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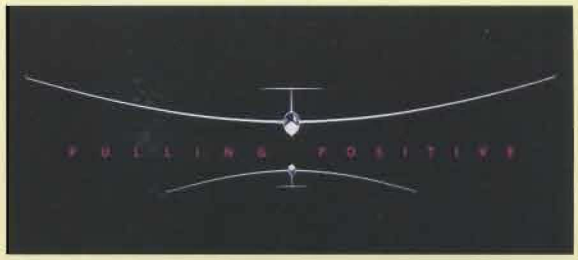
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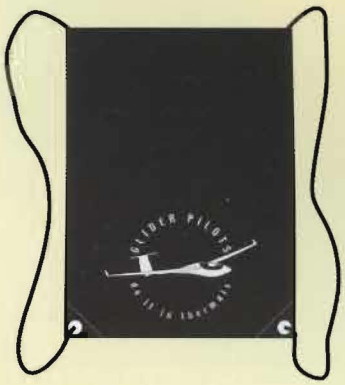
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October ~ November 2002
Volume 53 No 5

Editor: Helen Evans
7 Ollney Road, Minchinhampton,
Stroud, Gloucestershire, GL6 9BX

tel: 01453 889580
email: *helen@sandg.dircon.co.uk*

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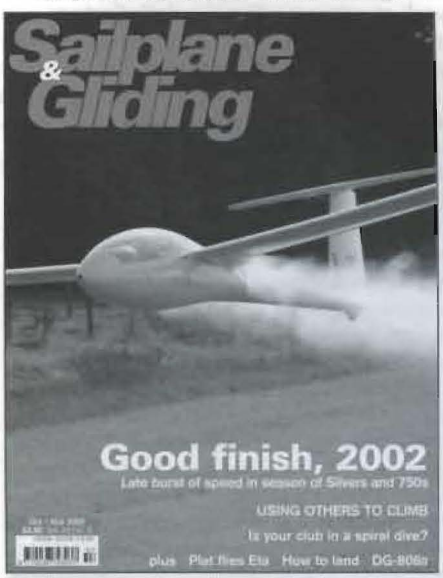
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Kimberley House, Vaughan Way
LEICESTER LE1 4SE
tel: 0116 253 1051 fax: 0116 251 5939
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*John Tanner, LT, was among those enjoying the weather at the start of September. It was a good finish to a season when Britain won two Silver medals (see p38 and p46) and 12 pilots got UK 750km Diplomas (p4) (the **white planes** picture co.)*

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Member of the
Royal Aero Club
and the
Fédération Aéronautique Internationale

The first UK 750km Diplomas since 1998



Above: new diploma-holder Al Clarke did a flight of 755.3km this year from Bicester (Bernard Smyth)

TWELVE pilots flew BGA 750km Diplomas this summer, increasing by almost half the number holding the award (from 24 to 35). Al Clarke's (775.3km) was the longest diploma flight, although on August 31 Jack Stephen, who had already done his 750 this year, flew 793km of a 1,000km bid. In April, the UK's eighth two-seater 750km Diploma was also flown, by Bernie Morris and Mike Jeffcock. Prior to 2002 the most recent Diploma was John Bridge's (July 25, 1998). The list of awards is below. Well done to these pilots – and to the following competition winners, not reported elsewhere in this issue: **Glider Aerobatic Nationals**: (Beginners) Carl Sorace,

Diploma no.	Pilot	Club	Glider type & fin number	Date
25	David Masson	Lasham	LS6c-18w LS6	16/4/02
26	David Booth	The Soaring Centre	LS8-18 790	19/6/02
27	Brian Marsh	The Soaring Centre	LS8-18 D7	19/6/02
28	Al Clarke	Bicester	Ventus 2CT R11	19/6/02
29	Sarah Steinberg	Cambridge	ASW 28 S1	19/6/02
30	Mike Young	Cambridge	LS8-15 57	19/6/02
31	Jack Stephen	Aboyne	DG-400 G-BLRM	28/6/02
32	Graham McAndrew	Lasham	Ventus 2CT-18 71	28/6/02
33	Patrick Naegeli	Lasham	Ventus 2CT 520	19/6/02
34	Robert Thirkell	Lasham	LS8-15 B3	19/6/02
35	John Giddins	Aquila	ASW 22 S22	13/7/02
08 (2-seat)	Bernie Morris & Mike Jeffcock	Lasham	Nimbus 3DT Y44	16/4/02

From the BGA chairman

IN INTERNATIONAL competitions, 2001 was always going to be a hard act to follow. But many congratulations to this year's successful British Team members, Dave Watt on his 2nd place in the 15-Metre Class of the European Championships in Hungary, and Richard Hood with a 2nd place in the World Club Class at Musbach in the Black Forest. For Richard, this repeated his Silver medal from the World Club Class in Australia in January 2001.

Over the last few weeks I have got to know a lot more about other airsports and recreational flying in the UK. This has been the result of my involvement (see *In Brief*, opposite) in the Royal Aero Club project to put together the Position Paper for these activities as the UK input to Europe Air Sports in response to new European legislation establishing the European Aviation Safety Agency, EASA (see *British gliding's most critical phase*, August-September 2002, page 4).

One thing comes over very clearly: in the UK we are relatively well organised in the management of our activities and, just as importantly, we have a listening regulatory body in the CAA. So, I conclude: "if it ain't broke, why fix it?" Sure, there are always areas for improvement and the accident rate in airsports is the ultimate measure of whether or not our combined approach to safety education and training is really working. As in any walk of life, sometimes things go wrong – and with tragic results. I have to say that in gliding it is very rarely a technical failure of equipment, an area that EASA now proposes to regulate for gliding in terms of airworthiness and maintenance. More often than not, accidents are to be attributed to some aspect of human performance in the air, and sometimes on the ground. At least in the UK, airsports have a robust, objective and independent accident investigation process, the results of which produce lessons to be taken on board for the future.

So, in my mind, as we approach some very important negotiations with EASA, we have to ask the fundamental question of how European regulation will improve this outcome measure of success or failure, depending from which side one views the statistics. If rational argument and evidence is to play a full part in the forthcoming debates with European officials, then I am reasonably hopeful we shall find a solution that we can live with. "What?" I hear you say. What has rational debate got to do with centralised bureaucracy? Well, it is all about how to win minds and influence people, and that is where our combined efforts with Europe Air Sports now have to focus.

By the time we get to the BGA Chairmen's Conference on November 2 at The Soaring Centre we shall have had two Royal Aero Club Council meetings to discuss and finalise the UK airsports position and proposals, as well as the first of two Europe Air Sport Board meetings, the first of which I shall have attended by the time you read this. So I shall be able to give an update to club chairmen in early November.

Somehow, this season has vanished before I realised it was here. My own flying season has suffered with only seven cross-country flights of any note, but it did include a glorious weekend in mid July with nearly 1,000km in the weekend including a 600km in a colleague's ASH 25. But as my syndicate partner is moving to Munich to work I have decided he can take our ASW 20BL with him, on the basis I shall stand a better chance of more flying by making a deliberate effort to go there for a week at a time on "Squeezyjet". So two-seater owners look out – I am looking for a spare seat in the UK next year!

I end on a note to encourage you to visit other clubs and meet other pilots on their home ground. Last weekend, amongst other visits including as a guest at the Model Flyers' National Championships, I went to the Black Mountains club at Talgarth, to celebrate with them the completion of their brand-new hangar and clubhouse. After over 20 years of operating out of the shack around the tree, this investment by the club is a vast improvement and something that should encourage clubs from elsewhere to arrange expeditions to fly the ridges and wave around the Welsh border. The airfield is not as daunting a handkerchief-size as many make out, though it should be treated with respect by newcomers and experienced pilots alike. Go and have fun there, and at other clubs this autumn.



David Roberts
Chairman, BGA
August 30, 2002
d.g.roberts@lineone.net

– and a late-season flourish

(Sports) Simon Walker, (Intermediate) Graham Saw, (Unlimited) Guy Westgate; **Lasham Regionals**: (A) Roy Pentecost, (B) Dan Pitman; **Midland Regionals**: Graham Drury; **Northern Regionals**: (Sports) Simon Barker, (Open) Mike Fox; **Inter-Services**: (Sport) D Smith, (Open) T Mitchell; **Dunstable Regionals**: (red) Warren Kay, (blue) Malcolm Birch; **Two-seater comp**: P Redshaw & team; **Open Class Nationals**: Robin May; **Eastern Regionals**: John Wilton; **Booker Regionals**: (A) Bill Inglis, (B) Brian Forrest; **Inter-Club League Final**: Oxford GC; **Juniors**: Luke Rebbeck; **UK Mountain Soaring Championships:** Pete Gray; **Saltby Aerobatic Open**: Brendan O'Brien. Results for BGA-rated nationals/regionals will be in the next *S&G*.

As we went to press, the weather offered a spectacular end to the thermal season. On September 1, the first day of the Juniors, 18 competitors did 301km at more than 100km/h (day winner Andy Perkins, in an ASW 28, did 115km/h). In the Open Class Nationals on the same day, 18 out of 26 competitors did 412.5km at more than 100km/h. Day winner Russell Cheetham (ASW 22BL) managed 123km/h.

■ Meanwhile, three pilots from Deeside's UK Mountain Soaring Championships – James Davidson, Sue Heard and Pete Gray – made the national newspapers by landing out at Balmoral, watched by the Queen and the Duke of Edinburgh, the BGA's Patron. Habit-forming, Sue? Below is how it looked the last time she dropped in – see p53 of the last issue.



No-fly zones made permanent

THE *Emergency Restriction of Flying Regulations* relating to nuclear power stations, imposed in November 2001 after the September 11 attacks, were made permanent on September 5 this year. Areas covered by the *Nuclear Installations Regulations* are (with the radius and centre position of the restricted areas, and height of their tops AMSL):

Aldermaston, 1.5, 512203N 0010847W, 2,400ft;
Barrow in Furness, 0.5, 540635N 0031415W, 2,000ft;
Berkeley, 2, 514134N 0022936W, 2,000ft;
Bradwell, 2, 514432N 0005352E, 2,000ft;
Burghfield, 1, 512424N 0010125W, 2,400ft;
Capenhurst, 2, 531550N 0025708W, 2,200ft;
Chapelcross Cross, 2, 550059N 0031334W, 2,400ft;
Coulport/Faslane, 2, 560331N 0045159W, 2,200ft;
Devonport, 1, 502320N 0041142W, 2,000ft;
Dounreay, 2, 583435N 0034434W, 2,100ft;
Dungeness, 2, 505449N 0005717E, 2,000ft;
Hartlepool, 2, 543807N 0011049W, 2,000ft;
Harwell, 2, 513430N 0011905W, 2,500ft;
Heysham, 2, 540147N 0025452W, 2,000ft;
Hunterston, 2, 554317N 0045338W, 2,000ft;
Hinkley Point, 2, 511233N 0030749W, 2,000ft;
Oldbury, 2, 513852N 0023415W, 2,000ft;
Rosyth, 0.5, 560121N 0032709W, 2,000ft;
Sellafield, 2, 542505N 0032944W, 2,200ft:
Sizewell, 2, 521250N 0013707E, 2,000ft;
Springfields, 2, 534634N 0024815W, 2,100ft;
Torness, 2, 555806N 0022431W, 2,100ft;
Trawsfynydd, 2, 525529N 0035655W, 2,700ft;
Winfrith, 1, 504052N 0021535W, 1,000ft;
Wylfa, 2, 532458N 0042852W, 2,100ft.

(Information from GASIL)

■ *Although NATS says it will withdraw its freefone line that covers only last-minute information on jet formations and temporary restricted airspace, this is still available on* ***0500 354802.*** *The CAA strongly recommends you to use it*

Book tickets now!

