Sailplane & Gliding



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plus Night flying Ann Welch Human factors

Feb – Mar 2003
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BGA Gliding Conference 2003

Saturday 22 February

Eastwood Hall Conference Centre, Nottingham

Provisional Programme

09:45	**Introduction and Welcome** *David Roberts* (BGA Chairman)
10:00	**Getting the Message Across** *Keith Auchterlonie* (BGA Communications Officer)
10:20	**Weather Services from the Met Office** *Will Owen* (Met Office Commercial Aviation Manager)
10:50	**Coffee**
11:15	The Swedish Experience - reducing gliding accidents by 50% *Sakari Havbrandt* (Chief Technical & Operations Inspector, Swedish Soaring Federation and Chairman OSTIV Training & Safety Panel)
12:15	**Lunch**
13:30	**Annual General Meeting**
14:30	**Ted Lysakowski Trust** *Pete Harvey*
14:40	**Auction - Glider Number 111** *Terry Joint*
14:50	**Exhibitions and Coffee**
16:00	**High Winds in Westminster** *Lembit Opik MP* (BGA Parliamentary Spokesman)
16:30	**Space Weather** *Alan Rodger* (British Antarctic Survey)
17:30	**Close**
19:00	**Pre Dinner Drinks**
19:30	**Dinner**
21:30	**Awards**
21:45	**After Dinner Speaker** *Eddie "The Eagle" Edwards*
22:05	**Live Music from "Retread"**

All this plus: Membership task force open surgery, free delegate bag with goodies and a chance to see the new BGA Virtual Glider.

Join us for dinner and enjoy the evenings entertainment. Tickets cost £23pp. To book please call Claire Emson on 01280705741, email claire@eventia.co.uk or down load a form from the web site at www.gliding.co.uk. To book accommodation please call the venue directly on 01773 532532, quoting the BGA Gliding Conference tó obtain preferential rates.

** Please note: pre bookings required for Lunch and Dinner*

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British Gliding Association

February ~ March 2003
Volume 54 No 1

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Deadlines

April ~ May 2003

Articles	February 11
Letters	February 11
Club News	February 11
Advertisements	February 25
Classifieds	March 3

June ~ July 2003

Articles	April 15
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*Now we have two-seater motorgliders that can handle like gliders, asks Derek Piggott, why not use them for training? See p18. (Photo by the **white planes** picture co. with grateful thanks to Phil Phillips and Martyn Pike – real professionals)*

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URGENT: The BGA is continuing to experience great difficulties in communicating reliably with some of the 20 or so university gliding clubs, particularly with regard to the BAE Bursary scheme. Consequently, we have been forced to declare a cut-off date of Feb 7 for the return of application forms, after which NO further requests for bursaries in 2003 will be considered. The BGA would urge all university clubs who have not already responded to do so at once and also, most importantly, to request and complete a copy of the new annual club record sheet which will form the basis of the register of university clubs maintained by the BGA and used as the contact database.

WAKE TURBULENCE: The CAA General Aviation department have commented that because of lack of consistent radar returns from sailplanes, safe separation from wake turbulence when crossing controlled airspace must be the responsibility of glider pilots. They have asked the BGA whether we have any reports of such encounters in CAS and whether additional guidance to Controllers would be helpful. The BGA would welcome any comments on in-flight experiences of encounters with wake vortex turbulence of any kind, mild or severe, by sailplanes. Please address them to the BGA office at Leicester. For the record, the BGA's initial response to the CAA has been to point out that most gliders have an achieved Ultimate Load Factor at rough air speed in excess of 8. Moreover, extensive experience in somewhat analogous wave rotor conditions has shown that strength and handling should be more than adequate provided that the glider's height above the ground exceeds 750-1,000ft. We have also tentatively suggested that controllers might add the phrase "Possibility of wake turbulence" to any clearance when "heavy" jets (B757 and upwards) are in the vicinity.

GLIDING IN FRANCE: The well-known Alpine expert, Jacques Noel, will be at Booker on either the weekend of Friday, February 7 to Monday, February 10, or Friday, February 14 to Monday, February 17 (depending on the weather). He will provide help with the necessary paperwork to obtain the "Licence Equivalence" needed to fly solo in France and the check flights that form part of the requirements. The main requirements are to provide evidence of a recognised medical (by a French Doctor or CAA class 2), and a check flight by a FFVV (French BGA) instructor. On the Saturday night there will be a briefing on flying the Alps and a slideshow featuring Jacques' renowned aerial photography. To register for check flights or slideshow, please contact 01494 442501 or Jon Gatfield on 07778 342148. For more from Jacques Noel, see p34 of this issue of *S&G*.

SORRY: Angela Sheard points out that Rieti is in Lazio and not in Umbria, as we said recently.

THANKS: Derek Piggott has asked *S&G* to convey his thanks to everyone who sent him 80th birthday greetings (which included a 200-signature card from Lasham) last December.



PETE Masson took this photograph of the British Gliding Association's trade stand at the international air sports exhibition at Telford, Shropshire, in December 2002. The BGA's thanks go to Brian Birlison, Neil Goudie, Cris Emson, Rich Hood, Pete Masson, Sally Longstaff, Marilyn Hood, Paul Shuttleworth and Claire Emson for giving up their weekend to promote the sport, under the aegis of the BGA Communications and Marketing Committee. By the time you read this, committee members will also have promoted the BGA and gliding at the Adventure Sports Show at Olympia and will be preparing for the Outdoors Show at the National Exhibition Centre, Birmingham, later this year

Complaints about technical matters

OCCASIONALLY, the Association receives complaints or reports of inappropriate actions with a technical or airworthiness element and due to the nature of humankind this is only to be expected. Unfortunately, sometimes these are received anonymously, and this gives us a problem. It makes it very difficult to substantiate the complaint or gain further information and severely restricts any investigation. It also prevents us providing an answer and feedback to the author.

Please let me assure you that we treat every complaint very seriously and we will protect the anonymity of the author.

Some complaints are just a matter of a misunderstanding or overheard part of a conversation and a wrong conclusion drawn (the old "two plus two equals six" syndrome). Some, however, are found to be fully substantiated after an investigation, and the appropriate action is taken. Either way, the author needs to be contacted to allay their concerns or to thank them for reporting.

If possible, and appropriate, complaints should be dealt with at a local club level – that is one of the reasons for clubs having an elected committee. The next level is the BGA official in the particular field of the complaint, and ultimately complaints may be addressed to the Secretary or the Chairman of the BGA.

So once again please let me assure you that the BGA will not reveal the name of the complainant without their permission; but without a name, there is very little we can do.

Jim Hammerton
Chief Technical Officer, BGA

News from the BGA Executive

World Juniors 2005: The BGA will be making a presentation to the International Gliding Commission in March in Switzerland to bid for the Junior Worlds to be held at The Soaring Centre, Husbands Bosworth, in 2005.

Dates for UK Junior Championships: After considerable and considered debate over the proposed dates for the 2003 Juniors, the BGA Competitions Committee decided, with Executive endorsement, that the event should be held in the first week of September 2003. In future years it is planned to hold the event in August.

Transponders: The CAA has confirmed that, as a result of International Civil Aviation Organisation rulings, it will be some time – probably 3-4 years – before transponders are mandated for gliders, and then only when suitable (and economic?) equipment is commercially available. The airspace categories and the circumstances in which transponders would have to be used are still to be decided, and the BGA Airspace committee is closely involved in consultation with the authorities on this issue.

Laws and Rules for Glider Pilots: The revision to the presentation of *BGA Laws and Rules* is nearing completion, ready for the next edition to be published before the main season starts. A few proposed changes to rules will be in the notice to clubs of the forthcoming BGA AGM.

Dates for your diary

FORTHCOMING **CAA Safety Evenings** include: Henstridge (Jan 28); Bodmin (Jan 29); Dunkeswell (Jan 30); Fairoaks (Feb 5); Gloucestershire (Feb 11); Cardiff (Feb 12); Middle Wallop (Feb 13); Gamston (Mar 3); White Waltham (Mar 5); Shipdam (Mar 6); Andrewsfield (Mar 13); Welshpool (Mar 18); Elstree (Mar 19). Full details at *www.caa.co.uk*, click on safety.

Vintage events include: **National Vintage Glider Club Rally**, Sutton Bank (May 24-31, 01845 597237); **Classic & Vintage Glider Rally**, Camphill (Jun 21-28, 01298 871270); **VGC Rendezvous Rally**, Oripaa, Finland (Jul 18-21, see *www.turunlentokerho.com*); **Vintage Glider Club International Rally 2003**, Jämi, Finland (Jul 22-31, visit *www.padasjoenlentokerho.fi/vgc2003/* or email *vgc2003@padasjoenlentokerho.fi*); **VGC Slingsby Rally**, Sutton Bank (Aug 23-31).

The **PFA Rally** will be at Kemble, Gloucestershire, near Aston Down and Nympsfield (Jul 11-13).

The **International Witch Cup**, which is an open trophy competition for women pilots, will take place in Klix, Germany (Aug 1-9, see *www.aeroteam.de*).

At the BGA **AGM and conference** (see the inside front cover of this issue) the glider registration 111 will be auctioned in aid of the Ted Lysakowski Trust. This is thanks to Terry Joint, who (having given up gliding) no longer needs the number.

Airspace changes

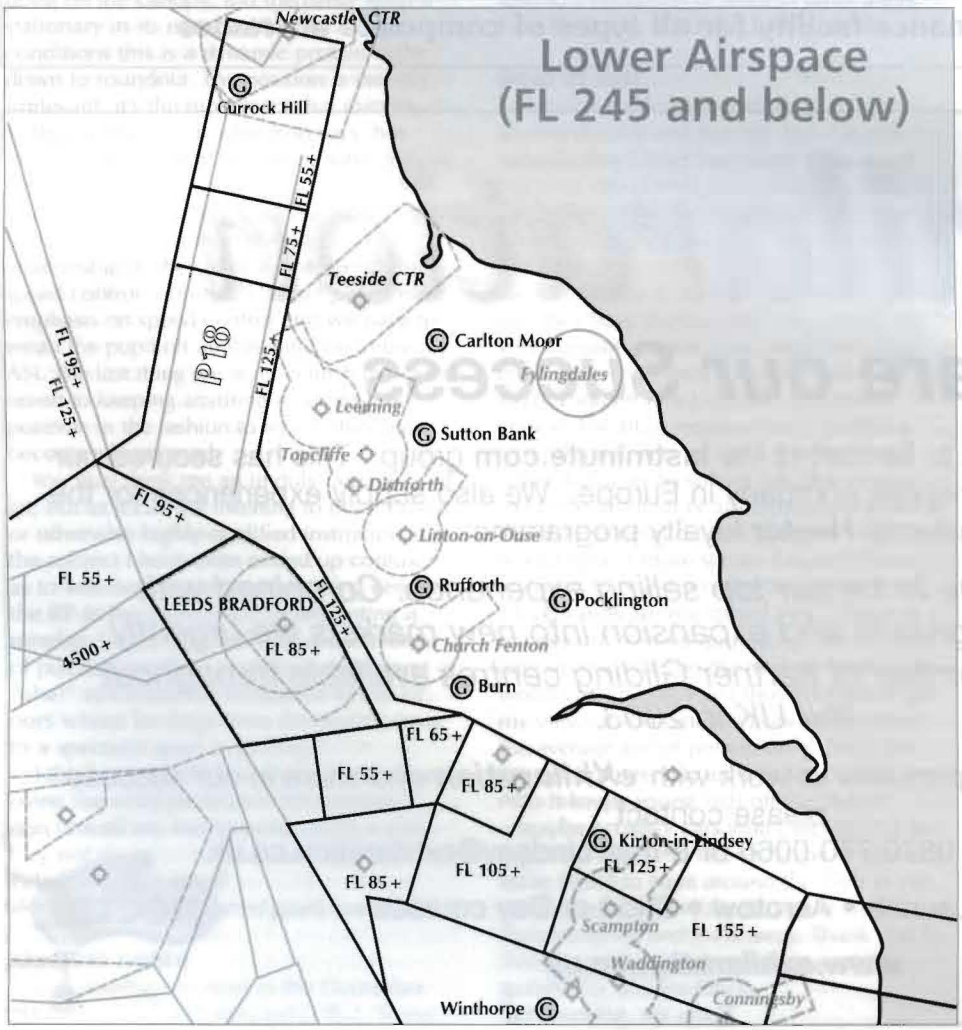
THE North Sea airspace change proposal that has been on going for nearly three years is now finalised and will be introduced on March 20, 2003. These changes, additions and redesigns of controlled airspace to the Manchester, Leeds and Newcastle airspace were only presented to the BGA last April after the Ministry of Defence and National Air Traffic Services had agreed what they needed and what they could live with. The whole redesign has been brought about to cover the Eurofighter's requirement for huge training areas in the North Sea. The BGA Airspace Committee has been fighting to mitigate these changes that will impose quite serious restrictions on wave flying in Yorkshire. The new controlled airspace has put a new airway, P18, between Newcastle and Manchester that is 14 miles wide. The airway base is FL125 until it drops down, close to Barnard Castle, in steps as Class D airspace to Newcastle. The airway B1 that runs East from Manchester to the coast has been moved approx 20 miles to the south.

The P18 airway cuts across Yorkshire, and the well-known wave area of Patley Bridge will now only be available up to FL125. There will be arrangements with Newcastle ATC for wave cross-country flights to the north to continue with little or no restriction up to FL125. The high-level (above FL245) wave boxes will also be reduced in size. Camphill would have been severely restricted by the realignment of airway B1 but they have agreements with Manchester that will allow them to operate with few restrictions.

On the plus side, the base of the airway to the west of the Pennines, B2, has been raised from FL95 to FL125. This should enable wave flying across the Pennines for the experts. The portion of the airway A25 that runs between Liverpool and Cardiff that goes up to FL105 during the day will now go up to FL125. This will benefit the wave flying sites in the area.

East Midlands has proposed large increases to its Class D airspace, as has Luton. These plans are at the informal stage and the BGA is in discussions with the clubs affected and of course with the airports.

Carr Withall
Chairman, BGA Airspace Committee



Competition Calendar

Dan Smith Memorial	Dunstable	30 Mar-31 Mar
Overseas Championships	Spain	5 May–16 May
Women's Worlds	Czech Republic	18 May–1 Jun
Aerobatic Nationals	Saltby	30 May-2 Jun
"Turbo" Regionals	Bidford	14 Jun–22 Jun
Regionals	Booker	14 Jun–22 Jun
Regionals	Hus Bos	28 Jun–6 Jul
Junior Worlds	Slovak Republic	5 Jul–19 Jul
World Class Worlds	Slovak Republic	5 Jul–19 Jul
Regionals	Tibenham	12 Jul–20 Jul
18-Metre Nationals	Tibenham	12 Jul–20 Jul
Competition Enterprise	Sutton Bank	12 Jul–20 Jul
Two-Seater Comp	Pocklington	17 Jul–24 Jul
28th Worlds	Leszno, Poland	19 Jul–10 Aug
Regionals	Lasham	19 Jul–27 Jul
Standard Class Nationals	Hus Bos	26 Jul–3 Aug
Regionals	Sutton Bank	26 Jul–3 Aug
Inter-Services Regionals	RAF Bicester	9 Aug–17 Aug
Club Class Nationals	Lasham	9 Aug–17 Aug
Open Class Nationals	Lasham	9 Aug–17 Aug
Regionals	Dunstable	16 Aug–24 Aug
15-Metre Nationals	Booker	23 Aug–31 Aug
Regionals	Gransden Lodge	23 Aug–31 Aug
Junior Championships	Nympsfield	30 Aug–7 Sep
Mountain Soaring Comp	Deeside	7 Sep–13 Sep

FAI RECORD claims: Klaus Ohlmann in a Nimbus 4DM has added distance to two of his seven world records: his 2,463km Open Class world free 3TP distance, is now an amazing 2,624km, and his free O/R in the same class is 1,715km. He also took the declared Open Class O/R distance with a flight of 1708km and a speed record for 136.8km/h over a 1,500km O/R. Terry Delore and Steve Fossett have flown an ASH 25 at 187.12km/h over a 500km triangle and 166.44 km/h over 1,000km O/R.

SENIOR Regional Examiner Graham Morris baled out of an AC-5T near Nympsfield after experiencing control problems during a test flight. He landed safely, the wreckage returned itself to the airfield ... but someone subsequently took the parachute!

CERTIFICATES for British or UK gliding records homologated by the BGA are to be reinstated from this month (January). The new certificates will not be awarded retrospectively. A fee of £10 for each flight claimed as a record is also being introduced.

ANDY Roch represented gliding at a meeting with NATS about the NOTAM website (*www.ais.org.uk*). For more, see *www.telecall.uk.com/ais/news1.htm*

THE winner of the last S&G's contest for an Ozee flying suit is Steve Williams. Runners-up, winning a fleece balaclava, are S Ell and Chris Amey.

WINNER of the BGA 1000 Club Lottery's November draw was RSM Fendt (£43.75). Runners up: JF Crawford, A Mayhew, C Golding, J Green; A Page (all £8.75). December's winner was JP Gresham. Runners up: RSM Fendt, JR Pretty, KW Balcombe, KL Brackstone and DC Perkins (all £8.35).

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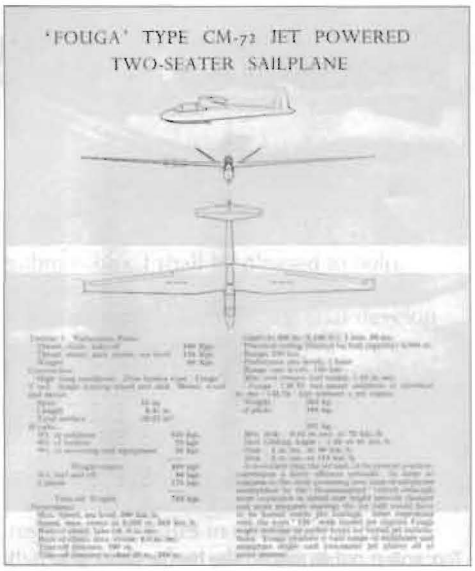
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Jet-powered progress

IT is nice to see that the gliding movement trying to make progress (*Push to use jet power*, December 2002-January 2003, p18), but really do you expect us to believe this technology will "take off"? It has been tried before! Look at the page (*see left*) from *The Sailplane and Glider* March 1953, p21. It is perhaps fair to say that, when you compare the weight of the two power units, the technology has moved on – a long way. On the other hand the thrust of the older one would probably send the Ventus ballistic.

Dave Martin, *via email*



Jet-power is nothing new, says Dave Martin. See left

Control those words

BOB Pettifer's article (*Get approach control right*, October-November 2002, p27) is a welcome addition to my armament of ways to explain things to a pupil but there is one facet that worries me. It's the relationship of the reference point to the canopy. Bill Scull was ever concerned that the words we use do not cause confusion and talking about "maintaining the position of the RP" is a case in point.

If you need to adjust the brakes to keep the RP stationary on the canopy and at the same time maintain the airspeed you will alter the pitch (specific glider depending) and with it the position of the reference point on the canopy. You thereafter keep it stationary in its new position. In tricky conditions this is a dynamic process right down to roundout. The position is entirely irrelevant: it's the movement that matters.

This is inherent in what Bob says, but may not be apparent to anyone who doesn't already have a good understanding of the topic. We give priority teaching to maintaining the position of external features in relationship to the canopy when teaching speed control. Approach tuition puts great emphasis on speed control and we have to wean the pupil off attitude and on to the ASI. The last thing we want is for him/her to revert to keeping anything in a constant position in the fashion to which they have become accustomed.

You may think me an unduly pedantic old git, but as a Full cat listening to other hoary or otherwise highly-qualified instructors on the subject I have often ended up confused as to whether they were advocating keeping the RP in the same place or preventing it moving. I have watched the furrowed brow of puzzlement clear in a glorious moment of "aha!" as I made the distinction to one of ours whose landings were the nearest thing to a spectator sport in gliding.

I think we should be very cautious about using the word position in this context. I don't recall my mentors ever using it and I try not to.

Peter Gray, *via email*

Bob Pettifer replies: good point, well taken.

Medical notes

I WAS surprised to read in the December 2002-January 2003 *S&G* (p12) that "Some clubs complained bitterly at having to be responsible for maintaining a record of members' medical status".

I do not believe there will be any increase in clubs' administrative workload. The inevitable reduction in total membership, particularly among those aged over 65, will lead to a reduction of work in other areas.

John Bowman, SOLIHULL, West Mids

Solo at last

I AM now a solo pilot and enjoy flying around the sky and soaring. But it is only recently that I have been able to do so on my own. My birthday was a couple of weeks ago and I have nearly completed my Bronze. I need about 20 more solos. So the point of this letter is to encourage the BGA to do something important and to lower the solo age. As I have proved, younger people are very capable. I have also converted to two other types of aircraft – a K-21 and a K-18. I soloed in a K-13 out of personal choice. The BGA needs to stop "umming" and "ahhing" and follow Germany's lead, where you can go solo at 14. This would solve the problem of airfields dominated by the older generation and the sport of gliding would have a more secure future. I think we need to bite the bullet and admit that 14-year-olds are not stupid and incapable but actually can be quite good pilots – and after all they will be the next generation of world champions. I just thought I would air my views as everyone is concerned about the average age of people on airfields but are not bothered about how to improve it. Also it keeps young kids off the streets – maybe people's cars won't go missing as regularly. And who knows, some of us are quite useful to have around the club as we are prepared to do jobs that most would turn their backs on and walk away. Thank you for listening to my opinions and I would be grateful for any feedback.

Taz Hocking, *via email*

Damned statistics!

I THOUGHT *S&G* readers may be interested in the following stats from a trip to Spain last summer. Derek Taylor and Paul Foster, both members of Yorkshire GC, flew at the Spanish club of Fuentemilanos in their Nimbus 3DT. Between August 2 and 19 we flew a total of 68 hours and over 6,400km. This included two 1,000km, two 750km and two 500km flights. On August 5 we flew a declared 1001km at 123km/h and then continued around a fourth TP and back to base for a total distance of 1,156km.

Derek Taylor, *via email*

In lieu of new records...

I HAVE recently paid another visit to the toilet (cf: last issue, *Behind you!* p8), this time to read the December-January *S&G*. Whilst looking at the list of record breakers, and taking great care not to fall in again, I was struck by the anomaly whereby several of the recently-introduced "free" type of records were awarded for performances considerably inferior to similar pre-declared ones. Perhaps one of your more learned readers would be good enough to explain the rationale of this? When 20-metre records were introduced not long ago, flights made prior to that time received the award except, for some perverse reason, the 200km and 300km triangular speeds.

Leading on from that, I feel the present records are somewhat degraded by having too many classes. I don't believe there is any justification for including Standard and 20-Metre ones as well as Open and 15-Metre. Also I see no justification for Feminine records, having frequently been beaten (no, not like that unfortunately) by those of the so-called fair sex when flying competitions. I suspect the latter is just a bit too contentious to contemplate and if this letter is printed would result in threats to my wellbeing and to your being inundated by missives from equal opportunities whingers.

Phil Jeffery, *via email*

More action in hangar-packing

I HAVE seen many different types of ground handling equipment, but I haven't seen anything more easily used or as efficient as that employed at Tocumwal, in New South Wales. They are fortunate in having a huge war-time hangar, designed to be wide enough for a Liberator bomber to enter. This permits the gliders to be parked on each side, leaving a central aisle wide enough to allow the passage of gliders, so that those at the far end of the hangar can be taken out without difficulty.

To hangar a glider it is lifted on a cradle, and a castering trolley placed under the mainwheel. The normal tail dolly is left in place, (*see overleaf*). The glider can then be moved easily by two people, one at the wing tip and another near the tail. Each glider has its own trolley, left in place while the glider is in the hangar, so that any shuffling needed is easily carried out. When ➢

Your letters

taking gliders from the hangar they are moved to the door and the cradle is used to permit removal of the mainwheel dolly.

For towing on the field a towbar (*below right*) with a two-wheeled axle is used. The wheel of the tail dolly is placed in the hopper-shaped box and is secured. The wheel can still swivel as the towing vehicle turns corners. This one-size-fits-all tow-bar is easy to use and saves the time often spent using different towbars for different gliders.
Herbert Woodthorpe, *via email*

The cult of gliding

I WAS very disturbed to read the frustrations of a teenage pilot willing to learn the sport. But then over the years we have made the trials of the acolytes longer and more expensive. We turned our backs on our hang gliding brothers and spurned the paragliding fraternity. With the holy writing of the instructors' manual and the incantations of the patter perhaps we have become a religion and are ossifying because of it!
Doug Edwards, FERNDOWN, Dorset

Another impending farewell?

IN the October-November 2002 *S&G* the letter *Say goodbye to another member* (p6) unfortunately rings very true. I first started gliding at the London GC, Dunstable, in 1966, eventually soloing. I spent about two years there, then was forced to give up because of family commitments. Anyway, after a 30-year absence I decided to have another go, so in 1995 I did a week's course and became a member of a local club. It is a good club, with well-maintained aircraft, and enthusiastic instructors, but has only two cables, many *ab initios* and private owners, sharing these cables. You have only to be fourth on the flying list and your chances of getting a flight are slim. As the letter also points out, at £5 a launch for less than five minutes' airborne, and the tariffs and yearly subs increasing (it was £165 when I joined; it is now £300) I'm beginning to lose my enthusiasm because I know it won't matter how much progress I make, I will eventually have to drop out because I won't be able to afford it.
Michael King, CHATHAM, Kent

Launch rates – the final word

MY article in the August-September 2002 issue (*Cutting launch queues*, p26) provoked four responses, passion even, in subsequent letters. Incidentally, it was my decision to delve into the club log sheets, not my committee's, and only my time and effort has been expended.

Alan Childs may consider himself fortunate that he only had to read one page of A4 digest; the report on which it was based was much longer. He reveals (Oct-Nov, p7) that the level of activity at his club is always Level 1. For Wolds GC the level of winch activity has a potential effect on next year's launch charges, hence my interest. A Level 2 day is when gliders waiting for a launch





Top: trolley; below: towbar. See hangar-packing. *p7*

exceed the number of cables quickly available. However, even in the Level 1 scenario a brisk launch rate benefits members and impresses visitors. Derek Copeland's letter (December 2002-January 2003, p7) cites the effect of delay on a potential 300km day. Greville Earle's (the same issue, p7) illustrates the ultimate sanction the dissatisfied member will apply if he cannot get a launch when he wants it.

The attentive reader will point out that, once most gliders are soaring, even on a busy day the activity at the launchpoint must revert to Level 1. The launch rate will drop; however, the members aloft will be happy.

I fully agree with Alan that time in the air and quality of the flying are important. I analysed my own logbook a few years ago and found the winter produced negligible hours. Now I base my glider at Borders GC during the winter and am rewarded on occasions with high-quality flying virtually unobtainable on a flat site in winter. (I usually manage 60-70hrs pa). On October 19 my syndicate partner and I, in the Bijave, screamed to cloudbase out of the jaws of the Hen Hole on the flank of the Cheviot and dolphined along at 70kt. When we lost out we went back and did it again. My article on launch rates may be boring; my flying most certainly is not. However, I digress.

What has happened as a result of all Wolds' initiatives this year? I have noted 43 Level 2 days from the club log sheets this year, 23 per cent of our winching activity to date. The majority of these days were before the initiatives were fully introduced. It is not possible to detect any effect on the launch rate figures for such low numbers. Launches are down on 2001, despite the depressing effect of foot-and-mouth in 2001, and weather appears to be the dominant factor this year despite human endeavours.

If the reader wants to know more about our initiatives or our launch rates, come along to Wolds GC and we can put the gliding world to rights in the bar – that at least will boost our club profits.
Colin Stevens, *via email*

Please send letters (marked "for publication") to the editor at helen@sandg.dircon.co.uk *or the address on p3, including your full contact details. The deadline for the next issue is* **February 11**

Flying and ageing

THE letter from David Salmon (*Medicals for over-70s*, December 2002-January 2003, p9) and Peter Saundby's response are confined to an age limit for instructors, saying nothing about one for pilots flying gliders solo, although I suppose this matter will arise at some time. To the best of my knowledge I am the third pilot at Dunstable to continue flying solo after reaching the age of 80, having had my first ground slides in 1932 ("A" Certificate No. 359). I retired from solo flying in 1996 after deciding that I had had enough warnings that to continue would be unwise. As a great believer in personal responsibility I think one should leave this matter to the individual, so that the best advice we can receive from the experts would be a short list of the signs that should warn us when to call it a day. As mentioned by Derek Piggott in your same issue, the fact one's ability to lift wingroots may be failing is no reason to forego solo flying unless there are other signs of incipient incapacitation. If Pete Saundby or any other qualified pilot has prepared such a list already, could it be more widely known, please?
Charles Ellis, ILFORD, Essex

Doc Slater's photographs?

FOLLOWING Wally Kahn's article about saving historic gliding material (*Dreams can come true*, December 2002-January 2003, p40) I wonder what has happened to the wealth of photographs, including negatives, that must have been amassed by the late Doc Slater, editor of S&G (and predecessors) for a long time. Can I suggest that anyone who knows their whereabouts contact me?
Bill Longstaff, *via email*

Club history

A SMALL sub-committee has been formed to seek out the history of Bristol and Glos GC and put it on our website (*www.bggc.co.uk*). I'm writing to ask if you can search your memories and attics to see if you have anything that might be of interest – artefacts or anecdotes would be welcome.
Bernard Smyth, YATE, Bristol

Club history, too

TO mark the Scottish GC's 70th anniversary in 2004, I am planning to write a book on its history. This will include lots of stories from existing, and former, club members but I am especially looking for tales of those epic (or not!) flights from the many visitors we have had over the years. If you've visited Portmoak and are willing to help, please forward me your stories and/or photos.
Ian Easson, *ian.easson@btinternet.com*

The future of UK air transport

THE BGA has responded to the recent Department for Transport consultation document "The Future of Air Transport in UK" – the programme for expansion of airports in the UK in order to cope with a projected rise in air travel, which is forecast to double by the year 2030.

In formulating policy options for the future, the consultation paper has overlooked General Aviation (GA) and especially gliding. In responding, the BGA has concentrated upon the need for the development and retention of small airfields and for sufficient uncontrolled airspace to ensure that gliding will survive.

The BGA's general policy has been to support improvements in efficiency at existing airports rather than the establishment of new ones. Although airspace details for the proposed developments are not specified in the consultation, new commercial airports will require the protection of their own controlled airspace and that will adversely affect gliding. Our submission also quotes case history and precedents to show that airspace restrictions do constitute valid grounds for objection.

Recent High Court decisions affecting the proposed new airport at Cliffe and the phased expansion of Gatwick have altered some of the details since our submission was made in November. The consultation period has now been extended for six months, so if any more clubs wish to make their own submissions, I shall be pleased to help.

In keeping with the planned change from county structure plans to regional development plans, the consultation has been conducted on a regional basis. In order to obtain copies of the consultation document and questionnaire for your region, telephone DfT on 0845 100 5554 or access its website on *www.airconsult.gov.uk* The principle remains the same, however. The BGA will resist any increases in controlled airspace that adversely affect gliding and have given notice that we will press for compensation, should any gliding site become non-viable due to airspace restriction resulting from the development of new airports.

Significant Areas for Sport

Sport England has promoted a new planning designation – Significant Areas for Sport (SASP) – in an attempt to provide protection against residential or industrial development for sites with a primary sporting purpose.

The BGA has co-operated with Sport England in a pilot project. As a result of careful consideration of the possible benefits and disadvantages by the clubs concerned, four gliding sites of national significance and two gliding sites of regional significance are applying for recognition as SASPs.

Laws & Rules for Glider Pilots

Edition 14 is currently being prepared. In accordance with recommendations made at the Chairmen's Conference in 2001, the new edition will still be in the old A5 format but it will have a number of new features. Within the blue "corporate" cover will be more diagrams, a detailed index and a rewritten section on trailer law by Mel Eastburn. The new edition will be published after February's AGM when, as part of the process of self-regulation, several changes to Operational Regulations need to be debated and approved by the membership.

Bicester Airfield – the future?

The revised deposit draft for Cherwell District Council's local plan proposed that the flying field be retained as at present but... "with the exception of its use for gliding"...A formal objection has been made, requesting that the above wording be deleted and stressing the importance of Bicester as a gliding site for the future.

Roger Coote, Development Officer

New steps to reach top rung of ladder

THE final 2001/02 results for the top few places in each National Ladder are shown in the tables below. Once again, Cambridge pilots feature heavily at the top of the Open Ladder, thanks last season to some world-class efforts from Phil Jones (winner of the Enigma trophy) and Mike Young (Firth Vickers trophy). Both were able to include some brand new UK record flights as part of their totals. In the hills, wave cross-country flights are continuing to make inroads on to the ladder, courtesy of some exciting flying from Scotland.

In the Weekend Ladder, yours truly has somehow qualified for the L. du Garde Peach Trophy while yet another Cambridge pilot, Peter Baker, claims the Slingsby Trophy. The winner of the Spitfire Trophy is still unclear at the time of writing; it appears that many of the claimants' logger files have been discarded along with the empties.

