daughters; their youngest is now a commercial airline pilot.

Quickly representing the CUGC on the BGA Council, Lionel became Chairman of the Development Committee, assisting clubs with security of tenure negotiations, licensing applications and other legal issues. In 1967 he was a member of the BGA Study Group, which looked at the future of our sport.

In the mid-80s Lionel retired to his family home near Drumnadrochit on Loch Ness. Here, while still in touch with his many gliding friends, he enthusiastically embraced new activities, managing his land, fishing, rough shooting; building a steam pinnace, and helping the Strathspey steam railway. He also became an accomplished piper.

His final CUGC appearance was at the club's 60th anniversary dinner in 1995, where he replied for the guests.

In August 1999, after two years of ill-health, Lionel died and, after a marvellously crowded service in Drumnadrochit village hall – for he had many local friends – he was piped to his resting place alongside his beloved Barbara (who died a year earlier) in St Ninian's churchyard, far up Glen Urquhart, on the bank of the loch where they often fished together.

David Carrow

Earle Duffin – South Wales GC

Earle R Duffin started gliding in 1967 with a four-minute circuit in a T-21 at Stormy Down and joined South Wales GC later that year. In 1968 he bought a K6E in which he began his competition career at the 1970 Western Regionals. He also instructed regularly for the next decade.

A keen cross-country pilot, Earle always encouraged the less experienced into the wonderful world of cross-country flying, organising task weeks, lead-and-follows and, in my case, lending me his glider and services as crew for the Junior Nationals. He was also a key member of our Inter-Club League team.

A fan of vintage gliders, especially gull-wings, he embarked on his most adventurous project in 1991: to build, from scratch, a Hutter 28 III. It flew for the first time on the May 27, 1993, and on many other occasions, in the UK and Europe.

Earle also spent several years as chairman and was a BGA Inspector. Always a gentleman, his generosity, endless enthusiasm, and sparkling, mischievous wit will be sadly missed by all who had the pleasure of knowing him.

Simon France

Doug Holmes – Derbyshire & Lancashire GC

Dougie, as he was known, passed away on August 5, after a four-year illness. He first joined the club in 1961. A well-known club character, he became more widely known elsewhere when, on retirement, he followed up an interest in designing and building glider trailers.

His caravan was a storehouse of "essentials" for trailer and glider repair jobs – from the smallest screws, nuts, bolts and washers to tow-balls, tow-bars, wheels, tyres and tow-out gear. He was always willing to help and once transported his welding equipment up the A1 to fix, at the roadside, a tow-bar. Many visitors enlisted his expertise to get out of trouble.

He was a bundle of energy, regarded in awe and trepidation by those who worked alongside him. Even those half his age had a job to keep pace with him – there was never a tomorrow for Dougie!

His debilitating illness was a cruel blow, but he bore it bravely and, even when he could no longer walk, he would race at breakneck speed on his electric scooter to the launch-point or around the trailer park casting a critical eye on any work in progress. "Watch out! Here comes Dougie on his Buggy!" was the familiar cry.

His cremation service took place on Wednesday, August 11 at 11am – eclipse time – trust Dougie to go out in spectacular fashion! He will be remembered in more ways than one, and sadly missed by many of those whom he helped along the way.

Judy Holmes

Malcolm Uphill – South Wales GC

Malcolm took up gliding after a successful and distinguished career as a top racing motorcyclist. In 1969 he became the first rider to lap at over 100mph on the Isle of Man TT course, having already achieved double success in the 500cc and 350cc classes on the Manx Grand Prix courses in 1965.

In the mid-70s, Malcolm developed great skill as a glider pilot, often venturing into the Brecon Beacons in his K-6E. Among my lasting memories of him are trips to the mountains, soaring the ridges in my motorglider with him.

Malcolm owned and ran a shutter and blind-fitting business. His last assignment, before retiring through ill-health, was to fit roller-shutter doors to our hangar extension. The quality of the work, despite his being ill during its completion, is a tribute to his name.

Ken Counsell

Colin Watmough – Lincolnshire GC

Colin died suddenly at home on October 2. One of the early members of Lincolnshire GC, he was a club stalwart, always there on flying evenings. When Colin was around there was never a dull moment; he was a practical joker and made us laugh, but always took his flying seriously.

After joining, Colin (below, rear seat) soon went solo. He bought a share in K-6CR EPW, flew it often and went on to gain his Bronze C. In 1994 he got his AEI rating and became club treasurer. He had the art of putting first-time flyers at their ease. He then set his sights on Silver, which he gained in 1997, and bought a share in a Pirat which he greatly enjoyed flying. He was an excellent pilot and friend to us all and will be sorely missed. Our heartfelt sympathy goes to wife Jenny and family.