PLANS are afoot for the 2003 BGA Conference and AGM. We return to Eastwood Hall in Nottinghamshire, where the day's entertainment will include a number of interesting and informative presentations and discussions. This year we also intend to have a larger exhibition area, where you will be able see the latest aviation gadgets for sale. The conference is open to all and is completely free; for the non-flying partner there is plenty to do and see in the local area as well as the hotel's on-site leisure facilities. As usual, we round the day off with a dinner-dance into the early hours, tickets are available now at £23. So add Saturday, February 22, 2003 into your diaries and come along to the must-see event in the UK gliding calendar. Contact Claire Emson at *claire@eventia.co.uk* or 01280 705741

Dates for your diary

MARK Wilksch (Wilksch Airmotive) gives the first in a series of **free lectures** sponsored by the Light Aviation Group of the Royal Aeronautical Society, about diesel-powered engines, on Weds, **October 2**, at 4 Hamilton Place, London, at 17.00hrs.

CAA Safety Evenings this year include (date in brackets): October – **Wellesbourne** (1); **Bourn** (3); **Turweston** (8); **Nottingham** (9), **Humberside** (10), **Glasgow** (11), **Sherburn** (12), **Old Sarum** (23). November – **Shoreham** (26), **Southend** (27), **Peterborough Conington** (28). December – **Halton** (4), **East Midlands** (5), **Hawarden** (9), **Caernarvon** (10), **Wolverhampton** (11). Details at *www.srg.caa.co.uk/ga*

The next **Military Civil Air Safety Day** will be held at RAF Wyton, nr Huntingdon, on **October 3.** To register to attend, see *www.raf.mod.ifs.ifshome.html*

Next year's aerobatic contests include: **Dan Smith Memorial Trophy**, Dunstable, March 30-31; **British National Glider Aerobatic Championships**, Saltby, May 30-June 2. The December-January *S&G* will contain a full comps calendar

In brief

A BGA EGM held on September 4 ratified the Executive's decision to reduce subscriptions for juniors (under 21 on September 30) to £11.00 for flying members from October 2002. The rate for other flying members will be £22.

YOUR club should have received from the BGA a copy of new medical requirements for glider pilots introduced as a result of the NPPL (to fend off worse regulations). Before your first solo, you need to get GP clearance to DVLA Group 1 standard, and **all** pilots need it at 45, 50, 55, 60, 65, and each year thereafter. **If you are already solo**, though, and aged, for example, 46, you need only get clearance before your 50th birthday (or at 55 if you're 51, and so on). Requirements for instructors and SLMG pilots also change. Clubs must update their systems before the implementation date of March 1, 2003.

DAVID Roberts, the Chairman of the BGA, was selected by the Royal Aero Club of the UK on July 9 to prepare a "position paper" on future aviation regulatory issues on behalf of all UK airsports. The paper will be used as input to Europe Air Sports for their submission and proposals to, and negotiations with EASA later this year *(see also opposite).*

CHANGES to the NOTAM website (*www.ais.org.uk*) were causing concern as we went to press. See the BGA website (*www.gliding.co.uk)* for help.

IF you plan to fly in the USA, new procedures have been imposed on general aviation pilots, including glider pilots, as a response to last year's terrorist attacks. The UK CAA is working with the US FAA to resolve the situation but warns of delays. The Soaring Society of America has an arrangement with the FAA for glider pilots: email *info@ssa.org* for details. Visa requirements have also changed: contact the US Embassy for details.

THE BGA is looking for someone to understudy Peter Hearne in his liaison work with the DGAC (French CAA). He or she should be competent in written French and preferably have an understanding of pilot licensing and C of A matters. Please contact Peter on 01622 812385 (fax 813073) or *peter.hearne@aeroex.demon.co.uk*

THERE is going to be a major focus on airsports in the Adventure Sports section of the The Ordnance Survey Outdoors Show (NEC, 14-16 March) in 2003. The BGA hopes to be there alongside the BHPA and many others. For more info (visitor or exhibitor) call Andrew on 0207 471 1080.

WINNER of the BGA 1000 Club Lottery's July draw was M Davis (£45.75). Runners-up (each winning £9.15) were: N Lott, J Tait, Gillian Hodds, D Manser & G Lawley. August's winner was J Green (£45.25), with runners-up (each winning £9.05): FK Russell, F Strathern, JA Johnston, C Greaves & RC Brett

Your letters

In brief

UK airports handled 181 million passengers in 2001, 1% more than 2000, according to the CAA. Passenger numbers grew 4% before September 11, but fell by 6% afterwards. Regional airports, though, handled 68 million passengers in 2001, an increase of 6%. Prestwick (36%), Bristol (26%), Belfast (15%), Liverpool (14%) and Edinburgh (10%) all saw strong growth thanks to no-frills carriers. Luton's passenger numbers increased by 6% and Stansted's by 15%. Overall, flights in the first quarter of 2002 were still down 4%.

MEANWHILE, in July, the British government published a consultation document with proposals to develop regional airports to cope with its projection of 400m passengers by 2020. The suggestions include three extra runways at Stansted; a new shorter one at Heathrow; another at Glasgow or Edinburgh; a new runway at Birmingham or East Midlands; a two-runway airport between Coventry and Rugby; a major new terminal at Manchester; expansion at Cardiff and possible expansion at Bristol. They also cover a new runway in Scotland by 2030, a new airport at Cliffe in north Kent and expansion at Luton, with a possible freight airport for the latter at Alconbury, near Huntingdon. A new runway at Gatwick is another option, but this would not happen until after 2019 because of existing non-expansion agreements. The document also proposes converting former RAF bases, such as Finningley, into civilian airports. Feedback to the proposals is being solicited in advance of next year's aviation White Paper. "We have the fourth largest economy in the world," said Transport Secretary Alistair Darling, "based largely on our ability to trade. Something like a third of exports go by air ... Frankly, doing nothing is not an option."

BECAUSE long-standing members of the Vintage Glider Club committee have or are about to retire from their voluntary posts, the VGC is asking members to fill the jobs of treasurer, accountant or editor. For details, contact the secretary, Peter Chamberlain, chairman, David Shrimpton or the relevant officer. (*www.vintagegliderclub.org*)

THE CAA's Safety Regulation Group will hold a free open day on its research projects on Wednesday, October 2, 2002. Research on show will include the *On Track* airspace project and – the CAA hope – the lightweight transponder. The event is open to everyone from 13.00 to 16.30 at SRG's offices at Aviation House, Gatwick Airport South, West Sussex RH6 OYR. There is a car park at the site or the 200 bus from Gatwick Airport offers a free service direct to the CAA.

WE are sorry to report the death of Maurie Bradney, a prominent and popular coach and instructor, a member of the Australian Team in the 1970s and for years manager of the Waikerie GC.

Say goodbye to another member?

PETE Stratten in his letter (August-September 2002, p7) regarding the use of motorgliders in *ab initio* training, commented on how frustrating learning to glide can be. We have all been there at some point, but, as a (very) pre-solo teenage pilot I'd like to tell you about my first year in gliding.

The "five minute circuits at £5 per launch" sound only too familiar. In fact, that's all I have ever experienced at my home club (which shall remain nameless). Despite "gliding" for the last year I've never had a flight longer than five minutes; even my five-minute flights have been few and far between and I have only recently achieved double-figure flight numbers.

I feel almost embarrassed to say that my flying has included a gap of nearly five months between flights, but not because of exams or schoolwork. For months I turned up at the club every weekend (and midweek) yet didn't go flying – no-one was flying. I suggested that perhaps the instructors gave relevant lectures to keep up our interest – we are still waiting for them...

Eventually we got flying again; it was as bad as it sounds. Another kick in the teeth. It was like starting from scratch again. I've never felt so uncoordinated.

There comes a point when I can't blame the weather for my frustrations. I look around and see a sense of apathy developing at my club, where the instructors have lost the enthusiasm to fly and so have the members. Ridge, thermal and wave flying happen to other people in glass ships and it's clearly the friendships holding our small club together, not the flying.

Clearly only a small percentage of pilots will find my situation familiar: some of you might even be in it and some of you will think I'm lying. Perhaps small clubs don't have a future and I can see no clear solution to my frustrations – more flying would be an obvious one, but some things just aren't going to happen.

So are motorgliders the answer to helping eliminate frustrations in *ab initio* training? For those who can afford it, it would be a nice addition, although clubs achieving mostly five-minute flights are unlikely to be able to stretch to the costs and those who can afford it are probably successful soaring sites.

If member retention is a major issue facing the gliding community today I'm afraid you may be about to lose another one...

Name and address supplied

Launch rates again

THE article by Colin Stevens on launchpoint efficiency (August-September 2002, p26) sounds a familiar sequence of events to me, not so much in gliding terms but more work related. Perhaps the fresh approach to launch efficiency that he is looking for is the old fashioned, tried and tested method of production engineering. Look on your daily gliding activities as being a production environment like this. Raw materials (gliders, pilots, launch cable) are assembled by process operators (duty team) and processed (launched) using specialised machinery (winch, tugs) to produce a product (launched glider), which is sold (launch fee) by the club to make a profit.

Now apply all the relevant techniques of production engineering to determine machine (winch) efficiency, cycle time, work breakdown study and so on. The top-level analysis has been done and shows there are differences and the study needs to move on to the next level to get more detail, not only about why the launch rates drop but also what makes the rate higher. One technique that may prove useful is to make a video recording over an extended period of time, recording all events at and around the launch point. Make sure to synchronise the recording clock with the log sheet clock. This will provide a permanent record for later analysis and aid comparisons of before and after any changes. It will also help to pinpoint those moments of lost opportunity and the even briefer moments of best practice when launch rates are highest.

It is possible that some will say any suggested improvements were obvious or we sometimes do it that way anyway. I am not surprised by the ability of some to persist in working in a way they have become comfortable with over many years, despite knowing of obviously more efficient ways to complete a task.

Bill Childs, COUNTESTHORPE, Leics

BGA COURSES FOR 2002

Places available on the following BGA Courses:

Assistant Instructor Course
course code IC10
9 day course
£265
12–20 October 2002

Completion Courses for Assistant Instructors
course code CC3
2 day course
£40
9–10 November 2002

course code CC4
2 day course
£40
16–17 November 2002

If your club wishes to hold a BGA Soaring Course during 2003, please contact the BGA office, stating which dates you are interested in.

Winter Hire rates for BGA Aircraft

The BGA fleet is available for hire during the winter months:

Discus: ..... £35.00 per day
Puchacz: ..... £35.00 per day
DG500: ..... £35.00 per day
Duo Discus: ..... £45.00 per day

Please contact the BGA office for more information

BRITISH GLIDING ASSOCIATION, KIMBERLEY HOUSE, VAUGHAN WAY, LEICESTER LE1 4SE
Tel: 0116 2531051 • www.gliding.co.uk • colin@gliding.co.uk

Not launch rates again

WE seem to be spending a vast amount of time and energy analysing launch rates and I for one am getting more than a little fed up with it.

Surely as gliding clubs we should be more interested in the quantity and quality of the flying in terms of time aloft? Surely the test of whether or not a particular launch procedure is working is the answer to the question: "did all who wish to fly, do so?" If the answer is "yes" then our procedure is working. if "no" then we may need to look at the reasons why some failed to get off the ground. The answer to that is not always the fault of the launch procedure.

Or am I missing the real point? Are the committees asking for a higher launch rate simply to realise a higher income from the members by whatever means possible? If this is so then why not spend a little and go to the system used at The Mynd, a retrieve winch operation will allow you to launch gliders at three-minute intervals – that's 20/hr or 160/8hr day, assuming that no pilot is so bloody-minded that they have the audacity to actually go *soaring*.

At Lincolnshire GC we have often been pressed to achieve a launch rate of 8/hr. We actually did it on one occasion: the weather was excellent and all the gliders were out early. I spent the first hour on the winch and got all eight gliders into the air. I spent the next two hours over a cup/cups of coffee. No-one could be bothered to land so that we could try to make that rate again...

Another time I believe we had a grand total of 6-8 launches in the day, but we did achieve a total of 10hrs flying, which for Strubby is a excellent day. Didn't take much money in terms of launch fees but isn't *soaring* what it's all about?

Please, *back off on launch rate frequency*, if pilots don't get to fly due to inefficiencies they'll soon tell you, and there must be better uses for the space in *S&G*.

Remember: we are *gliding* clubs not *launch* clubs, and we do it for *fun*.

Alan Childs, *via email*

Early soaring demonstration

I AM wondering if the enclosed photocopy of a souvenir programme from the 1930s *(see above)* would be of interest to you?