	Pilot	Club	Score	Flights
Junior Ladder				
1	John Tanner	Deeside	4713	4
2	Dave Bromley	Four Counties	4341	4
3	Matthew Cook	Booker	3884	1

Open Ladder

1	Phil Jones	Cambridge	13813	4
2	Mike Young	Cambridge	13555	4
3	David Masson	Lasham	12006	4
4	Jack Stephen	Deeside	11446	4
5	Ed Downham	London	11363	4

Weekend Ladder

1	John Bridge	Cambridge	9694	4
2	Peter Baker	Cambridge	8503	4
3	Tim Macfadyen	Bristol & Glos	8316	4
4	Dave Caunt	Booker	7837	3
5	Bill Craig	London	7591	4

New for 2002/2003

As of November 1, 2002, pilots have been able to calculate and submit their own scores directly on to the BGA National Ladder website. You need only to complete a simple online registration process and log on in order to do this. Registered pilots have full control over their own scores and the system will automatically select the best four flights for inclusion in each of the ladders.

In this way, the Ladder will always be as current as possible – as a further inducement, any score submitted more than one month after the flight took place will now be subject to a 10 per cent penalty.

Pilots unable to submit their own scores directly on to the ladder may continue to pass on their task details to their club ladder stewards, who will update their scores in the usual way. Visitors who simply want to look at the latest tables, or who just want to calculate their score without submitting it, may continue to do so without registering or logging on. A query page has been included that allows anyone to take a closer look at the details of any pilot-submitted score during the season. As added interest for the GPS-fixated, who wonder what their turning points actually look like, a programme has begun of adding photographs to the site's turnpoint list. The new site was well received by "volunteers" who kindly beta-tested the system during the summer – my thanks to all who took part.

If you would like to take part in the 2002/2003 National Ladder, please visit *www.bgaladder.co.uk* where you will find full instructions regarding registration, latest positions, FAQs and other background information. You may also contact me at *johnb@aircross.co.uk* with any queries not answered on the site. Have a great season!

John Bridge
National Ladder Steward

It will never be the

BGA Chairman David Roberts provides an update on worrying plans for EU regulation

THE European Aviation Safety Agency (EASA) was established last September under European Parliament legislation (*http://europa.eu.int/agencies/easa/index_en.htm*) on advice of the European Commission (EC). This development hit General Aviation (GA) and air sports by stealth, with no prior warning until March 2002, by which time legislative timescales were moving rapidly. It is widely acknowledged that one of the key legislative drivers was to enable Airbus to achieve type certification with one pan-European organisation, compared to the present certification by each National Civil Aviation Authority (NCAA), but it will also affect gliding across the European Union (EU) including the UK. Why is this? Because of the scope of the legislation and because there was no consultation with air sports or GA by the EC prior to legislative drafting, which was done in Brussels based upon air sports' regulatory positions in certain other European countries – particularly, it seems, France (see "Exclusions" below).

This article is about what has happened already, what might happen in future, and what we have done in the UK and in Europe to challenge and address this development.

The Regulation

The Regulation covers the scope and objectives of the legislation as well as basic principles, applicability and exclusions. It then sets out what are referred to as "Minimum Essential Requirements" (ERs) for both original airworthiness (design, test, manufacture) and continuing airworthiness (maintenance). It also covers EASA's establishment, functions, responsibilities and *modus operandi*.

The Regulation's scope includes "the design, production, maintenance and operation of aeronautical products, parts and appliances" as well as "personnel and organisations involved in the design, production and maintenance of such products, parts and appliances; and personnel and organisations involved in the operation of aircraft." Military, police and customs aviation is excluded. The principle objective is "to establish and maintain a high uniform level of civil aviation safety in Europe" and secondary objectives are, inter alia, to "(a) ensure high uniform level of environmental protection; (b) facilitate free movement of goods, persons and services (throughout the EU); (c) promote cost efficiency in regulatory and certification processes and to avoid duplication at national and European level; (d) promote Community views regarding civil aviation safety standards and rules throughout the world, through co-operation."

What it means for gliders

Article 4 of the Regulation, for airworthiness, defines categories of aircraft excluded from applicability in the now infamous "Annex II". The exclusions are not based on a distinction between Commercial and Non Commercial Use, as might have been logical, but on definitions around either historical significance (various qualifying conditions), intended original use (for example, military), whether or not amateur built (51 per cent threshold), or by weight. (As an aside, using the historic definition and qualifying conditions, an official at the UK Department For Transport (DFT) concluded Concorde would be excluded from airworthiness regulation – presumably not the intention!)

The weight definition is the one relevant to gliders, and the exclusion condition is "gliders with a structural mass of less than 80kg when single-seater or 100kg when two-seater, including those which are foot launched." Thus hang-gliders and para-gliders are exempt from EASA airworthiness requirements, but not the sort of gliders we fly. On the other weight definitions, most microlight aircraft are excluded, and bigger GA aircraft included, with the Popular Flying Association (PFA) type aircraft either in or out depending on the amateur-built qualifying condition or by weight. The logic of all this has defeated most Anglo Saxon or Scandinavian minds, but suffice to say in France gliders are state regulated (but how much observance?) and microlight aircraft are not.

When first alerted to this legislative draft, Peter Hearne and I met DFT officials in May to try to get this definition changed, suggesting – somewhat tongue-in-cheek – maybe there was a typing error and the weight thresholds should be 800kg and 1,000kg respectively. Despite support from the DFT and the UK CAA we were unable to influence the European juggernaut. Subsequent advice from European contacts indicates that the chances of obtaining a change to Annex II are minimal, but if a "runner" at all would take at least two years.

Operations and Licensing

The EC has also set out proposals for legislation in 2003–04 covering Operations and Licensing. Yes, at present it looks like we may end up with a mandatory European Glider Pilots' Licence. "Operations" covers everything that airworthiness and licensing does not. Apart from a probable link to International Civil Aviation Organisation (ICAO) standards, the key issue on pilot licensing will be medical standard(s), which for a substantial number of EU countries are now based on JAR Class 2 with regular examinations, rather than self-declaration (as we have had in UK gliding for many years).

Europe Air Sports

The project people establishing EASA from early 2002 made it clear that representation from air sports "industry" could only come from a pan-EU organisation, rather than nationally. Fortunately, due to the foresight of a few individuals in the late 1980s, including Fred Marsh of the UK Royal Aero Club (RAeC), Europe Air Sports (EAS – not to be confused with EASA) was formed in 1988 for just such a reason. It is now the primary route into EASA. EAS members are 24 National Aero Clubs (NAC) in the EU and many of the non-EU European countries, including EU candidate countries. Together they represent some 700,000 recreational and air sports pilots. EAS has a small elected and volunteer board, with a limited budget of around 30,000 Euros pa. It is supported by technical officers and various working parties on regulatory topics or air sport disciplines (such as the European Gliding Union, EGU). The EAS board includes Dr Peter Saundby, the BGA's medical adviser and a glider pilot, instructor and tug pilot at Talgarth. Secretary-General Herry Schoevers, a Dutchman and retired KLM Director of Engineering, shoulders most of the work.

Regulatory players

The chart (opposite, bottom) shows relationships between the national organisations in each country and the European ones. The BGA sits at present in the "self regulated" box under the UK NAC, the RAeC.

RAeC actions

In June the newly formed RAeC Technical Committee decided to ask the RAeC Council to fund a project to address the EASA threat. Authority was given and following a selection process I was tasked in July to produce a Position Paper on behalf of all UK air sport members. This involved surveying the current regulatory *status quo* of all air sports and their aspirations for the future across a whole range of topics, producing a rationale highlighting key strategic issues and proposals. I met Herry Schoevers in Holland, attended an EAS board meeting in Brussels and held a workshop in August for all UK air sports. My work was largely done by mid-October and the UK Paper went to EAS as input to an EAS Position Paper. The UK was the only country to expend this much effort on these critical developments.

European air sports survey

In parallel with the UK work, Herry Schoevers organised an EU-wide survey of regulatory positions of all air sports – no

same

mean task. The resulting picture provided the background, through the preparation of an EAS Position Paper, for an EAS special general meeting of all members in Brussels in November. Gliding in most countries is largely state regulated; only the UK and Belgium are completely self-regulating. Sweden is the most similar to the UK, with delegation by the Swedish NCAA to the Swedish Gliding Federation. So the task of promoting a self-regulating case on a Europe-wide basis looked difficult. Although many countries' gliding associations were beginning to see the benefits the BGA has enjoyed for many years, it was hard for many to see how to move from almost one extreme of national regulation to self-regulation in one step, without the infrastructure, capabilities and finances to do so.

The EAS Position Paper

The November EAS meeting in Brussels debated the issues and considered the draft EAS Position Paper prepared by Herry Schoevers. UK input to the Paper and debate was extensive. The UK delegation, led by Sir John Allison (Dave Allison's father) presented our recommendation to stay outside EASA for licensing and operations for all air sports. Other options considered were either full EASA regulation (no support), or what we called a "half-way house" with high-level EASA Minimum Essential Requirements (ERs) but with detailed rulemaking left to the NCAAs. When it came to the vote the "half-way house" option won, though three countries (including France and Sweden) supported the UK position. Significantly, NAC members adopted the self-declaration basis for medical fitness, supported by GP counter-signature; early indications to this proposal from the EASA Core Group (CG) on licensing are positive. The Paper sets out the objectives of EAS in relation to proposed regulation, proposals for the minimum ERs for flight crew licensing, operations, and criteria for "qualified entities" that could receive delegation to implement the rules, as well as pressing the case for maximum delegation by EASA to NCAAs. After this, a small working group, including Sir John Allison and Peter Eriksen, President of EGU, finalised the EAS Paper for submission to EASA. After submission, the BGA will provide a link from *www.gliding.co.uk* to the full Paper on the EAS site (*www.europe-air-sports.fai.org*).

Other key issues

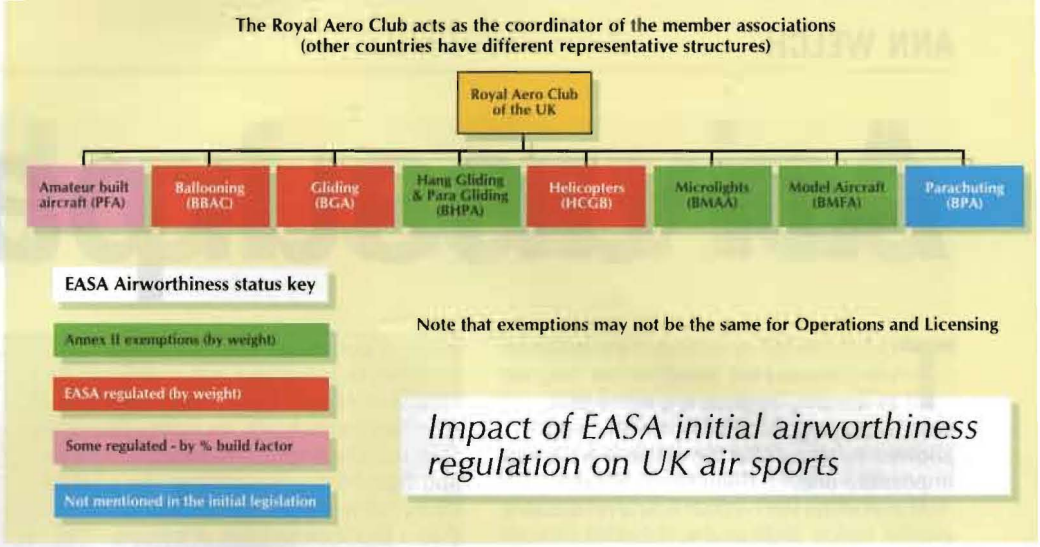
We have stressed the need for "grandfather rights" to protect existing arrangements in each country (though it has to be said the EU is not generally known for recognising such rights) and an objective safety case to be made by EASA for regulating previously non-regulated activities. Demands have been made for a Regulatory Impact Assessment (RIA), in which the costs of implementing proposed rules would have to be bettered by the quantified benefits relative to current safety levels. Accident statistics, of which several air sports including gliding have comprehensive records, should be used in such an assessment.

Perhaps the single most important aspect of this development is the need for effective and comprehensive representation of our interests, combined with consultation, at EASA. Whilst EASA's management board is bound to establish an Advisory Body of Interested Parties (ABIP) – EAS has one seat on this ABIP – this forum will not deal directly with technical rulemaking. The latter is being developed through many CGs, to which access has so far been difficult. As I write, the maintenance CG has produced a second draft ("ECAR-M"); Howard Torode, a BGA Technical Committee member, attended this CG in December as the stand-in EAS representative, and concluded that the impact for UK gliding could be very serious as the rules are drafted as if we were maintaining B747s in large commercial maintenance organisations. For example, the fitting or change of instruments in your glider would, under the current draft, not be possible without "proper authorisation by a qualified person" – bureaucracy gone mad.

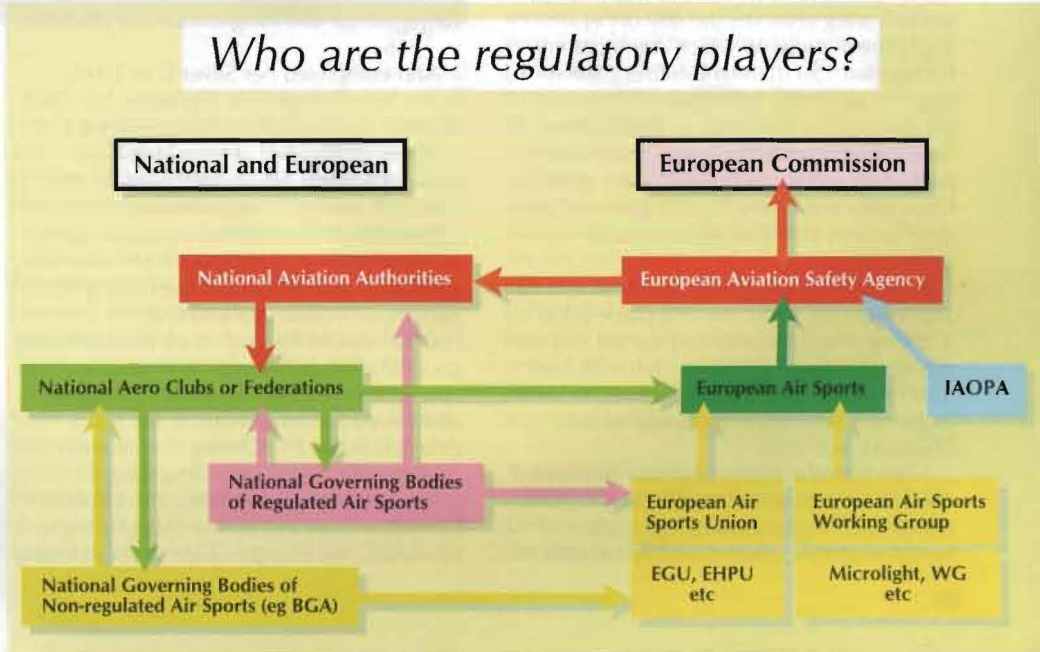
Possible impact on UK gliding

There is no doubt that, as things currently stand, the present self-regulatory framework for UK gliding will change forever to one of EU regulation, certainly for airworthiness. However, I hope that with negotiation through representation we can achieve a sensible and balanced solution, removing the worst aspects of a distant bureaucratic rule-based approach to safety, and moving to a relationship with the UK CAA whereby the BGA continues essentially to run things largely as we have always done, but in a formally-delegated structure from EASA through the CAA. The CAA very much supports the RAeC and the BGA in terms of solutions. On behalf the RAeC, I attend a regular DFT forum chaired by the UK Member State director on the EASA Management Board.

This next year or two will require very considerable dedicated effort from a few people in the BGA and RAeC in trying to steer the legislative proposals in the direction we want. But things will never be the same as we have all known since we starting gliding.



Diagrams: Steve Longland



Right: IAOPA stands for International Aircraft Owners and Pilots Association; WG stands for working group

An unsurpassed

TO COMPOSE an obituary for someone who devoted the whole of her long life to sporting aviation is a formidable task. To do justice to her in the few words allowed by space and the editor is an almost impossible one.

Ann Welch (1917-2002) was a remarkable aviator, totally dedicated to fostering, promoting and encouraging people to take to the air. Nothing was allowed to divert her from her purpose, nothing was ever allowed to stand in her way. She was a very strong personality who held very strong views.

Her flying life started in 1930, when Alan Cobham's Flying Circus visited Wadebridge in Cornwall with the three-engined Airspeed Ferry designed by Nevil Shute Norway, who was not only a brilliant designer and glider pilot but later the world-famous author.

As we all know, once the flying bug gets you, it never lets go and so it proved with Ann: aeroplanes morning, noon and night, begging rides with any pilot who would take her up until she was old enough to learn to fly. Her first solo was completed just after her seventeenth birthday; her pilot's licence just a month later.

She soon realised that gliding was cheaper than power flying, and in 1937 she attended an Anglo-German Fellowship camp being held at Dunstable. The course was visited by Wolf Hirth and Hanna Reitsch. No sooner was she solo than she bought a Grunau Baby for £50 and persuaded a jobbing carpenter to build her a trailer for £20. Gliding expeditions to various sites followed, which included a landing on top of The Bishop, Portmoak's local hill.

In 1938 she created the new Surrey Gliding Club with a £300 loan from Graham Douglas, whose family owned Redhill Aerodrome and to whom she was married the following year. On the day of her engagement party (to which Ann's parents had invited 150 friends) Geoffrey "Steve" Stephenson, flying from Dunstable, made the first soaring flight across the Channel. Totally in character, half-way through the party, Ann and Brian Powell – later to be Churchill's and Beaverbrook's pilot – made their excuses and flew off to retrieve "Steve" from France.

So, to take stock, by the time Ann was 22, she was a very proficient aeroplane pilot, a gliding instructor who had started and now managed a growing gliding club with over 100 members, and a private owner, as well as being a wife and a successful author, illustrator and artist.

Soon after the outbreak of war she joined the ATA (Air Transport Auxiliary, of which Philip Wills was a leading light), that remarkable collection of mainly amateur pilots of both sexes who ferried aircraft between factories and active airfields. As related in *Happy To Fly*, her autobiography, Ann flew many types, including Hurricanes, Spitfires, Wellingtons, Blenheims, Ansons and Tiger Moths. By the time she gave up flying many years later she had flown more than 150 different types of aircraft.

With four others, including Lorne Welch and Walter Morison, she restarted the Surrey Club at Kenley in 1946, moving to Redhill in early 1947. Lorne, whom Ann married as her second husband in 1953, had been a RAF pilot, shot down and after various escape attempts, imprisoned in Colditz Castle. Here he offered technical advice on the audacious plan to build a glider as a means of escape (see *How the Colditz glider finally flew*, S&G, April-May 2000, p26).

Ann and Lorne made a formidable team. He, a gifted instructor who was idolised by his pupils, pioneered the concept of sending his pupils solo in the Slingsby T-21 two-seater, on which they had been taught. The greybeards in the gliding world disapproved strongly of this outrageous concept but, of course, Lorne was right. With Ann chairing the BGA Instructors Panel for the next 20

'She joins the illustrious company of Lindbergh, Cobham, Jean Batten and Frank Whittle'

years, they worked relentlessly to improve the teaching and quality of gliding instructors.

We owe our freedom from official controls, which we have enjoyed for more than 60 years, very largely to Dudley Hiscox and later to Philip Wills and Ann (respectively the chairmen and vice chairman of the BGA), who battled successfully against the politicians and civil servants determined to subjugate us. She resigned as vice chairman in 1966.

Ann completed her Silver C in 1946, flying from Salzgitter in Germany, her Gold in 1969 from La Ferte Allais in France and in 1969, flying from Leszno in Poland covered 528km, which established a new British Women's distance record.

From 1948 she was the team manager of our international gliding team and won the admiration and respect of the other gliding nations, who soon realised that her wise counsel should be used more widely for the good of gliding. She was very quickly co-opted on to many diverse FAI committees and served for many years as the UK delegate to the FAI Gliding Commission.

With only the slight interruption of competing with Lorne in the 1954 World Championships in the new Slingsby Eagle two-seater her energies were devoted totally to national and international affairs. She directed some of the Nationals held at Lasham and in 1965 organised and directed the second World Championships to be held in Britain, this time at South Cerney in Gloucestershire.

The autocratic management style practised so successfully by Philip Wills and his colleagues was changed by "the young", who succeeded in introducing a rule that no one could serve in any BGA position for more than five consecutive years. Ann handed over the Instructors Panel to Roger Neaves of Booker fame and turned her attention to the future.

The new order of "young Turks" in the BGA and Ann soon came to the parting of the ways. Ann found herself at loggerheads with the BGA Council over new classes and rules being proposed for future World Contests. The Council duly appointed a new delegate to the FAI. Unfortunately, the irresistible force had met the immovable object and neither side was prepared to give way. Ann was very hurt – this denied her the chance of being elected as the President of the FAI – but it did not affect her work output on behalf of the air sports movement. The hang-gliders and microlight flyers benefited from her remarkable untiring activities on their behalf and she was honoured by both, being elected President of their respective associations. She was also the President of Honour of the FAI Hang Gliding and Microlight Commissions. As a result of a recent obituary that I had written for a national broadsheet newspaper, I was taken to task for not stressing her tremendous contribution to these sports. It is greatly to Ann's credit that she was the first to recognise the need for a less expensive form of gliding, which would attract the younger pilots. In 1972 she wrote an article for this magazine proposing that the BGA offer help and guidance to the "Low and Slow movement" (*Up or down the low and slow*, February-March 1972, p19). Sadly, the forces of reaction decided otherwise; the newcomers were forced to go their own way and Ann took them under her wing.

Her honours are legion, and some of the most significant include the OBE, the Royal Aero Club Gold Medal, the Lilienthal Medal (the highest FAI medal for gliding), and the FAI Gold Medal (the highest FAI award), joining the illustrious company of Lindbergh, Cobham, Jean Batten and Frank Whittle. What a glorious legacy to leave.

To have devoted more than 70 years to sporting aviation is an unsurpassed record. I doubt if we will ever see her like again. She did us proud.

Wally Kahn

record of service



Ann photographed at home in 1999 *(Adrian Hobbs)*

FROM the early days of my editing *S&G*, *writes Gillian Bryce-Smith*, Ann Welch was always willing to write articles and to give encouragement and useful suggestions. Later she was equally as enthusiastic about my new venture and was one of the first to contribute to *www.glidingmagazine.com*. She wrote beautifully and professionally. Among her many books is the *New Soaring Pilot*, which was a collaboration with her husband and Frank Irving and is one of the gliding classics (for a list of Ann's books see the last issue of *S&G*, p41). When Ann wrote up the World Championships you did have to give her deadlines. She wrote it on the plane and posted it to you at the airport. And it was always excellent. The great thing was that she kept this enthusiasm for aviation and could infect others. Two years ago she was the guest speaker at my club and captivated the audience with a fascinating lecture. Going back further, when she came to lunch our son, then 14, didn't really think he wanted to be around. I persuaded him he'd find it interesting and at four o'clock they were still deep in conversation about all things aeronautical. "When will Ann come again?" he asked. Ann was ageless. Then this is what happens when you have a deep love for something and especially when it's gliding. She is going to be so missed, but what happy memories of her she has left behind.

Gillian edited S&G from 1972-1998

WHEN I began editing *Sailplane & Gliding* in 1999, *writes Helen Evans*, I wanted my first issue to make an impact, signalling the change of editor and providing a good read over the British winter break. One obvious story was the Millennium – to do a review of gliding's first full century. And there was one obvious author to ask to write it: Ann Welch. As she has done for *S&G* so many times over the years, she came up with an immaculately-researched and beautifully-written article (*100 superb years of being free as a bird*, December 1999-January 2000, p20). It is absolutely typical of her vision that she ended by asking: "what is there in 1999 for newer, younger pilots?". She also graciously charmed Adrian Hobbs, who took the photo to accompany the piece, and invited me to lunch to explain how she thought *S&G* should develop. It was with some trepidation that I went to meet a role model for generations of women pilots. And it was with difficulty that I tore myself away from not only a stream of fascinating anecdotes but also a wealth of pragmatic suggestions (which, if you enjoy reading *S&G*, you have also benefited from). Since that first meeting I discovered that she was always in great demand – but always approachable, always knowledgeable, and always generous with help and advice. I find it very hard to believe that she has gone.

IN December, *writes BGA Chairman David Roberts*, we said farewell to one of the all-time greats of our sport, and one whose endless energy and devotion to the cause of air sports started with gliding in 1937 and culminated in the last 20 years or more with hang gliding and microlight aircraft.

I had the privilege of meeting Ann a few times in recent years. She didn't mess around when she wanted something from you. Straight to the point, asking me what I was doing about this or that – usually to do with encouraging young pilots or fighting off bureaucracy. A strong will with clear determination, but a delightful person and someone I shall remember with fondness and gratitude for all she did for gliding, particularly in the early, critical years after the Second World War and long afterwards.

It is poignant that Ann, who fought successfully in the late 1940s for the BGA's freedom from regulation and bureaucracy, should leave us just when, for the first time in its history, gliding in the UK faces being regulated by the European Parliament.

A memorial service is being planned for Ann by her family, probably on March 7 at Lasham. As soon as arrangements are made, the details will be on *www.gliding.co.uk*

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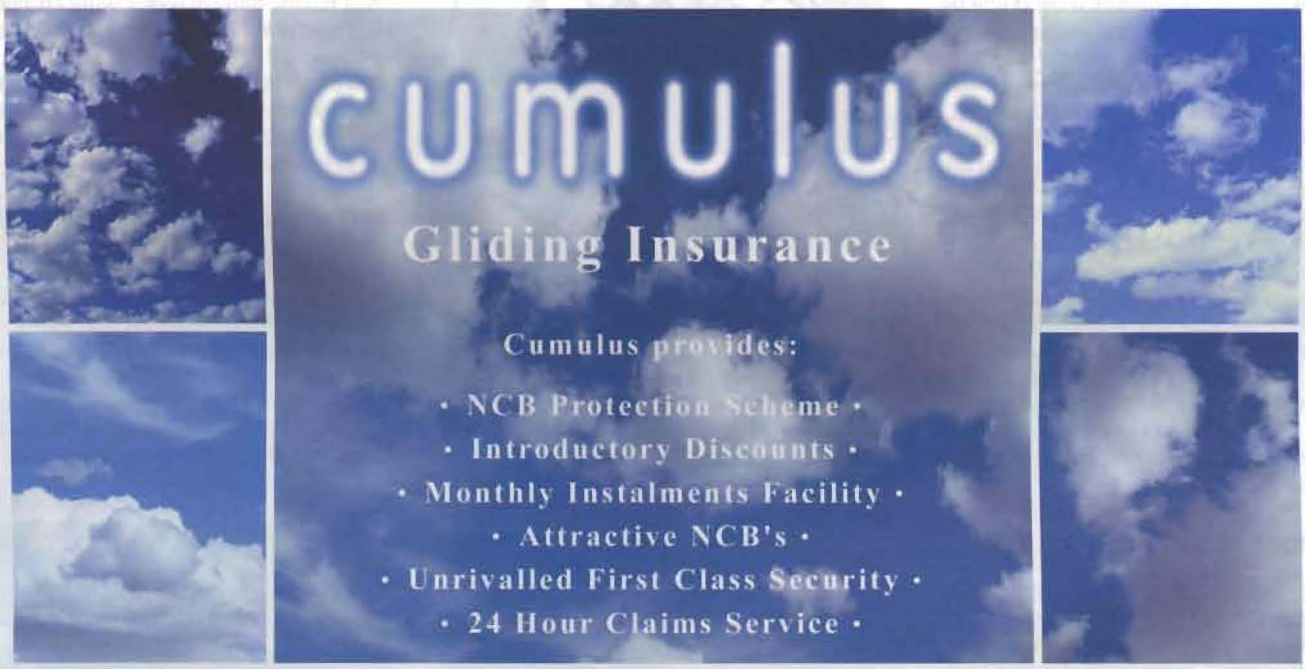
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What your left hand's for

THE penance of flying a flapped machine is that you are continuously having to ensure you are in the right flap setting for the mode of flight you are in. My mentor, umpteen times National Champion, reminds me fiercely to keep my left hand on the flap lever at all times while soaring. On take-off the left hand needs to be briefly by the release-knob, and on the dive-brakes while landing, but the rest of the time keep it on the flap lever.

When I was a keen, young but fairly terrible racing cyclist, I was told it was very bad form to keep looking down to see what gear you were in. Apart from the danger of running over old ladies or under a bus, it was a matter of style: the body should know what your derailleurs were doing by instinctive feel, transmitted through your rippling musculature. I never did know. Old ladies and buses were narrowly missed again and again. Likewise it is with flaps. I clearly have no natural sense of rhythm.

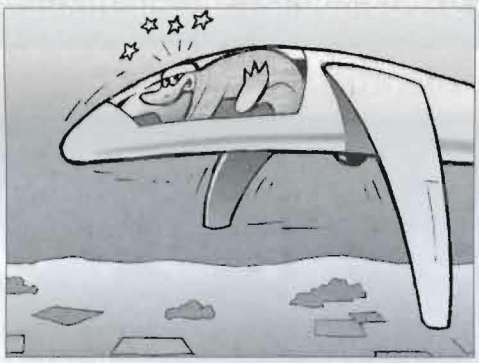
The flight manuals will tell you what flap to be in for each speed, and will also tell you how those speeds vary at different all-up weights. But what if you decide to emulate the people you have seen flying Racing Class gliders, especially abroad where the conditions are stronger, that alternate between vertical zooms and Stuka-style dives? Should you, when hitting lift, pull up first, then adjust the flap to the reduced speed, or should you put the flap into the new position at the same time as you haul back on the stick?

The root of the problem

Here's my theory. *(That should drive them away, Ed.)* When you pull two Gs you are in effect turning your ship into a new sailplane, one that is twice as heavy as it was a few seconds ago in level flight. This new glider has a polar curve that is shifted downwards by 41 per cent and to the right by 41 per cent (1.41 being the square root of two).

It's like ballasting the glider to double its empty weight – you are shoving that polar forcibly across and down the chart. (I'm not specially recommending two-G pull-ups, by the way; it just makes the arithmetic easier. However George Moffat says that two-G pull-ups are right when entering strong lift at over 90kts, otherwise you are out of the other side of the thermal in seconds. Such pull-ups "keep the wing in the low drag bucket," he says.)

What's this got to do with flap-settings? Well, the optimum speeds for flap settings are not fixed, but rise or fall according by the square root of the wing loading. (Hey, come back here!) Thus for a typical modern glider in level flight, max L/D is achieved at, say, 57kt in zero flap. But when you make a two-G pull-up, max L/D on the new, heavy-weight polar curve is achieved at 80kt (41% more than 57kt) - and zero flap is *still* the appropriate setting for that speed. Therefore it makes sense, when travelling fast and pulling up steeply, to go from the negative flap setting to zero flap while still travelling at 80kts. This applies in reverse when pushing over at the top like the Vomit Comet, as they call those big planes they use to acclimatise astronauts to zero-G.



pushing over at the top

Your new ultra-lightweight sailplane – for a few seconds – has a different polar curve, transposed to the left of the page. The optimal airspeed at which one should shift from zero flap to negative flap is therefore a lot lower than it would be in steady, level flight. So even at 50-odd knots, as one sits almost floating in one's straps, it makes sense to push the flaps into negative. I don't recommend true zero-G manoeuvres for the very academic reason that when a glider weighs nothing the polar curve vanishes off the left side of the page, and my square roots get totally lost. "It may be all very well in practice, but it's no good in theory!" as someone once said. In two-seaters zero-G also makes the passenger sick, if he/she is not already.

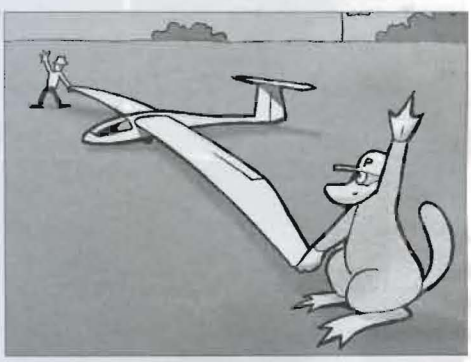
In short, one anticipates the state of flight in which one expects to be in about five seconds from now. It's fairly simple. Stick forward, flap forward at the same time. Stick back, flap back at the same time.

Why not just do away with flaps?

If all this just puts you off flaps, don't worry. There are some excellent gliders that do very well without them, including the new Discus, Duo Discus, LS8 and ASW 28.

I would still like to know what the cost trade-off is between flaps and extra span. Not having flaps makes a wing far cheaper but also makes it cleaner – no cracks and gaps – and lighter, stiffer and stronger, too. If we can have 20-metre high-performance gliders that manage well without flaps, why not 25-metre gliders without flaps? The answer would probably be something to do with the uses of flaps in taking off and landing as much as in soaring flight. But if the Duo Discus can function flapless, what is the upper span limit?

George Moffat says you need flaps when lift exceeds 4kts. That's an interesting number. My ASH 25 syndicate kept a record for some years of rates of climb in the UK, covering over 100 flights: the UK average was exactly 2.0kts; the average in Australia in the same ship was exactly 4.0, and the western USA very similar to Australia or



what is the upper span limit?

slightly better. I notice the leading gliders in the USA Racing Class Championships in 2002 were mostly the flapped ASW 27s, whereas in Britain unflapped gliders are hardly distinguishable in achievement from the flapped ones.