Mike Fairbairn



WINTER WARNINGS

THE BGA *Instructors Manual* offers good advice about why canopies mist up and points out that attempting to land from a low launch failure with a misted up canopy "doesn't bear thinking about, so most pilots tend not to think about it".

This is probably true. I can remember spending some time clearing, well nearly clearing, a set of K-21 canopies one damp, cold morning and then setting off on aerotow. The tug's prop wash was throwing up quite a lot of moisture as well as conspiring with the forward movement to just drop the temperature a bit – the canopies misted up completely (and suddenly) as the glider got airborne! I released immediately, peered sideways through the DV panel and pulled off a reasonable full-airbrake landing noting from my view of the perimeter track and airfield surrounds that I didn't have much runway in front of me. A good dose of luck made up for some dodgy judgment on my part.

So what other traps regularly catch us out in the winter as we try to convince *ab-initios* that gliding in the sleet and rain will make them much better solo pilots next year?

Precipitation: Gliders aren't particularly efficient with wet wings, and why fly if you can't see where you're going? Winch launching with wet wings, particularly in GRP gliders is asking for trouble – think eventualities and then add a higher stalling speed, less control and no stopping power. Motorgliders, marginal at the best of times, do not climb at all well with wet wings and accelerate like slugs through wet grass.

Low cloudbase: Guessing cloudbase is tricky so perhaps the answer is to send an experienced guy up the wire to check it out? Supervisors – just make sure that the pilot knows what to do if he or she needs to abandon the launch at, or in, cloud. Releasing and then lowering the nose will give a safe clearance from flying parachutes and strops.

Stronger winds: Pilots who are not used to strong wind conditions often benefit from a reminder about changes needed to circuit planning and approach speeds. Briefings and check flights for the less experienced are great training value and boost confidence.

Cold: Wind chill can seriously damage your membership. Hanging around in the cold and then trying to get your brain going well enough to learn to fly, or cope with rotor and patchy blue wave, does not appeal to many of us! Dressing for the weather, wearing a warm hat, keeping feet dry and having somewhere warm for punters to hide from the wind really helps. Supervisors need to consider that cold people react more slowly than normal.

Early sunset and late launching: Everyone knows it's illegal to fly a glider at ➢

Accident Summaries

by Dave Wright

Ref No.	Aircraft Type	BGA No	Damage	Date Time	Place	Pilot(s) Age	Injury	P1-Hours
77	Alliance A34	–	Substantial	25/07/99 1715	Dunstable	– –	None None	– –

The glider touched down nose first on a steep upward-sloping part of the airfield. The tail pitched down and impacted heavily so the pilot examined the glider for damage but none was noted. However, the following day the fuselage was found to be seriously damaged.

78	Nimbus 3	3224	Minor	24/07/99 ?	Aboyne	73	None	4000

The large-span glider was being landed on a narrow strip in gusty conditions. The pilot considered he must have landed with one wing slightly low and this caught in the grass. This caused a groundloop which knocked the tail skid off.

79	K-6E	4526	Substantial	01/08/99 ?	Sudbury	41	None	78

On a very hot cross-country flight in blue conditions the pilot had to make a field landing. He misjudged the approach to his chosen field and had to make a low change into another field. The landing in the wheat crop caused substantial damage. Despite drinking over a litre of water in the half-hour flight, the pilot suffered from the heat.

80	Stemme	G-JULS	Substantial	17/07/99 ?	Seurre, France	37 25	Minor Minor	710 1320

The motorglider was in the cruise when there was a loud bang as one prop blade flew off. Extreme vibration shattered many instruments and dropped the canopy into the laps of the crew. With little pitch control due to the displaced canopy, the pilot made a very heavy forced landing. A stub arm holding a blade had a fatigue failure.

81	Std Cirrus	3564	Minor	23/07/99 1440	Marlborough	47	None	604

During a cross-country flight the pilot had to make a field landing and chose a set-aside field. With full airbrake the touchdown was made halfway into the field and, despite an attempted groundloop, the glider ran into the far hedge.

82	SZD45A Ogar	G-BMFI	Minor	06/06/99 1600	IoM	56 40	None	400 M/glider None

While levelling out at 700ft after take-off the motorglider's canopy detached. The aircraft was landed safely and the canopy recovered intact apart from one small hole. The pilot believes that he had failed to complete his pre-take-off checks properly.