My wife was painting in Firle village with other artists and was telling them of her gliding at Firle. An elderly gentleman from a nearby cottage appeared and presented her with the programme. With his permission we photocopied it. His parents-in-law owned the local pub at the time and there were two letters from the BGA thanking them for their help. I think I am right to say that after the demonstration Kronfeld flew along the South Downs to Portsmouth.

RF Brigden, BOURNEMOUTH, Dorset

Have you flown my Oly?

FOLLOWING on from the recent Oly 419 correspondence, I'm after information about my newly-acquired Oly 2B. I've tried the Vintage GC and individual clubs, both of whom have filled in some gaps, but there are still large holes in the history...


SOUVENIR

PROGRAMME

KRONFELD'S "WIEN" IN FLIGHT.

DEMONSTRATION

of

SOARING FLIGHT

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BRITISH GLIDING ASSOCIATION

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"DAILY EXPRESS"

METEOROLOGICAL CONDITIONS PERMITTING.

PRICE SIXPENCE

Glider : EoN Olympia 2B, BGA 1382, fin letters CAF. History: 1959-1967, with RAFGSA as RAFGSA 254 at Acklington (Cheviots GC); 1967-1974, syndicate-owned at Currock Hill, Northumbria GC (comp no. 475); 1974-1982, owned by B Davey at Perranporth, Cornish GC; 1982, owned by Shalbourne GC, written off in accident; 1993, rebuilt and flown at Dartmoor Gliding Society.

Any photos, snippets of information, leads to previous owners, etc, would be gratefully received. There must be many ex-pilots from the GSA alone that must have flown her, as she did about 3,000 launches in GSA hands. Does anyone know of a GSA archive, or a contact within the RAFGSA? I'd also appreciate any general Oly information: copies of original manuals, articles, photos, and so on. Please get in touch!

Andy Davey, MONTRICHARD, France

Barograph calibrations

KEN Brown (*Barograph calibrations*, p6, August-September 2002) makes the point that the method of calibration shown in Annex C of the *Sporting Code* bears no relation to UK practice over the past 50 years. That may be true, but as it says in the very beginning of the Annex:

*"The methods and interpretations presented **are not necessarily the only correct solutions*** (my emphasis), *but are in common use. The content of this annex does not have the authority of the rules, but can be used to help interpret them in normal situations."*

The "BGA" procedure for calibration is used quite widely. The method in Annex C is also used quite widely throughout the world. There may be other methods around, too. Neither Annex C nor the *Sporting Code* gives any pressure to change from one method to another.

While I have no wish to give too many pages in Annex C to the rather specialist subject of barograph calibration, should Ken or another knowledgeable person care to write a short explanatory summary of "how to do it" I will certainly give consideration to including it in a later edition of the Annex.

Ross Macintyre, CAMBRIDGE, Cambs (IGC *Sporting Code* Specialist)

Trailer law

I WAS very pleased to see the excellent article (*Is your trailer legal?* August-September 2002, p32) explaining vehicle trailer law. Nonetheless, there were two important discrepancies, which I would like to draw people's attention to.

Most of the relevant legislation is contained in The Road Vehicles Lighting Regulations 1989 (ref No 1796) and the Amendment Regulations 1994 (No 2280). In a very simplified format these state that:

– Long Vehicle Marker Boards are compulsory on all trailer/car combinations greater than 13 metres. This includes most glider trailer combinations. Those manufactured post October 1995 must have plain boards. Those pre-1995 may have ones which have "long vehicle" printed on them. (Ref:no 2280, schedule 19)

– Trailers built pre-1990 must have side amber reflectors and at least one amber side marker light. Those built post 1990 must have both side amber marker lights every 3 metres and reflectors. (Ref: 1796, schedule 9 [lights] and 17 [reflectors])

Additionally, I would like to point out that the front position lights and reflectors must be within 150mm of the widest part of the vehicle, ie, normally on the mudguards.

I also believe that legally the breakaway cable must be fixed to a solid part of the towing vehicle, however I have been unable to track down the relevant legislation – perhaps another of your readers can help us out?

Iain Evans, *Iain@shirenewton.co.uk*

Mel Eastburn adds: It really is excellent that one of the UK's major trailer manufacturers is watching the law so carefully. As I indicated in the article (which was meant only to be highlights of the relevant legislation, to be included more fully in Laws and Rules*), the law in this area is complex, involving not only the Lighting Regulations, as Iain indicates, but also the Construction & Use Regulations and over 100 statutory amendments, many generated to implement EU legislation. Then there are the licensing (vehicle and driver) and Road Traffic Acts.* ➢

Your letters

Much of the law applicable to trailers is also untested in court. As just one example of the complexity, there are seven different sets of rules applying to trailer brakes alone since 1982. I have therefore used Transport Law "Bibles" produced by legal specialists, only referring to the original Regulations where necessary for clarification.

Responding to Iain's specific points:
– my sources indicate that rear markers are required only if the trailer or tow vehicle exceed certain weights. But I also gave my own view that a LONG VEHICLE marker should be fitted to all glider trailers - it may save a nasty overtaking accident.
– the full Laws and Rules *section has tables giving positional information for all lights and reflectors. Iain is correct, though I must add two comments: first, type approved amber side marker lights do, I believe, double as side reflectors, meeting the post-1990 requirement; secondly, front position lights (also normally incorporating reflectors) are only required on trailers wider than 1600mm. But even if you have an older trailer, make this winter's task to fit side marker lights – they may save you on a dark, wet night from a driver with a filthy windscreen and 10-year-old wipers!*
– I am also unable to find any legislation requiring the overrun cable to be attached to a fixed part of the tow vehicle because there is none. (The Caravan Club Technical Department also believes there is none!) Nonetheless, it is sensible to attach the cable to a more permanent part of the vehicle than simply wrapping it around the tow ball. Special attaching hooks to bolt between the tow ball and the tow frame are available from any local caravan dealer. Use one!

A final word: I'm sure Iain will agree with me that it's pretty stupid to tow your pride and joy in a trailer that doesn't meet modern rules – designed for modern traffic conditions.

Black is back

THE problem of collision avoidance with glider tugs may be improved by painting the tug black. I understand that the RAF use black on all training aircraft.
Timothy Flude, BRIGHTON, Sussex

Spot the aliens

HERE are two of this year's crop circles, which I photographed from the Wyvern GC (Upavon) T-61F G-BTWC, which belongs to the Army Gliding Association. Circles are mostly found in the Pewsey valley area near the Milk Hill white horse, and over towards Avebury. I will leave it to readers to decide which ones have been produced by aliens!
John Collins, SALISBURY, Wiltshire

Visiting farmers

"GREAT sport, gliding," I tell friends and visitors. "When you get it wrong, you visit a farmer." The implications always take a while to sink in. I believe that early solo pilots should be encouraged to do exactly that. When you get it wrong, visit a farmer.



Some of this year's crop. See Spot the aliens, *below left*



There is nothing more agonising than watching, from the ground, a glider that you know is not going to make it back to site. And yet the neophyte will persist, convinced that he is not yet "qualified" to attempt a field landing. Until he either chooses a field from 200ft or stuffs it into the hedge.

Of course the early solo pilot must be taught to recognise the situation. Intending to demonstrate a circuit, I pulled off tow at 1,000ft only to find the K-13 in heavy sink a long way from home. "Observe" (I told my student) "this is what it looks like when you won't make it back to the airfield. I am therefore choosing that big field in front of us". And duly set up a circuit, only to luck into a 6kt thermal downwind and say to the student: "and now, that is what it looks like when you are going to make it back". Undershoot/overshoot, in spades.

Asked to supervise a pre-solo paper for another instructor's victim, I told him: "If you find yourself a long distance from the airfield, and the angle is shallow, like this (rough sketch) and you are not in strong lift, choose the biggest available field directly near you. If you can land safely on this airfield, you have the skill and ability to land safely in a farmer's field. What is the difference between landing in a farmer's field and the airfield? Substantially, there is no difference, except you don't have to worry about the traffic.

The next day, on his second solo, he was told by his instructor to pull off at 2,000ft. And the tug pilot was told to "go easy with this guy, he's early solo". So the tug took him in a straight line and he pulled off at 2,000ft and after trying a couple of turns in a non-existent thermal, he found himself in exactly the predicament we had discussed. And bless him, he landed the K-13 safely in the middle of a large field, crosswind, crop, but not too deep. No damage. "Good call," said the CFI "but next time, try not to get into that situation. If the tug pilot has taken you miles away, hang on until he brings you closer back to home".

Of course we want our beginners not to get into a landout situation. But I think it is important to discuss such a situation and instill even in the early solo pilot confidence to choose the safe option. Perhaps more time should be spent, before first solo, in landing in odd corners. In assessing nearby fields from the air. Reminding the student that if you have chosen a good big field from 1,500ft or even 1,000ft, you have plenty of time to set up a good circuit and land in the middle of what will almost certainly be bigger than the home patch.
Mary Meagher, OXFORD, Oxfordshire

Please send letters – marked "for publication" – to the editor at the address on the contents page or to: helen@sandg.dircon.co.uk *Please include your phone number and postal address.*
The deadline for the next issue is ***October 15***

Instructor renewal requirements

FOR my sins, I sit on a JAA Committee, so I am accustomed to rules being proposed without any evidence offered in their support. I also recognise distrust and denigration of local supervision by remote officials. Unfortunately the habit is spreading. Since 1960 I have held an instructor rating. In my time I was a CFI and member of the Instructors' Committee. Over the same period I have done enough solo flying to reach the Nationals and gain three Diamonds. Nevertheless, a retrospective examination of my logbook shows that in 14 of those 41 years I should not have had my category renewed, for I was deficient in one or other of the five limiting criteria. It is not surprising that some clubs have problems. Why not TMGs when the licensing distinctions have gone? What about tug flying? Are the Instructors' Committee unaware that flying skills are transferable, as is recognised by the NPPL? Please could we have the evidence for these complex renewal requirements? Apart from total hours, I know of none.
Peter Saundby, Black Mountains GC

Prime interest

READERS might be interested to note that there is a gliding entry on the Prime Curios website *http://primes.utm.edu/curios*. An entry for the number 997 reads: "The Schleicher K-7 is a vintage two-seat glider with three-axis controls which would remain airborne for approximately five minutes off a 997ft winch launch in still air". If there are any glider pilots out there with some spare time and a penchant for prime numbers, I am sure the editors would be impressed by similar entries for the K-13 and K-23. The site is also looking for copyright-free images that it can use.
Grenville Croll, *via email*

Raising the profile of gliding

I AM very grateful to the editor for giving me space in *S&G* to introduce myself and to write what I hope will become a regular item in the magazine.

I was appointed as BGA Communications Officer at the beginning of July. What were my claims to this position? Well, first and foremost, I am an active and very enthusiastic glider pilot. That said, I consider myself to be a typical club pilot with no pretensions to competition flying or punditry in any form. I flew at Bath & Wilts until a month or two back, when I moved to Scotland, where I now fly from Portmoak.

Secondly, I have been involved in product marketing for virtually my entire career in the software business. This has included all aspects of marketing activity, including advertising, exhibitions, and press activity. In my younger days, before the marketing life took its toll, I was an active orienteer and sat on national committees of that sport's governing body, so I also understand a bit about what makes organisations such as the BGA tick.

Anyway, enough about me. I would like to use the remainder of this article to explain what the role of Communications Officer is and what I see my priorities to be.

The role covers anything to do with communicating about gliding in general and the BGA in particular. More specifically, I see three major areas of activity.

Firstly, there is a great deal of work to be done in raising the profile of our sport with the general public. This is not something that should be done to satisfy egos but something that, I believe, is absolutely essential if we, as a movement, are to thrive. Increased public recognition brings many benefits to gliding. An increased profile will lead to more interested people knocking on our doors wishing to fly. The gliding movement as a whole is acutely aware of the necessity of increasing our membership. An increased profile will, hopefully, make gaining sponsorship for our very successful international teams easier and an increased, positive profile will surely assist in matters such as funding and planning.