Some additional observations from George Moffat: "I, too, always keep a hand on the flap. Do you recall that the LS3 had no detents for cruise, you just let the thing float? At least in Reichmann's ship, which was the only LS3 I ever flew. Probably not a good idea as no one else ever did it.

"Vigorous porpoising is usually a bad thing unless conditions are quite strong and you are very good at it. I've done side-by-side comparisons and usually the violent approach loses. Violent manoeuvring is best reserved for collision avoidance. It (manoeuvring, that is) is inherently drag-producing. Come to think of it, so are collisions, I would imagine . . ."

I have often wondered what instrument the Vomit Comet pilots use for positioning these old Boeing 707s in exactly the right parabola to simulate zero-gravity. In the television series *The West Wing*, a character says, "NASA spent millions developing a pen to write in zero-gravity. You know what the Russians used? A pencil." So doubtless NASA has a very fancy gadget.

My "Russian" solution would be a tennis ball on a string dangled in front of the pilot about three inches below eye level. The task would then be to keep the ball at eye level. The co-pilot's job is to make sure his boss does not become mesmerised by this toy as they plummet down the second half of the arc. An even cheaper solution is for the pilot to have his seat straps very loose so he knows when he is floating. But that idea went in the can because it would be nice for him to be able to control the aircraft as well.

New horizons, new resolutions

Today (December 16) I had a Christmas card from an old friend, "Hoping we'll have a better season in 2003". I hardly want to tell him that I had a terrific season in UK and USA, since he obviously had a poor year. Three 600s, at least eight 500s, and – sorry, I was drowned out by yells of, "Aw, shaddup, willya?"

On reflection, if, like the princess who complained of the discomfort of a dried pea through umpteen mattresses, I am permitted a tiny gripe, it is I saw no new terrain whatever. That was an omission, the remedy for which is entirely in my own hands. So long as I continue to glide I shall try each season to see some new countryside – and even some new seaside. I am still naive enough to believe in the power of solemnly writing down New Year's Resolutions. *(Like getting your copy in on time? Ed.)*

There is something slightly scary about venturing into parts never seen before, even in Britain. In the USA it is especially



some new seaside

spine-chilling to open a new sectional (half-million map) and see vast areas stained mahogany brown except the white patches for the dry lakes and the mountain peaks, with no airports, no cultivated farmland and no towns for hundreds of miles.

High and dry and far away. Fantastic!

An enviable life

The first time I saw Ann Welch I was on a pilgrimage to Lasham, where she was running the 1959 UK Nationals, as she did for many years including the World Championships at South Cerney in 1965. All these competitions struck me as the best-organised events of their kind anywhere. A blend of humour, brisk efficiency and total confidence characterised her management style. Almost every question from the awed pilots elicited the response, "read the rules!" since indeed most queries were due to their not having studied the then mercifully-thin rulebook.

Ann was busy meeting fellow-pilots in Paris just a few days before she died. Every day of her 85 years seems to have been packed with activity, most of it in one branch or other of aviation. An enviable life.

Poetry please

High-Cus are building
Soon to rain gently down on
Madam Editor

We've had some promising entries for the Haiku competition. Simple rule: five syllables, seven, five, as above. At least one Christmas card has promised me some verses. So we'll hold over the contest till February 14.

Humbly beseeching
Tsunamis of doggerel
From soaring pilots

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Fast track to learning



Derek Piggott first wrote an article entitled *Must gliding mean frustration?* 40 years ago. But even now, he argues, motorgliders are seldom used to speed up beginners' learning – and there are still many complaints that glider training is too time consuming...

WHENEVER I hear complaints about the frustrations involved in learning to fly gliders, I wonder why most clubs seem to consider a motorglider only in terms of navigation and field landing training. Some do seem to use motorgliders to give their beginners some longer handling flights but few seem to use them for serious instruction – teaching glider circuit planning and landings.

There is, I think, a prejudice against using a motorglider for basic training. This is often because instructors do not consider their handling characteristics to be close enough to those of modern gliders. Other objections are that the students might form the habit of relying on the engine to get out of trouble, rather than by recognising a problem and planning to deal with it in the same way that they would have to in a glider.

Encouraging power pilots to glide

Very few instructors doubt the value of previous power flying towards learning to glide. True, we have to teach most power pilots to use the rudder correctly to turn efficiently, to use much more bank than they are accustomed to and, most importantly, to look around and keep a good lookout at all times. But they usually can make a reasonable landing, are relaxed in the air and able to understand the instruction far better than the average beginner.

Power pilots are the first to complain about the frustrations involved in converting to gliders. Being used to getting into an aeroplane and flying, they resent the time spent on the ground for a few very short flights. One or two flights and landings per day are totally inadequate if good progress is to be made towards solo and, of course, they all know this.

For power pilots, motorglider training is a highly desirable way of making rapid progress and making sure that they get sufficient experience of dealing with the situations they will become involved with in gliders, before being sent off solo.



Opposite: in-cockpit view from Falke. Above: the BGA Falke, G-GBGA (all photos: the **White Planes** *picture co.)*

A competent power pilot may learn to aerotow and apparently be ready for solo after only 10-15 glider launches and landings, but in reality they are so inexperienced they are at risk. Start them on a motorglider and they get much more experience both of landings and of the situations particularly relevant to gliding.

Important principles for training

There are several important principles involved when using a motorglider. Most important is that once the engine has been throttled back or stopped to simulate a glider, it must be flown as if the engine is not available. It must also be treated as a glider by other gliders. For example, if it is baulked by another glider, it must turn in early and land further up the field, or divert to an alternative landing area, just as it would have to do if it were a normal glider. Demonstrations such as using the engine to prevent an undershoot must never be done or the credibility of treating it as a normal glider would be broken.

It is undesirable to switch to and from from motorglider to glider during the basic training, just as it is better for a beginner not to change from one type of glider to another. Ideally, students should start on the motorglider and stay on it until they have reached a satisfactory standard with the planning and judgment.

If introductory flights are made on the motorglider, the first lesson of the effects of controls and turning can be done more effectively and more economically than by aerotow. On these and other early flights the engine should always be stopped once the full launch height has been reached so that it is similar to an aerotow launch and a normal gliding flight.



Rudder loads on a Falke are higher than on the average two-seater, says Derek



Rotax Falke visiting The Park: side-by-side seating is an advantage for early training

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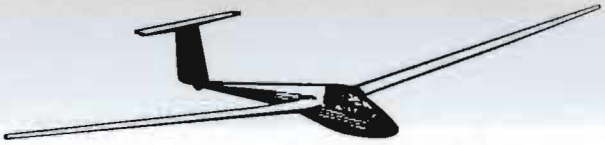
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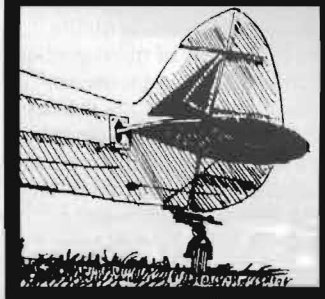
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Basic training

The basic training usually takes four to five hours for a beginner or two to three hours for a power pilot and this includes stalling and incipient spins, circuit situations and launch failures. This is training for flying gliders and not for flying a motorglider solo.

The differences

At first sight many instructors give the impression that the motorglider is completely different to a normal two-seater glider. But when you analyse it there are only three major differences:

- The view ahead is somewhat restricted on the motorglider and is far better on the glider.
- The rudder loads are much higher but the amount of movement required is much the same on both types.
- With the Falke, the spoilers are far less effective than the airbrakes fitted to most gliders and the gliding performance is worse, although better performance can easily be simulated by leaving the engine running with a small amount of power.

Compared to a normal light aircraft a motorglider has the advantage of requiring glider-type stick and rudder co-ordination plus flying at normal glider speeds and having spoilers or airbrakes instead of flaps.

Problems

The shortcomings of gliders in basic training only become apparent when trying to make large numbers of training flights for the circuit training stage. In most cases the ground handling between flights wastes time and manpower, making it difficult for each glider to make more than five launches an hour. The main advantage of a motorglider for training is not its ability to stay up longer but the speed with which it can make circuit flights and multiple landings.

It is an enormous advantage to be able to give a student several consecutive landings. In addition, it does not obstruct the landing areas as much as a pure glider because of its ability to touch and go and to move itself off the landing area without delay.

By doing most of the basic training on a motorglider, large numbers of launches are made available for other flying. Moreover, the inevitable wastage in the early stages, when many beginners drop out, involves only the work of one instructor instead of a group of members for the ground handling.

Often the weather clears for a short period and it is not practical or worthwhile to set up and organise glider launching. With a motorglider, an instructor can start training flights even if there is only one student.

A serious disadvantage of motorglider training is that the students can often be reluctant to join in with the ground handling of the normal gliders at the launch point while waiting their turn to fly. This will be resented by members and instructors. We found it best to have two instructors, one to fly and the other to talk to students and encourage them to help at the launchpoint.

Then the problem soon becomes having enough students to utilise the aircraft fully.

The ideal motorglider trainer

It would be ideal to have a training motorglider identical in most aspects to a normal two-seater glider. Unfortunately, using a "tuck-away engine" glider for basic training is at present impractical because present-day motorgliders of this type are not suitable for such intensive flying and the thousands of landings involved. A rugged and reliable engine is essential to withstand the large numbers of starts involved and this probably means ruling out a two-stroke engine.
A good gliding performance is not essential if it is accepted that the engine can be left running with just enough power to simulate a 30:1 glide or better. (An advantage of doing this is that the instructor has the option of simulating flying through sink by just reducing the power slightly.)

Few gliding instructors would turn down the use of a motorglider if it had glider handling, glider airbrakes and the traditional view ahead from the glider cockpit. In my opinion there is a place for a special motorglider with the engine mounted permanently on a fixed pylon but I am very happy to accept something like the Falke for this work. In 1962 I suggested the motorised Capstan which proved its potential in spite of having a totally unacceptably noisy two-stroke engine.

The standard Falke has most of the properties that are essential for this kind of training and it has proved rugged enough for this vital role. True, the rudder is too heavy to operate when compared with normal gliders, but this can be remedied with a simple Horn balance on the rudder. This was done on the very last of the Slingsby Falkes and on the SF28 Tandem Falke.
I would strongly recommend any club buying a new Falke motorglider to ask for such a modification.

The Grob 109 and the Dimona are not quite as good for glider pilot training, in my view, because of the heavy rudder and the higher landing speeds.

The adverse yaw on the Falke is similar to many gliders and requires good stick and rudder co-ordination. The spoilers, although far from ideal, are adequate to teach the principles involved of how and when to use airbrakes. It has proved an easy conversion for students trained on the Falke to learn to use the Schempp-Hirth type airbrakes fitted to most gliders.

The side-by-side seating is an advantage for the early training and the need to make fully held off landings teaches good habits and makes converting to a glider very easy. The only difference between landing the Falke and a normal glider is that the glider needs to be held off a little closer to the ground.

Booked flying possible

A booking system is perfectly feasible for students learning to glide. A strict syllabus is essential if it is to give value for money. We found that students could only absorb two 30-40 minute instructional flights a day if they had a break between them.

Much more than this was over-tiring and proved unproductive.



the *White Planes* picture co.

The Dimona's higher landing speeds make it less suitable than the Falke for basic training, says Derek

The syllabus

I would suggest that the first two or three flights should be climbs to 2,000ft followed by a propeller-stopped glide down. These are similar to a normal aerotow flights but with the added advantage that even on the first flight the climb can be used for teaching the basic habits of lookout and making turns using the elevator and ailerons only.

'The student learns quickly from making a number of consecutive landings'

After a few flights to get co-ordination established it is time to teach the landing. This can be done as a individual exercise. It is usually possible to make five or six approaches and landings in a session.

There is no doubt that teaching the fully held-off landing required for the taildragger Falke needs a skilled and experienced instructor and it is important to accept that a motorglider can be seriously damaged in a bad landing.

If in doubt, it is better to skip this stage and simply teach the circuit planning and approaches down to the initial flare or roundout and then apply full power and climb away.

If the landing is being taught, on early landings the instructor should help set up the approach and operate the spoilers or airbrakes as in a glider, reducing them to correct bouncing or ballooning. Instructors need to be aware that poorly-trained power or glider pilots will move forward on the stick instinctively if ballooning takes place. They must insist that every student has a proper grip on the stick. On the Falke, the lack of mass balance on the elevator will cause the stick to jump forward out of their hand if a bounce occurs. Both of these problems result in very expensive damage.

The student learns quickly from making a number of consecutive landings and with the groups of flights at the planning stage can compare the differences in positioning and height.

It should be a firm rule that the last landing is always made with the engine stopped. However, ex-power pilots should be given many more "dead stick" landings to overcome their natural reluctance to rely on their judgment rather than the engine.

Exercises like running out of height and cable breaks are not always adequately covered in normal glider training because they involve time-consuming retrieves from mid-field. With a motorglider they are just another touch and go landing.

Students trained on the motorglider in this way received far more meaningful training with many more approaches and landings than the majority who learn on a glider.

Other considerations

Motorglider operating costs per hour drop dramatically with high utilisation and it costs far less than aerotowing with a normal towplane: 1,000 hours per year is perfectly feasible if there are enough students and instructors wanting to fly.

Hopefully, with the new NPPL licensing system, many more gliding instructors should be able to qualify and use the motorglider for gliding instruction.

After nearly 10 years of doing all the basic training on the Falkes, Lasham went back to normal glider training because the ordinary gliding instructors complained that they never flew with a beginner. They had the support of many private owners who wanted additional towplanes, which could only be justified by doing more of the training by aerotow.

If it comes to the question of either buying another towplane or a motorglider, it must be remembered that on many of the larger gliding sites the latest 100hp Falkes could be used for towing at peak times. It is an excellent towplane for all but the heaviest gliders and is both quieter and more economic on fuel than most other tugs.

As a trainer it has at least twice the rate of climb of the earlier models which will revolutionise the circuit training and make the flying even more economical.

Other revolutionary types of power may change the outlook for the motorglider. Fuel cells, better electric motors and small turbines may be developed in the next decade.

In the meantime, why not offer "fast track" motorglider training for all ex-power pilots for a start? Once they have tasted soaring in a modern single seater, they will be hooked!







Photographs this page, clockwise from top left. All are by Jochen Ewald, except where otherwise stated:

The Hütter 30 GfK in flight. This glider once belonged to Eugen Hänle, and is now owned by Fritz Hörsch, who was involved with introducing glass-fibre to aviation as an engineer for Interglas (Peter Selinger)

The elegance of the nose-on view is more reminiscent of this innovative glider's composite successors than its wooden ancestors. It is not fully composite, though, since its wings have Balsa ribs covered with glass-fibre

Ready for launch. The cockpit is designed to fit glider pilots of up to 1.8m (5ft 11in) in height

Behind this Hütter 30 is another glider that made Eugen Hänle famous, the BS-1, designed by Bjorn Stender

The ingenious canopy hinge, made from glass-fibre on Balsa, has since been reinforced by carbon-fibre

For rigging, the Hütter 30's fuselage swings out of the trailer side and rotates 45° to the right.

The high, glass-fibre moving tailskid keeps the angle of attack low on the ground, to avoid stalls and wingdrops

This semi-retractable undercarriage replaced a skid













H-30 in its unusual trailer and (right) rigged. It weighs 127kg/280lb (Jochen Ewald)

Still flying after 40 years

The Hütter 30 GfK, now one of the earliest GRP gliders still flying, is a forerunner of today's high-performance sailplanes. Jochen Ewald tries it out for size

IN THE mid-1950s, wooden construction formed the basis for high-performance gliders, allowing them to benefit from modern laminar aerofoils. But performance came at a price: such gliders were relatively heavy. Then in 1955 Eugen Hänle, who wanted to build Wolfgang Hütter's 1948 design, the Hütter 30, quickly realised that its wooden wings would be too heavy. Abandoning the project, he redesigned the H-30 with new glass-reinforced plastic (GRP) technology, which he had previously used to build blades for wind turbines.

Together with his wife, Ursula, Hänle home-built his revised design, now called the H-30 GfK ("GRP"). It was not yet a fully-composite aircraft: the wings were glass-fibre over Balsa wood ribs, and the rear wing section and the control surfaces remained cloth-covered. But it was the first glider to fly with a GRP mainspar.

Along with a few fs-24 Phoenixes, the H-30 GfK is one of the earliest glass gliders still airworthy. After being owned and flown by Ursula Hänle for many years, it now belongs to Fritz Hörsch, who regularly attends Idaflieg meetings to give student aeronautical engineers the chance to fly his precious sailplane. Not many owners of rare vintage types offer them such an opportunity to learn from the past.

Unlike the Stuttgart Akaflieg's fs-24 Phoenix (the very first GRP glider to fly, in 1957), the H-30 GfK anticipated future high-performance sailplanes: its 13.6m (44ft 7in) span and 8.34m^2 (89ft^2) wing area come with a relatively high wing-loading of 25kg/m^2 (5.1lb/ft^2).

This elegant small glider, which first flew in May 1962, is a precursor of Hänle's Glasflügel family as well of the aerobatic H-101 Salto. One branch of the family tree led to the Salto; another (designed later but airborne earlier) was the turbine-powered H-30 TS, which flew in 1960. This had a 15-metre wing and an aluminium spar. It led to Hänle's Glasflügel 301 Libelle, the father of the Glasflügel range. Sadly, after the TS was converted to an ordinary sailplane – when its turbine proved too noisy for normal operations – it was lost in 1968 in a winch-launching accident.

A close look at the H-30 GfK's interior reveals Hänle's design genius: he used glass-fibre for everything he could and redeployed a lot of these solutions in Glasflügel gliders. Although some of these hinges, frames and connections look fragile, they have done the job for 40 operational years and inspired generations of designers.

'A taildragger tug and short grass are advisable, but once airborne, this little glider is well-behaved, with beautifully-harmonised controls'

It would be wrong to say that this H-30 is for everyone: it has only 83kg/183lb payload (it weighed 120kg/264lb new and now weighs 127kg/280lb), a narrow cockpit and a max pilot height of 1.8m (5ft 11in). But once I'd squeezed in, the big canopy gives a wonderful all-round view. In my experience, it compares to what you get from an open primary... and I think such an excellent view is a great safety feature. Control checks demonstrate how the V-tail works: with full rudder deflection, the stick's elevator movement is "frozen" central; moving the elevator to the stops, on the other hand, centralises rudder. It feels rather strange, but avoids unwanted control surface stalling during full deflection manoeuvres.



Fritz Hörsch cherishes the H-30 (Jochen Ewald)

The c of g hook having been removed, the only launch option is aerotow, using the hook below the nose. A taildragger tug and short grass are advisable. Even with a retro-fitted high tailskid to keep the wing's angle of attack low, it is very prone to dropping a wing, especially in a crosswind: you must release. It's a good idea to keep your hand near the release and to keep the elevator neutral to give you full rudder deflection until the ailerons bite.

Once airborne, though, this precious little glider is well-behaved with beautifully-harmonised controls. It's one of those gliders that feels like an extension of the pilot's will. It has no trim, but I didn't miss it. Hands-off, it flew at 85km/h (46kt). Stall buffet began at 64km/h (34.5kt) and shaking began at 61km/h (33kt). With the stick this far back, there's hardly any rudder control available, so a full stall leads to a wingdrop. It recovers immediately you apply spin correction. The crisp 45° roll rate (3.1 seconds at 85km/h/46kts) makes thermalling fun.

The Schempp-Hirth airbrakes deliver acceptable drag, but don't spoil the lift much because they are set so far back on the wing. A constant-speed approach, not too fast, is a good idea if you want to avoid a long float on low wings. Medium-weight pilots can sideslip the H-30 effectively, but with front c of g positions, you soon lose authority for big rudder deflections. Don't make a fully-held-off landing in case the tailskid touches too soon and results in the wheel hitting the ground rather hard (and you might also want some rudder input for directional control). Instead, a two-point landing gives good control and a soft arrival.

I thought this 40-year-old home-built prototype flies extraordinarily well. It is an important milestone in the development of today's competition sailplanes.



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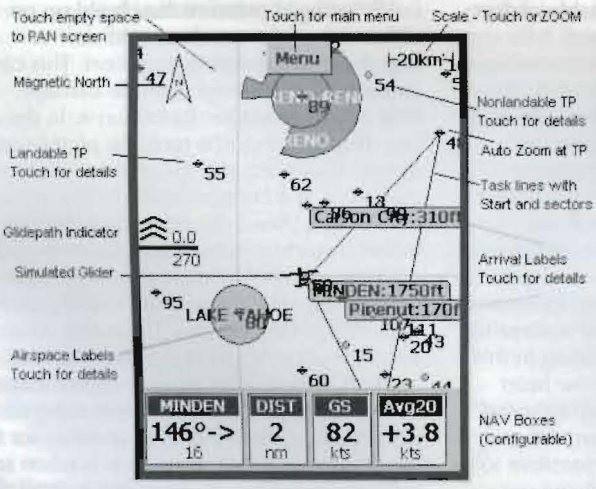
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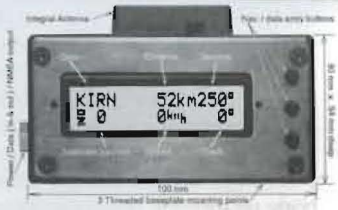
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The last frontier

above and opposite below: the ***White Planes*** picture co.

In the first of a series examining human factors that affect glider pilots, Ian Atherton starts with some physiological limitations

WHEN an aircraft accident occurs an investigation takes place to discover the cause. Hopefully, the information gained will not only explain what happened but more importantly why particular actions were taken that led to the accident, whether this be in the cockpit or on the ground (say, during maintenance).

The aim of the investigation is to gain a real understanding as to why the accident occurred and to help prevent similar ones. Inevitably, some accidents are due to the human element. This was conventionally known as "pilot error". However, more recently, it has been recognised that this wording is often imprecise and that the pilot may not have, in fact, made a skill error, but have fallen into the trap of not recognising he has ventured beyond the limitations of the human body and therefore put himself into a situation where any other pilot would have found it equally difficult to respond in a way that would have saved the day. These "human factors" may result in accidents that are more correctly termed "human error" as the fault does not lie in the pilot's skill.

As pilots, it is vital that we acquire not only knowledge, but a real understanding of our physical and psychological limitations (as well as being aware of our own skill level) if we are to reduce these types of accidents. It is for this reason that leading individuals in this field have described "Human Performance Limitations" (HPL) as "the last great frontier in aviation" (ref 1).

This series is not designed to cover every aspect of HPL, but rather to enhance safety awareness, as there are several excellent books on this subject. Most, however, derive specifically from the powered flight environment, and so it is sometimes difficult to see them in the context of gliding. I will attempt to illustrate the areas of HPL that I believe are most relevant to gliding.

Since gliding is in the main a single-pilot activity, I will not be covering the complex issues associated with two-crew operations or cockpit resource management (CRM) in this text, as these issues deserve in-depth study in their own right. However, it is obvious that CRM in gliding would include issues such as instruction and mutual flying.

These articles will describe physiological limitations first, and then psychological ones. However, there will inevitably always be some overlap between the two.

Human physiology

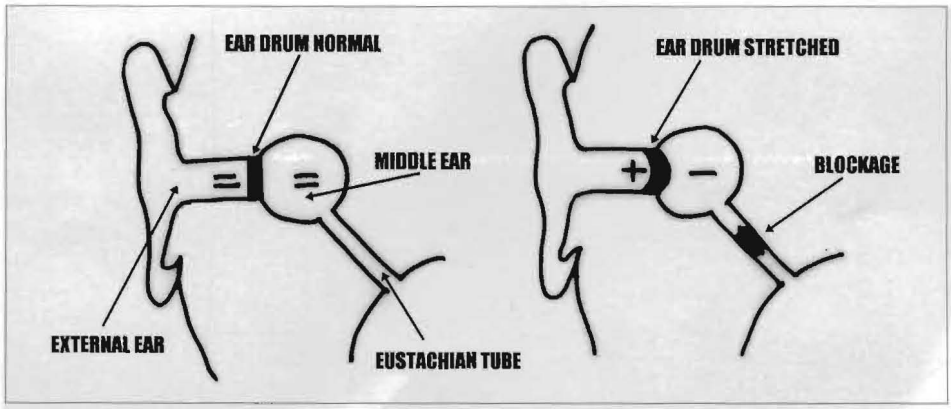
If we are to understand our bodies' physical limitations when airborne, we must first accept that as pilots we are operating in a completely artificial and alien environment (the cockpit and the sky). Man has not evolved significantly in over 100,000 years, whilst the aeroplane has rapidly evolved in only a century. We therefore need to learn which parts of our body are most susceptible to the problems created by operating in this foreign environment. These are: the heart and lungs, which ensure that the brain and body receive the required oxygen; the ears, which provide balance and are sensitive to pressure change as well as supplying our sense of hearing; and the eyes that provide us with the most important information when flying. The rest of this article, and the next two, will consider the effects of flight on human physiology.

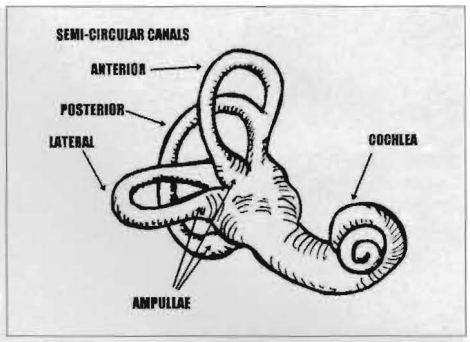
Effects of pressure changes

Inside the ear is the eardrum. This conveys sound vibrations, but also acts as a barrier between the outer and the middle ear. The middle ear is connected to the nose and throat by a small tube (the Eustachian tube), which has an inherent valve that allows gas (air) to vent from the middle ear so that air pressure on each side of the eardrum remains equal.

However, due to the valve, the flow of air through the Eustachian tube is easier when we gain altitude and ambient air pressure decreases, than when we descend and pressure increases, and voluntary action by the pilot (eg, swallowing) is often required during the descent. If the Eustachian tube becomes blocked (eg, when we have a head cold), unequal pressure may build up on either side of the ear drum and start to stretch it inward during a descent. This can cause severe pain and possible damage. This is known as Otic Barotrauma. In the first diagram (opposite top); the picture on the left shows the normal situation on the ground or at a constant altitude; the picture on the right shows the effect of a blockage in the Eustachian tube during descent.

Other susceptible areas are sinuses, the gastrointestinal tract and, surprisingly, teeth with fillings or abscesses. These may have small air pockets and at extreme altitudes (such as in wave) the pressure differential causes the trapped air to expand: extreme pain can occur and it is even possible for the filling or tooth to crack. This is taken so seriously in military aviation that trainee aircrew have their fillings X-rayed, re-drilled, and refilled if bubbles are found. So when visiting the dentist let him know you are an aviator. Gastrointestinal problems can also be extremely debilitating and cause the vast





Far left, and below: G-loads in a loop. Left: effects of a blocked Eustachian tube. Above: the inner ear

majority of cases of in-flight debilitation in professional aircrew.

G-loads (acceleration effects)

We normally live in a 1g (standard gravity) environment. During acceleration and deceleration, such as in a car, on a roller coaster, or in an aircraft that changes direction rapidly, we are exposed to increased (positive) or reduced (negative) accelerations known as g-loads. These sensations can be fun for some but are very uncomfortable for a few pilots. Extreme g-loads, however, can be harmful and incapacitating. In "positive g" manoeuvres, we feel heavier and are pressed into the seat of the glider. In a high positive g manoeuvre, blood is forced away from the brain into the lower limbs and, if sustained, may cause a pilot to "black out" and lose consciousness.

Conversely, "negative g" makes us feel lighter and tries to throw us out of the cockpit, and if sustained, low g manoeuvres can force too much blood into the brain and may cause the pilot to "red out", again causing unconsciousness. The term "red out" is used because in this case tiny blood vessels in the eyes may burst and cause the pilot to be looking through a thin film of blood before losing consciousness.

Generally, people find positive g loads more comfortable than reduced g loads. Maximum tolerances are around +8g and -3g depending on age, fitness and training. Such extreme g-loads are not experienced during most glider manoeuvres except when performing more advanced aerobatics. However, it is very important to be aware that reduced or negative g is not a reliable symptom of the stall, as this is believed to have been a significant factor in some fatal crashes in gliders in the past. As a result of this, the BGA introduced further exercises into the stalling and spinning syllabus.

During crash impacts pilots with the proper restraining harnesses have survived peak g loads of up to +45g in the fore and aft axis and +25g in the vertical axis!

Motion sickness

The inner ear (diagram above right) has vestibular apparatus (three semi-circular canals filled with fluid and perpendicular to each other) that gives us our sense of balance. If we spin around quickly, fly into turbulence, or make continuous, steep, increased-g turns (such as when a glider is flown in a tight thermal), or fly in cloud, our sense of balance may be lost and the information the brain receives from our eyes and from the inner ear may not coincide. This may cause us to feel dizzy and possibly sick. This is motion sickness or airsickness. It is quite common, particularly in new, inexperienced pilots or when performing extreme aerobatic manoeuvres. However, as experience is gained and the pilot has greater exposure to these sensations the body usually builds up a "g tolerance" and the problem occurs much less frequently, if at all, and persists in only a very few pilots. It can, however, be disastrously disorienting when flying on instruments. (For more on this, see the section on vestibular illusions later in this series.)

The need for oxygen

We need supplementary oxygen equipment at high altitude because human lungs are adapted to work best at a particular air pressure, that is, at sea level. As a pilot gains altitude in an unpressurised aircraft, such as a glider, the air pressure around him decreases and the amount of oxygen that is absorbed into the body decreases. Up to about 8,000ft the effects for daytime flying are negligible on the average fit human being. However, any pilot flying above 10,000ft without supplementary oxygen will start to become mildly hypoxic. If the glider were to keep climbing (say in wave) at 34,000ft, even breathing 100 per cent oxygen, the pilot will only be absorbing the same amount of oxygen as if he were breathing normal air at mean sea level. By 40,000ft, the amount of oxygen absorbed will be same as breathing normal air at 10,000ft. Above this altitude, special pressure breathing equipment must be used (such as pressure suits). You are also likely to be extremely cold!

Hypoxia (oxygen deprivation)

The onset of hypoxia can be insidious, and the victim may start to feel light-headed or drunk. First symptoms may be personality changes; euphoria sets in, giving the victim a false sense of invulnerability and over-confidence. Self-criticism, concentration and judgment deteriorate. Decisions become difficult and the senses are dulled. Skin pales and fingernails, earlobes and lips may take on a blue tinge. However, these are not necessarily good indicators, as colour perception also deteriorates The victim may become dizzy and will eventually pass out. If oxygen deprivation continues, he will die.

The amount of time available to recognise these symptoms and take action can be extremely limited and is known as "the time of useful consciousness" (TOUC). The chart below applies to someone absorbing oxygen at the same rate as someone breathing normal air at sea level, when suddenly the supply runs out. *If mild hypoxia has already set in, times may be halved.*

Altitude	Approx TOUC
40,000ft	10-20 secs
35,000ft	15-30 secs
30,000ft	30-60 secs
25,000ft	2-3 secs
22,000ft	4-8 mins
18,000ft	30 mins

Although the chart is correct for a young fit adult non-smoker, it is for illustration only. Note that the BGA medical advisor's advice is that pilots should never rely upon TOUC.

Hyperventilation

Hyperventilation is caused by over-breathing, sometimes due to panic. This may also cause dizziness and may be confused with hypoxia. The cure is to remain calm and breathe normally to let the brain chemistry get back in balance. The correct diagnosis is important as hyperventilation is not fatal but hypoxia can be.

References

(1) The Naked Pilot. *David Beaty. Airlife. 1995*

Guidance Notes On The Medical Fitness Required For Glider Pilots, *amended/re-issued 16/09/02* – *see* www.gliding.co.uk

Special thanks to the following for their help: Dr Tony Head, Cranfield University; Bob Pettifer, chairman, BGA instructors' committee; Dr Tony Segal; Dr Peter Saundby, BGA Medical Advisor





Circuit planning

the *White Planes* picture co.

Bob Pettifer describes how to get to the right place at the right time for a perfect arrival

WELL, we all know how to plan a circuit – don't we? Surprising as it may seem, large numbers of candidates on instructor courses and Full Rating conversion get it comprehensively wrong, which means that it's not being taught properly in the first place. The major fault appears to be an overwhelming reliance on the use of local cues to get the final turn in the right place. Take these cues away and the circuit goes pear-shaped.

Whatever the field and the wind strength, the chief purpose of a circuit is to help you arrive at the right place for the final turn. At an airfield it has the secondary purpose of helping to channel traffic into known (that is, broadly predictable) directions.