83	LS-4B	4058	W/O	31/07/99 1645	Sutton Bank	52	None	–

Returning from a competition task the pilot was caught out by the strength of wind on the lee side of the hill-top airfield. While attempting either to finish or land the pilot stalled the glider and crashed into the ridge. He was lucky to escape uninjured but the glider was a write-off.

84	PW-5	4568	Substantial	31/07/99 1340	Burn	64	None	13

While the pilot was soaring downwind of the airfield, the wind picked up and so he had to make a field landing. As all the nearby fields were full of growing corn he picked a large one with no obstacles and landed on the crop. The elevator and rudder were badly damaged.

85	LS-6C	3984	Minor	22/07/99 1457	Haresfield	50	None	2671

While returning to the airfield the experienced pilot had to make a field landing so chose a field from about 700ft. After a normal approach and landing he found that the surface was rough and rock hard, and the undercarriage collapsed. The grass field had been grazed and churned up by cattle which left a very poor surface.

86	SZD Puchacz	2957	Substantial	18/07/99 1615	Gretton, Glos	58 50	Minor Minor	1786 14

While on a training cross-country the glider got low so P1 selected a field. After touchdown the glider did not slow down on the hard, slightly downhill surface and P1 could not use the wheel brake as one was not fitted to this glider. He attempted a groundloop but hit the far wire fence, shattering the canopy. The landing had been downwind.

87	Pirat	1967	W/O	01/08/99 1615	Milfield	68	Minor	1009

On a hot day the experienced pilot had a long wait for launch. Then as the glider lifted off the airbrakes came open. The tug pilot saw the glider's brakes were open. Considering the pilot may misinterpret his signal for a wave-off he waited until there was a field ahead. Indeed the glider did cast off, turned back and crashed into trees.

88	LAK12	3717	Substantial	20/06/99 1630	Stewartby	55	None	800

On a cross-country flight the pilot had to make a field landing. He chose a field that he thought was grass but found that it was green oilseed rape. The glider stopped very quickly as the dense crop substantially damaged the glider's wings and fittings.

89	LS-4	4299	Substantial	11/07/99 1143	Sandhill Farm	70	None	558

The pilot rigged his glider, had difficulty in connecting the starboard airbrake Hotellier fitting. He backed the lock-nut off then refitted the connector – apparently correctly – then moved the glider to the launch point without his normal positive checks. When he launched the airbrake opened and he made a crash landing through a hedge.

90	Club Astir	–	None	?/07/99	Incident report	60	None	2200

The pilot was flying towards the site when a club tug, in a descending right hand turn, passed very close to the glider's right wing. The aerotow rope narrowly missed the Astir's wing and canopy. After landing the pilot reported the near miss to the tug pilot who had not seen the glider. The tug's long nose and wing had blocked his view.

91	Skylark 2	1549	Minor	31/07/99 ?	Pontefract	51	None	193

The pilot had to make a field landing and picked a ploughed field. With no wind he chose to land down the furrows. The glider stopped very quickly after touchdown on the very rough surface. The field had been deep ploughed and not rolled then baked solid in the sun. The fuselage suffered minor damage.

92	ASW19b	3870	Minor	24/07/99 ?	Aston Somerville	54	None	1388

On a cross-country flight the pilot had to make a field landing and chose a flat stubble field. After a normal landing the pilot found the surface was very rough and the undercarriage collapsed at the end of the ground run. Tractor ruts and drought cracks "deep enough to sink your forearm into" had baked solid in the sun.

93 K-13	?	Substantial	10/07/99 1240	Bidford	46	None 52	None	420 0

After a trial lesson flight the instructor took control in the circuit and flew the final turn at 400ft, aiming to touchdown just inside the airfield. He had to close the airbrakes during the approach and the glider sank into the undershoot, hitting a deep ditch and groundlooping into the airfield.

94 N/A	–	None	?/07/99 ?	Incident Report	27	Minor	–

While removing the winch cable from the tow-out tractor, the tractor reversed over the shock rope, pulling the wire weak link through the club member's hand. This cut his thumb from mid-point to the tip and required dressing.

95 K-6 & Capstan	–	Minor	?/08/99 ?	Incident Report	--	None	–

This ground-handling incident occurred while moving a K-6 to the launchpoint. The pilot put the wing-tip on the ground and went to move a nearby glider. However, he left the rope attached and the driver moved off pulling the K-6 wing into the other glider.

96 Grob Twin Acro	3835	Substantial	14/08/99 1606	Crowland	44	None	9

The early solo pilot flew a normal circuit behind another glider which landed to one side of the runway. He repositioned his aiming point then noticed the speed had increased to 70kt so raised the nose and opened full airbrake. The glider touched down too fast, ballooned then nosed down and hit the ground heavily.