I will therefore be aiming to increase the exposure for gliding in the media. Many clubs are already doing an excellent job in working with their local press, but it is the role of the BGA to concentrate on the national publications, as well as TV, film, etc. In this, I will be focusing on gliding as a competitive sport. If we are to gain new, younger members, we have to present gliding in this way. Kids take up football because they want to become the next David Beckham, not because they want to spend Sunday mornings kicking a ball on a muddy field. Although I don't see the next world gliding champion enjoying the material rewards of a Beckham or a Schumacher (at least not yet, anyway), I think we can draw parallels with the upsurge in interest from all ages that curling, another minority sport, experienced when it made the transition from fuddy-duddy obscurity to UK world stage success at the Salt Lake Olympics. In the British team, we have actual and potential world beaters (five world champions as I write this) and I would like to exploit this.



Ian Joy Photographic

Keith Auchterlonie, until recently a member of the Bath, Wilts & North Dorset club, is the BGA's new Communications Officer. He now flies from Portmoak

I think we should be under no illusions that this will be easy. The current perception of gliding is not good, and a lot of the press that we do get is negative – just look at how many column inches an accident gives rise to, compared with a world championship win. Visually, competitive gliding does not lend itself well to television so we must work around this.

It will be hard work, but the benefits speak for themselves and should be self multiplying. International success leads to coverage. Increased coverage leads to increased membership, which leads to increased participation. Increased coverage leads to increased sponsorship, which leads to greater international success and exposure.

Secondly, I am tasked to work with clubs to assist them in their marketing. I am very aware that many clubs are already doing this very successfully and I have no desire to tread on their toes or to teach them how to suck eggs. By the time you read this, I will be making arrangements to hold a number of informal sessions around the country with club marketing representatives. I would like to try to establish what clubs are doing and what has been successful in an attempt to establish best practice and pass this on to others. I also want to find out what clubs want in the way of marketing support from the BGA, so that, with the Communications & Marketing (C&M) Committee, we can supply this. I will also, of course, be pleased to help out with specific issues that any individual club faces.

Finally, and certainly not least importantly, there is the issue of internal communications, that is, how the BGA communicates with its member clubs and with you – the individual glider pilot. I know that, as an average club member, I have often been unsure just what the BGA does and what it offers in return for my annual capitation fee. In the couple of months since becoming Communications Officer, I have been amazed at the amount of work that goes on behind the scenes and the range of services and information that it provides to the gliding community. I am working with the C&M Committee to devise a new internal communications strategy and I hope to describe what this will mean in a future issue of *S&G*. For the time being, let me simply say that the BGA must get a lot smarter about distributing information to its membership, in a way that is meaningful yet relatively concise. The new BGA website (*www.gliding.co.uk*) represents a massive leap forward, yet we can and must do a great deal more with the opportunities that the web, email and the like offer.

If there are any issues that you wish to raise with me, please don't hesitate to contact me at *keith@gliding.co.uk*

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Saturday 22nd February

BGA Conference 2003

The "Must Do" Event of the Year ...

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The programme is presently being put together, and promises to be more action packed than ever before.The exhibition will be even larger offering plenty of opportunity to browse for aviation related gadgets. And of course there will be the glider display.

As usual, the Conference is ***FREE***.

Book Early to Avoid Disappointment ...

The Dinner in the evening is always a very popular event and tickets are limited (strictly by ticket only - £23 per person). It is strongly recommended you book early. The after dinner speaker is of course not to be missed!

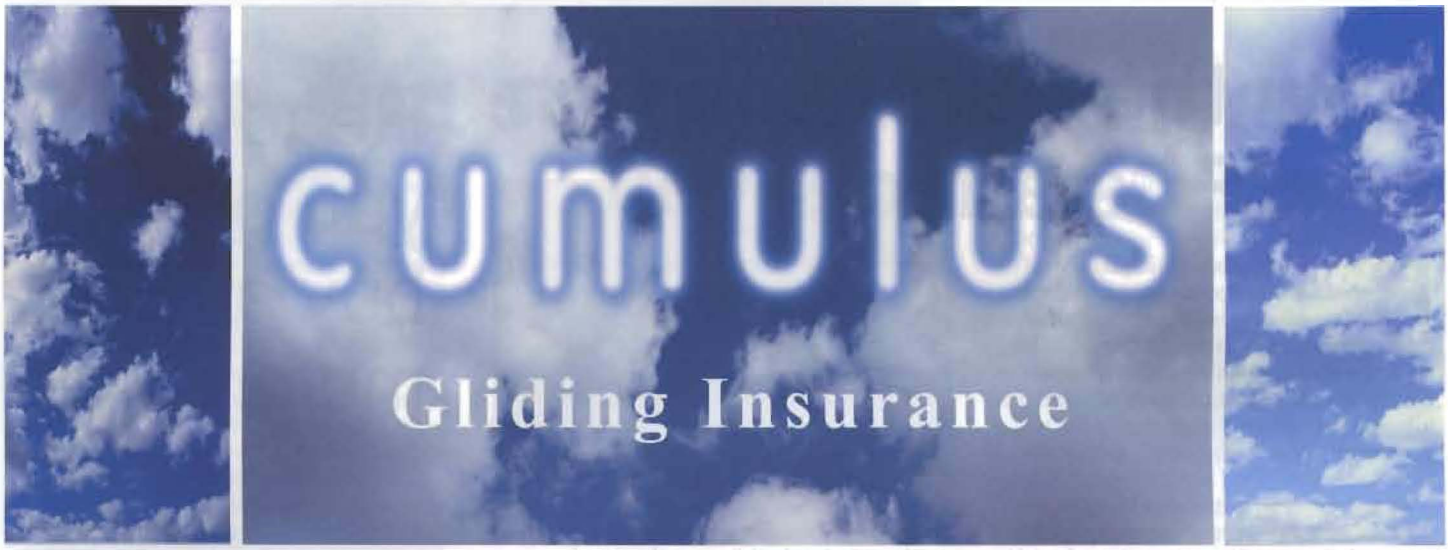
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The accommodation and facilities are of a hotel standard, with rooms at £32.50 per person B&B (based on two sharing). There are also leisure facilities, including swimming pool and Jacuzzi, available to all.

Lunch will be available at £15 for a hot and cold 3 course buffet, or £5 for rolls/sandwiches (pre-bookings required). Unlimited tea/coffee/biscuits are available throughout the day for a small charge of £5.

For more information and to book your tickets, call Claire at home (01280 705741), or on her mobile (07887 548913), or email: *claire@eventia.co.uk*.

For accommodation bookings, please contact Eastwood Hall directly. Tel: 01773 532532, Fax: 01773 532533. See also their web site: *www.hayley-conf.co.uk/pages/eastwood.html*



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YOUR CLUB AWAY FROM HOME

How the European ban on CFCs affects you

RECENT European Union (EU) directives to reduce ozone depletion affect all of us – in particular the fire extinguishers and solvents in use on BGA aircraft, support vehicles and premises. Your safety officer may already have this information and your club should be considering actions to comply with the recent changes.

As a result of the Montreal Protocol on substances that deplete the ozone layer, EU regulation 2037/2000 was introduced. The EU has published new regulations that ban the sale and use of CFCs, Halons, Carbon tetrachloride, Hydro-bromofluoro-carbons and 1.1.1. Trichloroethane and other such ozone-depleting substances, and accelerate control on the sale and use of non ozone-depleting alternatives.

In practical terms this means that Halon fire extinguishers will be banned in all but critical uses and the use of ozone-depleting solvents is completely banned. These regulations come into force on December 31, 2002. After this date existing fire protection systems and extinguishers cannot be refilled with Halon. Mandatory de-commissioning of fire protections systems and fire extinguishers must be carried out and completed before December 31, 2003.

Fire extinguishers

Critical uses as defined in Annex VII of the regulation include: hand-held extinguishers for use on board and in **Aircraft Crew Compartments** and fixed extinguishers in **Aircraft Engine Bays**. Only Halon 1301 and 1211 (BCF) are permitted. Some other critical uses are by the fire service and police, where the extinguisher is essential to personal safety for initial extinguishing of a fire on an aircraft.

As airfield fire trailers/trucks are used in an emergency situation prior to the arrival of the fire service it would be safe to assume that the use of Halon extinguishers would be included in the fire service critical use exemption. **All other applications are banned.** This will include airfield support vehicles (except fire and emergency trailers/trucks), buildings and general use.

All halon fire extinguishers not used in critical applications must be removed from service before the end of 2003 and disposed of via an authorised contractor. (Your fire extinguisher supplier should be able to assist) and replaced with an approved non ozone-depleting alternative.

Alternative forms of extinguisher are available; they include AFFF and protein foam, dry powder, CO2 and water. Advice on the most suitable extinguisher for a particular application should be sought from your local fire prevention officer.

Replacements for Halon are under development but as yet not available.

Solvents

1.1.1. Trichloroethane and similar solvents have not been available for some time now, but if you have some old stock it should be disposed of in the same way as for fire extinguishers by using an authorised contractor. Unfortunately, the alternatives now available are Petroleum-based and in my opinion not as effective.

Enforcement and advice

We have no details of how the regulations are to be enforced, but the EU regards ozone depletion as very serious.

The BGA is unable to advise you on what fire extinguishers are needed for your particular site. It is recommended that you seek advice from your local fire service. Look under "fire" in your telephone directory and you will probably be directed to your fire prevention officer or county council.

Please note that the use of Halon in airfield emergency and fire trailers/trucks is a BGA interpretation of the EU directive and the information contained herein is only a very brief outline of the requirements. For further information please visit *www.unep.ch/ozone/montreal.shtml* for details of the protocols adopted by the UK and other countries and *www.contractfire.co.uk* "Legislation" "Regulations on Halon DETR" or use your search engine for "Halon critical uses".

Jim Hammerton, Chief Technical Officer

Deeside Gliding Club

Year-round Soaring.

The Club is open throughout the Autumn/Winter and you are assured of a warm welcome. There are still some spaces available for this year's Wave Season. If it is too far to bring your own glider, check the availability of our well equipped fleet. In addition, there are many other activities to interest the non-fliers in your party.

Wave Season – bookings now being taken for Sept/Oct 2003.

Holidays & Courses – are tailored to your individual needs, whatever your standard.

Contact:

Wave Bookings – Mary-Rose Smith Tel 01569 730687

All other enquiries – Roy Dalling at the Club Tel/Fax 013398 85339

Email : office@deesidegidingclub.co.uk

Website: www.deeside.glidingclub.co.uk

Read this if you plan to buy a used motorglider

IF YOU are considering purchasing a pre-owned motorglider from abroad and want to import it and apply for UK Civil Aviation Authority (CAA) registration and Certificate of Airworthiness (C of A), the following news about used motor-glider engine life may be of interest and financially beneficial to you.

Engines in motorgliders with a 'Private' category C of A can usually operate beyond the recommended overhaul period 'On Condition' in accordance with CAA Airworthiness Notice (AWN) 35.

On application for an initial CAA C of A, It is a requirement that the engine has at least 200hrs to run in the UK before the recommended overhaul life is reached, if it is intended to operate a life extension 'On condition' in accordance with AWN 35 thereafter. This has caused some difficulty over the years, especially on motorgliders that have been operated to a similar regime in other countries and have been well-maintained but not overhauled.

In response to this the CAA have agreed to vary the 200-hour requirement for motorgliders.: Ref: 9/80/G/102/35

"The CAA will accept applications for variations to Airworthiness Notice 35 para. 3.1.2(c) on an individual basis for self-launching motorgliders designed to JAR22 or an equivalent code".

Provided that the motorglider and engine are in good condition and well maintained you should have no difficulty in operating the engine 'On Condition' in accordance with AWN 35 immediately. It is recommended that application for the variation be made prior to purchasing the motorglider." The CAA have stressed that all the other requirements of AWN 35 still apply.

You can view or download AWN 35 and many other CAA publications by visiting the CAA website *www.srg.caa.co.uk* and look in "Publications". Airworthiness Notices are listed as CAP 455. Follow the link from the technical section of the BGA website *www.gliding.co.uk* if you forget the CAA address.

Jim Hammerton, Chief Technical Officer

Would you share your vital stats?

FROM time to time, your Development Committee needs to look critically at a gliding club's business results in order to give the right advice on future policy. In conducting such investigations, we are frequently hampered by having very little reliable comparable data.