If you don't know where you're trying to go, where you finally end up and how you get there will be matters of chance. A "good" circuit has to be planned backwards from the point where you intend to stop on the landing roll. You need to allow for the distance of the landing roll, the roundout, the location of the reference point, the length of the approach path, and the day's wind direction and strength. Whether the circuit is left- or right-hand must take into account obstructions, wind direction and terrain (eg, downdraughts on lee slopes, etc). If there's a crosswind component to the intended landing run, base legs flown into wind rather than downwind are usually preferable, other factors allowing. The circuit itself also needs planning in reverse: a final turn, a base leg, a diagonal leg from the low key area, and finally a downwind leg to the high key area, where the circuit begins. In still air the average training glider can travel just over a nautical mile for every 250ft of height lost. The "downwind" leg can be typically 1.5nm long and about 0.5nm out from the landing area. Given those figures, starting the circuit in the high key area at about 800ft would result in the glider reaching the low key area somewhere between 500ft and 600ft; enough for a reasonable diagonal leg, base leg and final turn. As you read the following, refer to the diagram opposite.

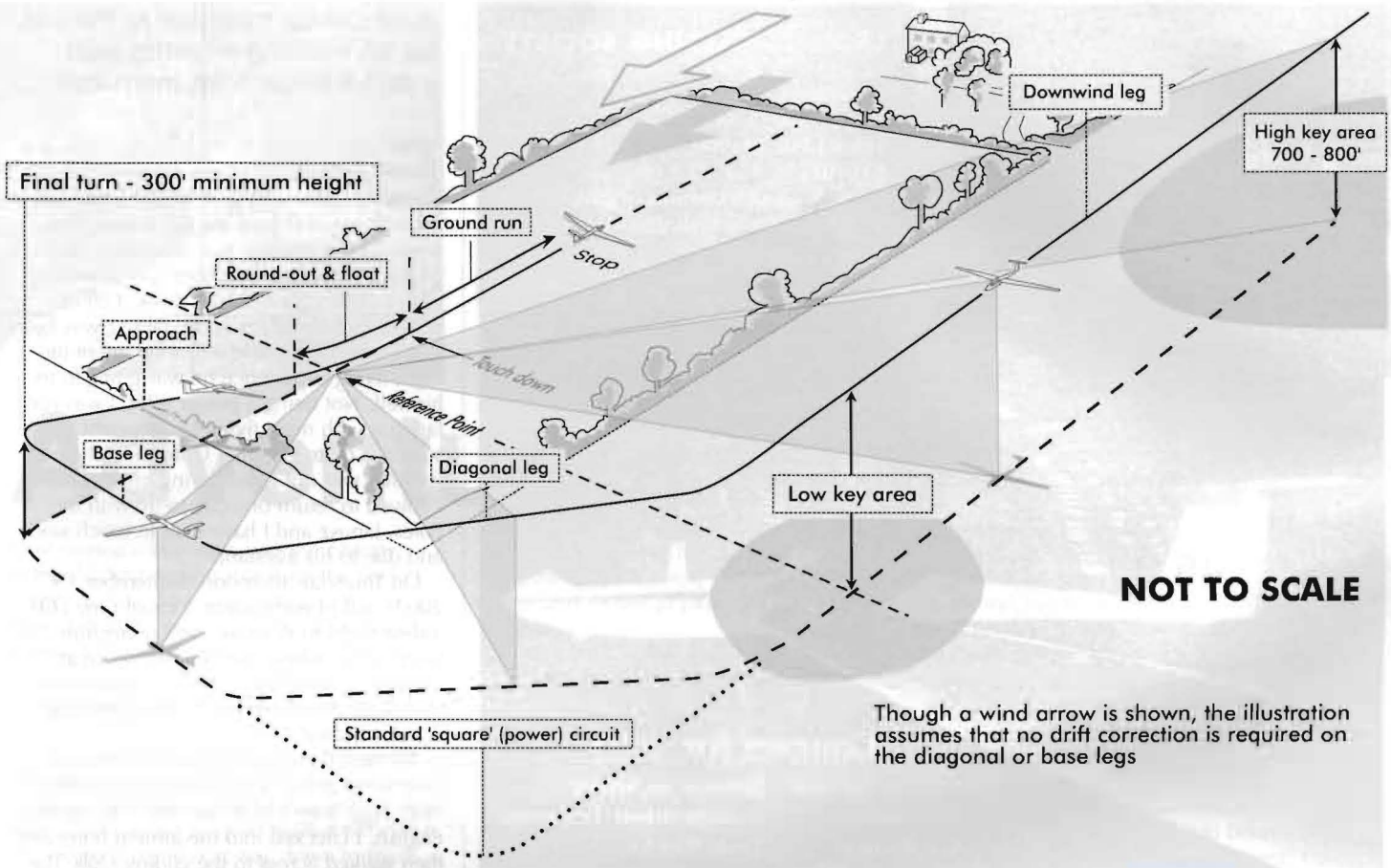
Before the high key area

Start the circuit well upwind of the landing area and to one side (high key area) so you have a good view of the intended landing area. If you've been soaring – whether you're landing out or landing back at your site – don't forget that the wind can change during the day, so make sure you start upwind. If you're at an airfield they might be changing ends, so check what's happening on the ground. While losing height around the high key area configure the aircraft for landing: undercarriage down, waterballast dumped, sandwiches and drinks stowed and straps tight. If the glider has flaps you may need to alter the settings. Most important of all, stop thinking "stay up" and start thinking "landing!". Assess the state of the landing area. Identify alternate areas in case the selected area become occupied while you're on the circuit. Check for other aircraft about to join the circuit. This may not be always from the most obvious direction, particularly if a glider has just had a moderate-height winch failure. Be aware that gliders may do an opposing circuit, on the other side of the field to you.

At the high key area

Nearing the height at which to start the circuit, check whether your position and angle to the landing area are about right. If they are, then the height will also be about right. Check for aircraft on your side of the circuit, and again on the far side, just in case someone is doing a circuit the other way (forewarned is forearmed). Other aircraft at about your height may join the circuit below and behind you, and it's helpful to know where they are.

As you descend, ground features and details become more obvious and provide a far better indication of your height than the altimeter. Altimeters stick, often badly, and they aren't that accurate. Below about 800ft AGL the eyes definitely have it and are a far better guide to your height than the altimeter, so look out and assess the picture. Adjust the line of the downwind leg to take account of variations in lift and sink, and so on. Aircraft configurations vary quite a lot, whether they have flaps or not, and



Though a wind arrow is shown, the illustration assumes that no drift correction is required on the diagonal or base legs

Steve Longland

"downwind checks" as such are left to the discretion of the aircraft owner or the club's local rules.

At the low key area

Nearer to the low key area, increase speed to approach speed and re-trim. Locate the airbrake lever and continue to look out for other aircraft which may conflict with you, both inside and outside the circuit and also on long finals. Check your position and angle to the landing area to confirm height, and then turn on to the diagonal leg.

Diagonal leg

Make sure that the wings are level after the turn. Continuing to turn gently can shorten the last part of the circuit and will tend to put you too high and too close. It will also increase your workload. The purpose of the diagonal leg is twofold:
(1) to keep the field in view and
(2) to allow you to fine tune the position of the base leg.
It will also help you assess the strength of the wind from the amount of drift, and tell you whether the base leg needs moving closer to the field or further away.

Once again, lookout is important, especially outside the circuit and for aircraft on the opposite circuit.

Base leg

Approaching the base leg, turn and again level the wings. Allow for drift so that you don't either close in on the airfield or slide gently (or swiftly if the wind is strong) away downwind. Monitor your speed and position and adjust the latter by banking towards or away from the landing area as necessary, still looking for conflicting aircraft and checking that the landing area remains clear.

The final turn

As you reach the approach line, turn on to finals. Don't look down the wing. Use the horizon as the attitude reference to help you maintain a constant speed. If you do this correctly you will have time to straighten up and assess your position in relation to the point at which you need to apply half to two-thirds airbrake. You still need to look out for converging traffic, which you may have missed on the way round the circuit.

There we have it: the final turn in the right place. All that's left is the final approach and landing. However, if circuits are that easy, why do so many pilots get them wrong?

Where it goes wrong

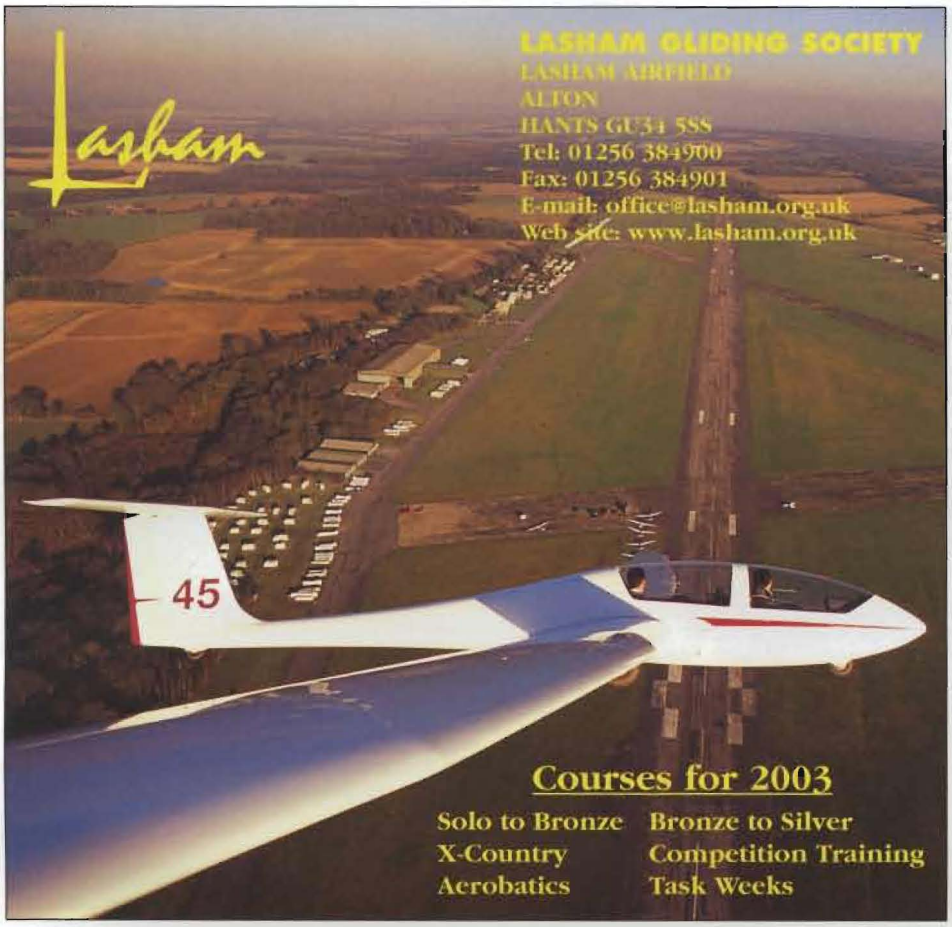
Starting the circuit too low is a common fault, usually caused by relying on the altimeter. If you do rely on the altimeter you can completely fail to realise that you're low. As a result the whole circuit tends to be low, including the final turn, and there is a consequent risk of undershooting on the approach. On the other hand, you may instinctively cramp the circuit and turn in early (which does show good judgment!) but without really recognising that you have done so. Then, by having to apply full brake to land at your previously-chosen point, you begin to establish a bad habit.

Poor judgment of height leads to poor approach control technique. If that becomes your norm, then landing in a strange field with no familiar clues will be fraught, with either an undershoot or an overshoot being highly likely.

Instructors should try to achieve the perfect circuit themselves, and do it the right way – with reference to the landing area – and teach the correct methods to their trainees. On some hill sites, tradition has led to circuit planning based on geography, often with the base leg positioned over the airfield boundary. Whilst this is a safe option, it should be taught on the basis of landing on an area well into the field. Working backwards from there, the base leg of the circuit would then fall naturally inside or on the airfield boundary. This enables pilots to learn proper approach control into a selected landing area. When hill flying, circuit joining should be taught as joining a normal circuit at the appropriate point, eg, on long base, etc. On no-wind days the proper circuit plan can be taught in full.

Remember, a good circuit results in a well-braked approach into the chosen landing area. Use annual check flights to practise circuits with the altimeter blanked off. If you are a budding instructor, start doing it correctly as a matter of course and you won't have to change your ways when you prepare for the course.

Bob chairs the BGA instructors' committee



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MIDLAND GLIDING CLUB ON THE LONG MYND

Julie Lentle travelled to Poland for an exciting evening with – and without – an instructor...

EXHILARATION, high workload and a spanked bottom are my memories of my latest visit to Poland. I heard about night flying in Poland during a week-long work visit to Warsaw two years ago. Through gliding channels, I had been put in contact with a Polish pilot, Janusz Kesik. Full of enthusiasm about the sport, Janusz was keen to take me flying, and informed me of the night flying experience he was going to try himself. Not being a power pilot, I was not familiar with night flying and thought it sounded quite exciting. Unfortunately the weather was not good during my stay, so I vowed to return one day to fly with the Poles. Janusz and I have kept in touch since and due to his assistance...

On Thursday afternoon (September 19, 2002), full of enthusiasm, I caught my LOT airline flight to Warsaw and connection to Wroclaw where we touched down at midnight. I tried desperately to sleep well that night, but my nerves and excitement wouldn't allow it.

The next morning, I caught the train to Leszno, to arrive at the airfield by midday. With help from a club member who spoke English, I checked into the airfield hotel and then walked across to the gliding club. The hangars were full of gliders, mainly Bocians, Cobras, Pirats and different models of Jantars packed very tightly. The tugs were lined up in a row, as if awaiting a signal to take off in formation. During the afternoon, a ride in the Wilga (tug plane) for an aerotow was a treat and gave me a pre-flight aerial view. I wanted to see the area from above and plan my rope-break procedures before dark. Leszno is lucky to have a large rounded field with plenty of landing space. I was quite pleased to see a ploughed field at the end of the runway, placed perfectly for rope breaks. Why else would you have such a perfect field at the end of a runway? Even the ploughing was the right direction. I wonder how many pilots that farmer knows?

On the field and for the rest of my stay, my attempts to pronounce Polish names were the cause of amusement for my newly made friends. Would you imagine the word "Wroclaw" could sound like "Frotswaaf"?

In the late afternoon, a mass of balloons filled the sky from the north-west. It was a pretty sight, my first close-up to balloons, and the last day of a balloon competition, which ended at Leszno. This break in flying allowed me the chance to sit in front of the Bocian to get comfortable and familiar before my check flight. I had to obtain a Bocian rating before flying at night.

A Polish instructor jumped in behind me with little introduction, other than asking how many aerotows I had. I assured him that I had enough to be comfortable, and off we went. The Bocian is a lovely glider and could be compared to a K-13 in its ease to fly. The







Left: Julie after soloing in the Bocian; above, on a familiarisation flight; right, with her instructor

Adventures in the dark

most obvious difference was the canopy frame slanting downwards from the back. I found the roundout interesting, as it appeared as if I was flying into the ground, although the angle of attack felt good.

It is standard in Poland to have three solo flights to complete a rating. Immediately after my third solo landing, at dusk, we began to set up the airfield for night flying. This meant lighting small gas lamps (about a foot high) and placing them in a straight line about 50m (165ft) apart to mark a runway. A "T" shape is made part way down to mark the launchpoint. Once all was set up, I was introduced to my English-speaking instructor, Mr Ratajczak. When under a high workload, speaking slowly and clearly is not quite the first thing on my mind. (He even understood and responded to nervous airborne outbursts in my fast South African accent). We had a briefing on night flying and he explained the light markers we had just placed along the field. Back out to the airfield we went, this time dressed warmly for the cold night air.

I jump in the front seat of the Bocian, somewhat nervously. Soon it's "rope tight" and we start rolling. Hold yourself together, girl, and keep calm! It is very interesting rolling along the ground that you cannot see. You have no defined horizon to judge how level your wings are – you must feel it. Your whole aim is to follow the three lights of the tug, imagining the form of a plane in front of you. The tug and glider have three lights: red on the left wingtip, white on the tail fin and green on the right wingtip. Join the dots to see the tug. I have to admit, although being "on the ball" is a necessity, I found the aerotow the easier part of the flight. When you are being pulled around the sky, all you have to do is follow the lights ahead of you.

The tug released us at 600m (1,970ft) over the small town. I can only explain the experience as eerie, but amazing. So quietly floating above the sleeping world...

Would I really get to fly like this alone?

After releasing and losing the cosy comfort of the tug's lead, the real exhilaration of controlling the glider in the cue-less, blackness of night begins... Now it's up to you to control your airspeed, height and so on. There is no ground visible to judge your height or attitude.

The Bocian had no special instruments, other than a turn-and-slip (which I did not use) and illuminating ASI and altimeter. When flying, you regularly shine a torch on these instruments to see them.

Airspeed was not a problem. Once I was off tow, I trimmed to fly at 90-100km/h (48-54kt) and relaxed (well, tried to). I have to admit that where altitude was concerned, I found the lack of ground view rather challenging.

Now for the circuit... that is a serious affair! I had to learn the standard Polish circuit rules without seeing the ground. Interesting is not quite the word. Until now, I had been flying a standard international circuit and had to be pointed to local markers (building lights) to follow the Polish standards. A circuit starts at launchpoint at

'It is a strange feeling, rounding out slowly and waiting, waiting, waiting for the wheel to touch, hoping you have judged it correctly'

350-400m (1,150-1,310ft). The glider is flown upwind (down the runway) to the end of the field, then a crosswind leg (left-hand circuits were flown) to join a downwind leg on a neat standard international square circuit. I think my biggest challenge when landing at night was flying completely by the altimeter instead of judging my height by sight.

On the perimeter of the field, is a road with a petrol station. I was very grateful for these lights, which helped tremendously to judge height above ground on the final leg. The idea is to land as close to the gas lamps (runway markers) as you dare, to make use of their light. On that evening, I was very grateful for my spot landing discipline at Bicester. Before this flight, I did not realise how much the slightest crosswind breeze can put you off target. As you cannot see the ground, you touch down with airbrakes closed, to control a slow descent. It is a strange feeling, rounding out slowly and waiting, waiting, waiting for the wheel to touch, hoping you have judged it correctly.

I must say, I had forgotten what it is like to be a student under a heavy workload. I was very happy when I managed to complete a flight happily (to my perfectionist standards) and was full of confidence to fly solo. A few more solos were required to obtain the night flying rating. What an achievement! I did it! I wanted the whole world to know, but it was a bit late to call home.

As we packed up just before midnight, I was treated to a very Polish tradition. When a pilot claims a conversion, other pilots with the qualification have 24 hours to congratulate them with a handshake and you are required to bend over for a smack on the bottom. I was quite amused, and actually quite enjoyed being included in the local traditions (no comments required!).

Well, I had a wonderful introduction to flying in Poland and getting to know the Polish. I am very grateful to Mr Kurzawski, (the gliding school president), my instructor, the tug pilot and those helpful, encouraging members at Leszno that assisted and made my flying in their country not just possible, but such a wonderful experience. The bug has bitten and I can't wait to return again someday to do some more flying in Poland (maybe, just maybe next year).

If you would like to ask me any questions on flying at Leszno, or would like some contacts, drop me an email at J_Lentle@hotmail.com *or contact the Leszno club directly at: Mr Kurzawski, Central Gliding School of Aeroclub Polski, 64-100 Leszno, Szybowników 28, POLAND. Tel. +48 65 529 24 00; fax +48 65 5294139;* www.css-leszno.it.pl *or* csleszno@it.pl

Julie is a member of Estcourt Aero Club, South Africa and RAFGSA Bicester, UK. She has taken her love of the sport to different parts of the world. These have included China, Australia, New Zealand, USA (Hawaii and Connecticut), Canada, UK, Ireland, Spain, Hungary, the Italian Alps, and now Poland

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Unlike anything else

Averages of 15kts and bush-fire thermals sparked by lightning: Brian and Gill Spreckley tell of the privilege of attending the amazing Helli Lasch Challenge

AS A RESULT of Nicky Oppenheimer's desire to contribute to the success of the Mafikeng World Championships and to help the South African Gliding Team, Nicky, Dick Bradley (Director at Mafikeng), and Carol Clifford conceived the Helli Lasch Challenge. The Oppenheimer family, known for their involvement in De Beers (the world's largest diamond mining company), wanted to sponsor a prize for the three Championships winners. The three pilots would be invited for a fortnight's gliding holiday at the Oppenheimers' Tswalu Kalahari Reserve in late 2002. The South African Team would attend for team training and the world champions would explore the area, perhaps break records – and maybe give away a few secrets of their success.

The Challenge was named after Helli Lasch, a member of the South African Gliding Team in the 1950s, and father of Strilli, Nicky Oppenheimer's wife. Helli was a lover of adventurous gliding. His life-long ambition, never realised, was to fly from Johannesburg to Durban. His attempts led to many adventures, including landing in the Drakensberg mountains after 40 minutes in cloud. In 1950 in an AIR 100 he climbed to 23,500ft in a cu-nim to set the South African altitude record. He wrote a marvellous account of the flight, including how he recognised the symptoms of hypoxia and how he re-centered in the thermal using the noise of the hail on the glider. Helli was never a believer in what he called "goldfish bowl" soaring – the challenge for him was always to "go somewhere". Sadly, he was killed in a DG-400 when approaching to land at Parys airfield in South Africa.

Tswalu is in the north-west corner of South Africa on the south-eastern part of the Kalahari Desert that stretches north into Botswana and Namibia. West from the lodge, as far as you can see, stretch rolling dunes covered in scrub and thorn trees. The lodge nestles at the foot of the Korannaberg, a range of small hills. The animals include giraffe, water buffalo, springbok, impala, rhino, cheetah, lion, porcupine, cobra – a list far too long to include here. The land is rich in mineral wealth. South and east of the airfield are diamond, manganese and iron ore mines – with exotic names such as Black Rock and Hotazel ("Hot as Hell"). Each has an airstrip and most are suitable for gliders. While most of the wild animals were slaughtered by the cattle ranchers 100 years ago, they are now being reintroduced into reserves – and so the Kalahari has many private game ranches, of which Tswalu is the country's largest.



Brian and Gill, two of the world's most successful competition coaches, went to the Challenge as guests of the Oppenheimer family and the South African Team

Gliding conditions in South Africa depend on the position of the ITZ (Intertropical Convergence Zone). With the zone in its usual summer position, soaring conditions in the Kalahari are among the best in the world – an unstable dry airmass with beautiful muscular cu and more energy than most glider pilots know what to do with. As most of the central interior of Southern Africa is more than 4,000ft above sea level, the increased flying heights give a tremendous "true airspeed" advantage, an added benefit for long-distance or record flights.

The first flying day was proof of this. After a two-hour drive on sandy unmade roads, the gliders took longer than normal to clean and rig. Landing lights had to be removed from the edge of the 1,500-metre tarmac runway and the tug fuelled with a hand pump from drums. The first pilots airborne reported cloudbases in excess of 17,000ft, (13,000ft above the desert) and averages of 14-15kt. An ideal day to wander round the local airfields and strips getting acclimatised – 400km quickly covered, a real confidence-booster. Of course this was the teaser and the next day foiled all distance and record declarations with afternoon storms.



Encountering the wildlife of the Kalahari

During 10 flying days we experienced all sorts of weather. Blue days with thermals to 10,000ft were considered only just good enough to allow cross-country flights in what is an area completely devoid of fields and unlandable except at the mine airfields. Stormy days usually started well enough for good fast flights of 300-400km before overdevelopment made flying too risky. It is very exciting to try to circumnavigate a storm with only one or two landing possibilities 50km on the other side.

Flying was not the only pastime, though: the magnificent early-morning game drives tracking lions and cheetahs were followed by breakfast at a watering hole in the bush. These preceded morning briefings and discussions on team flying and created too much competition for the early launch needed for long distance flights. Evening game drives and trips out in the hills for "sundowners" were also opportunities to enjoy the magnificent desert sunsets.

The emphasis in the flying was therefore on speed and co-operation between the South African team pilots, with useful anecdotes from French Standard Class World Champion Laurent Aboulin and German 15-Metre Champion Werner Meuser. During these flights Oscar Goudriaan, the South African Open Class World Champion, made an out-and-return 500km flight at 171km/h and Brian broke the UK 300km triangle record at 165km/h, despite having used the brakes twice to keep with his partner.

The Helli Lasch Challenge was unlike anything one could imagine in gliding: runways with lion pawprints passing the gate; Cordon Bleu lunches in the thatched Lapa on the airfield; bush fires started by lightning giving even more fantastic thermals than anything previously experienced. On one flight the ASH 25 undercarriage refused to extend as a result of an earlier problem. The wonderful Tswalu staff, aided by Oscar Goudriaan, fetched heavy earth-moving equipment and made a new dirt runway in the bush in 30 minutes.

The staff at Tswalu, normally used to those seeking a desert experience, showed their incredible adaptability and provided us with the most wonderful support and assistance. There are two more Helli Lasch Challenges planned for the next few years. Next time we will be ready for the possibilities and able to do credit to the vision shown by Strilli and Nicky in creating this opportunity to remember Helli – one of gliding's great pioneers and characters.

Next issue: Gill describes her record flight from Tswalu and offers tips to help you reach your gliding goals

Fly safely, have fun

Flying safely in the mountains is a choice and the choice is yours, says Jacques Noel. His article, outlining ten areas for the aspiring mountain pilot to note, begins S&G's series on Alpine soaring

THE STATISTICS leave no room for doubt; mountain flying is a risky business. Between 1989 and 1993, seven per cent of French gliding accidents happened in the mountains. However, they resulted in half of all fatalities at French sites in that period. Such numbers inevitably raise the question of whether it is possible to fly safely and carefully in the mountains.

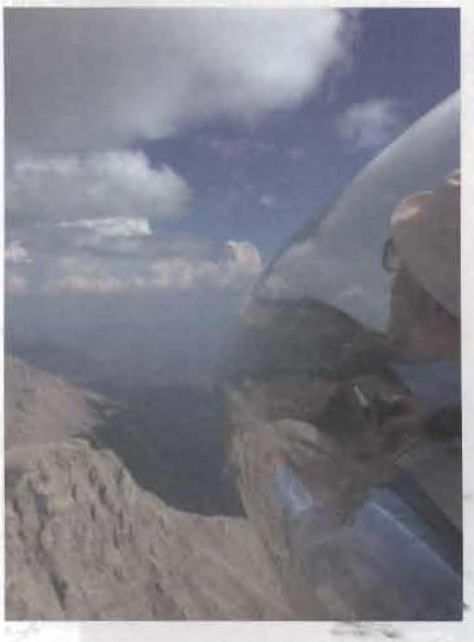
The answer to this question is a definite yes. With the right mental attitude and the proper skills, flying in the mountains can be one of the most thrilling, beautiful and altogether satisfying experiences that a glider pilot has in his or her entire "career". The largest risk is not inherent in mountain flying itself, but in the experience, skill and mental attitude the pilot brings along during the flight.

In this article I will deal with the technical and psychological aspects of mountain flying, under ten convenient headings, and I will emphasise the importance of proper management of mental stress factors.

1. Overall considerations

Airmanship

Good airmanship, especially in mountain flying, consists of the ability to control and manage a complex process. This is no easy task: the process of flight is dynamic; the circumstances can be influenced dramatically by weather changes; many tasks need to be conducted simultaneously and the flight itself suffers many changes and interruptions.



Photographed by Jacques Noel on his courses are John Gibson (above) and Afandi Darlington (opposite)

This complexity can be managed by simplifying the tasks of the pilot by means of good pre-flight preparation. Potential changes to the flight plan must be identified in advance and the alternatives that become available at these moments have to be evaluated and memorised. It is useful to make schedules in which alternatives and their implications are described in detail.

Cross-country and mountain flying

Flying above the mountains is merely cross-country flying with a different view. Mountain flying is flying *in* the mountains. Many "northern" visitors to the Southern Alps believe they are mountain pilots because they've flown, in wave or thermals, high above the ridges. Beautiful as these flights may be, they do not prepare you for what lies at – or below – ridge level.

Often, cross-country pilots have flown over mountainous areas for many years without ever having experienced true mountain flying. Their philosophy is that safety can be guaranteed by flying high above the ridges. Unfortunately, this is not enough to guarantee safety, especially when you don't know the challenges and problems that lie in wait below. You really have to learn about the mountains, for they are just like a wild animal, you have to stroke their fur in the right direction. The challenge lies in knowing the right direction.

Notwithstanding this, many pilots start a flight in the mountains without realising that sinking to or below ridge level is a common occurrence. They do not know if they are within gliding distance of a landable field, nor how to go about landing there. In many instances they do not even know where these are or even that they exist at all... However, experience shows that even good pilots find themselves below ridge level frequently, even on good days.

So a flight in the mountains should never be undertaken without the pilot being fully competent in low-level ridge flying, finding and using lift at low altitudes and possessing a good general understanding and level of mountain flying skills.

Above all, if you come to the mountains from flatland flying you should realise that lift tends to be concentrated and directed by the mountain peaks and crests and that the valley floors themselves are usually not a good thermal source.

So effective cross-country flights are best made by the more circuitous indirect path of following mountain ridges around towards your objective rather than the straight or near-straight line between points more normal in flatland flying. Even when cu are seen passing over valleys, pilots should still understand that the ridges are the best areas for finding strong and reliable lift.

A major difference

Mountain flying is different from flat-country flying because of the peculiarities caused by the topography of the ridges.

Above the mountains you have all the advantages of normal cross-country flying plus the advantages that the mountains offer, like ridge lift at known locations, or wave. When you descend to or below ridge level the situation changes drastically. The ground seems to come closer rapidly, a well-defined horizon is no longer available, your view of the outside world shrinks, the lift becomes irregular and sometimes broken and so your level of psychological ease and comfort declines – sometimes dramatically. On a meteorological level, phenomena become clearer, stronger and easier to recognise. But sometimes, in periods of transition, they can be much more complicated.

Rapid developments

In normal cross-country flying, when the weather deteriorates, a pilot loses altitude gradually, giving him time to adjust his techniques and allowing him to make good decisions. In the mountains it is possible to move from a comfortable situation to a difficult situation to a critical situation in a matter of moments. Even an experienced pilot may, by no fault of his own, find himself confronted with a difficult situation. This can have many causes: cloud cover, light wind, navigational problems, and so on. In such cases, weaknesses in flying skills become obvious immediately. It is here that every pilot encounters his personal incompetence level. Incompetence often leads to accidents. Accidents therefore are not an act of fate; they are the result of a sudden confrontation between a pilot and a situation that he, due to lack of planning or experience, is unable to cope with.

Stress

Stress and panic: impossible to measure, difficult to recognise and even harder to counter. The level of stress is inversely proportional to the competence, training and experience – in short, the actual level of skill – that the pilot possesses. When a pilot ➢



is in a state of panic, he is prepared to cling on to anything: the advice of a colleague hundreds or thousands of feet above him, a GPS read-out, or a vague green spot beneath him. Sometimes, pilots forget the registration of their aircraft or the names of mountains around them; some even forget their own names. Strong sink and turbulence can render a pilot a psychological wreck in a matter of minutes. Delay, the setting sun or the development of a cirrus layer cut-off can also do their bit in this respect.

Some pilots believe that a healthy instinct for self-preservation and the possession of a sailplane with an L/D of 50:1 or greater, or a turbo engine, will make up for their weaknesses as a pilot. Nothing is less true. Technology may, in some cases, prevent problems but it introduces many more – like, for example, over-confidence, a false sense of security and unwarranted faith in two-stroke engines. It is not your glider's engine or L/D that gets you out of trouble, but only your knowledge, experience, preparation and capacity to anticipate.

Changing horizons

WHEN circling close to or approaching a ridge, *writes John Hoskins*, beware of the changing apparent horizon: it is above you when facing the ridge and below you when facing away. (You cannot see your true horizon to judge your airspeed). This change creates a tendency to raise the nose/lose airspeed on approaching the slope and lower the nose/gain speed when flying away. The first of these is more dangerous: you are likely to be going downwind with the slope getting closer. Downwind means groundspeed must be higher than airspeed, but this gives the impression of flying too fast. Equally, as the ground gets closer "ground rush" makes you feel you are accelerating. CHECK your airspeed to ensure you are not misled by these impressions. Speed variations from up-slope to down-slope can be very easily detected when circling some distance from a long slope. If you are constantly having to stretch the circle in the direction of the up-slope to stay in lift, check that you are not losing speed when facing up-slope, gaining it when facing down-slope and so moving the circle away from the thermal. Couple this speed change approaching the ridge with a circle too close and you are in serious trouble. The wind against the slope will shift your circle. A 15kt wind moves the air mass you are flying in some 500ft towards the rocks in the time it takes you to do a Rate 6 360° turn of 840ft radius at 48kt. In any wind above 5-10kt watch out and compensate for this drift. Remember stalling speed goes up with increased angle of bank and a low-g, steepening, panic-induced turn with an already low airspeed is asking for trouble. Fly wisely, fly safely and live to enjoy the mountains.

Situational awareness

A concept becoming increasingly used in aviation is that of "situational awareness". This can be broadly described as the pilot's ability at any one time to simultaneously be aware of, and to include in his short-term and long-term decision-making, all the relevant external and internal factors, such as the immediate and forecast weather, the terrain through and towards which he is flying, and so on.

A pilot who can maintain good situational awareness will be able to make sounder and more rational judgements and decisions than one who "loses the plot" and fixates on one particular feature or item. A pilot's ability to lower his (or her) immediate workload by persuading or forcing himself to relax will free up his attention span to enable him to consider all of the factors necessary for his survival or avoidance of an outlanding.