97 ASW-20	4164	Substantial	16/08/99 1600	Bicester	42	None	910

On a competition final glide the pilot encountered heavy rain and decided he would not make the field so, at about 300ft, picked a field. Turning finals he saw wires across it and turned away in a steep turn. The glider entered an incipient spin from which the pilot recovered only in time to land just inside the field, groundlooping into the fence.

98 Pik 20D	2490	Minor	11/07/99 1230	Woolstonbury	58	None	292

While on a cross-country ridge run thermals disturbed the ridge lift so the pilot had to make a hurried field selection from 450ft. The only landing site available was the leeward slope of part of the ridge. He landed heavily, buckling the undercarriage but stopping before the crest and the hedge.

99 K-13	2406	Minor	07/04/99 1633	Parham	74	None	1.5

The early solo pilot had a morning check flight then was allowed to fly in the afternoon when the gusty wind had dropped. It appears he tried to stretch the glide further up the airfield and then stalled onto the ground from about six feet with the airbrakes still half open. The heavy landing broke the front skid.

100 ASW22	3261	Minor	22/08/99 1815	Haddenham	–	None	–

During an aerotow retrieve from an airfield the glider's left wing touched the ground. During the resulting groundloop the glider became airborne and stalled in from a height of about eight feet.

101 Std Jantar	2090	Minor	24/08/99 1730	Aboyne	57	None	1700

At the end of a soaring flight the pilot flew a low fly-past at 120kt, well below VNE. There was a sudden severe vibration and noise so he allowed the glider to climb gently, reducing speed to 70-80kt when the vibration stopped. After a safe landing the tailplane was found to be damaged.

102 K-8	3383	Minor	04/08/99	Chipping	–	None	9.5

The pilot saw another K-8 launch and decided to start his circuit to stay clear. He used the airbrakes to lose height and get down quickly. The brakes were seen to remain open throughout the approach despite the glider undershooting into a fence.

103 Skylark 4	–	None	?/08/99 ?	Incident report	45	None	770

While on a cross-country flight the pilot had to rely on weak ridge lift to stay airborne until a thermal formed. He saw there had been a hang glider accident and noted a police helicopter in attendance. With no fields to land in he moved as far away as he could but still was too close for the helicopter pilot's liking. Subject to Airprox Report.

104 Chipmunk	G-BDCC	W/O	29/08/99 1635	Husbands Bosworth	66	Serious	1500

This tug accident occurred when the Lycoming engine failed at 600ft on the aerotow. The pilot attempted to return to the airfield but overshot on landing and struck a quarry conveyor, crashing into a field. There was no fire but the pilot suffered back injuries.

105 Kestrel 19	1983	Substantial	22/08/99 1300	North Hill	34	None	612

The pilot was flying the glider prior to purchase. After a soaring flight he started a circuit then, deciding he was high, extended the landing flaps and also pulled the tail chute. He then encountered sink so put the nose down to gain speed. Too late he realised the chute was slowing the glider and released it.The glider landed very heavily.

106 Discus	4030	Minor	22/08/99 1430	Lee-on-Solent	–	None	–

While taking the glider back to the hangar they had to clear the runway as an aircraft landed. Turning the glider to the side, a gust caught the tail and violently slewed it around causing the wing to hit a parked aircraft.

Cotswold Gliders

http://www.cotswoldgliders.co.uk

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➢ night without the appropriate lights fitted, don't they? The problem is that one person's perception of night is another person's "it's OK, we can squeeze one more BI flight in". Heavy landings are bad enough, but a heavy landing while flying a member of the public illegally? Just say no.

In many parts of the country, the best wave occurs in a westerly, and a short day means people are landing at sunset. Landing into sun has its problems and sunglasses obviously help, but things can get really exciting if you're landing in an unusual part of the airfield – those fence posts and rough bits are impossible to see, even more so when you add a little mist or ice to the canopy... and what about the other guys on finals?

Soaring and gliding training goes on all year around in the UK but just like the summer, winter has its problems. Winter also needs just that extra bit of care and forward planning. Which leads us neatly back to that top tip from the *Instructors Handbook*. What should we do if we're worried that a misting canopy will give us problems during a launch failure?

It couldn't be easier – do not take a launch.

Pete Stratten



Classifieds

Please send the text of your advert, and your payment, to **Debbie Carr at the BGA office** (not to the editor).
The deadline for classifieds to be included in the February-March issue of *S&G* is **January 5** after which any adverts received will be published in the following issue.
Text: 80p/word, minimum twenty words (£16).
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