Apart from the work we have done in analysing gliding club rents and members' subscriptions, very little information is available about fundamental input/output data. For example, what is the average club income per member? What are the fixed costs and variable costs per member? What proportion of the average club's income comes from trial lessons, how much from invested funds, private owners? And so on.

Factual information is essential in arguing a case on behalf of a gliding club, whether it be for a rent review or for grant funding or simply as a realistic basis for forward budgeting. Reliable comparative data on gliding club businesses could help to diagnose priority areas requiring attention within individual clubs and also assist in the increasingly important work of presenting the case for the sport of gliding over national issues such as mandatory rate relief.

So how should we obtain more reliable information? Most gliding clubs publish their annual accounts so the information is already in the public domain. An agricultural analogy provides an illustration. Back in the 1950s, when agriculture was regarded as an important national resource, the concept of "The Farm as a Business" was regarded as a somewhat novel attitude. Yet much useful work was done and the foundations were laid for a much more scientific approach to farm business management. Financial information was collected from actual farm accounts, standards created and useful yard-sticks were compiled by which individual farm businesses might be compared in an attempt to highlight their strengths and weaknesses and to make recommendations for improving farming profitability.

Despite the natural and understandable reluctance of many farmers, a wealth of valuable comparable data was accumulated by the universities and by the Provincial Agricultural Economics Service. Before the days of computers, this was a slow and often laborious job but great progress was made towards understanding the problems of the industry and improving the profitability of small, family-based units which were coming under increasing pressure.

If we could compile data for gliding club businesses along similar lines to those employed by the Farm Business Survey, then we should be in a much stronger position to help and advise individual clubs and to make representations on behalf of the gliding movement. Computer technology should enable data to be collected and updated with far less "number-crunching" than was previously the case.



Does your club know what proportion of its income is from where – and would it give the data to the BGA?

Would clubs be interested in making their annual accounts available for comparative analysis, with the results published anonymously and confidentially for the benefit of the movement?

Please send us your views.

Awards for All – Let's try again!

The Awards for All scheme once again offers a ray of hope to gliding clubs struggling to make ends meet.

Awards for All was originally introduced at the Millennium and offers grants of £500-£5,000 for specific projects.

The scheme is administered independently by each of the home countries' sports councils (Sport England, Sport Scotland, Wales Sports Council and the Sports Council for Northern Ireland) and has been given new impetus by the Queen's Golden Jubilee.

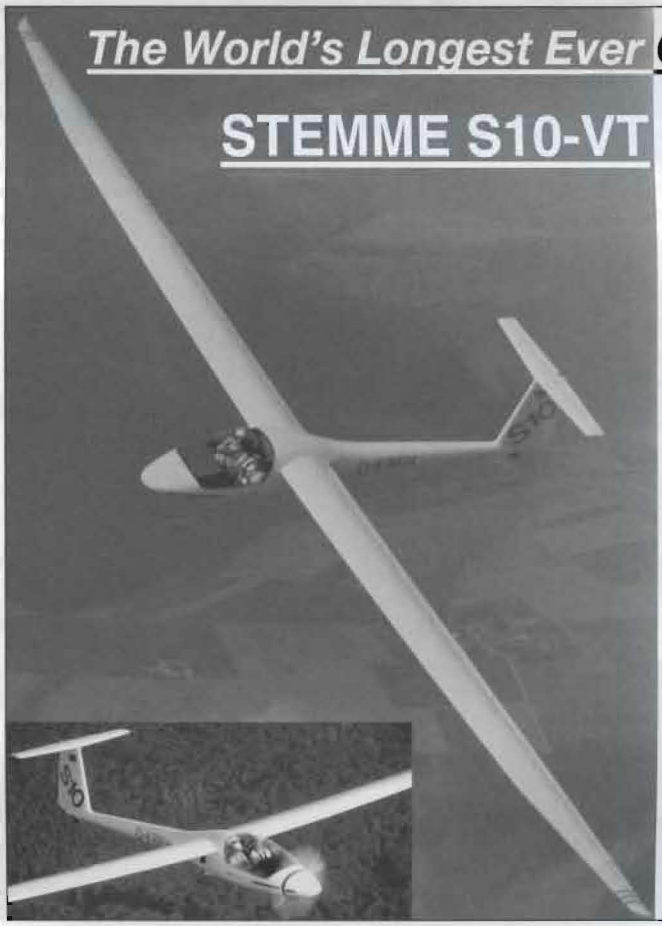
To date, gliding applications to Awards for All have been singularly unsuccessful, but the grants claim to be available for developing training opportunities for staff and volunteers and in particular, for leaders, administrators and club officers.

That has been interpreted to mean the cost of sending instructors on BGA courses will be eligible for grant aid and Sport England has confirmed this to be the case.

The grants are aimed primarily at small clubs but with secondhand gliders currently available at very low values, a grant for £5,000 represents a valuable contribution.

Telephone the Lottery helpline on 0845 600 20 40 for details and an application pack and do contact your development officer if you need help to complete the application.

Roger Coote
BGA Development Officer



Perlan prepares for fresh bid



AMERICAN adventurer Steve Fossett plans to return to New Zealand in November to practise long-distance wave flying in preparation for a fresh attempt on the world gliding altitude record next year

His first attempt at Omarama in August to raise the record from 49,009ft/14,938m to 62,000ft/18,898m failed when he and retired Nasa test pilot Einar Enevoldson were unable to climb above 30,000ft/9,144m.

A disappointed Fossett immediately announced that his team would return in November to carry out distance flying in preparation for a "concerted campaign" on the altitude record in June 2003.

In their last attempt in August the pair spent five hours soaring to 30,000ft in their DG-505M as they searched over an 85-mile stretch of sky for a way into a second wave system they could see some 6,000ft (1,829m) above them.

"The New Zealand Perlan campaign finished with a fine wave flight," said Fossett. "After being towed to 4,000ft (1,220m), we climbed in three locations to 30,000ft (9,144m) near Mt Cook. Then we tried a wave 100 miles south, but that one topped out at 28,000ft (8,535m). The conditions simply would not provide the opportunity.

"Even though no records were broken, this was a successful flight. The glider systems worked at altitude, scientific data collection was accomplished and we demonstrated the capability to carry off the ulitmate altitude flight.

"Now we are looking forward to a new campaign to fly into the Polar Vortex. We believe we know how to do it but it requires being ready for every opportunity during the best month of the year."

That is expected to be in June, again at Omarama, next year.

www.weatherextreme.com/perlan/



Try this new chart

THE CAA-sponsored On Track *airspace project (see* Time to own up on airspace, *October-November 2001, p5) has prompted the Civil Aviation Authority to create two downloadable trial A4 chart formats at* www.caa.co.uk/dap. *The CAA is asking pilots to try them out (though you still need to carry your usual chart as well) and offer feedback to the* On Track *forum. The theory is that the level of detail on current VFR charts may make it hard for GA pilots to identify controlled airspace, leading to infringements. So contours, forests and minor roads have been removed from 1:250,000 charts for Stansted and Manchester (motorways, rivers and railways remain). Various airspace boundaries are shown by different colours of tints, which include heights. Clicking on the map brings up aerial photos from Getmapping PLC and other downloadable route data; 3D videos are being tested. "If the consensus is that these charts would enhance VFR navigation," says the CAA's John Gentleman, "we will produce them for approximately 10 areas throughout the UK, which have a high frequency of infringements."* On Track *reports back to the CAA later this year.*

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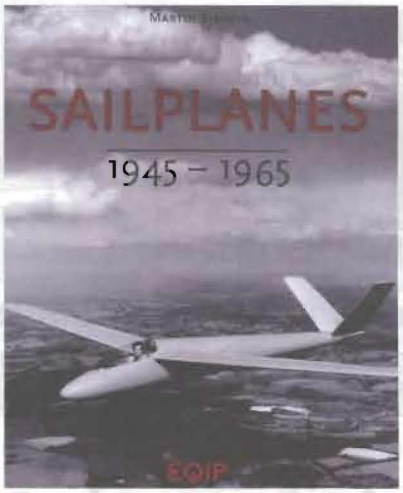
DICK Bradley was invited to join pilots and guests *(bottom)* at the 2002 Barron Hilton camp in recognition of his work at the 2001 Worlds. He writes: "We were bussed out to the Flying M Ranch from Reno airport on June 20. The 21st was devoted to formalities: of FAA licences, check rides and desert flying education. The ranch is just north-west of Mt Grant (11,300ft) at 4,200ft. Gliders included a Duo Discus, DG-505, DG-300 and 303, Discus, LS3, LS6, ASW 20, SDZ-55 and a Ventus A. The weather for the six-day camp was very good, though we did not see the classic Nevada days with homogenous cumulus development over the entire task.



Clouds tended instead to develop over the mountains and in areas of convergence. Nonetheless, there were strong, 1,500ft/m climbs to 17,999ft (the limit of VFR in US). Tasks of up to 600km were flown, but no records were set. Organisation, briefing, met, gliders, launching, food and accommodation were all superb, quite spoiling you for the rough-and-tumble of our usual facilities.

Barron Hilton *(above)* is remarkable: he was there the whole time, flying most days. His commitment to aviation is extraordinary. Despite his eminent position in the business world and his illustrious friends (astronauts Bill Anders and Gene Cernan, the last man on the moon, were there), he remains an easy-to-speak-to, down-to-earth glider pilot who just wants you to enjoy the Nevada's spectacular gliding. We were privileged to share this unique experience."





Sailplanes 1945-1965 – Martin Simons
EUR45.20 plus p&p EQIP, *www.eqip.de*
ISBN 3-9807977-4-0
Available from good aviation bookshops and from the Vintage GC sales office.

MARTIN Simons's *Sailplanes 1920-1945*, which was comprehensively reviewed by Ann Welch in the December 2001-January 2002 *S&G* (p15) has now been joined by *Sailplanes 1945-1965*.

Everything Ann Welch said about the first book applies equally well to this new one. It is hard to believe, but this latest book is even better than the first and (hopefully) the third in the series (1965-2000) will make this series a veritable **must** for all glider pilots.

Colour photographs are used to great effect. The inside front and back covers display a full array of wing profiles from "the old tradition" through to "laminar". The arrival of "glass ships" in the late fifties and their development is well documented and Martin Simons gives an interesting insight into the problems which the designers of the early plastic sailplanes faced. The three parts of the book – "the old tradition", "new wings" and "glass ships" – covering gliders from 19 countries in 270 pages – are a great credit to the author's remarkable skill and dedication to his subject.

This book is so very full of fascinating facts and figures, it will give endless pleasure to the reader. I can strongly recommend it to all lovers of gliding. **Wally Kahn**

Sailplanes 1920-1945 (Eqip) and a few copies of Martin Simons' earlier Sailplanes *by Schweizer (Airlife) are still available (*www.eqip.de *and* www.airlifebooks.com*)*

A Dream Of Wings – Tom D Crouch
WW Norton, £11.95 ISBN 03-9332227-0

WITH the centenary of the Wright brothers' first powered flight approaching it is timely that *A Dream Of Wings* has been reissued. It concentrates on the Americans who for decades prior to the Wrights' success had experimented with scale models, kites and gliders to try to discover the secrets of flight. The often exaggerated claims, inevitable failures and small successes make fascinating reading and there are plenty of illustrations of their wonderful machines. **Alex Chappell**



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Fly the plane!

I HAVE just picked up an American private pilot's magazine with an article about distractions, and the disasters they can cause, especially just after take-off. It seems many power plane crashes were due to canopies and doors being improperly locked. Well, the crashes weren't directly caused by the unlocked canopies and doors, these being very rarely dangerous in themselves. The crashes were due to the distracted pilots suddenly devoting all their attention to a minor nuisance and no longer flying the plane.