In this regard, the ability to "park" (that is to maintain height in an unflustered, relaxed manner in some suitable source of zero sink or minor lift source) will give the pilot time to reconsider his situation and to decide upon the best plan of action to continue with or to abandon the flight. Fortunately, in the Alps, such areas of minor lift are quite frequent, often well below the tops of the ridges. If a pilot learns to fly "comfortably" close to the slopes in such conditions he is well on the way to becoming a successful "mountain pilot".

2. In practice

The mountain flight begins when we launch. The tug will bring the glider close in to exploit possible ridge lift. Turbulence may make the tow uncomfortable.

The golden rule

There is one golden rule in the mountain: when flying to a ridge, you must, as an absolute minimum, do all that you can to arrive above it:

- It's more comfortable;
- You have a 360° view – in other words, you have all other mountains, escape routes, landable areas and airfields in sight;
- You can circle in the convergence of all available lift from both sides of the ridge and hence, even when soaring conditions are weak, you can climb. Lower down the ridge this may not be possible.

Practice makes perfect

As mentioned earlier, the level of pilot stress is inversely proportionate to training, experience, preparation and alertness. In a practical sense, stress is countered by:

1. Mental arithmetic: base your calculations on an L/D of 20:1 for normal two-seaters and 15-metre sailplanes and an L/D of 30:1 for Open Class gliders – irrespective of the claims of your aircraft's manufacturer. Use this L/D to calculate which fields you can reach given your actual position, altitude, wind direction and strength. Do not rely on a final glide computer or GPS but use your brain instead.
2. Be aware of the fact that you may be obliged to follow the ridge, thus making your flightpath much longer.
3. It is important to realise that in the high Alps the L/D of your glider is usually greater than the slope of the valley. This means that you never have to land high in the mountains. There is always a way out, even if you feel trapped. Just follow the ridge or slope downwards all the time seeking to regain or retain altitude (when possible) on the one hand and searching the vicinity of an official outlanding field, on the other. For example: if you are struggling at 2,200m (7,220ft) in the mountains you can glide at least 25-30km towards the Durance Valley, during which time you would be unlucky not to pick up some lift.
4. Building on your experience: the more (recent) experience you have, the lower the level of stress. Practise maintaining height in unhurried slope soaring at or below ridge level as a good confidence-builder.
5. Training: carefully practising the situations that occur during mountain flight gives the serious pilot the tools to enjoy the flight as well as to survive it.

The three most useful exercises are:

- Finding lift low on the slope, climbing in figure-of-eight turns and transiting to full circles only when ample space is available. In order to do this, it is essential to make an exact fix of where the lift is found, to fly at that exact spot in order to use the lift and to take an altimeter reading and to monitor whether you are actually gaining altitude. The French call this "planter le piolet" (planting the ice axe). Note that areas of lift are usually small and narrow, especially at low altitudes.
- Getting accustomed to the changes in aspect and appearance of the faces of the mountain – especially when flying towards a ridge to find lift (see also box, left).
- Planning the route to the next mountain: calculating the height you need and deciding on your path. It is very important to establish different fallback positions and to know the possible outlanding fields and to know, off by heart, their altitude.

NB: Remember always to set and fly on a QNH altimeter setting for reasons of both oxygen and terrain.

3. Ridge soaring

Wind

In ridge soaring it is essential to follow the right trajectory over, or next to, the slope. In order to do this we need to understand what the wind is doing. Gradient wind at altitude is different from the valley wind. These two winds can work against each other, but also amplify one another. The valley wind changes with different weather conditions and times of day. An important measure is the balance of wind strength: 15kt is a reasonable minimum wind strength for most ridge soaring and we need to know whether the local wind is less than, equal to or greater than this speed.

Speed

One of the principal – and potentially and factually lethal – hazards of mountain soaring is the risk of encountering high vertical gust velocities, both positive and, even more dangerously, negative, when flying close to the mountain face.

Unless you are flying with a sufficient margin of airspeed to not only stop you stalling but also to allow you to turn away from the gust, you run a very real risk of hitting the hill and destroying your glider and very possibly yourself. So always fly with enough airspeed to ensure that in the conditions in which you are flying you have a manoeuvrable glider, which will allow you to turn away immediately from the mountain towards the valley if you hit a gust that causes your glider to sink or drop suddenly. This speed will not be constant and you should vary it according to the strength of the turbulence and thermals. In a very smooth valley breeze in the evening the speed margin might be small but in strong thermal and/or rough conditions it could be of the order of 25-30kt above stall speed. Always be alert to the possibility of a strong gust so that you can react immediately and turn towards the valley almost automatically. It will help to ask yourself frequently during flight: "do I have a manoeuvrable glider?" – especially when flying near mountain faces. Be aware that in certain conditions, such as wave interference, turbulence may be so strong in certain valleys that it is impossible to control the glider safely at any speed. In such conditions you must fly to another slope.

Intercepting or crossing ridges

Do not maintain any unnecessary and/or involuntary angle of bank when flying towards the mountain face, level the wings when you are nearing the ridge and never intercept or cross the ridge line at an angle greater than 45°. This last is most important, since in the event of encountering strong downdraughts, the smaller the angle of turn needed to "escape" the better your chances of survival. An approach at 90° may mean a turn of up to 180° (of which 90° is still taking you towards danger). If the decision is made late, you may not have enough room.

The vario determines how close we need to fly to the ridge. The trick is to find the energy line, it is strongest somewhere, you just have to find it by trial and error.

In slope soaring in smooth conditions when you are turning away from the hill, you can start to reduce your speed so that it is reduced to a safe minimum when you are furthest from the hill and is increased to the original value as you fly towards the hill again.

Turning

You should normally fly figures of eight by turning away from the slope or parallel to the ridge. A complete circle lower than the top of – or close to – the ridge should only be made with great care. When new to mountain flying, and until considerable experience has been gained, it is advisable not to make complete circles until there is room between you and the slope at your closest point to it, for a circle equal to at least half the diameter of your intended circle. This margin should only be reduced with experience and recency.

Vigilance

It is perfectly possible to stall the glider and even to end up in a spin without an obvious piloting error. This can occur because of sudden turbulence, strong lift inducing a high angle of attack, or due to fluctuations in airspeed as a result of a changing wind gradient or windshear. In the mountains you must always be prepared for such sudden occurrences, especially near the ridge. If you feel any indication of stalling or wing drop, take urgent avoiding action by easing the stick forward immediately to regain speed and turn away from the mountain face. This must become second nature, for it is better to be safe a thousand times than sorry once.

Adaptability and flexibility

Ridge soaring means constant adaptation to the geography and topology of the mountain and to air movements near the ridge. All mountains are different in this respect and the same mountain is also different in different circumstances.

Instructors from non-mountainous areas will often advise you to have significantly too much speed all the time. But that is an over-simplification. You have to continually judge the circumstances and adapt your flight regime to the conditions of the day and your proximity to the slope.

For instance, in small, weak areas of lift at low altitude, flying too fast can result in being unable to exploit the lift and having to land out, just as flying too slowly in turbulent conditions may result in a stall or spin. Fly prudently!

4. Wave flying

I will not go into the technique of finding the wave via rotor; but general remarks about safe flying in wave seem appropriate:

- Beware of turbulence, it can be often be extremely violent;
- Keep an eye on the sunset time (in the valley the sun sets earlier than at altitude);
- Icing may be a problem – descend when it occurs;
- Gliders are often not manoeuvring and can sometimes be hard to see in wave, so keep a good lookout. The wave area is small, and despite the apparent size of the sky, many other gliders may be close to you;
- Outside wave lift you may encounter strong sink so watch your fallback position;
- Keep an eye on your VNE (velocity never exceed) and Max Rough Air limits and remember that the flutter limit is a True Airspeed and must be reduced by 6 per cent for each 1,000m or 2 per cent per 1,000ft amsl (above mean sea level).
- A shortage of oxygen will lead to tunnel vision, a reduced ability to think, tiredness and an unwarranted sense of euphoria that may lead to bad decisions. When ➢



After descending from height to below ridge level, the situation changes drastically (photos: Jacques Noel)



Above and below: Arrive at or above ridge height to maximise your options ... and plan for alternatives



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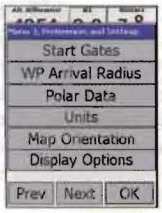
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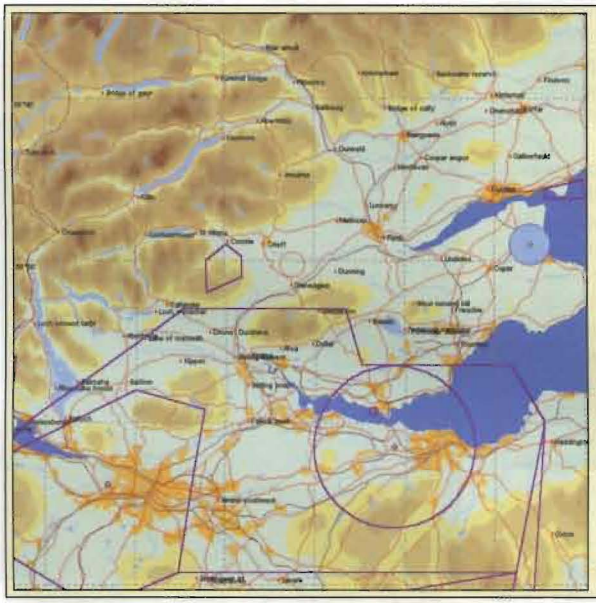
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you think your flying is fantastic, it's time to descend!

■ Beware of altitude sickness. This affects the brain, starting with headache and nausea. Extreme cases can lead to brain oedema.

5. Other general safety points

■ Right of way: in the mountains the pilot with the mountain at his right wingtip has right of way. If you meet a glider going in the opposite direction when the mountain face is on your left wingtip, turn outwards from the slope for avoiding action;

■ Watch out for power lines and ski-lifts;

■ Keep a continuous lookout for other aircraft: there may be 600 (yes, 600) gliders airborne in the Southern Alps on a good day.

■ The danger of mid-air collisions is higher early in the season. This is due to several factors: pilots watching GPS and other slow reference instruments; low afternoon sun, especially when the canopy is dusty, and many aircraft being in the same area.

■ In this latter case you should mark the position of other aircraft and assess the future flight paths of the most critical "neighbours".

■ I strongly recommend bright orange coloured anti-collision bands on the fuselage and wings in some conspicuous scheme – preferably over a part of the structure which doesn't have a foam sandwich. A strobe light just behind the cockpit is also useful.

6. Body and mind

The pilot has an obligation towards himself as well as his peers to be in good shape mentally and physically. Avoid:

■ Tiredness: eg, as a result of a long trip, change of food and rhythm of life (especially on days three and four of your holidays), and lack of fluid because of dry air, heat or excessive use of alcohol;

■ Altitude sickness and lack of oxygen;

■ Hypothermia from being motionless in low temperatures at altitude;

■ Lack of sugar, fluid and salt, which may occur within an hour of starting the flight;

■ Stress before and during the flight: take your time when putting your glider together, start your flight well rested and nourished, prepare it well and without hurrying; and don't let yourself be pressured into things that you feel insecure about... especially when striving for measurable achievements like distance or altitude records.

■ Empty your bladder and intestines before flying, especially before high-altitude flights.

7. Two-seater instruction

To become a competent mountain pilot, one check flight is not enough; nor is one introductory flight in a two-seater! It is essential that over a series of flights the pupil gets to know the same mountains under different circumstances and at different altitudes, ranges and aspects. It is also important that he has flown under different atmospheric conditions and levels of light. Perhaps most importantly, the pilot must experience and appreciate the different psychological and physical phenomena and prove that he is master of the essential skills of mountain flying. This means always being able to calculate safe heights required to reach the next target, the discipline of always being in gliding distance "local" to a landable field; the ability to find and exploit safely lift at low altitudes; a good sense of orientation and a high degree of vigilance.



Keep asking yourself if you have the speed to manoeuvre away from the ridge should you need to (Jacques Noel)

8. R/T procedures

Use the right radio terminology and be disciplined. Get to know local customs and regulations, especially terms that have to be used for reporting downwind. Be especially careful to learn by heart names and altitudes of mountains, ridges and slopes. Mountains are often given different names in French club R/T calls to those shown on the map.

9. Flight preparation

Study in detail information on outlanding fields provided in the FFVV regional publication. Learn their position and altitude by heart and programme them into your GPS. Visit them all on the ground in order to establish what they are like at the time of your visit. They are often in regular use by farmers and may have some embarrassing new feature like a fresh ditch, some long poles close to the field or a heap of bricks in the middle of the landable area to spoil your day. It is very useful to fill in the location and altitude information on your map and to draw 10 and 20km circles around these fields with the minimum height needed to glide to the field. This simplifies flight planning considerably.

Do not try to land in wind speeds of 20kt or more (an outlanding in these conditions can be very hazardous) – a safe outlanding cannot be guaranteed. Moreover, 20kt or more of wind guarantees good ridge lift – so you can always get home.

It is also a good idea to mark useful ridges with a bright-coloured marker; the locals can tell you which the useful ridges are. Of course, be aware of the weather and wind direction: different ridges work in different circumstances. Reinforce the back of your map with tape; it has a longer useful life that way.

You are also encouraged to carry an ELT emergency beacon. There are different kinds on the market; those that work after a crash (rather expensive) and non-automatic types.

Also, bring an emergency pack with:

❑ Matches with striking paper and some dry combustible material like magnesium or paper, stored in a plastic film container;

❑ Mirror, with a hole in the middle for aiming the flash;

❑ rope;

❑ Aluminium survival blanket;

❑ Whistle;

❑ Torch.

Standard equipment carried must include:

❑ Good clothing, right for the conditions;

❑ Plenty to drink (dehydration can easily occur);

❑ wholesome, easy-to-digest food;

❑ Good sunglasses with plastic lenses;

❑ Sunhat with no brim at the front.

It is important to be safe and comfortable when you are in the air: use a well-shaped energy-absorbing cushion and make sure there are no loose objects in the cockpit, especially heavier ones like cameras that may be dangerous, especially in turbulence.

Finally, check that the battery is charged, oxygen bottle(s) filled, and camera loaded. Put your map and flight plan in the cockpit and "book out" on the launch sheet. Carry out your checks, including radio check, and don't forget to remove the tail dolly.

Set up your electronic instrument systems before take off, with your barograph/logger "on". Make regular radio calls in flight on the pre-arranged frequencies, announcing your position, height, the flight conditions and your intentions.

10. Don't rely just on reading!

Finally, you can only become a competent mountain pilot with practice, experience and, especially, instruction. This brief introduction gives only a small idea of what is involved.

A little Alpine train...

Serres, run by world distance record holder Klaus Ohlmann, is unknown to most Brits. Jon Gatfield and Martin Harbour reveal what you're missing



Jamie Quartermaine

QUO VADIS ("he who wanders") is an apt name for Klaus Ohlmann's gliding operation, *says Jon Gatfield.* His epic lead-and-follows are famous: his gaudy yellow-and-purple Calif two-seater scraping along ridge tops, with three single-seaters following close behind, seemingly connected by invisible string. This "little train" can fly for 6-7hrs a day exploring ridge, thermal and wave from its base at Serres as far away as Mont Blanc and the Matterhorn. He *does* wander far and wide!

In five visits to Serres I've lost just one day out of 40 – it seems to stay dry even when St Auban or Sisteron is rained in (though I'm sure the opposite is also true). Klaus runs a relaxed operation until it comes to the flying, when you're expected to make the most of what's on offer. Daily briefings start at 10.00 and can last up to two hours, thanks to the amount of knowledge shared. The previous day's trace is projected on to a map; Klaus explains the weather and his thinking, decision-making and route planning. I don't think any other operation in the area is as open about the "trade secrets" of hot spots, short-cuts and long-distance routes. And it benefits all levels – whether you're staying local or aiming for 1,500km in wave. The forecast gives predicted thermal strength, cloudbase and wind direction/strength for various operating heights. Lastly come suggestions of what to do on this day.



Jon Gatfield

My Alpine flying began with a Jacques Noel course, and I'd recommend this to any newcomer. We fly on metric QNH – that way we can use the local maps for crossing mountain passes, arriving above the tops, and it's a sensible way to fly Jacques' 20 to 1 rule (*see previous article*). The naive might think that 20 to 1 is nonsense in a modern sailplane – until they get low at Briançon, fall short of St Crépin airfield and "land" in the Durance riverbed. (Ask the Nimbus 3 pilot who got caught by sink – and he'd started from 3,000m/9,843ft!) After such a training, it's time to explore solo.

Most launching at Serres is to the north, with the Arambre mountain 300m/985ft behind the launchpoint. This smooth, steep ridge rises 600m/1,970ft QFE; it's a reliable start point in any wind with north in it. The airfield is 710m/2,329ft amsl, with lots of good fields ahead in the event of a rope break. Just 12km north is Aspres airfield – more security. Very often there is a marked increase in wind speed to the west of the Durance valley (where Serres lies): crossing back late in the day from the Sisteron valley towards Serres, ridges work and evening wave sets up as the thermals die down.

Today we have 20kts northerly. We'll release from the Rallye at 1,100m/3,610ft (400m/1.310ft above site) and fly straight into 4-6kts of smooth hill lift. Two or three beats close to the trees and we're up past the rocky crest and climbing strongly – 8kts in places. Looking north up the valley we can see scrappy rotor clouds just this side of Pic de Bure – the 2,700m/8,858ft flat-topped mountain that dominates the valley. With 1,600m/5,250ft we can push forward from the ridge, but today we don't make the easy jump into wave (often it's easy to settle into 4kts just a few kilometres from the Arambre). A few rough but powerful rotor climbs and we've 2,200m/7,220ft, enough to make the main rotor from Pic de Bure. Arriving at 2,000m/6,560ft the climbs are much rougher, but the averager shows 8kt peaks. The rotor cloud above us is constantly changing: at times it falls forward on itself, akin to breaking surf. From 2,800m/9,185ft we push forward toward the main face of Pic de Bure, where a wall of cloud pours down off the heights. We feel very close to the cliff face, just a few hundred metres away, when abruptly it all goes quiet; we're into the main wave and climbing fast.

Now there are lots of options: don oxygen and ride up to FL195 (the local airspace ceiling) or enjoy some easy cross-country without the aggro of oxygen masks, between 2,500m/8,200ft and whatever is sensible (I tend to stay below 3,600m/11,810ft – honest). Alternatively we can drop back to the ridges and hone our "dynamic" skills: how about joining the Lure mountain at its east end (1,400m/4,590ft) and riding ridge-height at max rough air speed for 10km up to the summit (1,800m/5,905ft)? All this comes with the security of knowing there are a host of safe fields within 20 to 1.

So it's not windy? We'll just have to go north by thermal then. At 11.00 the first wisps of cumulus appear; by noon it's time to go. A higher tow today: we can release on the west end of the Crêtes des Selles, on Mt D'Aujour. Track directly along the top and turn quickly and tightly into the core: the thermals are small but strong. This early, we're better off using ground features to find them – the light-coloured gullies facing the sun. A mere 4kt, but we'll take it to the top, 2,500m/8,200ft, and head north. At Pic de







Jon Gatfield

Clockwise from left: cruising in comfort at 3,960m/13,000ft (Mont Blanc under the wingtip); the Quo Vadis *hangar; Klaus at briefing; in wave behind the Pic de Bure; the Calif (and blue tape); Russell Cheetham heads for Briançon*

Bure we find 8kt to 3,000m/9,840ft. Now we can weave north along the jagged ridge and cross the wide valley to the lower slopes of the Ecrins, a range rising to 4,300m/14,110ft. Arriving on Chaillol at 2400m/7,875ft we're local to Gap on 20 to 1, and to the Montgardin field in our landout guide. We don't need either: we're quickly back at 3,000m/9,840ft and can make for the Pas de la Cavalle. Gap is out of sight now, and the valley closes in so it's a little intimidating, but we can easily fly back out if we stay cool. We breeze across the pass at 3,000m/9,840ft enjoying the view of the snowfield. From here (if cloudbase is good enough) we can push on fast to cross into Italy to the Grand Paradis past Aosta to the Matterhorn. If we're not feeling so brave we can take the rubberneck tour of the Glacier Blanc, or bounce across on to the Par Cours and head south for the 50km milk run that barely needs a turn. Getting back isn't a problem: we just remember Klaus' briefing about the options for returning if we're low. Doubtless once we've packed away and are cracking open the beers we'll hear the whistle of the Calif overhead as the Alpine train returns.

Serres is a great site – I can't understand why more Brits don't use it, particularly between March and June, when ridge and wave are so good. You can fly with Klaus in the Calif, join one of his lead-and-follows, hire an LS4 or turn up with your own machine. There are chalets on site (one with disabled access, loos and shower), and, most importantly, there's the mass of knowledge that Klaus is eager to share.



Martin Harbour

I HAVE always loved mountains, *writes Martin Harbour.* I had walked over them and skied down them, but only once soared over them. With my Assistant rating and 300hrs, was this the time to try again?

I had heard so many cautionary tales about the Alps that the prospect was a little daunting, and considering how to approach my first such adventure a minor nightmare. But then I heard of Quo Vadis. Immediately, I emailed Klaus: was my experience suitable? His reply was prompt and encouraging: "You already fly in the hills, ridge soaring is not new to you... so try it". I do fly in the hills and ridge soaring is not new to me, but can you really compare the Derbyshire hills with the Alps? We launch from the hilltop and most of our ridge soaring is above it. The only time most people fly below it is *en route* to a landout! But Klaus' enthusiasm is infectious and I really wanted to do it. An exchange of emails with Anne-Cecile, Klaus' disconcertingly helpful, efficient, charming (and English-speaking) organiser, put me in touch with Jon Gatfield, who was very complimentary about Serres. So I booked a week's course last August, an LS4 and a gite.

How should I prepare? As much flying as possible, obviously, particularly longer flights (we were promised 5-6hrs daily). Given a patchy summer in the Pennines, this was in itself a challenge. I also had to get some aerotow practice – but failed on this, too, until the week before. I was beginning to feel ill prepared, but fortunately late inspiration came with John Bridge's article (*Confront the unknown*, June-July 2002, p39). His enthusiasm for the area was contagious, though I was a bit worried about his references to specific landing fields. I know the Alps pretty well but had never seen the pocket-handkerchief meadows as potential outlanding fields: criss-crossed by power cables they often slope alarmingly (we had once spotted a family haymaking using ropes and crampons!). I hastily ordered the map of "official" landing fields and carefully noted the ones near Serres.

Finally the adventure started. It's not easy to spot the field – on a small plateau – from the road that runs alongside, but the glider executing a steeply-banked, close-in final turn pinpointed its position and instantly made me feel at home. Just like Camphill!

We drove in, stopping at the hangar to admire the blue tape holding the wingtip of Klaus' Calif together. There were many trailers parked up (mostly German), some gliders rigged (all German), and very little activity. At reception we were greeted by Anne-Cecile and Klaus – the latter sporting a rather fetching "boot". This intrepid pilot and world record holder had managed to fall downstairs and hurt his Achilles tendon. Was my adventure going to end before it had begun? But Klaus was clearly not going to let such a minor inconvenience stop him: I was told to familiarise myself with the LS4 – O3 – and return for the next briefing.

At briefing I registered the fact that my French language skills were going to be far less useful than the German I had long since forgotten. Of 15 pilots, I was the only English one; there were three Dutch couples. The only radio calls I heard other than in German (apart from Klaus, who used English for my benefit) were circuit calls in French.

Serres has several ridges nearby, covering pretty much any wind direction. This can cause turbulence and other interesting effects. The ridge immediately south of the field is particularly striking: a deep gash takes the river Buësch down to the town of Serres. I convinced myself that this was totally unmistakable and I would always be able to recognise the way home. Yet another lesson to be learned...

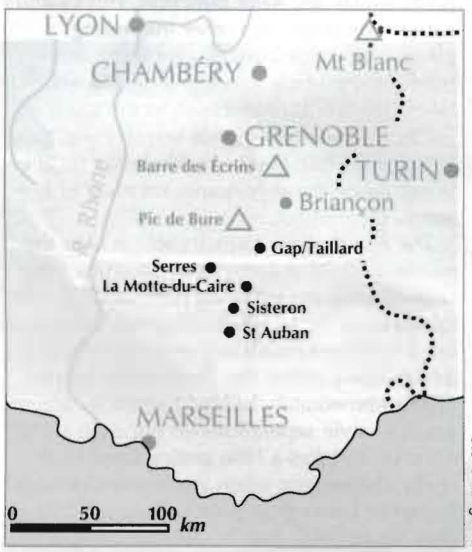
The first day, the launch took us over the nearby airfield at Aspres to a south-facing ridge to wait for a passing thermal. This was an opportunity to orient ourselves and to get used to close formation flying with my lead-and-follow partner, the Dutch pilot, Marco. Flying immediately behind the leader at aerotow-style separations (in our case about 50m/165ft) takes a little getting used to. It's really challenging when you're considerably higher or lower than your colleagues. We flew for just over two hours, exploring ridge

and thermal before some small rotors over Aspres let us exploit evening wave. Finally, having given up on joining the higher-level wave I landed back, washed the glider and spent an hour or so trying to work out how best to pack the hangar. This is a professional operation, but some chores are universal.

We lost the next two days to poor weather and on the last three, the wind was not really strong enough for the local ridges. We did have thermals but cloudbase was low and there were some very impressive storms. We flew another 15 hours, with memorable highlights such as: flying though a real downpour just below cloudbase for 10 or so miles. (Marco and I concluded that Klaus has a morbid fascination with heavy rain: more than once he headed back to a shower we thought we'd avoided); looking down into the Gorge du Verdon at tiny boats making their way down-river to the lake – beautiful blues and greens; and flying around the clouds over the Vercors plateau then pulling up into a thermal only to meet a huge eagle about 10ft from the canopy. Above all, I will remember the pure enjoyment of flying in such wonderful surroundings with such a knowledgeable and capable pilot.

So, would I recommend it? Most definitely yes; I learned so much and shall return. You must, though, be a competent, confident and current pilot. Lead-and-follow is a great way to cover a lot of sky without having to make too many decisions, but it is possible to get caught out and have to make your own decisions, so navigation and awareness are still important. And you still have to get back on to the ground safely. On the final day we had just returned to a ridge perhaps 15km from the airfield when Klaus told us to set off back and land immediately. Just as he finished speaking the lightning started on both sides of the glider. We got back before the rain, but it was a very close call. If we'd been separated by the storm, or it had struck before we got back to the airfield, we would have had to make the decisions and do the tough flying ourselves. It's not just a joyride.

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Steve Longland

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Long-laid plans are realised

Fred Weinholtz describes the history of the German gliding site of Oerlinghausen and describes how it has developed magnificent new facilities



The airfield at Oerlinghausen. taken from 115°. The new buildings are to the east of the field, in the foreground

THE recently-upgraded gliding facilities at Oerlinghausen can look back upon a great history, and one in which the British played an active part.

As early as May 1929, Robert Kronfeld – who died as British subject during a test flight from Lasham in 1948 – flew his Wien to a spectacular world distance record of 102.2km along our site's neighbouring Teutoburger Wald hills. His enthusiastic praise of the strong thermals alerted the gliding adherents of the region and in April 1930 the Gliding Group Bielefeld made its first bungy launches. Then the Nazis took over, nationalised gliding and designated Oerlinghausen a "Gliding School of the Reich". The sloping field with hilltops for bungying was augmented by heathland a kilometre south for winching and aerotows.

After the war, the RAF requisitioned the airfield – buildings, equipment, and even staff – and the British Forces of Occupation's 2 Group GC took over (as described in Wally Kahn's great book *A Glider Pilot Bold*). This saved the field for gliding.

In 1951, 15 local gliding clubs founded the Airfield Association Oerlinghausen (FGOe) even as German pilots catapulted their sport from zero to international level. In 1953, 1955, and 1957 nationals were held here. In 1956 the Gliding School began as another FGOe member. Better gliders were more vulnerable to damage, but levelling the rough heathland was too expensive. Then came British help: in four big field exercises Royal Engineers from Paderborn graded the site and covered the infertile sand with topsoil. The FGOe paid only for the beer.

Men like "Tempo" Drewes and Heinrich Kramer had resuscitated the gliding field. The second generation – Jochen Karge and I – took over. Our development programme is now nearly complete, thanks to great support from state authorities – particularly Professors Brandt and Diehl – from the town of Oerlinghausen (which has a sailplane in its coat of arms), by Lippe County, and from the district presidents.

The Club Class developed here, women's internationals were successfully tested, but important contests failed to come. Top pilots considered – wrongly – that the Teutoburger Wald hills would get in the way of final glides. The Gliding School, made viable by Hans Burzlauer and led to great success by Gerhart Berwanger, won recognition worldwide and founded branches in the Alps and



The impressive facilities include this fitness suite

in Fuentemilanos (1,400 pilots flew 35,000 launches and 12,000 hours pa). The home site logged 50,000 flights and 25,000 hours.

In the 1990s gliding was shrinking. Our airfield was perfectly equipped with seven hangars of 5,000m² (53,820ft²) and 800m² (8,610ft²) lock-ups for trailers, plus two workshops, a lecture hall, accommodation, restaurant, and tower. Five winchtracks, the runway (30x600m/100x1,970ft), a peritrack and taxiways were asphalted, while grass covered what used to be sand. But the Gliding School's 40-year-old building no longer met modern requirements.

Financial assistance from Federal and State offices and from the Northrhine-Westfalia Sports Association allowed the opening of a new school of modern steel-and-glass construction in autumn 2001.

Six attractive pavilions satisfy all demands from teaching to entertainment. A big hangar takes the aircraft. Experienced, devoted staff – not least four-times world champion Ingo Renner – guarantee sound instruction.

In 2002 the Flugplatzgemeinschaft Oerlinghausen organised the German Gliding Championships: with 40 Club Class and 23 two-seater gliders – 19 of them Duo Discuses. Three double-drum winches and one six-drum winch launched the 63 gliders in less than an hour. Challenging tasks were flown on seven contest days for the two-seaters and eight for the club class. This encouraged the Flugplatzgemeinschaft to offer their airfield for top gliding contests every second or third year. The International Gliding Contest Oerlinghausen, an annual event well supported by neighbouring states, will of course continue. One highlight will be the International Vintage Glider Rally 2005, for which we have bid. This event, on the airfield's 75th anniversary, is expected to attract the public and enthusiasts alike.

The gliding school's flying operations at Oerlinghausen will re-start on March 3, with the main emphasis on *ab initio* training in gliding, motorgliding, microlight and power flying. Guests from all nations, including those with their own aircraft, are always welcome. From March 3-May 11 it will also run courses at Caiolo in the Italian Alps and, for the first time, from September 1-October 12, mountain soaring courses at the winch-launch airfield of La Motte in France. These will be under the supervision of Ingo Renner and are open to pilots of all nations.

As far back as 1929 our thermals were praised by Robert Kronfeld and ridge soaring along the Teutoburger Wald is a real treat. Oerlinghausen is ready to welcome glider pilots from all over the world.