That took me back to Sisteron in the south of France in 1978. I was about 200ft up on tow in a Kestrel 19 when a whistling noise at my right elbow made me look down. The right-hand canopy latch had opened partially, admitting a lot of unwanted breeze. I whacked the latch down smartly, and looked back in the direction I should have been looking all the time. Strange – where's the tug? Then I saw the tug way over to the left in a steep climbing turn with a big bow in the rope about to go very taut. The angle of the rapidly-tightening rope to the nose hook was a good 45°, so when all the slack was taken up there was a loud pop as the rope broke. I did not even consider trying to get back to Sisteron, since there was a great ravine between me and the airfield, and we (Q, the distinguished former Chairman of the BGA and I) had already had some educative experiences with sink. So after a very brief scan of the terrain and remembering that the wind was from the left, I turned to port, picked a field full of some anonymous but very green vegetables and put the Kestrel down immaculately.

But as I walked towards the farmhouse I nearly fell full length over a steel tube which ran the length of the field, hidden in the luxurious leaves of next week's *legumes du jour*. Continuing my progress more cautiously, I found that the entire field was irrigated by pipes, standing 15 centimetres off the ground, spaced at 20-metre intervals. By pure chance I had landed parallel to the pipes and not across them. In the latter case the undercarriage and chunks of Kestrel 19 (18, 17...) would have been removed and maybe I myself would have been removed.

It's not the prangs I have had that keep me awake at night, it's the cases where not a scratch has been inflicted on the glider, but a deep scar has been left on the soul.

Treasure this island

A few weeks ago I got my marker-pens out and spread a half-million map on the breakfast-table, as one does. Or should I say, "as one did"? For I immediately found myself the object of the fascinated attention – and unconcealed mirth – of two extremely young cross-country pilots. I thought that maybe I had managed to get marmalade all over the chart, or that the newly discovered hazard to aerial navigation over East Anglia, around which I was carefully re-routing my intended course, was in fact a kipper. But I haven't made that kind of blunder since I stopped acquiring serious hangovers the night before a soaring day. What convulsed them was something quite different. "Look!" they hooted, "Plat is planning a task by – gasp – drawing lines on a map!"
It was as if I was wearing an eyepatch and tricorn hat while hopping around the table on my peg-leg, applying ink with a quill pen to a tattered parchment which in areas such as Wales bore legends like: "Here be Dragons" and "Terra Incognita". All the while scratching my nose with my hook and debating suitable turn-points with the parrot on my shoulder in impenetrable Cornish accents, both of us. How bloody quaint, the duo of future champions were obviously thinking. His glider trailer probably has a thatched roof.

It turns out that real pilots these days plan their cross-country flights on a computer in the Briefing Room, or even in the privacy of their high-tech study back home. The machine spits out GPS co-ordinates and courses-to-fly in seconds. Nobody draws lines on maps, unless they are senile.

Well, I like to pore over the chart and see where I might encounter the high ground facing the wind or the sun, and to mark the friendly gliding sites – and the most attractive countryside to enjoy. That really is weird, I know.

The last laugh, or more likely the terminal cackle, was mine, however. I finished my task and they didn't get away from the site. Old age and devious cunning (and a bit of extra span) defeats youthful enthusiasm – for the time being, anyway.

Their day will come.



eye patch and tricorn hat

Soaring the 101-foot behemoth – Eta

The Ryanair flight from Stansted to Luebeck arrived two hours late but it was cheap. Luebeck is the Ryanair airport for Hamburg, which is not hugely convenient if you are going to Hamburg, but is immensely convenient if all you want to do is visit Luebeck. A few minutes after the Ryanair 737 touched down, a K-21 was winched off the grass next to the main runway. I don't think I've ever seen scheduled airline operations and winch launches cohabiting happily like that before.

All the other passengers clambered aboard a bus for a 40-minute ride to Hamburg. Marion Barritt and I were greeted by Hans-Werner Grosse, his wife Karin and their grandson Moritz, and immediately taken round the other side of the airport to the gliding club bar, it being too late to fly Eta. (Ryanair don't do free drinks, but what do you expect for three and fourpence and a couple of buttons?) Then, refreshed, to the little hangar where That Big Ship resided. The hangar was built 40 years ago for the first generation of K-6s, only 14 metres' span. But with a two-metre extension to take the starboard wingtip and some Germanic ingenuity, this small shed now holds both the 31-metre Eta and Karin's Jodel tug. Hans, who is 80 in November 2002, can move the entire 740 kilos of Eta, plus several hundred



kilos more of sidewayser in and out of the hangar single-handed. Let me say here and now that any pictures you may see of me standing around with my hands in my pockets, rendering absolutely no help whatever, were taken while Hans was eagerly demonstrating the King, or rather the Emperor, of all sidewaysers. I was not being an idle slob; it would just have been impolite for me to interfere.

(You don't have to get all defensive, you know! Ed.

Well, people say unkind things from time to time. I'm not paranoid, but I do have my critics. Plat

Get on with it! Ed)

I felt a slight blush of national pride when Hans said he had first seen a sidewayser in action at a club in England. I remember seeing something like it at Booker. However this one at Luebeck is a monster that looks as if it weighs as much as the glider, running on a sunken rail some 35 metres long. Hans says the constructor of this device had previously built launching-ramps for the first generation of Vergeltungswaffen, better known as V1s, doodlebugs or buzz-bombs. However, as viewers of the Jeremy Clarkson programme *Meet the Neighbours* know, Hans has a great sense of humour.

Hans's Eta prototype has only a permit-to-fly, not a full airworthiness certificate from the German authorities. This currently restricts its movement abroad for soaring expeditions. This first Eta weighs 950 kilos with two pilots and fuel, and can only carry ballast when flown solo. The prototype has no water-bags in the wings: if Hans wishes to fly solo with ballast he straps a fibre-glass water tank in the rear seat. The one-ton sailplane is not far off!

The second Eta weighs just under 850kg all up. Its empty weight of 650kg compares with 740kg for Eta no. 1. The weight reduction of 90 kilos comes from savings of 30 kilos on each wing and on the fuselage. The prototype wing had used a foam that absorbed large amounts of resin, adding weight. A suction-method during construction now reduces the ratio of resin to foam.

The prototype Eta cannot be flown two-up in competitions. The weight limit for motor gliders has been set by the IGC at 850 kilos or 1770lb. The contest limit for pure gliders is still 750 kilos. ETA 2 can fly two up with waterballast, or solo with additional ballast on the rear seat.

Despite being much lighter than the prototype, Eta no. 2 had an exciting first flight earlier in 2002. Launching from soggy ground at a different airfield it required both an aerotow and full thrust from its own engine to get airborne. This made the glider's engine over-rev and seize up. With its stationary prop extended, supership no. 2 just made it back over the airfield boundary fence. A sweaty moment. With a different prop she now happily flies from that field.

Supplementing a glider-engine with other means of launching seems quite common on the Continent. In Austria in 1989 I was astonished to see a two-seater winch-launched from a small field with its sustainer engine roaring flat out. Sooner them than me, I thought at the time.

I asked Hans, Is the cost of insurance a worry? No, he replied, it's not a worry because I don't insure it.

That made me ponder when we flew in Eta together. Clearly, whatever happened, I was very unlikely to hear Hans shout, Jump!

Eta airborne

After two days' great eating and sightseeing in mediaeval Luebeck during poor weather – indeed, a foretaste of the terrible rains that have devastated middle Europe this summer – Marion and I each managed a flight with Hans. Still, the conditions were those in which a serious cross-country pilot would normally leave the hangar doors locked.

Marion says: *Hans and I compared enjoyable soaring experiences, and agreed that ridge-soaring up the side of a cumulus cloud topped our lists. This agreement was reached while Hans was explaining how the sea breeze had created the magnificent clouds we were playing with.*

We were discussing spin characteristics. So, Hans had me fly at a very low speed. Eta mushed along with no tendency to drop a wing. I asked if he had ever taken it through a full-blooded spin. Why do that to a perfectly good glider? said Hans.

A few chandelles before we entered the pattern gave me a chance to see the entire 101-foot wing in motion. I commented on how smooth and gentle this motion was, at which point Hans suggested I input a few deliberately jerky elevator movements. The ripple-effect from root to tip was all too obvious. Thank Heaven it was a short-lived demonstration. "Interesting," I said, "but I don't think I'll do that again."

Eta is very comfortable for the back seat pilot. The one-piece canopy makes for a better view, and since the span is much bigger than that of an ASH 25 the fuselage is also longer and a bit wider and roomier. Karin Grosse is Hans's favourite co-pilot and has flown many record flights with him in the ASH 25. Karin's longest flight in Eta so far is eight hours. In front of the rear stick is a deep compartment which is really a larder, well-stocked with Hans's favourite biscotti, bananas and soft drinks, but which is also handy for stowing cameras, etc.

(Plat says that occasionally back-seat passengers in the ASH 25 let various hardware get jammed in the space around the rear stick, so that the pilot in front suddenly encounters a disconcerting inability to control the aircraft in roll or pitch. The stowage space in Eta obviates that problem. Not exactly the strongest argument for lashing out a million Deutschmarks or its equivalent in Euros, but nice to have.)

Platypus: next, Hans and I set out on 250km of extended local soaring. I had never flown over the Baltic coast before, and every new piece of terrain is interesting in its own right. Only a few miles east of Luebeck is the old border with East Germany. In 1994 Hans-Werner told me a tale of the dreadful months of imprisonment suffered by an innocent glider pilot who had strayed from

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Left: Hans manoeuvres Eta into its hangar, originally designed for the K-6, while Platypus looks on
Right: the spectacular wing, over northern Germany

Luebeck into the eastern sector during the chilly depths of the Cold War, a period that is hard to forget. Some of the best thermal sources are the bracken and heather of the training grounds where Soviet tanks practised for the long-awaited conflict that never came.

If you like deserted, sandy beaches, the Baltic coast might be ideal for a quiet family holiday. Running east-north-east from Luebeck past Rostock, the coastline is irregular, with inlets, bays and peninsulas that made the line of the sea-breeze front equally irregular. Ragged curtains of cloud on the seaward side, hanging below the level of the inland clouds, marked the lift.

When I say Eta feels heavy I am not referring to the controls but to the simple fact that it is indeed heavy. It is twice as massive as some 15-metre ships and 30 per cent heavier than an ASH 25. The difference in sensation reminded me of the time in a Nationals when I had to fly an ASW 22 dry for four days, then I got the ballast-valves sorted out and flew it full of water for the next four days.

(You mean you badgered somebody else into sorting the ballast-valves out? Ed)

Er, you're right. Anyway, the difference going from four empty tanks to four full tanks on the ASW 22 was staggering. It was quite another aircraft. Somehow you could feel the extra mass and momentum through your whole body. Well, I felt the same dramatic change in mass going from the ASH 25, flown at full weight, to flying Eta.

The only aspect of Eta's controls that felt like hard work to the newcomer was the initial hefty shove on the rudder that was required when starting a turn. After that the rudder needed to be much less vigorously used; Eta happily sat in a 40° bank climbing rapidly, while moderate stick and rudder adjustments kept the string straight. The prototype's ailerons felt not much different from an ASH 25, but even so, Eta number two is said to have noticeably lighter ailerons than the prototype. Operating the flaps seemed effortless despite the spectacular bending of the entire length of the wing.

The trouble with flying in the same general direction without circling for 50km or so is that you can get a bit of a shock when eventually you do turn around and face the way you have just come. Nichts! said Hans about the solidly grey sky. There was nothing but nichts as far as the eye could see, and I remembered that even a super-duper-ship descends earthwards if there is no lift. He threatened to deploy the engine if need be. I thought this would not make very good copy for S&G, but kept my thoughts to myself. We wanted either a spectacular racing finish or, looking down at the uncut fields, a tilt at the Guinness Record for the World's Biggest Combine Harvester.

The sea-breeze front proper seemed to have vanished, but dirty wisps some miles further inland produced what felt like feeble lift. Hans asked me to calculate an average rate of climb, since the battery driving his Cambridge vario/computer had not been recharged. (I was glad to learn that this was not the battery that would haul the engine out in an emergency.) This averaging task I had to do, in the absence of any altimeter or vario in the back panel, by getting a 3D height reading from my hand-held Garmin Emap GPS. At one-minute intervals I was beeped by my Casio watch, checked the new altitude and did some infants' school mental arithmetic. Calibrated against the front pilot's altimeter, the little Emap GPS, which I have never used for this job before, was accurate to within 20 feet or so. The climb rate was nearly 400 feet per minute, though the grey wisps looked good for only a hundred. Even at over 900 kilos Eta is clearly a phenomenally good climber.

Finally we dashed back to Luebeck at 220km/h and, for what it's worth, left a Ventus 2C well below on the run home. It should do so, you might say, but extra span is supposed chiefly to help the low-speed end of the curve.

Just like anybody else I wanted to know Eta's max L/D before I flew in it. I still would like to know what it is. When a few centimetres per second of rising or sinking air makes a difference of 10 points to the achieved glide angle, accurate measurement in flight becomes very difficult. Refinements, like the precise location of zigzag or dimpled tape relative to the trailing edge, can be critical. So at present nobody is publishing any polar curves. It's just a helluva ship, and it's a pity that so far an Eta has not been able to sample the air of Spain, Australia or the USA.

Hans' and Karin's hospitality was splendid. Old Luebeck, one of the worst-bombed cities of Germany in WW2, is a picture-book town. Thanks to Ryanair, it is inexpensive to get there and worth a visit in its own right. Oh yes, the flight back was only 10 minutes late, despite long-winded and meticulous security procedures. I really don't know whose fault it was that I found I had a Swiss Army knife on me when I got off the plane.

mdbird@dircon.co.uk

The Platypus Papers: fifty years of powerless pilotage (hardback, 160 pages, 100 Peter Fuller cartoons) costs £19.95 + £3.50 p&p. See *www.hikokiwarplanes.com* tel 0208 748 6344, fax 0208 741 1757 or from the BGA on 0116 253 1051 or securely on line at *www.gliding.co.uk*





Left: Eta in its hangar, showing discontinuity (chord-skip) in outer panels, designed to improve the handling in steep turns. Right: Hans in Eta's cockpit
(photos: Platypus and Marion Barritt)

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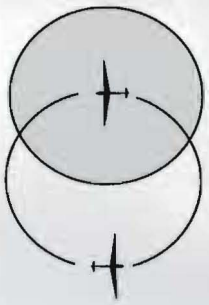
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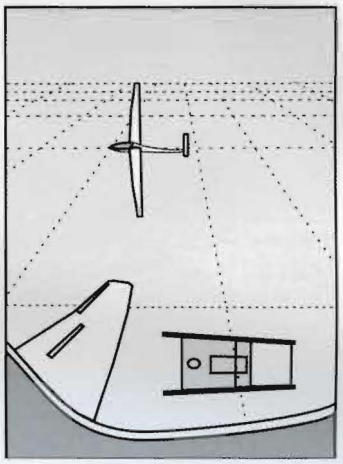
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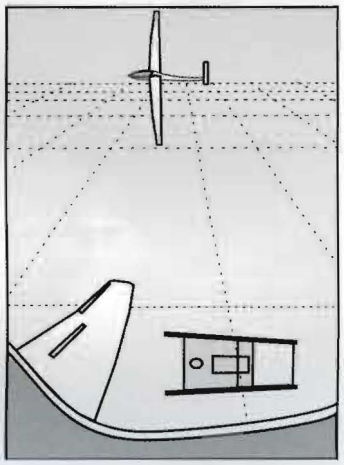
In the final article of his series, Simon Adlard explains how to exploit company in your thermal



Gliders thermalling half in, half out of the best lift



On one side of the turn you will be higher than the other glider



On the other side of the turn the other glider will be higher than you

SO far we have only discussed how to maintain station with other circling gliders, which may not do us any good if we aren't climbing. Earlier I said that two co-operating pilots will climb faster than one, and now I will explain how to do so.

Let's assume two gliders circling together in a moderately strong thermal, but only half in and half out of the lift. As the two go round together, there will be a point where one is in the thermal (and climbing) while the other is in the sink (and descending). When watching the other glider from the cockpit it will become obvious where the lift is by noticing where the other glider is climbing relative to you.

In order to shift your circle towards the best lift you will need to note a point in the distance where the other glider started to climb relative to you, then open out your turn towards that direction. If the turn were opened out in the direction of where the maximum height discrepancy was noticed then we would move further from the core.

Once the turn has been displaced towards the lift, your speed should be reduced if possible in the stronger lift. If the other pilot is on the ball then they should notice that you are climbing faster than they are and adjust their turn in order to formate on you. Often, unfortunately, this is not the case and they will simply carry on in the original turn.

When this happens you will need to rejoin their turn, or you will end up getting in each other's way. Because you will have travelled a greater distance than the other glider you will need to increase speed when you open out your turn in order to rejoin them. It is still worthwhile persistently opening out and slowing down in the better lift and then

'If you catch up with a large gaggle in the thermal and can't get past it, consider leaving'

rejoining the other glider because by doing this you will slowly outclimb them.

Eventually you will have gained enough extra altitude (250-300ft) for you to safely do your own thing without getting in their way.

If you catch up a large gaggle of gliders in the thermal and find that you are no longer climbing as fast as you like but unable to climb past them, consider leaving the climb – if you feel that you can glide to another thermal as strong or better than the one you are in now. You should be the first glider to arrive there and may be able to centre the thermal rapidly, unhindered, so that you can outclimb the other gliders before they arrive to join you. This is, however, a gamble!

How you decide to leave a thermal will depend upon how busy it is around you at the time, but in general it is best to accelerate to your inter-thermal speed before you fly into the sinking air surrounding the thermal. To do this, allow the glider's speed to increase while still circling, then tighten the turn to fly through the centre of the lift heading in the direction you want to go.

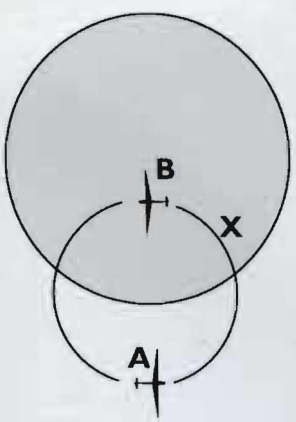
However, before doing this it is vital to make sure that you are not going to manoeuvre into the path of other aircraft; in order to do this you should not only scan below and behind the upper wing but also out on track, especially 45° off the track leg in the direction of circle.

With other gliders present it is important to be predictable when leaving the climb, which includes not making any sudden changes in attitude and therefore height. Once again slowly allow the glider's speed to increase around the turn and then simply roll level and leave the turn at a tangent when it is safe to do so.

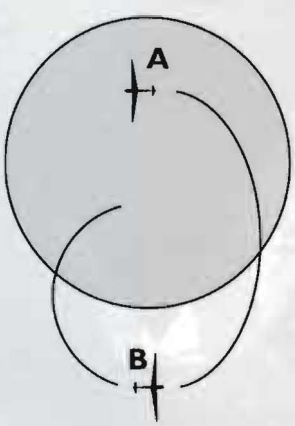
Both these methods of leaving involve increasing speed before you fly into the sink. This is because trying to increase the glider's speed in the sink uses up a disproportionately large amount of height, thus undoing all the hard work of centring in the first place.

I hope this series of articles has helped less experienced pilots to understand the mechanics of joining and sharing thermals. As your experience grows you will find ways of joining and sharing thermals other than those I have described (see *Platypus*, August-September 2002, p16). The best way to learn is to fly with an instructor in a two-seater and see the right picture first.

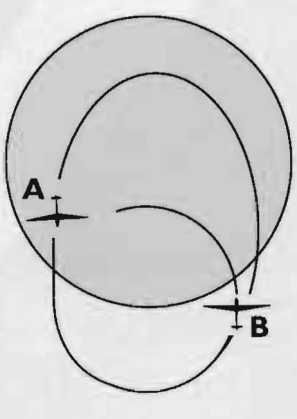
Diagrams enhanced by Jon Hall, HRA



When you are looking at glider B from point A, it will start to climb faster than you at point X



A should open out its turn towards this point and then slow down and tighten its turn when in the good lift



If glider B continues in the original turn then A should open up and rejoin B's turn

DG-808B



New safety features impress Jochen Ewald as he tries out the latest version of the DG-808B self-launcher

THE DG-808B's pedigree goes back to the start of the modern self-launcher: the Glaser-Dirks DG-400, based on the flapped 15/17-metre DG-200. The DG-400 offered high-performance soaring to pilots who didn't want to rely on club operations to get airborne. As the series developed, the DG-800 (of which about 50 were sold) incorporated the latest aerodynamic knowledge while the DG-800B replaced a noisy two-stroke engine outside with a water-cooled engine inside the fuselage. After Glaser-Dirks' bankruptcy in 1995, Karl-Friedrich Weber and Gerhard Wolff took over, establishing DG-Flugzeugbau. The 808B, which has been in production for a couple of years, has a modified fin and rudder to improve control harmonisation. Two years ago, the new company moved to a purpose-built factory at Bruschal airfield in Germany, where the DG-808B is made. To date, nearly 200 DG-800B and 808Bs (20 808Bs) have sold, including 10 in the UK.

Although this glider weighs 335kg (738lb) empty, rigging is easy because the engine weight is in the fuselage, which doesn't have to be lifted, and the lightweight wing divides into three sections (the inner just under 15-metre, an 18-metre extension and the new, high winglet). This configuration fits a conventional trailer, though you can order an 18-metre section instead of the two inner sections. Tongue-and-fork mainspars are connected by two cylindrical mainpins, themselves secured behind spring-loaded pins. A short plastic bolt prevents the first wing being pushed out by the second during rigging; flaperons and Schempp-Hirth airbrakes are self-connecting. The winglet's tube spar is held by two Camlock screws. The ballast tanks take 100 litres (22 imperial gallons), varying the wing-loading from 34.5 to 44.5kg/m² (7.1-9.1lb/ft²), or 37.6 to 49.2kg/m² (7.7-10.1lb/ft²) in 15-metre mode.

At the rear of the glider, the screw that secures the tailplane provides a visual check: if it stands proud of the upper surface, the tailplane isn't fixed. Thin glass-fibre sheets seal the gap between tailplane and elevator, but could easily be damaged by careless rigging.

To refuel the 22-litre (4.8-gallon) tank in the fuselage behind the cockpit (1:50 two-stroke mixture), you can use the usual filler hole in front of the engine doors, or an internal pump, which loads from the can without spillages. To recharge the battery, the demonstrator has solar panels behind the canopy (and its trailer has a skylight).

The DG's rudder-connected steerable tail-wheel, though generating more drag than a skid, has always been popular for the independence it offers. Now this concept has been extended with the addition of a dolly that, fixed to the mounting for the wingtip wheel, raises the wing high enough to clear obstacles. This dolly, which stows behind the headrest, dispenses with a wingtip holder on the way to the launch-point, but must be removed before flight.

Another new feature is the NOAH pilot ejection system, developed by Augsburger Ballonfabrik. This is a cushion which, when inflated under the pilot, lifts you above the cockpit wall. To bale out, you then just roll to one side. It activates only after the canopy has been opened or jettisoned, thanks to a locking lever on the right rear inner cockpit frame. To ensure that the straps are undone before using NOAH, a cable attached to the quick-release will automatically free the harness. (This doesn't get in the way of normal strapping in). One final precaution is that a valve in the air cushion will open if pressure becomes too high, thus preventing injury to the pilot.

The demonstrator I flew at Oerlinghausen was identical to the production model but for one optional extra, a strengthening of the inside of the fuselage at the front to improve crashworthiness. While most customers specify this, it makes the interior about 2cm (just under an inch) narrower. A dynafoam



Opposite: DG-808B, engine retracted, flown by Karl-Friedrich Weber. Above: engine out (all photos: Jochen Ewald)



The mirror (folded down) lets you check engine position



The straps, with the cable linked to the NOAH system



This lever ensure that the canopy leaves before you do

cushion tailored to fit the seat is another, highly-recommended, option. The seating position is comfortable and the backrest is adjustable on the ground at its mounting point and at any time via an airbag (inflated by a hand pump) behind it. I am always a bit afraid of what might happen if such an airbag were to leak, especially on winch launches or if I need the support to reach the controls, so I prefer something solid. The view from the cockpit is excellent as long as you don't wear light-coloured trousers or shoes, which reflect in the canopy.