The school's pavilions are linked by covered walkways

ANNUAL STATISTICS

GLIDING CLUBS	AIRCRAFT				ALL LAUNCHES	NO. OF AEROTOWS	HOURS FLOWN	KMS FLOWN	MEMBERSHIP		
	Club 2s	Club 1s	PO	Tugs					Full Flying	Estimated No. of Temporary Members	No. of Female Members
Andreas Gliding Club	1	0	5	1	540	44	77	0	19	72	0
Angus Gliding Club	3	1	4	0	741	0	97	0	23	43	3
Aquila Gliding Club	3	3	25	2	1591	1591	821	3300	80	302	4
Bath Wilts & North Dorset Gliding Club	4	3	28	1	3843	859	1596	20000	122	283	5
Bidford Gliding Centre	3	3	45	2	2754	2724	0	0	113	370	11
Black Mountains Gliding Club	2	1	30	1	1733	1733	2009	0	77	205	4
Booker Gliding Club	8	8	82	5	8749	8749	8000	0	254	1796	22
Borders Gliding Club	2	1	30	2	2035	1884	1739	2500	114	110	10
Bowland Forest Gliding Club	2	4	30	0	4964	0	1941	0	148	513	10
Bristol & Gloucestershire Gliding Club	4	4	67	2	6329	1894	3645	104565	191	310	3
Buckminster Gliding Club	3	2	27	1	3240	2203	1628	3653	75	221	5
Burn Gliding Club	5	3	28	1	5885	1414	1995	10300	135	531	5
Cairngorm Gliding Club	2	0	10	1	1092	935	1157	2630	38	74	5
Cambridge Gliding Club	5	5	75	2	11192	2335	5900	172057	240	2085	31
Carlton Moor Gliding Club	1	1		0	501	0	72	0	12	11	
Channel Gliding Club	2	0	9	0	1799	0	242		32	249	3
Connel Gliding Club	3	0	7	0	139	0	54	620	15	43	0
Cornish Gliding Club	2	2	7	1	1080	847	361	0	52	387	7
Cotswold Gliding Club	3	4	46	0	8896	16	2588	0	177	1078	22
Crown Services	1	2	5	1	278	248	141		27	15	0
Dartmoor Gliding Society	2	2	11	0	2198	0	355	0	50	160	1
Deeside Gliding Club	2	3	22	2	4062	4062	2721	34800	147	501	15
Denbigh Gliding Centre	3	0	16	0	2873	75	1120	3750	59	135	3
Derby & Lancs Gliding Club	4	3	41	0	0	0	3077	5100	216	747	19
Devon & Somerset Gliding Club	4	2	50	1	7091	403	2501	12487	275	658	29
Dorset Gliding Club	2	2	11	1	1372	522	627	0	50	134	2
Dukeries Gliding Club	2	2	11	0	2365	0	362	1500	36	199	4
Dumfries & District Gliding Club	1	1	1	0	266	0	79	50	15	29	1
East Sussex Gliding Club	4	4	15	1	3858	440	1078	0	159	601	20
Essex & Suffolk Gliding Club	4	3	35	0	5099	8	1780	25962	115	286	9
Essex Gliding Club	4	3	28	1	2566	1209	1014		99	320	10
Herefordshire Gliding Club	1	1	8	1	685	685	510		23	75	1
Highland Gliding Club	2	2	17	0	2184	549	380		58	142	13
Imperial College Gliding Club	1	2	0	0					25	25	5
Kent Gliding Club	3	3	31	1	6377	1552	1780	0	196	621	20
Lakes Gliding Club	2	1	13	0	606	594	330	0	51	48	4
Lasham Gliding Society	12	0	186	5	25335	10299	9988	237500	427	2151	97
Lincolnshire Gliding Club	3	1	9	0	2540	0	389	2000	32	83	1
London Gliding Club	7	4	123	4	19397	10241	7058	6458	317	2128	30
Mendip Gliding Club	3	2	9	0	3154	0	662	1100	77	372	2
Midland Gliding Club	4	4	1	1	8738	714	3781	0	129	577	16
Needwood Forest Gliding Club	3	2	9	0	3261	0	743		63	145	5
Nene Valley Gliding Club	2	2	16	0	3493	58	934	1734	58	193	6
Newark & Notts Gliding Club	3	4	10	0	3652	31	830	2521	66	323	5
Norfolk Gliding Club	3	4	50	2	4415	2647	2747	64500	231	187	32
North Devon Gliding Club	2	0	8		636	636			11	180	1
North Wales Gliding Club	3	3	4	0	1082	0	130		25	60	0
Northumbria Gliding Club	3	1	15	1	3123	910	867	0	101	570	8
Oxford Gliding Club	4	4	20	0	4264	0	1104	6600	97	455	13
Oxfordshire Sportsflying Club	0	0	6	0	0	0	1420	15600	60	32	3
Peterborough & Spalding Gliding Club	3	2	31	2	2369	2369	1558		71	350	6
Rattlesden Gliding Club	3	2	23	0	3158	395	1048	4002	98	315	18

OCTOBER 1, 2001 TO SEPTEMBER 30, 2002

GLIDING CLUBS	AIRCRAFT				ALL LAUNCHES	NO. OF AEROTOWS	HOURS FLOWN	KMS FLOWN	MEMBERSHIP		
	Club 2s	Club 1s	PO	Tugs					Full Flying	Estimated No. of Temporary Members	No. of Female Members
Sackville Gliding Club	2	2	12	1	646	444	600		18	20	1
Scottish Gliding Union	4	4	52	1	1011	917	6555		277	563	
Shalbourne Soaring Society	3	3	30	0	4442	66	1240	5000	123	389	0
Shenington Gliding Club	4	4	32	1	9189	692	1240	1500	166	811	18
Shropshire Soaring Group	0	0	11	1	264	264	378	3800	16	0	1
South Wales Gliding Club	2	4	31	1	2566	923	1569	7400	91	170	5
Southdown Gliding Club	3	3	58	3	4801	4349	2976		202	464	24
Spilsby Soaring Trust	4	3		1	600		100	200	4		2
Staffordshire Gliding Club	3	4	21	0	4482	440	1061	6000	102	289	7
Stratford On Avon Gliding Club	4	3	27	0	6046	0	2098	24510	112	759	25
Strathclyde Gliding Club	1	2	8	1	178	0	27	0	17	30	1
Surrey & Hants Gliding Club	0	11		0	1843	707	1732	0	147	0	3
Surrey Hills Gliding Club	4	3	5	0	4929	0	665	0	85	487	4
The Motor Glider Centre	0	0	0	0	400	0	190	2000	20	5	2
The Soaring Centre	6	6	93	3	11034	6577	5590	34000	337	1096	26
Trent Valley Gliding Club	4	3	22	1	3507	667	1337	11000	65	218	5
Ulster Gliding Club	3	1	21	2	1740	1700	519	500	69	290	5
Upward Bound Trust Gliding Club	2	1	3	0	1890	0	367	0	25	30	2
Vale of Neath Gliding Club	2	1	3	1	185	169	137		17	6	1
Vale of White Horse Gliding Club	2	1	11	1	1000	600	538		36	106	5
Vectis Gliding Club	2	1	7	1	804	804	310		31	94	2
Welland Gliding Club	4	3	18	0	2442	298			59	3	7
Wolds Gliding Club	4	3	0	2	9786	1904	4722	81813	173	1150	15
York Gliding Centre	5	3	28	2	6005	3198	1976	6000	202	801	13
Yorkshire Gliding Club	3	5	51	3	4735	3619	3765		216	804	12
SECTION TOTALS	229	190	1934	72	291125	94213	125619	996512	7991	30085	735
CLUB TYPE: SERVICE											
Anglia Gliding Club	3	3	1	0	2204	3	505	1540	51		
Bannerdown Gliding Club	3	3	2	0	5680	119	2056	16964	108	347	20
Chilterns Gliding Club	2	3	14	0	4607	17	1612	6053	97	369	
Clevelands Gliding Club	2	3	11	2	1530	916	1100	12000	52	40	4
Cranwell Gliding Club	3	3	14	1	3478	485	1417	9665	65	287	8
Crusaders Gliding Club	3	1	1	0	2603	10	366		36	1	3
Fenland Gliding Club	2	2	7	0	1953	0	543		56	64	0
Four Counties Gliding Club	4	4	7	1	3919	194	1184	0	0	0	0
Fulmar Gliding Club	2	1	2	1	271	183	139	540	16	27	4
Heron Gliding Club	2	2	6	0	1801	73	542	0	35	41	0
Kestrel Gliding Club	2	3	5	0	880	68	298	2941	28	82	1
Portsmouth Naval Gliding Club	5	5	17	3	6299	1581	1600	1300	337	485	18
RAF GSA Centre Bicester	5	6	18	3	13175	5100	5500	50000	123	249	16
Seahawk Gliding Club	3	3	4	1	1932	1210	419	300	46	233	3
Wrekin Gliding Club	3	4	4	1	2093	469	541	3200	65	22	8
Wyvern Gliding Club	3	4	9	0	6022	101	1346	300	60	102	3
SECTION TOTALS	47	50	122	13	58447	10529	19168	116503	1175	1322	88
CIVILIAN CLUB TOTAL	229	190	1934	72	291125	94213	125619	996512	7791	30085	735
GRAND TOTAL	276	240	2056	85	349572	104742	144787	1113015	9166	31407	823

You should go in May

Dave Triplett explains why he thinks spring rather than autumn is the time to explore Europe's largest wilderness



The Cairngorms are spectacular – and so, says, Dave is the welcome at Scottish clubs *(Bill Longstaff)*

OCTOBER 2001, Feshiebridge, and we are sitting in the clubhouse watching low fingers of cloud meandering along the ridge and I'm wondering if there is any truth in the oft-quoted: "You should come in May – there's just as much chance of wave but the thermals are superb".

I wear a somewhat cynical sweatshirt which proclaims on the front: "It will be better next week" whilst on the back it tells us that: "last week was the greatest".

Having listened to very similar statements in Spanish, French, German, Italian and Australian, I found the Scottish version just as unconvincing.

Then I spoke to Nick Norman. He's the tugmaster (as well as full instructor, Senior Regional Examiner and a helicopter training captain) at Feshie and you wouldn't find a more enthusiastic aviator anywhere. I'd heard about the Rex Pilcher trophy he won for the first 500km thermal flight of the year in the UK. That was in May 2001, and in May 2002 he knocked off a couple of 300s on the same day. If anyone would tell me the truth about May in Scotland, it was Nick. With typical modesty he avoids using his achievements to justify his enthusiasm for highland weather in May.

In the corner, by the pot-bellied stove, Ray Lambert broke the rhythmic puffing at the environmental hazard he calls a pipe to voice his agreement. Round the table, some of the many volunteers who run Octoberfest nodded: a little reluctantly, I thought, as though it was something best kept quiet. Was it the Scottish version of: "should have been here last week"? Then I remembered the CFI at Aboyne telling me something similar a few years ago.

The October fortnight got under way with a couple of Gold heights, a few hours on the ridge and bowl and a couple of short cross-countries in wave plus almost as many kilometres on foot with that mountain goat, Richard Prestwich. It was a replay of many previous years. I went, gladly leaving drizzle and low cloud to the Scots in the certain knowledge that they had much worse to come. Two days and 650 miles south to my home in Dartmouth there is still weather to sail and fly.

Scotland was just another memory until Christmas, when a 2002 diary needed filling. This prompted me to exchange a emails with Nick at Feshie; I have a nagging feeling he may be right about May. Yes, with enthusiastic support from my wife, Vanessa, we'll give it a try.

May 3, 2002. Leave home early to spend the weekend flying with old chums at Shropshire Soaring. Two cracking days with long cross-country flights to south and mid Wales, finishing with a fast climb in a convergence near Clee Hill giving ample height for a leisurely finish to a great weekend. Scotland can't be better than this, can it?

It's a long drive but hardly exhausting for someone fit to fly. Feshie, the airfield, is about 900 yards of short firm grass aligned 03/21 parallel to and a mile away from a 1,200ft ridge from which, on the right day, one can ridge soar north to the Cairngorm.

Launching is possible in all except the strongest south-east winds. Their tug is a DR400, bought by the club from Austria in 2000. The clubhouse, part funded by lottery and finished by club volunteers, is a major enhancement. It houses as you would expect the kitchen, office, public phone, bar and dining or recreational space as well as hangarage for the tug and several gliders and workshop area. A selection of sandwiches and soft drinks is in the chiller, sweets and beers are in the bar – and help yourself to hot drinks. Put your money in the honesty box. Truly excellent hot meals most nights of October/Mayfest are cooked on the premises by volunteers Luisa and Maggie.

So, the strip, the tug, the clubhouse and workshops and catering are set in some of the most fantastic and exciting terrain – the biggest wilderness in Europe. But, the real secret of Feshie is its members. Nowhere I have ever flown have I met such enthusiasts. They fully understand that the only reason we fly is to enjoy our sport. Every man and woman, officers of the club, members and instructors alike are dedicated to making everyone welcome, assisting in every way to ensure that you get the very best out of

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yourself and your glider, sharing facilities and of course the soaring opportunities. The contrast with a great many instructor-dominated English clubs is vivid.

The first few days were unremarkable but flyable, supporting modest cross-country flights. The weekend, however, was superb. Tasks were set and the intrepid set off on bare 300s or longer 300s.

I chose the longer 300... and what a flight. It wasn't the longest or the fastest flight I've ever done but a cloudbase that started at 4,000ft (1,310m) above site left little space to cover this inhospitable, remote and majestic terrain. Deep, rounded glacier-carved valleys, naked wind-carved crags and mile after mile of rough moorland. Conditions were reliable in spite of the vast areas of cruel sink and curlover.

As it warmed up the cloudbase improved and the thermals got stronger. I mean stronger. Centring in and maintaining 12kt isn't something I do every day – but almost every thermal was surrounded by massive sink. On leaving, off-the-clock sink and its vicious negative g has me picking my Mars bar out of the top of the canopy.

One quickly gets into a routine before leaving: loose items, straps tight, dive for speed, roll out on heading, brace yourself, briefly (very) consider taking up Morris dancing. Almost inevitably, spreadout slowed things down a bit, giving no choice but to hone slope-soaring skills until things got better. Sharing the mountainsides with Munro collectors and buzzards can be very satisfying in small doses but as soon as a

'It takes little imagination to understand the implications of an outlanding here'

hole appears in the cloud cover and the sunshine hits the ground again there's a guaranteed thermal to give comforting height. Off again, until finally a cloud climb north of Kenmore gave me the height to clear the highest ground and the Forest of Atholl, still between me and Feshiebridge The Forest of Atholl is an uninviting but spectacular landscape with vast areas of smooth snow lying in the north-facing deep scars on the angular peaks and ridges. Comfortable and snug as I am in my plastic penthouse bubble, it takes little imagination to understand the implications of an outlanding here. On the 40-mile final glide I fly through several miles of barely-visible ice crystals, fine as icing sugar, their million tiny impacts hisses like digital white sound.

Eventually, 15 miles away, the gleam of Loch Inch shines out in the Feshie valley. Arriving over site with height and time to spare I'm happy to go sightseeing so I amble along to the north, the new funicular on the Cairngorm and a close a look at the Duke of Gordon's Monument on the way back. I wish I'd declared a 500, but I, like many others, was sceptical of possibilities although Bob Tait, the CFI at Easterton did a 500 that



A cloudbase of 4,000ft left little space to cover this inhospitable, remove and majestic terrain *(Bill Longstaff)*

day in an Astir.

Meanwhile, back on the ground, and at one time 5,000ft below me at The Falls of Bruar (the Harrods of the North) my wife is having a lovely time and has no difficulty in having a 500 day of her own. Life has its funny little ups and downs. Telling a colleague's wife about Bruar, what's there and how to get there is regarded as an act of open hostility. Be warned, it can seriously damage your wealth!

Soaring conditions for the next few days were almost as good – if showery – so we explored the Spey Valley, Aviemore to Laggan. Delightful!

Scotland in May is fabulous. It is the col between the winter ski-ing and summer tourists, accommodation is easy, good restaurants are plentiful and uncrowded. Wildlife, including ospreys, otters, deer and red squirrels, abounds. Non-flying days can be good fishing days: £8.00 will buy a day's licence to a loch or river. Wild horses wouldn't convince my wife about Scotland in October – she's tried it – but May is different because there is so much else to do when (and let's get real) the weather is not flyable.

I wouldn't mind betting that all the Scottish sites are just as welcoming as Feshiebridge and they must have fairly similar weather so if you are planning an early holiday with wife and glider then you will have gathered that I can recommend Scotland in May and Feshiebridge in particular. If you do decide to go, talk to their secretary early, because they will not let the site get overcrowded.

My thanks go to all at Cairngorm GC, especially Andy (CFI), Nick (tugmaster-plus), Bob (chairman), Ruth (secretary), Luisa (chef and good sort), and Alister (instructor).

PS: if you do decide to try it next May, leaving a space for my trailer will save your nose from bleeding.
PPS: Since writing this article, I went to Feshie last October and half a dozen Diamonds fell out of the sky – one was mine. Sadly, Chris Morris from Bidford, who was selling altitude for sponsorship money in support of a charity, left site for home at 10.30 on the 5th with drizzle and low cloud By 12.30 several of us were going through 20,000ft with a club record a real possibility. Like I said, life has its funny little ups and downs: nowhere more so than Scotland, where the unexpected is the norm

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GROB AEROSPACE



Young and fun

LAST year, for the first time, a course was held for young people interested in improving their cross-country skills, *writes Sally Longstaff.* Fourteen juniors, aged 16-22, went to Bicester in August for a BGA-subsidised, intensive seven-day course.

On the first day, as well as site checks, many of us soloed in K-8 or Puchacz. So, on non cross-country days, we could try for Bronze legs and other badge claims. While half the pilots flew tasks; the others local soared and converted to the Discus. Some days three-quarters of us went cross-country, as the tasks were completed two or even three times by the same glider!

So what did we achieve? Not only did we each go on at least two cross-countries, but six of us (Claire Alston, Anthony Buck, Rob Hines, Hannah Hay, Katie Simmonds and I) completed Bronze. Three more (Claire Alston, Anthony Buck, and I) did Cross-Country Endorsements. Four (Anthony Buck, Anna Griffiths, James Stewart, and Tim Webb) soloed on aerotow and eight (Claire Alston, Anthony Buck, Katie Simmons, James Stewart, Mark Stobo, Meurig Thomas, Karl Zatorski and I) converted to new types. Colin Childs did his first field landing – a harrowed field, good choice. Claire gained Silver height. There were also aerobatics flights with Jamie Allen, Chris Rollings, and Ian Tunstall. Simon Adlard gave lectures on better soaring, and there was a "Spot the Errors" test on his slides (how could Simon spell his own name wrong?). Jamie also supplied us with a multi-choice test, which amused us at the launchpoint (especially the instructors, whose Bronze papers were a long, long time ago!). The Bronze confuser lived up to its name, too!

The social life was great, and the fine weather provided sunbathing and stargazing (as well as late-night excursions across the airfield!). The curry night was a success, (we turned up and asked for a table for 26!) Marie, or St Marie, cooked us breakfast and provided sandwiches and snacks. Of course, the bar was open for over-eighteens!

Altogether, every one had a great week; I would highly recommend all juniors with cross-country aspirations to apply this year. Not only did we get some of the best training around, but we also gained many badge claims and improved our own flying. It was also the only time I have ever seen a Puchacz get round a 140km task... when the DG-500 was in a field just before the last TP!



P1s and P2s on last August's cross-country course

Thanks to all our instructors, including both BGA National Coaches (Simon Adlard and Dave Bullock): Red Staley; Pete Stratten; Jamie Allen; Roy Gaunt; Paul Stanley; Chris Rollings and Mark Critchlow. Not only did we have top coaches to guide us round tasks, and ensure we got back(!), we had a wonderful set of borrowed gliders: three DG-505 Orions (two from the Faulkes Flying Foundation, one from Oxford GC); two Duo Discuses; the GSA's 26; a K-8 from Oxford University GC; and Bannerdown's Janus as well as the BGA's 98, DG-500, Discus and Puchacz. The BGA Motor Falke was available for field landing checks and NFTs (navigation flying tests) at half price (£25 per hour). A big thank you to all these organisations.

There will be another Young Person's Cross-country Coaching Course (August 2-8, 2003) at Bicester. If you would like to know more, contact the BGA office. To apply for a place on next year's course, please apply in writing to the National Coach at the BGA office

British Gliding Association

THE 1000 CLUB MONTHLY LOTTERY

A great chance to win substantial cash prizes and at the same time enable the Philip Wills Memorial Fund to make loans to clubs for site purchase and development.

This monthly lottery started in July 1992 and has room for many more participants. Starting in February 2003 the first prize winner drawn will take half the prize money each month and the next two drawn will take a quarter each.

HALF of the proceeds go to the Philip Wills Memorial Fund to help with its work in developing BGA clubs and the other HALF is distributed each month in the form of 3 CASH PRIZES. The more participants we have, the greater the prize money pool.

1st PRIZE – 50% of the prize money pool.
2 Runner Up Prizes of 25% each of the prize money pool.

Chances/numbers can only be bought from the BGA at £1.00 each. Those whose money has been received at the BGA by the end of each month will then participate in the draw on the first Wednesday of each following month. Tickets will not be issued in order to keep the administrative costs low but each member will purchase a "number" which will go into the draw. It is hoped that members will purchase 12 months' worth of tickets at a time. Winners will receive their prizes direct from the BGA and a list of their names will be published in S&G.

Please complete the form below and return it to the BGA with your payment. Please note that only BGA members and their families may participate and that the BGA is registered under the Lotteries And Amusements Act 1976 with Leicester City Council.

Barry Rolfe
Promoter

To: Barry Rolfe, British Gliding Association, Kimberley House, Vaughan Way, Leicester LE1 4SE

Please include me in the "1000 club" and I enclose £12.00 (payable to BGA) for twelve months of entries, or multiples thereof.

Name ..... Signed .....

Address .....

.....

.....

BGA COURSES FOR 2003

Basic Instructor Courses

Full Fee: £150.00 Young Persons Fee: £75.00

course no.	date	venue
BI 1	26th-30th May	Bicester Airfield
BI 2	2nd-6th June	Bicester Airfield
BI 3	30th June – 4th July	Bicester Airfield
BI 4	6th-10th Oct	Bicester Airfield

Assistant Instructor Courses

Full Fee: £300.00 Young Persons Fee: £150.00

course no.	date	venue
IC 1	1st-9th March	Bicester Airfield
IC 2	15th-23rd March	Bicester Airfield
IC 3	29th March-6th April	Bicester Airfield
IC 4	12th-20th April	Bicester Airfield
IC 5	26th April-4th May	Bicester Airfield
IC 6	10th-18th May	Bicester Airfield
IC 7	21st-29th June	Bicester Airfield
IC 8	6th-14th Sept	Bicester Airfield
IC 9	20th-28th Sept	Bicester Airfield
IC 10	25th Oct-2nd Nov	Bicester Airfield

Assistant Instructor Completion Courses

Full Fee: £60.00 Young Persons Fee: £30.00

course no.	date	venue
CC 1	8th-9th Nov	Bicester Airfield
CC 2	15th-16th Nov	Bicester Airfield

Full Instructor Preparation Course

Full Fee: £150.00 Young Persons Fee: £75.00

course no.	date	venue
FC 1	9th-13th June	Bicester Airfield
FC 2	13th-17th Oct	Bicester Airfield

CAA Motor Glider Instructor Course

Full Fee: £150.00 Young Persons Fee: £75.00

course no.	date	venue
MG 1	24th-28th March	Bicester
MG 2	19th-23rd May	Bicester
MG 3	7th-11th July	Bicester
MG 4	15th-19th Sept	Bicester

Soaring Courses running at individual clubs

Full Fee: £125.00 Young Persons Fee: £62.50

course no.	date	venue
SC 1	28th April-2nd May	Undecided
SC 2	5th-9th May	Undecided
SC 3	19th-23rd May	Undecided
SC 4	26th-30th May	Peterborough & Spalding
SC 5	9th-13th June	Undecided
SC 6	16th-20th June	Undecided
SC 7	30th June – 4th July	Rufforth Airfield
SC 8	7th-11th July	Sutton Bank

Soaring Courses running at Bicester Airfield

Full Fee: £125.00 Young Persons Fee: £62.50

course no.	date	venue
SC 9	14th-18th July	Bicester Airfield
SC 10	21st-25th July	Bicester Airfield
SC 11	28th July-1st Aug	Bicester Airfield
SC 12	18th-22nd Aug	Bicester Airfield

Young Persons Courses

Young Persons Soaring Course
25th-29th Aug . . . . . Bicester Airfield

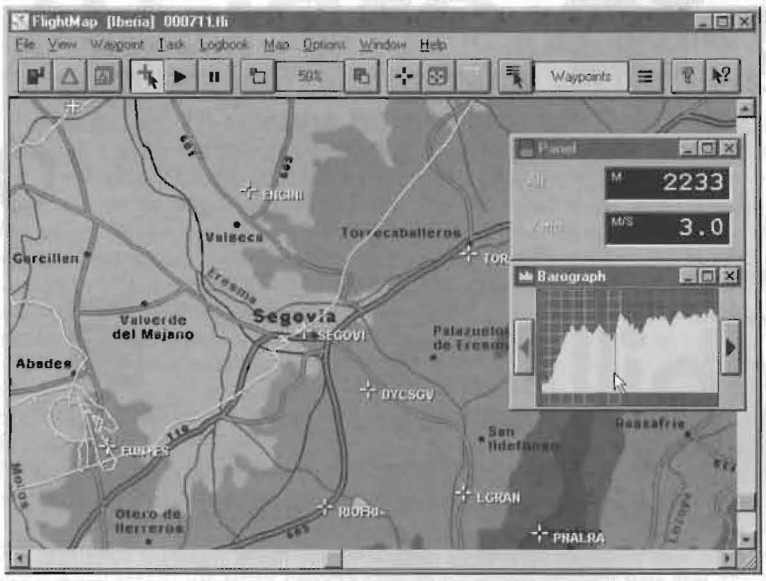
Young Persons Fee: £87.50

Young Persons Cross Country – Coaching Course
2nd-8th Aug. . . . . Bicester Airfield

No Course Fee – to be considered for a place, apply in writing to Dave Bullock, C/O BGA Office

To book on the above courses, contact the BGA on: **Tel: 0116 2531051 • www.gliding.co.uk • E-Mail: colin@gliding.co.uk**

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Illustration shows the new map for Spain. Data is supplied by Bartholomew Digital Data.



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All photos: Richard Starey



Richard Starey reflects upon his recent gliding holiday in South Africa... and the reason for taking some unusual supplies

70 jars of spag bol

OUT OF the taxi tumble suitcases, a three-wheeled buggy, a couple of parents and a bright-eyed baby. Harvey, nine months almost to the day, turns his head from side to side, shouting at weary travellers and talking gibberish to airport staff. It will be his third gliding expedition, not counting one from the womb.

We're sitting in the BA lounge, a luxury from previous business mileage regrettably soon to lapse. Relaxing back in the leather chair, sipping wine and nibbling at various cheeses, I guard the fort until Tanya returns from a walkabout, Harvey chortling beneath a fern in paradise. We have brought all his food with us: 70 jars of spaghetti bolognese, which is packed in my silver camera case in the hold, marked "fragile".

Allowed to pre-board, we chat to a young South African couple at the plane entrance; their two-year-old pokes a finger in Harvey's eye. His first conflict. He plays the strategic card, cries and takes the last fully-reclining basinet on the plane.

We have driven from Johannesburg down to Bloemfontein and Dick Bradley's new gliding operation under a deliciously inviting sky. The views in all directions are of flat farmlands with occasional mounds like giant molehills. We leave Harvey to sleep while we rig 98, our LS4 for the holiday. He normally demands attention at the most critical moments of rigging, with both our hands full, so we take it in turns to fettle and tape after the wings are on.

If we are lucky, Harvey remains asleep in the car and we can slip in to briefing. More testing days involve one of us walking up and down with him, paying attention to the briefing and trying to keep his enthusiasm to below the health and safety decibel limit. Maps, gliding hats and anything he can spill on the table fascinate him.

Feeding is strictly regulated by the boss. This normally occurs when there's a beer waiting for you at the bar or as you are about to tow on line. Two jars have to be eaten in full. You are allowed to use any trickery to keep the mouth open and swallowing going, but singing normally engenders the lip-parting smile required.

Each day we arrive with a military-style plan. We try both to fly, even if one of us is to have the lion's share of the day, the other often taking some spectacular thermals late into the afternoon. Harvey is passed between us like a hot potato during briefing and we plan a task. By the time we are out at the launchpoint, he has been fed, had a sleep, played and been changed. A number of times. Tanya runs with my wingtip and I launch into the dustys, the bright red thermal sandstorms. I run between saltpans and farms, lakes and dams. And diamond mines. Nine-knot thermals battle with 9kt sink. Tanya curls up in the car and reads her book. Four hours later the radio calls and we do a swap.

Gliding with Harvey is like being on exercise, but despite the extra preparation, highly rewarding. With a combined 40hrs flying, we have had a terrific South African adventure, thanks, in entirety, to Dick and his crew and the friends we flew with.

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Clockwise from top left: Harvey's turn to fly; 6kts over Bloemfontein; between storms; shade under hangars





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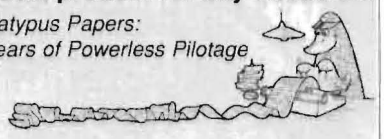
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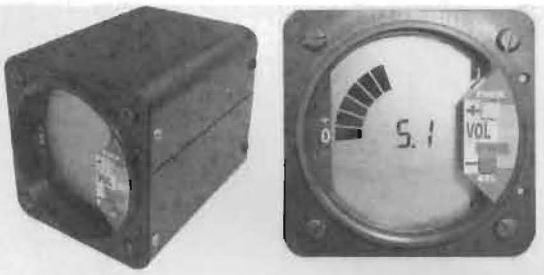
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Dukeries





Above: Kate Rodham is congratulated on going solo at Gamston by CFI Dave Urpeth. Dukeries GC (left) can be located by its position just south of Retford and next to the A1 (to the left of the photograph, below left).
Aerial photographs by Jon Knight

IN 1987 a group of enthusiasts, who set about building a winch and flying a syndicate T-21, rigged daily, brought the Dukeries GC to life at Gamston. This routine continued for five years, until in 1992 we built our hangar.

Today Dukeries GC is a small club of about 40 active members; at least a quarter of those have youth on their side, and we have three lady pilots. We have our own hangar, a workshop and a clubroom without bar facilities (but the local pubs are good). We concentrate on our core activity of gliding and members get lots of flying time.

We promote gliding very actively and have probably the best value fixed-price-to-solo course in the country. (If anyone can beat £299 please let us know.) The club has the use of a very well-surfaced runway 14-32 and we use the grass strip to the west of the runway. Predominantly a winch operation, we have aerotow permission and occasionally have a visiting tug. Pilots who land out at Gamston are of course welcome to call in their own club's tug for their retrieve.



The site is superb for thermal generation; our annual competition to see who can fly the first half-hour of the year seldom goes far into February. In winter we share the same wave system as Camphill (a wave bar or two downwind) and, now that we have aerotow available, we intend to exploit this with some winter wave weekends. Our fleet is excellent for such a small club (see *At A Glance*).

We are easy to find, being next to the A1 just south of Retford. A few miles to the east of the airfield is a cluster of power stations on the river Trent (yes, more thermal sources). Our local 50km milk runs are north to Burn and south to Saltby. If you have VOR, the Gamston beacon is in the corner of the airfield. This does give rise to a fair volume of general aviation traffic transiting the beacon, so a good lookout is essential. ***Mike Terry***

At a glance

Full membership cost: £100

Launch type and cost: winch, £4

Club fleet: K-7, K-8, Sport Vega, Janus B

Private gliders: 10

Instructors: 6, plus 2 BIs

Types of lift: Thermal, wave from aerotow

Operates: Weekends and Bank Holidays

Contact:
01909 731436 (chairman, John Swannack)
adele@swannack60.freeserve.co.uk
01777 704047 (secretary, John Talbot)

NB: We operate within Gamston Airfield's ATZ. Gliders are not permitted to cross the extended runway centreline of the licensed runway 03-21 below 1500ft. Non-radio gliders please observe glider circuit patterns before joining, taking care to avoid the power runway if landing on 32. The club monitors Gamston radio on 130.475
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Club news



*Mike Thorne of **Bath, Wilts and North Dorset GC** receives the Keevil Club Trophy from Bob Hitchin*



*Jack Clark and Pat Rowell cutting the twin celebratory cakes for **Clevelands GC**'s 50th anniversary*

Bath, Wilts & North Dorset (The Park)

OUR annual buffet dinner and prizegiving was held in November and as usual admirably catered for in-house by Sue Cutler and Jan Smith (our versatile secretary). The Keevil cup was awarded to Mike Thorne, who, in amassing more points than anyone else, flew his first 500km in July and completed two more 500kms in the next fortnight. The Gordon Mealing trophy for the greatest contribution to the club was awarded to Dave Parkes, who spent many hours on the field helping with courses and Friday evening flying. Through the winter we are flying on the good days and running lectures; rebuilding the Bocian trailer to accommodate the Puchacz; repairing the winch tracks, and so on. Our maintenance team is working on a second Astir.
Joy Lynch

Black Mountains (Talgarth)

THANKS to Keith Richards' splendid refurbishment of Kilo One Three, we now have a matching pair of blue K-13s. Congratulations to Mike Codd on going solo. Remember our average flight times are over an hour, so there is no reason to become uncurrent over the winter. The final touches are being applied to our new clubhouse – the hot water supply and showers are a welcome addition – many thanks to the team led by John Horley. Given the growth of the last two years, we will have full-time staff throughout the summer, starting in May. Expeditions and courses will be very welcome.
John Clark

Please send entries to *helen@sandg.dircon.co.uk* or Helen Evans, 7 Ollney Road, Minchinhampton, Stroud GL6 9BX to arrive by **February 11** for the next issue (April 15 and June 10 for the following two)

Booker (Wycombe Air Park)

DESPITE the miserable weather we have another two first solos to report, those of Rolf Kern and Andy Cobbett, bringing the recent total to at least 25. The system of instructor allocation/pupil booking is being further improved for the new season, whilst better value (lower prices, more flying) is offered on the intensive courses, together with a follow-on course after solo. New chairman Bruce Cooper is already making his mark with several changes and improvements. One of these is the return of Dave Watt, taking over organising the tugging from Guy Sutherland. Welcome back to Dave and thanks to Guy. Substantial groundwork is already underway to improve the airfield surface, as well as the access tracks, largely funded by the airfield management. Our new K-21 has arrived from Schleichers, and we will have five tugs, including two Pawnees. Plans are well under way for our two spring expeditions, to Jaca and Shobdon; as well as our two-class regionals and the 15-Metre Nationals.
Roger Neal

Borders (Milfield)

WORK has started on the private hangar project, but got off to a slow start due to terrible weather. We have acquired a Pirat as part of the grant application, which pilots under the age of 25 will be able to fly free of charge, although they will still have to pay for tows. We hope it will help to encourage more young people to fly with us. George Hall has completed his Basic Instructor course. George Brown, our secretary, has decided to give up instructing after 27 years, but still intends to keep on tugging. A big thanks for all his hard work.
Bob Cassidy

Bowland Forest (Chipping)

WELL, here we are in December and the weather and the field have both held out for us to keep on flying! It makes up for the poor start to the year. Six of our instructors are attending a course, given by Bob Pettifer, on becoming Full rated. Work on the refurbishment of the gents toilets and the central heating system is well under way. Our Christmas party was well attended, and very much enjoyed by all. Congratulations to the following, who were awarded trophies at the recent AGM: A League (experienced pilots), Geoff Bailey; B League (early solo), Henry Stott; Hogben Triangle, Brian Lomas; Cross-Country Trophy, Geoff Bailey; Progress in Early Solo, Amy Barsby; Enthusiasm, Jadge Singh; and, finally, Services to the Club, Frank Gill.
Eileen Littler

Bristol & Gloucestershire (Nympsfield)

WE have had a spate of new members recently. The main changes at the AGM were a new secretary (Bob Williamson) and increased subs in line with inflation. The club history group has uncovered a mass of material ready to put it on the website at *www.bggc.co.uk* eventually. Badgers are a big problem for the club as they are digging up the airfield. DEFRA is being approached for compensation as they do not allow the obvious solution! Control methods are being considered too. The dinner-dance is on March 1 at the George, Frocester. Instructor Danny Goldsworthy is leading an inspectors' course for nine members and they are learning by renovating a K-8. We are hosting the Junior Nationals, so get your entries in!
Bernard Smyth



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Club news

Burn (Burn)

WE are still watching developments in Europe, which will influence our future location. Nothing new yet. A forum to discuss our future was held in November and a team volunteered to seek out alternative sites. In the meanwhile our launch rate remained healthy until the rains came in November. We have reduced the cost of aerotows in club gliders to our members and this is keeping the tug busy. Two more 16-year-olds going solo are Adam Walker and Raymond McLearnon; both are doing very well. Our visitor programme at weekends is fully booked until the end of August next year. Just shows what people are looking for these days.
John Stirk

Cairngorm (Feshlebridge)

HERE we are back in C of A season again: our sincere thanks go out to Nick Norman and Ray Lambert, our two overworked inspectors. Some members (including me) are planning trips to the land of the kangaroo (I'll tell you what it was like). Don't forget to include our "Mayfest" in your new year diary (many 300kms up for grabs). Check out details on *www.gliding.org* or phone the club on 01540 651317.
Chris Fiorentini

Cambridge (Gransden Lodge)

IT has rained recently. A lot. So there hasn't been much flying at Gransden. But that has meant an opportunity to tackle some of those uninspiring jobs around the club. Demolishing a disused caravan or two can be a great way to relieve the tension brought on by not being able to fly. Behind the scenes, the powers-that-be are preparing new ideas for next season to enhance the standard of training we offer. We are trying out a new system of annual checks consisting of a day of refresher training adaptable to the individual pilot's needs. This should benefit pupils and instructors alike. We are also encouraging instructors to fly mutually to keep in practice with those less frequently-taught exercises. It's not the same as the real thing, but it's a lot better than being asked to teach something you've forgotten how to do yourself. Once we find our airfield under the mud we can put it all into practice.
Gavin Deane

Clevelands (Dishforth)

THE wave season got off to a good start with Gold height claims for two visiting Nottingham University pilots from Syerston. Since then, the weather seems to have been uninspiring dank fog and wetness, mostly clearing on Sunday afternoons. On the weekend of December 7-8, Al Fox managed to last one and a half days of miserable conditions without losing the will to live, and was rewarded with an unexpected clearance, and a climb to 11,500ft. Ever optimistic, at the time of writing we were looking forward to our traditional two-week winter wave camp. The highlight of November had to be CGC's 50th anniversary party, held in true splendid GSA style at a local hostelry. Eighty-two members past and present attended. Two of our longest-established, Pat Rowell and Jack Clark, cut the twin celebratory cakes (see *previous page*), and the party carried on into the night. Thanks to Andi Causer for organising an excellent evening.
Polly Whitehead

Cotswold (Aston Down)

THE club made two excursions to Portmoak this autumn. The first was blessed with good weather and fun in the Scottish wave. On the second, we were becalmed and there was only a little flying, but a good deal of fine eating. One of our pilots had a close shave when he span his syndicate K-6 into the hillside but was miraculously unharmed. November the 5th came a little early as we disposed of the wreckage. Another pilot, Paul Gray, completed his Cross-Country Endorsement. We now have a splendid syndicated Duo Discus on site that featured in the gliding gallery of the last *S&G*. Work continues to improve the exterior of our clubhouse and we are busy reorganising our caravan parking area with more electricity supplies. The weather prevented much flying in November but we look forward to the dinner-dance in February.
Frank Birlison



"Let's get out of here before the traffic warden spots us!" is photographer Phil Morrison's suggestion to caption ***Devon & Somerset*** *members in Exeter*

Cranwell (Cranwell)

BY and large, a damp and foggy end to the year. However, we have flown on every conceivable occasion and managed a round of instructor and pilot periodic check flights. Poor conditions for flying have also ensured that glider, hangar and MT maintenance have received much attention while The Management has used the time to review our whole operation with a view to breaking out of the current epidemic of SAD (Seasonal Aviation Disorder) in fine fettle. Members have been training in the use of a computerised logging system in anticipation of going live in the New Year. The club held its Christmas dinner on December 7.
Paul Skiera

Dartmoor Gliding Society (Brentor)

WEATHER has restricted flying since the last report with only one or two days of soaring. After all the work done on it recently our moorland site has held up surprisingly well, but our sky has not. Most of us have managed to stay current and there have been some checks for our Bronze group but life has been nearly all circuits and bumps. A dedicated group has been refurbishing the clubhouse, outside and in. Promotion of the club has continued by giving out leaflets and information and selling vouchers in the local indoor market.
Phil Brett

Deeside (Aboyne)

THE annual dinner was held on November 30 and was the usual riotous event with missiles of various kinds being flight-tested. Jack Stephen walked away with a number of trophies but Lyn Ferguson-Dalling won the Lord Astor of Hever Trophy for best height gain. The CFI awarded three trophies: advanced to Steve Thompson, intermediate to Andrew Eddie and the beginner's to Q Lewis. We look forward to 2003 and welcoming people to Deeside for a new gliding season. Bookings for the wave season and the 6th UK Mountain Soaring Championship (September 7-13) are under way.
Sue Heard

Denbigh (Denbigh)

ON September 2, Rod Witter thought he saw a weather opportunity for a UK record attempt (400km in the 20-metre class) so set off in his 18-metre Ventus, having declared Enstone-Shobdon. He completed the task at 99km/h – apparently a new record. Sadly, a few days later he discovered that Mike Jordy had achieved 105km/h. Well done to Mike, and to Rod for what we think is the first 400km out of North Wales. The recent wet weather has not stopped operations. The resurfaced retrieve track and improvements at the launchpoints have resulted in greater efficiency and more flying – no more mud! Easterly and westerly winds brought wave over the site and good climbs. Well done to Dave Catherwood on his first Bronze leg.
Brian Allen

Devon & Somerset (North Hill)

AT the AGM, held in the recently-decorated club room, the major mover of this refurbishment, Ian Anderson, was rewarded by the membership by being elected chairman; glider pilots are a merciless lot! Retiring chairman Chris Heide had his pleas for mercy dismissed in a similar manner, after rash pre-election meteorological promises had come to naught. As a final insult, after all his efforts on behalf of the club over the last few years, he was awarded the Wily Old Bird Trophy! Other award winners included Simon Minson (Club Ladder), John Pursey (height gain and best flight in wooden glider), Ron Johns (longest two-seater flight, with Graham Lobb, and best competition result, with Malcolm Chant), and Clare Alston (best improver). John Bugbee is congratulated on completing his Diamond Badge with a 500km flight from Fuentemilanos in Spain and Paul Carpenter on his Assistant Instructor rating. The club is in good shape largely due to the hard work of several members and eagerly awaits the new season, with the promise of a new K-21 in the late spring.
Phil Morrison

Dukeries (Gamston)

OCTOBER saw our annual trip to Portmoak. We enjoyed the hospitality but not the poor weather. Our club attracted the sort of attention we do not want with a visit to our trailer park by thieves who collected spare wheels and so on, having broken into several trailers. This unfortunately was only a curtain raiser for the main event when our hangar and clubroom were broken into with items stolen ranging from welding kit to a tow-out vehicle from the hangar and the electrical goods from the clubroom. We have now significantly improved security with more changes to be made. On the good side Kate Rodham achieved solo status. Kate is the first of our £300-to-solo fixed-price students to go solo. She is only the second lady pilot who has trained to solo at the club, we look forward to many more.
Mike Terry

Essex (North Weald/Ridgewell)

CONGRATULATIONS and well done to Bob Cassels, our membership secretary, on his BI rating. Hugh Maddams, on giving a trial lesson to a lady terrified of heights, who was being sponsored by a cancer charity, was disconcerted to see her cross herself during "up slack" (he thought only the CFI did that on his annual check!). She thoroughly enjoyed a rare thermic October flight to 3,500ft at our Ridgewell site. Her friend also flew and Hugh, generous to a fault, donated her launch fee to charity. Martin Jewell had a very successful trip to Aboyne achieving 9,500ft off a 3,000ft aerotow on his first solo flight in the Deeside club's Junior, and a couple of days later 12,800ft with Peter Gill in a Duo Discus. What a start to the winter! Clubhouse activities included a very enjoyable quiz evening, organised by DCFI Dave Hertzberg; a further extremely good talk on meteorology by our own George Booth; and a highly informative and amusing talk by Peter Burling about his other set of wings as a beekeeper and the things they get up to (the bees, that is). A big thank you to Diana King and Jon Hall, who came all the way from Chester to give us a very worthwhile presentation on the workings of the BGA concerning its help and aims, especially in regard to enhancing communications between clubs and pilots. The evening ended in a good interactive and fruitful discussion with Diana and

Jon about our concerns. Our thanks go to all involved in making these evenings such a success.
Peter Perry

Fenland (RAF Marham)

IT'S been a long time since there was any news from Fenland so there's a lot to fit in. Last year saw the untimely deaths of Al Raffan and Alan May. Both extremely experienced and both are greatly missed (see obituaries, p60). Achievements-wise, Peter Stafford-Allan flew a 500km and 600kms on subsequent weekends. Pete Harris, Martin Baverstock and Dave Wren all completed Bronze. A contingent of the club's finest went to Portmoak, where Bavers and Olly Chubbock both exploited the ridge to complete their five hours. Olly, who had previously gained his Silver height, joins the RAF in February and we wish him well (a posting to Marham would be nice, Olly! Or do you want to get away from Norfolk?) Don Johnstone, who gained everybody's respect at Portmoak with his keenness to get everybody up and ready in the search for that elusive wave, completed his Gold and also a Diamond goal. Tim Edmunds became a Basic Instructor and continues to give sterling support to the club. Adrian Bramwell has gone solo. At last year' s Inter-services, CFI Del Ley, Paul McLean and Peter Stafford-Allan all finished in the top ten. On day two of that comp, Del beat the other two speed merchants with flaps and big wings in his Discus, ably assisted by his crew, me. I also finished Silver with a 50km from Bicester to Lasham in a K-18, and celebrated that with a one-man exped to Tuscon, Arizona. Cloudbase of about 9,000ft was "the lowest for a while" said a local man.
Graham French

Four Counties (Syerston)

NOVEMBER'S AGM was well attended, with trophies awarded as follows: Instructor Of The Year, Nige Readman; Pilots Trophy, Peter Davey; Hughes Trophy, Mike Howard; Sharon Morgan Trophy, Carlos-Ingram Luck; CFI's Trophy, Bryan Delmer; Merriman Trophy, Leigh Hood; University Trophy, Andy Langton; Shirley Trophy, Tom Newham; George Lee Trophy, John Wilton; and Baldwin Trophy, David Bromley. Andy Mason was granted life membership in recognition of his hard work as deputy chairman, CFI, fall guy and now soup dragon. The club has had a good year with many notable achievements, including Tom Newham's three-in-one flight for his Silver Badge. We can also look forward to finding a replacement for our lost LS8, and so we start the New Year on a positive note under the leadership of Paul Armstrong, who has taken over as CFI.
Sue Armstrong

Fulmar (Easterton)

WE have been washed out up here for nearly six weeks now! However, Rick and I did manage Diamond height climbs almost overhead the site on a superb day in August. We have the loan of a Janus from Bannerdown for the winter, which provides us with a higher performance aircraft for cross-country training. We hope to go flying again soon, if it ever stops raining.
If only we could decamp to Oz for the winter!
Mark Brown

Highland (Easterton)

CHRISTMAS is coming as I write, and we at Highland are not hoping for a white one; we are not even singing for two front teeth. We are just hoping to do some flying – we have had an unbelievable run of bad weather four weekends in a row – no flying due to rain. The strip looks good, thanks to Tony Butler, who will often be found digging it up to put another bit of drainage in. So if you want a good-looking grass strip like ours recruit a retired farmer! Congratulations go to Peter Goodfellow, who when we were flying got his two-hour flight in.
Roy Scothern



*Reiner Dohmen and Simon Duerden ready for **Kondor**'s first launch, in K-13 JLE (Jochen Ewald)*

Imperial College (Lasham)

IN recent weeks, weather has been so bad that many of us have forgotten what gliding is... Perhaps it's payback time for that great October! However, it hasn't stopped Ewan Crosbie and Jamie Denton converting on to the Discus and me getting my Bronze and Cross-Country Endorsement. By the time you read this, our fleet should be ready for the approaching soaring season. Many thanks to Afandi Darlington and Rob Williams for their help with the annual C of A work. In addition, the ASW 24 has been fully regelled and both single seaters have finally received the L-NAVS we ordered last year. Also, many thanks to Andy Holmes and all those who helped organise our Christmas tour to the Long Mynd.
Alan Bamford

Kent (Challock)

WE have just taken delivery of our first K-21 and look forward to flying it once the instrumentation is finished. Congratulations to Chris Luton on gaining his Assistant Instructor rating and to Natalie Harmer, one of our junior members, who recently went solo. Natalie then followed this success by passing the Bronze theory exam the next weekend, along with all the other members on the course. The weather in the east has been inclement to say the least, but this has been compensated for by successful social functions. Further events, social and educational, are planned.
Caroline Whitbread

Kestrel (RAF Odiham)

CONGRATULATIONS to Rory Bate, who has soloed. October was a good month but poor weather and a waterlogged airfield meant we only had two weekend flying days in November. We completed end-of-season maintenance on the Bessonneau tent hangar, which will see it through the winter months. Thanks to Amaury d'Otreppe for all his work over the past two years keeping the gliders serviceable as aircraft member. He hands over to Bernd Verneulen, who has made a start on the winter C of A programme. Sylvia Scott will again run the post-Christmas party extravaganza.
Simon Boyden

Kondor GC (Brüggen)

PHOENIX, the former RAFGSA club at Brüggen, has risen again as Kondor GC, offering a new home to all British forces glider pilots in Germany. After Phoenix GC went in autumn 2001, when the RAF retired from Brüggen-Elmpt, its last German base, remaining members joined the civil German Brüggen Aeroclub. In 2002 this club, which had added Phoenix to its name, operated mainly at Nörvenich German Air Force Base (many thanks to the Heini Dittmar GC for giving us our temporary home). After dealing with lots of bureaucracy, a new Army Gliding Association club began operating at Brüggen on November 30, 2002, with Reiner Dohmen and the new Kondor GC CFI, Simon Duerden, launching in the K-13 JLE recently bought from RAFGSA Bicester. The club also has access to a K-7, K-8 and SB-5e as well as a two-drum winch and ground equipment and anticipates having a motorglider and an AGA K-21 soon. A big thank you to all who made this new club possible, including Reiner, Simon and Thomas Schmidt. New British Service members are joining and if you would like to be one of them email *simon.duerden@amsl.com* or *simond@onetelnet.nl*
Jochen Ewald

Lasham Gliding Society (Lasham)

ALAN Purnell started gliding in 1956. He has flown 10,000 hours in gliders, and 150 cross-countries of more than 500km. He must have been born with wings. Congratulations, Alan. Following the purchase of the airfield, plans are being made to improve the site. Surplus buildings within the peritrack on the south side of the field will be removed. The entire area of the airfield will be made fit for flying all year round. This will involve improvements to the drainage. The surface of the medium and short runways will be improved to make them fully usable for flying. Launchpoint areas will be improved on these runways. New hangars will be built at the north-west end of the field and the caravan site extended, if there is sufficient demand. An exciting development of the clubhouse is proposed. A second storey will be built on columns above the existing building.
Tony Segal

London (Dunstable)

WE thank Keith Downham for 30 years as a dedicated secretary and welcome Mark Peters as the new boy. Annual dinner awards went to Bob Brimfield (best flight in a club glider); John Jeffries (best flight in a two-seater); Patrick Greer (best *ab initio*); Andy May (most promising young pilot); Simon Cattle (best Silver); Ed Johnston (most meritorious flight from club); Laurie Woodage (glider construction); and Guy Corbet/Andy May (best out and return). Congratulations to Robin May, winner of the Open Nationals. Winter social evenings have started with The Full Cat Challenge quiz and fish and chip supper which proved popular with the bar doing good business. Flying and hill soaring is continuing daily after the November rains – provided the weather is kind. Spring trips to Cerdanya, Spain, are filling and Shobdon is over subscribed. Thanks, Talgarth, for providing some good thermic days during our autumn trip, when one glider reached the west coast and back. Memories do not fade – Ted Hull recently met up with a former member of 68 years ago, 89-year-old Rolf Pasold, now living in Switzerland, to tell his tales. We pass our condolences to the family of Ann Welch, who died in December and who was a prominent member during the 1930s (see page 12).
Geoff Moore

Mendip (Halesland)

CONGRATULATIONS to Daryl Mansbridge, our new Assistant Instructor. The birds are flocking to our trailer park: the two Kestrels and the Swallow have now been joined by an Eagle. Following the theft of our tractors we acquired a Land Rover, which had spent its life in a quarry and was described as "blown up". Our lost causes specialists got it up and running and we now have a serviceable cable retrieve vehicle. Particular mention must go to Joe Acreman, who put in many hours of work despite not being fully recovered from his serious accident. There is eager anticipation of the arrival of the new motorglider, G-KWAK. It has already been flown to this country and is going through the registration formalities. G-KWAK will have a duck motif on the fin (obviously) and its aerotow capability has the members already forming an orderly queue. We hope to have it at Halesland early in the New Year.
Keith Simmons

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Midland (The Long Mynd)

IN November, 100mph winds hit the Mynd. Even the badgers soared. The winter routine is well established with big internal improvements and a tarmacing programme for the main apron. Two of our K-21s are following their brother to Poland for complete refurbishment, ready to prove themselves in our single-type competition next summer. We're quite excited about this. (See our ad for details). The achievements of our young competition pilots have caused stirrings amongst the 60-year-olds. Colin Knox (winchmaster) has framed his winter fuel allowance and Chris "Tigger" Harris (ex-CFI) has got married again, muttering that it's the only way to go. The tributes to Alison Rowson have been moving and poignant. At her funeral, brother-in-law Phil King quoted from one of her pieces written for the club newsletter about what the Mynd meant to her. It is surely appropriate to quote that here: "The Mynd means solitude, when perhaps the cloud is down on the hill, or it's covered in snow and there are very few people about, just the skylarks, the lapwings, the swallows and the curlews which I learnt to recognise when I was very young. Or fine evenings, when almost everyone else has gone home, or early in the morning with the sound from the valley – or silence – just the smell of the Mynd, which is unmistakable".

Roland Bailey

Needwood Forest (Cross Hayes)

THE poor weather in November and December meant there was little opportunity for flying, but our winter activity programme kept us all busy. Dave Salmon and Keith Mansell visited us as part of the BGA club visit programme and free-fall parachutist Dave Morris gave an animated talk on parachutes. We have a full and varied programme of events including talks, visits and Bronze lectures and we hope Pete and Adriana's popular suppers will be a regular social event. Visit www.GoGliding.co.uk for details of what's happening.

Val Roberts

Nene Valley (Upwood)

FLYING continues despite the rain and standing water. Now is the time of year for maintenance and the site will be closed at weekends during January. Barry Meech, site manager, has a programme prepared that will result in the site being smartened up and the compound being extended to accommodate our ever-growing number of private trailers. Over 50 per cent of active members now own at least a share in a glider. Pete Seymour and Barry Meech have just started basic instructor training. The new committee has just

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taken office, and 2003 beckons. During 2002 we had a number of visitors from as far away as Scotland. We hope to see more next year.
Stephen Flowitt-Hill

Norfolk (Tibenham)

THE youth flying sessions held at the end of last year were very well supported with 65 young people from uniformed and sports clubs participating. Cadet Adam Chapman has become the first of his group to graduate to glass single-seaters with a flight in the Astir CS. Given the increasing efforts the club is making to attract and involve many more young people, we have affirmed our commitment to the Norfolk Child Protection Committee's policy concerning "Safer Activities for Everyone" in voluntary sport and youth work. Many congratulations to Matt Cook, who has been selected for the British Team in the Club Class of the 2003 Junior World Championships and to Rose Goodwin and Ann Harper, who have soloed. We are running a wide range of courses this year, ranging from *ab initio* and post-solo training to cross-country and aerobatics. The take up looks promising but outside enquiries are welcome. The future of the club was very high on the agenda at the well-attended Open Forum at the end of November. Members were updated on the committee's current and longer-term thinking, and, most importantly, given the opportunity to have a say on a wide range of issues. These included the development of hangarage, club-house facilities and use of the airfield. Plans are already in hand to celebrate 100 years of heavier-than-air flight on Wednesday December 17, with flying on the day to mark the occasion and special events throughout the year. Our tugmaster Colin Haymes is standing down with our thanks for his hard work. He will be succeeded by Jim Lawn, whom we wish well in his new role.
Alan Harber

Northumbria (Currock Hill)

WE have had only limited flying of late on account of the weather, a waterlogged field and, alas, the loss of the tug on November 9. The Pawnee was on the pilot's first conversion flight to type. The aircraft was landed on the aerotow strip in no-wind conditions and failed to stop on a failed go-round, until it was arrested and overturned by the western boundary fence. The pilot was unhurt. Repair or write off? This has not yet been decided. Frank McLoughlin has soloed on winch and aerotow after doing it first at Hus Bos. Furthermore, he and his team have renewed the hangar ring main, a complement *(sic)* to Dennis Watson's excellent electrical work in the new toilets/showers/workshop area. A very successful Wings Night was held on November 30. Wings and trophies were presented by Trai Anfield, BBC local TV's weather presenter. Wings, awarded for going solo, went to: Frank McLoughlin, inevitably; Craig Storey, who was only 16; Bill Turnbull; Jim Smith; and Ted and Nicky Brandi – the first husband and wife team to solo on the same day at Currock. The Wave Trophy went to Brian Milburn, who gained 8,000ft over Derwent Reservoir in his ASW 15b. On the Club Ladder: League One winner was Roy Mitchison, for his two 100km triangles in his ASW 15b. Runner-up was Ailsa Cooper for her Hotspur Trophy regain. In League 2 - Don Welsh won, mainly for his Silver distance to Milfield (also a Hotspur regain) in his ASW 15b (it's all the same glider – it looks like a syndicate board sweep.) Runner-up was Alan Adams (Standard Cirrus) for his 7,300ft wave climb and his five hours in thermal. League 3 was won by Ron Davis and Harry Ramsey in the "Magnificent (K) Seven" for a wave flight, a septuagenarian Cook's tour around the North Pennines. The John Allan Shield was given to Craig Storey – he has progressed well and his all-round efforts for the club are much appreciated. The club website is being handed over to Ted Brandi by Martin Fellis, who is now flying for British European from Belfast.
Leonard Dent



Neil Kelly, centre, after sending Glenn Scott and Ali Noel solo at ***Shenington GC*** *in October 2002*

Scottish (Portmoak)

PLANS for summer courses are well under way. As well as the normal five-day courses, we are offering half-day courses as an alternative to BI flights. We are giving serious consideration to a new hangar – near the trailer park in our south field. The design will allow club and syndicate aircraft to be removed without the usual hassle of shifting other gliders first. The following pilots received SGC awards at our annual event in December: Thorburn Two-Seater Trophy, John and David Williams; 100km Triangle and Lomond Trophy, Dave Thompson; Parker Distance Trophy, Docherty Handicapped Distance Trophy and Sutherland O/R Trophy, Dave Clempson; McClay Championship Trophy, Boyle Altitude Trophy, Peter Copeland Memorial Trophy and Hot Wings Trophy, Kevin Hook; Nick Wales Trophy, Andrew Bates; Service Salver, Joe Fisher; Andy Penswick Memorial Cup, Chris Robinson; Junior Ladder Trophy, Guy Hall; and Darren Powell Memorial Shield, Ian Trotter. Finally, I am planning to write a book on the history of the SGU for our 70th anniversary in 2004. If you can help, please let me know *(see also letter, p8).*
Ian Easson

Shenington (Shenington)

CONGRATULATIONS to Robin Jackson, who has just gone solo, and to Tim Donovan, who has completed his Silver Badge with a Silver distance. With the onset of shorter days and (even more) inclement weather, the gliders are taking turns to go off line for maintenance, and we are socialising more! We had a splendid Bonfire Party, and are having a Christmas party at the clubhouse in addition to the annual dinner and dance in February. We will continue to fly weekdays as and when the weather allows, but on a more ad hoc basis so if you wish to visit midweek then please call ahead to check what's going on. If you want to keep in touch or join in any of our events, visit *www.shenington-gliding.co.uk* (note new URL).
Tess Whiting

South London (Kenley)

HERE we are back in the throes of an English winter – where did the year go? Things are progressing steadily with our plans for the future – applications are under way regarding a sporting grant for development of the club. We are also investigating the possibility of obtaining a bursary from local authorities. It all takes time, but we'll get there. Thanks go to Peter Bolton for his efforts in negotiating with the MoD, and to our MP Richard Ottaway. Thanks also to member Stuart Trafford for his hard work maintaining the club's website – the internet has made an enormous difference to our advertising coverage. If you haven't visited it, check it out! Belated congratulations to our two latest BIs, Marc Corrance and Ian Keyser: well done! If you happen to be passing, remember to call in and say hello!
Alan Seear

Southdown (Parham)

WE have been devoid of incidents lately. This could be the result of improvements in ground control and general flying discipline, or simply of the fact that the airfield is saturated. Apart from a couple of hours of wave soaring, between rainstorms, the equipment has remained safe and sound in the hangar. This has prompted a number of our pilots to seek sanctuary abroad, in places as diverse as France, Spain, Portugal and the Antipodes. Our more conservative members do not hold with abroad. They think that foreigners only speak English when our backs are turned. We have installed a number of T hangars on the airfield in order to make space in the main hangar for aircraft maintenance. A new lease is shortly to be signed and this will enable us to make some immediate improvements and to develop plans for the long-term future of the club. There is no shortage of advice as to what is needed. This ranges from high-performance gliders for our younger members to T-hangars for more elderly private owners with ailing backs. Everyone's in favour of progress. It's just change they don't like.
Peter J Holloway

Staffordshire (Seighford)

CONGRATULATIONS go to Paul Cooper and Derek Heaton for completing their Assistant Instructor ratings. Welcome to new members Brian Saxon and Steve Smith (Congratulations also after re-soloing). Thanks to a spell of kind weather, we managed to pass our target launch numbers for 2002 at the start of December. Thanks to Colin Ratcliffe and all those involved in the installation of the AvGas tank. The Friday flying and early morning courses (thanks to Ian Davies) are proving popular. The field continues to drain well for this time of year – even after a few days' heavy rain. The K-8 is looking nice after some TLC, and the ground equipment continues to be in good shape – thanks to all concerned for their hard work. Thanks to Alan Self, a number of members enjoyed an illustrated talk to mark the centenary of the Wright Brother's gliding experiments (based on the article in the December 2002-January 2003 *S&G*, p36). Members are currently looking forward to the club's 40th anniversary and annual awards dinner, on February 7. The after-dinner speaker will be *S&G*'s own Gliding Guru, Mike Bird. If you fancy coming to hear his words of wisdom, tickets can be bought from *www.staffordshiregliding.co.uk*
Paul (Barney) Crump

Surrey & Hampshire (Lasham)

TO the many, many tributes you will see to Ann Welch, S&H would like to add our appreciation of her immense lifelong contribution to gliding and to our club: she was one of our founder members and one of the small group we were honoured to have as life members *(see p12).* 2002 ended as a less-than-wonderful year in hours, but a good one in badges, achievements and enthusiasm; on almost every day that was at all soarable, all the gliders were out. This has put us in a good position for 2003, with our fees either held steady or only subject to a very small rise. Planning is well under way for the Lasham/S&H Jaca expedition – we will be taking one of the Discuses there for three weeks. Oh, and did we mention our on-order new flagship Ventus 2? Not due until 2005, but some members are already making plans! Keep track of S&H news on our new website, created by Pete Masson; *www.surreyandhants.org.uk*
Graham Prophet

Club news

The Soaring Centre (Husbands Bosworth)

CONGRATULATIONS to Nicki Grant, who went solo at the age of 63. "Bloody Brill," to quote the pilot himself! We also welcome Paul Howard to the club committee. The club ladder reveals that our pilots flew over 19,000km during 2002, including two flights more than 750km and 32 more than 300km. Well done to Dave Booth, Brian Marsh and Mike Jordy, who finished first, second and third respectively in the Husbands Bosworth open ladder for 2002. Well done also to the weekend ladder winners: Brian Marsh (1st), Rolf Tietema (2nd) and Dave Booth (3rd). The club trip to Aboyne in October was once again successful. Rolf Tietema climbed over 15,000ft in his Libelle 201. Santa visited us once again in his sleigh (well, a Chipmunk) for the children's Christmas party. The hardstanding at the end of the airfield has been extended and the surrounding access area hardened too, so that our winter operation is now much improved. Thanks to Don Griffiths, who has made a number of safety improvements to our winch and serviced all the tractors. The Soaring Centre 2003 calendar, celebrating our 50th anniversary, is now available. There will be a club expedition to The Long Mynd in February and March 2003.

Siobhan Hindley

Ulster (Bellarena)

A MEMORABLE and enjoyable night to celebrate James McLeod's 90th birthday and mark his 60 years' association with our club was special, not least as James (already an honorary member) is still an active pilot. The AGM in November saw the re-election of Lawrence McKelvie as chairman and the only committee change was Brian Irwin standing down as public relations officer. A hard act to follow, with the role now falling to yours truly. The annual report confirmed that the club's finances remain strong due to the sterling work by Ron Lapsley, treasurer, and membership numbers are on the increase. The committee has published its frame of reference for the operation of the club, set up procedures for the making and handling of complaints and established a structure for the oversight of the welfare of children in the club environment. Morag McClurg has been appointed Children's Officer by the Management Committee and will also serve on the Complaints Committee with Jim Wallace. Knowing when to take a launch on a marginal winter day meant Jimmy Weston and Morag McClurg contacted wave to 12,000ft in the K-13. Congratulations to Frank Storrs, who has gone solo for the third time – the two previous being in 1954 and 1994.

Seamus Doran

Vale of White Horse (Sandhill Farm)

OUR AGM was held at the end of November, and we are now looking forward to 2003. Clare Knock continues to chair the committee, with many of the existing members remaining in post, and being joined by Mike Leach as public relations officer and Hugh Young. Ed Foggin stood down as CFI at the end of 2002, when I took on the role, but Ed is remaining on the Committee. The club would like to thank Ed for all of his work and encouragement as CFI, which has been much appreciated.

Graham Turner

Welland (Lyveden)

THE annual dinner dance and prizegiving saw some nifty footwork and prizes presented both for flying achievements and in recognition of work done to facilitate flying. Werner Leutfeld keeps reminding us younger folks of the cup-winning potential realised by elder statesmen such as himself and Richard Short. Expeditions to Sutton Bank saw some wave flying and Aboyne was pretty much grounded until Chris Curtis climbed to Diamond height on the way home from the cottage. What does the BGA do for us? Diana King from the BGA Executive Committee visited a club meeting that decided to purchase our first glass fleet glider, to give us an insight into BGA activity on our behalf and to hear our concerns. Plans for winter maintenance and lectures have been drawn up with an enthusiasm one hopes will be complemented by the weather.

Strzeb

Wolds (Pocklington)

THE Christmas night out was superb. Alan McWhirter and Ian McCaig were made to recount their dodgy field landing exploits up at Sutton Bank. The "What the Heck was that?" trophy (a lump of carefully-mounted granite dug from the field Nick Antcliffe had the misfortune to land on) was won by Eddie Room – for aerobatics. His impressive display, without glider, involved a chandelle over a dog and a broken foot. Trophies went to Simon Barker (most meritorious flight), and Chris Price and Angus Sheldon (Chairman's Cup). Mike Fox won the club Ladder; Mick and Craig Pagram earned the Barbara Walker Trophy for excellence; and Best Progress went jointly to Graham Walker and Paul Shaw.

Ged McCann

Wyvern (Upavon)

IT IS against the backdrop of one of our most productive years that we say farewell to our chairman, who handed over the reins to David Ockleton at the AGM, Christmas party and prizegiving on December 7. John Welsh, a longstanding member and vice-president of the AGA, was awarded life membership of the club in recognition of his work. Other awards included: the Merit Cup (greatest contribution) to Gerry Sturgess; the Barry Perks Trophy (Endeavour) to Merv Kelly; the Tempus Fugit Cup (Fastest 100km triangle) to Roy Gaunt; the Aquilla Cup (most progress from *ab initio*) to Matt Beasley; the Chairman's Challenge trophy (furthest cross-country) to Mark Wilson; CFI's Trophy (flying achievement) jointly to Jagit Marwaha and Steve Lewis and a new award this year, the Opps! Trophy (for the biggest detected club blooper!) goes to John Appleford (for reasons I need not go into here!). Launch rates are down – but work is going into ground equipment and C of As in readiness for the next season – which we hope will be even better than 2002. *www.wyverngliding.org.uk/index.shtml*

Brian Penfold

York Gliding Centre (Rufforth)

THE club was delighted to see four pilots on the fixed-price-to-solo scheme go solo within a two-week period: Mark Breen (aged 17), Geoff Brady, Pete Arthurs, and Keith Batty, the latter three all on a single day. The AGM was in December and the officers for 2003 will be Richard Smith, chairman, Paul Hepworth, treasurer, and Howard McDermott-Row, secretary; the other three committee members are Jay Smith, Les Hey and Tony Lee.

Mike Cohler

Yorkshire (Sutton Bank)

WORK continues on the preparation of the land at the "Sharp End" and we expect the ground to be ready for levelling and preparation for draining next spring. Our numerous visitors enjoyed our hill soaring during October, together with some minor wave soaring with heights up to about 10,000ft. Liz and Derek, our catering duo, reintroduced the Saturday evening dining-in nights, which as always proved very popular. Unfortunately Liz and Derek have decided to retire at the end of the year to a well-earned rest. We wish them every happiness in their retirement and look forward to seeing them whenever they visit. Our new office manager, Pam, has arrived to take up Beryl's duties; our apologies to people who had difficulties in contacting the club during the early part of November, when the members were in charge.

Bryan Boyes

Obituaries

Colin Beaumont – London

IT was a great shock to everyone to learn that Colin Beaumont had passed away unexpectedly during the night in his sleep. He was well known for many club activities: among others, helping to run the clubhouse, social functions and the bar, as well as flying trial lessons. He was involved in the media and public broadcasting, having worked for many years at the BBC and in recent years making films for Discovery Channel. We express our condolences to his fiancée, son, daughter and family.

Geoff Moore



Alan May – Fenland, Vale of the White Horse

IT is with sadness that we record Alan's death in September, after a few months' illness. Alan (1930-2002) was an active member of Fenland GC, based at RAF Marham in Norfolk, since moving to this area in 1994. He flew both club gliders and his own Olympia 2B, which he had refurbished himself and which he also flew at the Vintage Week held at Tibenham in June this year.

Alan (*above*) started his career as an apprentice at De Havilland in the 1940s and he could recount many interesting tales of his time there. Then after working as a draughtsman he started his own engineering business in the 1960s.

Alan was once a member of the Vale of the White Horse club at Shrivenham. He joined what was then the Swindon GC while it was still at South Marston airfield. He was as enthusiastic as an ab initio as he was in all that he did. He soon became chairman of the club and steered them through the difficult time when they lost South Marston and eventually re-established at Sandhill Farm. He was always there to help in many ways both on and off the airfield. The club was delighted when he married Colleen and they were sadly missed when they moved away.

He will be greatly missed at Fenland, both on the airfield and also in the workshop, where he was responsible for maintaining club aircraft and in his role as a BGA inspector. Our sympathies go to his wife Colleen and son Adrian and family.

John Doubleday and Graham French

Alasdair Scott Raffan – Fenland, Highland

ON June 25, 2002, Al (1957-2002) was killed in a motorcycle accident in Norfolk. He had been gliding since he was a teenager at Highland GC, where he was a life member, and with several RAFGSA clubs.

For the past 20 years or more, Al had been a member of Fenland GC at RAF Marham, having held the post of CFI for many years. On his retirement from the RAF Al took a job at the power station at Sutton Bridge, where he obtained promotion to Shift Engineer in four years. He was a full-rated instructor, glider inspector and motorglider pilot. His contribution to the RAFGSA and Fenland GC was enormous and his enthusiasm for gliding was ever present. In all the years I knew him



I never knew Al to refuse to help anyone who asked and he was always there to offer advice when it was needed.

Al *(pictured above)* owned several gliders including a Gia and lately the ASW 17, a glider he had wanted to own ever since he flew one years ago, and he spent many hours flying at clubs in Norfolk and Scotland. In addition to his love for gliding, Al had an interest in motorcycles and spent many happy days at Superbike races in the UK.

It is often said that no one is indispensable but Al came pretty close to being the exception that proves the rule as far as Fenland is concerned. Our sympathy goes out to his son Darren, daughter Melanie and the twins Scott and Matthew. We all miss him very much.

Don Johnstone

Alison Rowson – Midland

ALISON Rowson (1955-2002), who died unexpectedly and prematurely last October, was a member at the Mynd all her life, her father Robin Bull having joined before she was born. She helped on the flying field from the age of nine and had her first flight in a T-21, at 13. She joined the Midland club at 16, going solo within the year.

She always did more than her share of work behind the scenes as well as on the flying field, including winch driving, routine administration, organising the annual dinner, running the start and finish line at Task Weeks and crewing. A few years ago the club rewarded this by presenting her with the prestigious Maxam trophy for service to the club.

Alison *(pictured above right)* spent so much time helping others to fly it would be easy to forget her own flying achievements. She refused to let frequent poor health discourage her and she flew cross-country when she could. She achieved Gold height in 1994 and shortly before she died she enjoyed the longest cross-country she'd ever done, completing 170km in her first Gold distance attempt. She had her last flight at the Mynd just two days before her death.



She was immensely proud of the flying achievements of her two children and was so pleased when Sarah completed her Silver last summer and flew in the Junior Nationals, and when Mike went solo shortly after.

Alison met her husband Jeff through gliding and together they ran a successful agricultural construction business. Away from gliding, she loved her garden and enjoyed taking a full part in the social life of their home village in rural Shropshire. She was always active, always doing something, always there for people when they needed her. She is greatly missed by the club as well as by all her family.

Diana King and Sarah Platt

British Gliding Association Badges

	Pilot	Club (place of flight or type of glider)	Date
750km DIPLOMA			
36	Ed Johnston	London(ASW 28)	13/07/02
37	Derren Francis	Bicester (Ventus 2c)	31/05/02
38	Ken Hartley	Bicester (Nimbus 3)	31/05/02
DIAMOND BADGE			
631	Philip Barley	Chilterns	13/07/02
632	Michael Clarke	Lasham (Aboyne)	05/10/02
633	Martyn Davies	Stratford (Aboyne)	29/09/02
634	Diana King	Herefordshire (Aboyne)	29/09/02
635	David Triplett	Devon & Somerset (Feshie)	05/10/02
636	Chris Curtis	Welland (Aboyne)	19/10/02
637	Mark Minary	Bicester (Aboyne)	26/09/02
Diamond distance			
1-901	Philip Barley	Chilterns	13/07/02
1-902	Peter Belcher	Cambridge	01/09/02
1-903	Malcolm Winter	Yorkshire (Fuentemilanos)	29/07/02
1-904	Sylvia Bateman	Four Counties (Lasham)	15/07/02
Diamond goal			
2-2879	Alastair Mackenzie	Burn	13/07/02
2-2880	Rob Andrewartha	BGGC	13/07/02
2-2881	Andrew Langton	Four Counties (Bicester)	31/05/02
2-2882	Keith Dykes	Newark	13/07/02
2-2883	Robert Witty	Wolds	13/07/02
2-2884	Ray Mitchison	Northumbria (Syerston)	01/09/02
2-2885	Brian Taylor	Dartmoor	01/09/02
2-2886	Michael Crews	Borders	12/07/02
2-2887	Russel Francis	BGGC	13/07/02
Diamond height			
3-1582	Robert Petrie	SGC (Feshiebridge)	05/10/02
3-1583	Michael Clarke	Lasham (Aboyne)	05/10/02
3-1584	Hugh Stevenson	Cairngorm	05/10/02
3-1585	Alan Stagg	Booker (Aboyne)	29/09/02
3-1586	Jonathan Thorpe	Derby & Lancs (Aboyne)	31/08/02
3-1587	Colin Hussell	Bidford (Portmoak)	05/10/02
3-1588	Martyn Davies	Stratford (Aboyne)	29/09/02
3-1589	Mark Brown	Fulmar	17/08/02
3-1590	Diana King	Herefordshire (Aboyne)	29/09/02
3-1591	David Triplett	Devon & Somerset (Feshie)	05/10/02
3-1592	Chris Curtis	Welland (Aboyne)	19/10/02
3-1593	Randall Williams	East Sussex (Aboyne)	28/10/02
3-1594	Mark Minary	Bicester (Aboyne)	26/09/02
GOLD BADGE			
2250	David Smith	Deeside	31/08/02
2251	Dave Bullock	Bicester	17/08/01
2252	David Prosolek	Newark & Notts	28/07/02
2253	Brian Taylor	Dartmoor	01/09/02
2254	Michael Crews	Borders	12/07/02
2255	Martyn Davies	Stratford (Aboyne)	29/09/02
2256	Mark Brown	Fulmar	17/08/02
2257	Chris Curtis	Welland (Aboyne)	19/10/02
2258	Anthony Blanchard	Anglia (Aboyne)	23/10/02
2259	Tarlochan Marwaha	Wyvern (Aboyne)	24/10/02
2260	Jamie Sage	Wyvern (Aboyne)	24/10/02
2261	Ian Craigie	Four Counties (Dishforth)	26/10/02
2262	David Bromley	Four Counties (Dishforth)	26/10/02
Gold distance			
Keith Dykes		Newark	13/07/02
Alastair Mackenzie		Burn	13/07/02
Rob Andrewartha		BGGC	13/07/02
Andrew Langton		Four Counties (Bicester)	31/05/02
David Smith		Deeside	31/08/02
Dave Bullock		Bicester	17/08/01
Robert Witty		Wolds	13/07/02
Peter Keutgens		Lasham	14/07/02
Ray Mitchison		Northumbria (Syerston)	01/09/02
Brian Taylor		Dartmoor	01/09/02
Michael Crews		Borders	12/07/02
Gold height			
David Smith		Deeside	31/08/02
Alan Farr		Cairngorm	05/10/02
Richard Dance		Derby & Lancs (Aboyne)	31/08/02
David Prosolek		Newark & Notts	28/07/02
George Monslow		Stratford (Aboyne)	29/09/02
Jonathan Thorpe		Derby & Lancs (Aboyne)	31/08/02
Martyn Davies		Stratford (Aboyne)	29/09/02
Mark Brown		Fulmar	17/08/02
Chris Curtis		Welland (Aboyne)	19/10/02
Anthony Blanchard		Anglia (Aboyne)	23/10/02
Tarlochan Marwaha		Wyvern (Aboyne)	24/10/02
Jamie Sage		Wyvern (Aboyne)	24/10/02
Ian Craigie		Four Counties (Dishforth)	26/10/02
David Bromley		Four Counties (Dishforth)	26/10/02
SILVER BADGE			
11134	David Pickering-Pick	Bidford	01/0902
11135	Peter Heywood	Welland	02/08/02
11136	David Lee	Wolds	01/0902
11137	Hannah Hay	Lasham	16/0902
11138	Ken Beaton	Bannerdown	01/0902
11139	Kai Wheeler	Lasham	15/0902
11140	Jason Hammet	Welland	01/0902
11141	David Hopgood	Portsmouth Naval	25/09/02
11142	Kelly Gowers	Bicester	14/08/02
11143	David Bwye	Lasham	11/09/02
11144	Peter Thomas	London	21/09/02
11145	Laurence Wolf	Lasham	03/06/01
11146	Claire Alston	Devon & Somerset	16/08/02
11147	David Waller	Bannerdown	28/08/02
11148	Errol Reilly	Booker	04/09/02
11149	Jorg Herrman	ESC	19/05/02
11150	Dennis Barr	London	05/09/02
11151	Timothy Webb	Bicester	06/10/02
11152	Timothy Lane	Southdown	26/09/02
11153	Philip Hopkins	Bicester	31/08/02
11154	Mark Thompson	BGGC	24/08/02
11155	Ronald Simpson	East Sussex	31/08/02
11156	Chris Redrup	Lasham	24/09/02
UK CROSS-COUNTRY DIPLOMA			
Pts 1 & 2	Martin Hayden	London	01/09/02
Pts 1 & 2	Neil Beattie	Chilterns	01/09/02
Pt 1	Paul Daly	Nene Valley	02/08/02
Pt 1	John Rayner	Southdown	01/09/02
Pts 1 & 2	Jonathan Thorpe	Derby & Lancs	15/08/02
Pt 1	Richard Seiry	Cotswold	01/09/02
Pts 1 & 2	Jason Hammett	Welland	01/09/02
Pts 1 & 2	Michael Millar	East Sussex	24/09/02
AEROBATIC BADGES			
Randall Williams		Standard Known	30/11/02

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Accident/incident summaries

by Dave Wright

AIRCRAFT Ref	Type	BGA No	Damage	DATE Time	Place	PILOT(S) Age	Injury	P1 Hours
101	Astir CS	3990	Substantial	26-Jun-02 1315	Aston Down	75	Minor	1062

The pilot selected the undercarriage down and flew a normal circuit until unlocking the airbrakes on final approach. At this stage the u/c warning sounded and he noticed the u/c lever had moved out of the locking detent. This happened several times and distracted him such that he misjudged the approach and undershot the runway.

102	Pilatus B4	–	Minor	04-Jul-02 1315	Aston Down	68	None	71

This was the pilot's first flight on type and he received a pre-flight briefing before taking a winch launch. During the launch the canopy came open and he could not close it. He pulled off and landed the glider safely straight ahead. This glider has a very positive lock so it was thought it was not properly closed before take-off.

103	ASW 19	–	Minor	14-Jul-02 1500	Camphill	44	None	274

After local soaring for some time the pilot decided he was getting tired so returned to land. He started his circuit rather high and lost no height before his final turn. Using full airbrake he failed to notice he was too high until it was too late to change his plan. Landing long, he had to groundloop the glider to avoid the edge of the airfield.

104	Pilatus B4	2322	Minor	13-Jul-02 1658	Hinton in the Hedges	30	None	55

While in an inter-club competition the pilot ballooned his landing on a narrow grass strip. During the balloon the glider drifted to the left and the wing caught in the long grass alongside the runway. This caused a rapid ground-loop though 180 degrees. Fortunately the tail was off the ground and only minor damage resulted.

105	Mistral C	4725	Minor	17-Jul-02 1243	Rattlesden	63	None	32

The pilot launched from 06, the main runway. Whilst in the circuit this runway was obstructed by an aerotow preparing to launch. He elected to land on runway 33 which was into wind, but the abbreviated circuit meant he was much too high and fast. He failed to use full airbrakes, touched down at the far end and groundlooped.

106	K-6E	–	Substantial	–Jul-02	Incident Rpt	–	None–	

This ground handling accident occurred whilst towing the glider tail first. The driver was advised that the wingtip was about to hit the control caravan. He reversed the car but the tow-bar jack-knifed and the car hit the glider's elevator, breaking a rib.

107	ASW 15B	3928	Substantial	28-Jul-02 1420	Camphill	49	None	125

The pilot returned to the hill-top site as lift failed and chose to make "one more trip up the ridge". Finding himself too low to make a safe circuit he decided to land in a pre-selected field in the valley. The field was small and upsloping and he misjudged the flare, failed to round out before the ground arrived and broke the undercarriage.

108	LS8	4600	Substantial	03-Aug-02 1400	Cosford	35	None	723

The glider was being aerotowed off a runway when, after lifting off at about 45kts, it gently settled back onto the runway. The undercarriage collapsed and the glider's fuselage received considerable abrasion damage. The undercarriage lever was found to be in the mid position, suggesting the overlock mechanism had failed.

109	ASH 25	3909	Substantial	25-Jun-02 1617	Portmoak	49 65	None None	558 0.6

After wave soaring, the glider was flown back and joined the circuit with airbrakes already extended. The experienced P1 had less experience on flapped gliders, and concentrated on the flaps, overlooking the open airbrakes. Undershooting, he reduced flap to try to reach the field, but the glider sank into a fence and was substantially damaged.

110	Marianne	4858	Minor	26-Jul-02 1615	Sutton Bank	–	None	415

On final approach to land, P1 was making a fine adjustment to the airbrakes when the plastic handle came off the lever. The lever self-rotated and became jammed in the trim slot. With less than quarter brake and no wheel brake the pilot turned to extend the ground run but, turning out of the wind, a wing dropped, causing a groundloop.

111	LS4	–	Minor	29-Jun-02	Bolsover	40	None	900

During a competition flight the pilot had to make a field landing. The set-a-side field chosen appeared suitable until, during the ground run, the glider ran over hidden 12in-deep tractor ruts running 35 degrees to the direction of travel. The left wing dropped causing a groundloop which damaged the glider.

112	PA 25 Pawnee Tug	G-BEII	Minor	13-Jul-02 1630	Burn	–	None	–

As the tug was leaving the ground the pilot felt a shudder and it veered to the left. He attributed this to the glider getting out of position so the aerotow was continued. He returned to the airfield and landed normally but while taxiing to a halt the left wing dropped as a bungee trunnion failed. As it was towed back the tug was further damaged.

113	K-13	3642	Minor	20-Aug-02	Lasham	–	None	–

During a daily inspection check cracking damage to the airbrake box was found. This, and possibly additional damage that may be found after detailed inspection, was thought to have been caused by an unreported heavy landing. See also similar report (No.114) to another K-13 at this club.

114	K-13	3366	Minor	20-Aug-02	Lasham	–	None	–

During a daily inspection check cracking damage to the airbrake box was found. This, and possibly additional damage that may be found after detailed inspection, was thought to have been caused by an unreported heavy landing. See also similar report (No.113) to another K-13 at this club.

115	K-21	4308	Substantial	28-Jul-02 1234	Rothes	50 65	None None	292 0

This trial lesson flight took place in changing weather conditions. After 15 minutes P1 saw approaching low cloud so decided to return but changed his mind after finding strong lift (up the bad weather front). A warning call was missed due to a defective radio. Finally, he landed downwind in a field, occupied by two other gliders, and overshot.

116	LS6C	4088	Minor	10-Jul-02 –	Husbands Bosworth	–	None	–

A simulated power failure was pre-arranged with the winch driver. During the launch P2 allowed the glider to drift well to the right, over caravans. P1 prompted to correct but before this was achieved the power was cut. The glider landed safely but the winch cable fell over trees, caravans and a glider which was pulled into the owner's car.

➢

Accident/incident summaries (cont)

AIRCRAFT Ref	Type	BGA No	Damage	DATE Time	Place	PILOT(S) Age	Injury	P1 Hours
117	Discus	3994	Substantial	27-Jul-02	Husbands Bosworth	23	Minor	60
				–				

This was the pilot's first winch launch on type. After a normal take-off he started the rotation into the climb then checked forward as he did not feel the glider was accelerating. The tension went out of the cable and it released. He appears to have delayed the recovery and deployed the airbrakes too early, causing a very heavy landing.

118	Janus C	2875	Substantial	22-Aug-02	N Yorkshire	41	None	334
				1536		43	None	227

Two experienced pilots were flying the two-seater in a competition when the conditions deteriorated. They positioned for a field and P1 took control. Approaching the field he opened the brakes then, seeing they were undershooting closed them. P2 had pulled the tail chute, thinking they were landing in a closer field, and the glider hit the hedge.

119	DG-100	2826	Minor	01-Sep-02	Long Mynd	53	None	826
				1445				

During an aerotow take-off run the glider hit a rut in the rough ground and bounced heavily. When the undercarriage was raised the lever was stiff and again felt unusual when it was lowered. After a normal landing the undercarriage collapsed. The pilot considered the overlock mechanism may have weakened.

120	ASW 28B	4789	Substantial	18-Aug-02	Lasham	51	None	2000
				1800				

During a final glide the pilot, probably through tiredness at the end of a long flight and after several days of competition flying, uncharacteristically pushed on despite being low and flying across rising ground. He misjudged his pull up over trees on the airfield boundary and brushed the tops which bought the glider down through a small tree.

121	Open Cirrus	4197	Minor	08-Aug-02	Burn	59	None	400
				1537				

After a wave flight the pilot was distracted in the circuit and forgot to lower the undercarriage. Landing caused minor damage to the fuselage gelcoat and undercarriage doors.

122	K-13	3163	Minor	26-Aug-02	Lasham	66	None	48

The pilot flew a long final approach and underestimated the headwind. It appears they had not selected a reference point for the approach and misjudged the use of airbrake which was "gradually reduced". The glider hit a hedge short of the runway and groundlooped as it landed.

123	LAK 12	4388	Minor	25-Aug-02	Glynde, E. Sussex	54	None	181
				1400				

The pilot was caught in heavy rain and had to make a field landing. With poor performance and visibility in the rain, he chose a setaside field, which he suspected would not be ideal but was the only option. During the ground run he saw a deep rutted track and tried to lift off and over it, hitting the far side which broke the undercarriage.

124	Dimona H36 Motorglider	G-LYDA	Minor	03-Aug-02	Bidford	–	None	73
				1215		–	None	351

The visiting motorglider pilot was using a higher than normal approach speed because of local thunder showers and possible gusts. The landing was made in zero wind and an early flare resulted in a long float, after which the aircraft stalled on to the runway from 2-4ft. No damage was seen, but after nine further flights, the undercarriage was found to be over-stressed.

125	Nimbus 2C	2505	Substantial	16-Aug-02	Sutton Bank	58	Serious	560
				1435				

The pilot returned from a cross-country flight and set up his circuit in the light wind conditions. On final approach he was not losing height, despite full landing flap and airbrake and so changed flap setting before making S-turns. The glider was seen to drop a wing and spin into trees. It is possible that he had not locked the flap lever.

126	K-8B	3305	Write off	15-Sep-02	Currock Hill	55	Minor	–
				1842				

The pilot was low and fast on the approach and undershot, clipping a small tree on the airfield boundary. This slewed the glider into gorse bushes and the impact broke the right wing off and severely damaged the fuselage.

127	Dart 17	1313	Minor	01-Sep-02	Llandogo, Gwent	37	None	56
				1700				

The pilot made a very late field selection and tried to land in a very small field. This had wires on the approach, was "inhabited" by a herd of heifers and had a dry stone wall at the far end. A very heavy landing collapsed the undercarriage, which luckily stopped the glider before it hit the stone wall.

128	K-13	1481	Write off	17-Jul-02	North Hill	70	Serious	2638
				1135		31	Serious	4

P1 briefed P2 before the check flight, especially the winch launch failure case. The launch was too slow and was abandoned at about 200ft, about a third of the way down the airfield. Instead of landing ahead the glider was seen to turn right before dropping a wing and pitching down sharply. It crashed in a wooded area, seriously injuring both crew.

129	Puchacz	3949	Minor	11-Sep-02	Camphill	56	None	1769
				–		40	None	0

While P1 was demonstrating a sideslip on final approach the canopy flew open and the crew were unable to shut it. P1 turned and flew a gentle sideslip in the other direction and this helped them close the canopy.P1 then concentrated on landing the glider safely. The canopy was most likely not properly locked before take-off.

130	Not known	–	Substantial	21-Sep-02	Brentor	69	None	749
				1700		–	None	0

At about 300ft on the winch launch the instructor pulled a simulated cable break. P2 coped well but P1 realised that they were likely to run out of space ahead. To create more space he turned left, avoiding unlandable ground. Now flying downwind, he had to make a positive, heavy landing on rough ground, which damaged the glider.

131	Falke Motorglider	G-BPZU	Minor	14-Sep-02	Parham	49	None	189
				1430				

While taxiing for fuel the motorglider's wing hit an airfield sign, damaging the wingtip. The damage was examined by an inspector, who made a temporary repair to the leading-edge D-box and cleared it for flight. However, after the next flight the trailing edge failed at mid-span. Only a full structural inspection could have found the hidden damage.

132	LS7	3640	Minor	03-Sep-02	Nr Balmoral	49	None	589
				1530				

While on competition flight the pilot had to land out. Avoiding the nearby Royal estate he chose another acceptable field. Despite a full-airbrake approach and S-turning he landed further into the field than intended. He ran through a wire fence, which smashed the canopy. He attributed his tendency to overshoot to a previous undershoot incident.

➢

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Accident/incident summaries (cont)

AIRCRAFT Ref	Type	BGA No	Damage	DATE Time	Place	PILOT(S) Age	Injury	P1 Hours
133	Twin Astir	2323	Minor	07-Apr-02 1400	Sleap	58	None	8

The pilot believed he had secured the rear cockpit before lining up on the runway but, after several delays, when he launched the rear canopy opened and shattered. The tug pilot was able to position the glider downwind of the runway and the glider made a safe landing.

134	K-8	2295	Substantial	01-Sep-02 1430	Dalton Cumbria	53	Minor	261

The pilot became low (650ft) and had to make a field landing. The field chosen had power lines across the undershoot field and so he kept high to avoid these. As a result the glider landed too far into the field and overran into the boundary fence. The glider was substantially damaged and the pilot received minor back injuries.

135	DG-505 & ASW 19		Minor	–Sep-02	Incident Rpt	–	None	–

This ground-handling incident occurred while the large-span glider was being taken to the launchpoint by the pilot, assisted by a club member in the tow vehicle, and two visitors. The glider was towed between gliders parked at the tarmac edge. Someone called "stop" but this was not in time to prevent the winglet damaging another glider's elevator.

136	K-13	2739	Minor	19-Sep-02	Nympsfield	64	None	1

The early solo pilot closed and locked the canopy but then had to re-open it as the launch was delayed. He shut the canopy but did not notice that the locking bolts had not slid into their holes. The canopy opened early in the launch and the pilot made a safe landing. The latch was known to be misaligned and needed a "slight jiggle" to lock it.

137	Grob Astir	–	None	–Sep-02	Incident Rpt	36	None	1000

The experienced pilot initiated a deliberate spin at 1700ft AGL then was alarmed to find full recovery action did not work. The drill was repeated and after "a while", with full opposite rudder and full forward stick, it recovered. A full inspection was carried out, followed by a test flight. A control jam may have restricted forward stick movement.

138	Pegasus	3368	Substantial	14-Sep-02 1740	Bidford	39	None	55

The pilot was briefed prior to his first flight on type. He had a PIO on the early tow, having been warned of the "sensitivity of the controls" but settled in for a good flight and circuit. Returning to the airfield he saw another glider had landed and while avoiding this he allowed the glider to stall in from about 4ft with open airbrakes.

139	Astir CS	–	None	–Aug-02	Incident Rpt	39	None	758

The tug pilot was driving his car to pick up a glider that had landed the other side of the winch launch strip. Initially he drove along the side of the airfield but, believing there were no cables out, suddenly turned across the strip. A glider had started to launch and the pilot quickly released and just managed to "hop over" the car.

140	Std Libelle	1936	Substantial	31-Aug-02 1325	Naseby	22	Serious	126

During the start of a competition flight in poor conditions a gaggle of gliders were seen to be struggling to remain airborne near the airfield. This pilot tried to return but was too low and, hitting strong sink, had to make a hurried field landing.

141	K-8	–	Minor	25-Aug-02	Usk	22	None	19

On his fourth winch launch on type the pilot was alarmed at the angle of rotation and speed so pulled off at about 200ft. After hesitating he lowered the nose and made to land ahead. The airbrakes were seen to open and close even when the glider was on the ground and consequently it ran on into the boundary hedge.

142	Falke	G-BVKK	Minor	29-Sep-02	Saltby	69	None	472
	Motorglider			1500		70	None	–

P1 was on approach when the crosswind increased and the motorglider encountered curlover from trees to the side of the runway. P1 decided to continue the approach but was unable to round out and prevent a heavy landing which pitched the aircraft nose down, breaking the propeller. In retrospect it would have been safer to go around.

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LX160 Variometer

The LX160 is a state of the art electronic audio variometer with flight director and single leg navigation capability. It is mounted in two 57mm circular cutouts; one houses the LCD unit while the other holds the control switches. The variometer, which is transducer operated (no flask), can be TE compensated by either a TE tube or electronically from a normal pitot/static source. A full function audio is incorporated. The vario is switched into flight director or speed command mode by either a manual switch, which can be coupled to the flaps (if fitted), or auto switching at a user-selected airspeed. The navigation facility is driven by a standard NMEA input from an external GPS and provides full final glide information; the LX160 also calculates the wind component. The LC display has two variometer needles; the outer needle acting as a variometer while the inner needle is a flight director command. A digital averager is displayed in the upper sector of the LCD; while the lower sector can display either distance to the next TP, altitude or altitude required to reach the next TP or goal.

£675.00

Colibri



IGC approved GPS/Logger. Includes an integral 12 channel GPS, LCD navigation display, 100 Hrs logger time at 10 second intervals. It is fully programmable to set and edit tasks, with an electronic task declaration, and post flight analysis function. Fully IGC approved engine sensor for use with Turbos and Motorgliders. The Colibri has an NMEA output, and acts as a GPS engine to drive both the LX160 and Winpilot.

£599.00

SPECIAL PRICE

LX160 + COLIBRI SYSTEM £1225.00

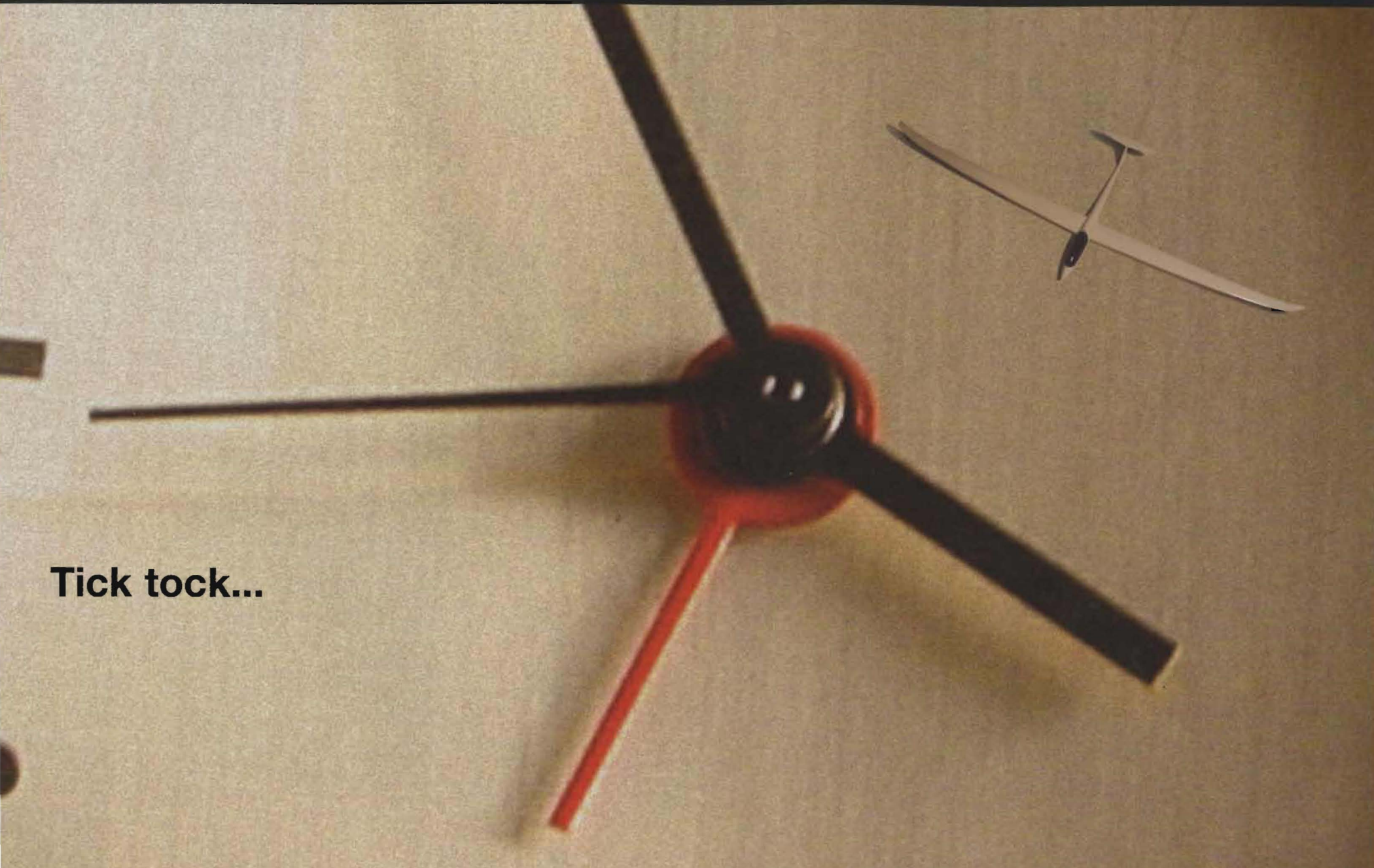
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