The airbrake lever is fitted with the new "Piggott hook", which stop them opening on launch if not locked properly. The idea has been developed further so that, with airbrakes fully out, it also locks the wheelbrake for parking or engine starts. The drum brake has a forward-pointing lever (connected to the cable to the airbrake lever) that might hook any cables accidentally crossed on the ground. When I mentioned this, Karl-Friedrich Weber promised to look into it.

The glider can take a full competition panel, although the centre section is taken by the engine instruments – mainly the DEI (Digital Engine Interface), which erects the engine, starts the fuel pump and, on your pressing the button, calculates the fuel injection needed and starts the engine (Göbler-Hirth/Solo). Switching the ignition off is all that's required to revert to gliding mode. At about 80km/h (43kt), the propeller soon stops rotating. At about 95km/h (51kt), it is stopped in a vertical position by the automatic brake. Then the drive unit disappears into the fuselage. This removes a lot of workload from the pilot. Should anything go wrong, the pilot has a manual brake knob for the propellor, and an over-ride switch to retract the engine manually.

Another instrument developed by DG can be fitted to any other motorglider that has a retractable undercarriage. As well as an as undercarriage warning it has an adjustable, g-force-dependant stall warning to allow for the fact that, with engine running or out, the pre-stall buffet on any motorglider can be disguised. The pilot pre-sets two stall-warning speeds (airbrakes in/out). The instrument computes the correct warning speed in any situation (it displays the actual g-force) and alerts the pilot. The only thing not (yet) integrated is a connection to the flap position, which would require more expensive wiring.

When I flew the demonstrator, the all-up weight was approximately 440kg (970lb). The engine starts immediately. Taxying is fun: even at slow speeds the ailerons are effective. For take-off, I set the flaps to +8°. After a short, rapid acceleration, the DG lifts off at 80km/h (43kt). At 95km/h (51kt) and 6,360rpm, it climbs steeply with a good safety margin. Although the lever seems small, the undercarriage retracts and locks distinctly and easily. With a 4m/s (7.7kt) climb rate on a warm, sunny day, I reach 1,000m (3,281ft) after 4 min 10 sec. The engine showed no tendency to overheat.



Attaching the tailplane. The fibre-glass sheets, right, seal the gap but could be damaged by careless rigging

In the cruise, I reach 150km/h (81kt) with throttle reduced to stay under the rpm limit of 6,500.

Trimmed to full climb at 95km/h (51kt), the speed reduces to 80km/h (43kt) on idle. The speed remains constant when the engine is switched off. After the propellor has stopped, retraction takes about 10 seconds, and the speed decreases again by 4km/h (2kt). (Re-starting is even easier: ignition on, and the drive moves out within 14 seconds. If the starter button is pressed, the engine starts as soon as it reaches its working position).

After switching the engine main switch off, I change the pneumatic switch in the DEI from static to TE – total energy compensation. (The TE probe on the fin is affected by the propwash when the engine is running). Gliding, the DG is comfortable and almost silent: my only quibble would be the ventilation. The air taken in at the front is warmed on a hot day under the long canopy and there is no sidewall nozzle.

The stall is docile: with a flap setting of 0°, the controls start feeling soft at 80km/h (43kt) IAS, at 78km/h (42kt) buffeting starts. Pulling the stick further backwards, the DG's angle of attack increases a relatively large amount while the speed stays nearly constant before the wing starts dropping at 76km/h (41kt). This can be immediately recovered without much height loss. With flaps in thermalling position, +5°, the indicated speeds are about 3km/h (1.6kt) slower. In landing position, L, buffeting starts at 71km/h (38kt) and a gentle wingdrop at 69km/h (37kt). Adding full airbrakes in this configuration results in a warning speed of 79km/h (42.5kt), then mushing and, if the stick is pulled further back, a wingdrop at 77km/h (41.5kt). Trimmed to 100km/h (54kt) in 0° flap, changing the flap position results in the following speeds: -14°/135km/h (73kt); -10°/120km/h (65kt); -5°/110km/h (59kt); +5°/90km/h (48kt), +8°/84km/h (45kt) and L/75km/h (40kt). With L and airbrakes out, the glider stabilises at 90km/h (48kt), the recommended approach speed.

The roll rate with the long flaperons is excellent for an 18-metre glider. With the flaps set to 0°, I measured 3.6 secs from 45° to 45° at 105km/h (56kt) and perfect control harmony; at +5°, thermalling flap, it still takes only 4.3 seconds (and a bit more rudder) to roll at 100km/h (54kt).

Compared to previous versions of the DG-800, the aileron systems now work nicely at slow speeds, although there is a relatively high increase of control forces with increasing speed. At maximum speed they feel almost stiff, while the elevator forces increase much less. The parallelogram stick design means, however, there is no risk of making unwitting elevator movements while in turbulence at high speed.

The DG thermals well. In smooth lift, it climbs best at about 80km/h (43kt) and 30° bank; in more turbulent air, try 85-90km/h (46-48kt). As this Delft wing section stalls partially at extremely low speeds, increasing the sink rate, there's no point in thermalling too slowly. For best handling in thermals, set the flaps to +5°, except in a well-centred narrow core, where +8° might give better climb rates but less manoeuverability (more rudder is needed to compensate for the aileron drag). Soaring the DG-808B is fun and it is easy to secure maximum performance (and the satisfaction of out-climbing other gliders) without fatigue.

The undercarriage moves down easily and locks distinctly (another improvement on older DGs). With the flaps at L, an approach speed of 90km/h (48kt) is best. Schempp-Hirth airbrakes allow steep approaches, and sideslipping with or without brake is easy to control and effective. A fully held off touch-down is soft, and the steerable tailwheel makes taxying with or without engine easy. The wheelbrake is effective and easy to use, and doesn't bring the nose down.

The 808B shows that DG are successfully developing the perfect independent soaring tourer, and the new safety-related features are reassuring. It comes in at 96,820 Euros for the basic model (3,400 more for NOAH). But no matter how good manufacturer's safety features are, they will never replace the pilot's own safety drill. Any engine can fail at any time, so always be prepared – just as for a cable break in gliding.

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The best parties in gliding?



Above: a beautiful Kranich 2 on the winch at the pre-rally Rendezvous, which took place this year at Luftsportverein Lingen (Geoff Moore)



Above: Doppelraab, brought by Marihke Waalkens from The Netherlands. This two-seater has staggered tandem seating with the rear pilot higher (Geoff Moore)



Above: Austrian-registered, German-owned, a 17m Lehrmeister, one of two airworthy (Geoff Moore)
Below: a new Reiher 3. Right: a replica Habicht

THE INTERNATIONAL Evening is always the highlight of a VGC rally, *writes Ian Dunkley*, and this year's, at Achmer in northern Germany, was no exception. With every nation represented by a stand, serving home-grown delicacies and booze, how could it fail? Japanese goodies, Dutch fish (on a 100-year-old fish cart), British "Fish and Chips", Finnish and German sausages and unpronounceable firewater, Italian ham, French wine and cheese – just pass the Rennies, please. Swedes and Danes in two models of horned helmets, Brits in Union Jack T-shirts, Poles in bright national costume. Briefing next morning was put back.

Achmer, home of one of Germany's large vintage groups – they build Reiher replicas, rebuild Kranich wrecks, and above all have fun – is a delightful airfield: a campsite bordered by trees, and weather to make the most European-minded Brit homesick. It would be uncharitable to point out that the weather was not as good as Camphill, so I will just say that it was the VGC's largest-ever rally, with more than 300 people and 114 aircraft. The organisation was impressive. Launch was by aerotow and winch: the latter running at over 60 launches per hour thanks to a slick operation involving two winches, six cables, and the swiftest retrieve system I have seen. The only excitement was when a T-31 took on – or, rather, out – a Tandem Falke, which taxied across the cable during the launch. (The T-31 now sports a small motif below the cockpit.)

We were shocked to learn that a popular regular, Manfred Hoffman, whose superb T-21 once featured on *S&G*'s front cover, had died after an operation. He will be missed.

While I don't remember how many nations took part, the "international" proved the brotherhood of gliding and provided the opportunity to meet many old friends – some for the first time. Next years' rally is in Finland and 2004's in Poland, each a first-time venue. Why not come? It remains to be seen whether the Vikings will ever host a rally, invasions being more their thing, but their horned helmets do have a little label inside: "Not to be worn for protection". Remember that next time rape and pillage seem likely.

www.vintagegliderclub.org.uk



Above: Muchas in flight. Three, including Geoff Moore's, were among 48 gliders at the Rendezvous before the VGC rally (Geoff Moore)



Above: Chris Wills meets Vikings at the International Evening. A label inside the horned helmets warns: "not to be worn for protection" (Ian Dunkley)



Above: Jaskolka from Poland. The Polish pilots are a welcome addition to the rally and they will host 2004's
Below: "no comment!" says photographer Ian Dunkley



Ian Dunkley







Get approach control right

Bob Pettifer explains why, when it comes to landing, near enough is not good enough

IN A GLIDER you get only one go at an approach and landing, so it's important to get it right. Every year the statistics show a substantial number of landings that end in accidents, many minor, but a few which are more serious. Approach control appears to be the main problem, so I'm going to attempt to set down a few guidelines. They won't differ from the standard approach control taught using the *Instructors' Manual*, but I hope they will shed some light on how things can get out of hand.

Just before you begin the approach you need to be in the right place and at the right height. This isn't as easy as it sounds. The approach speed should be right for the day, and should be kept constant, and you need to select the approach line that you are going to take. You then need to wait, before opening the airbrakes, until you think half to three-quarters airbrake can be deployed. Approach control is entirely down to the pilot.

Putting the foregoing items in "the correct order" is difficult, so we need to look at the sequence of events. A good approach needs to start with a final turn in the right place and at the right height, but the success of that depends very much on what you did during the circuit. There's quite a lot to do in the circuit. You have to:

- ❑ check that aircraft approaching from any angle are not going to conflict with your intended flight path;
- ❑ check the position of those on the ground;
- ❑ estimate the effects that lift and sink are having, or will have, on the position of your final turn, and assess what effects the wind direction and strength are going to have on the circuit and approach.

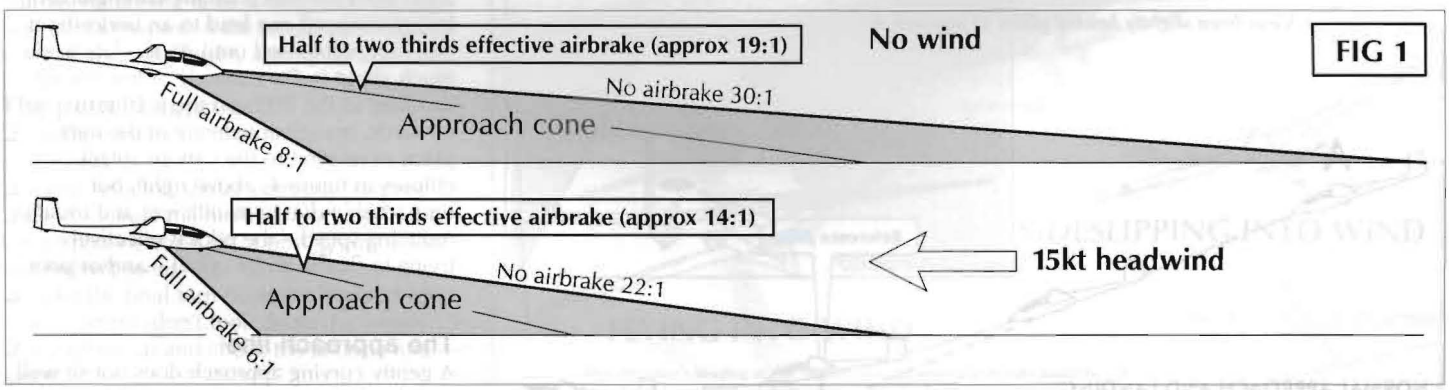
If your circuit is too low and/or too tight, you won't have time to do all the above, nor sufficient time to work out good alternative strategies if the unexpected occurs. A higher and wider circuit gives you more time, both to look out and sort out everything else.

If you are consistently making full-brake approaches you may have been too high to start with, but it's more likely that you are at the right height (at least in terms of the numbers), but always starting the final turn in the wrong place.

The final turn

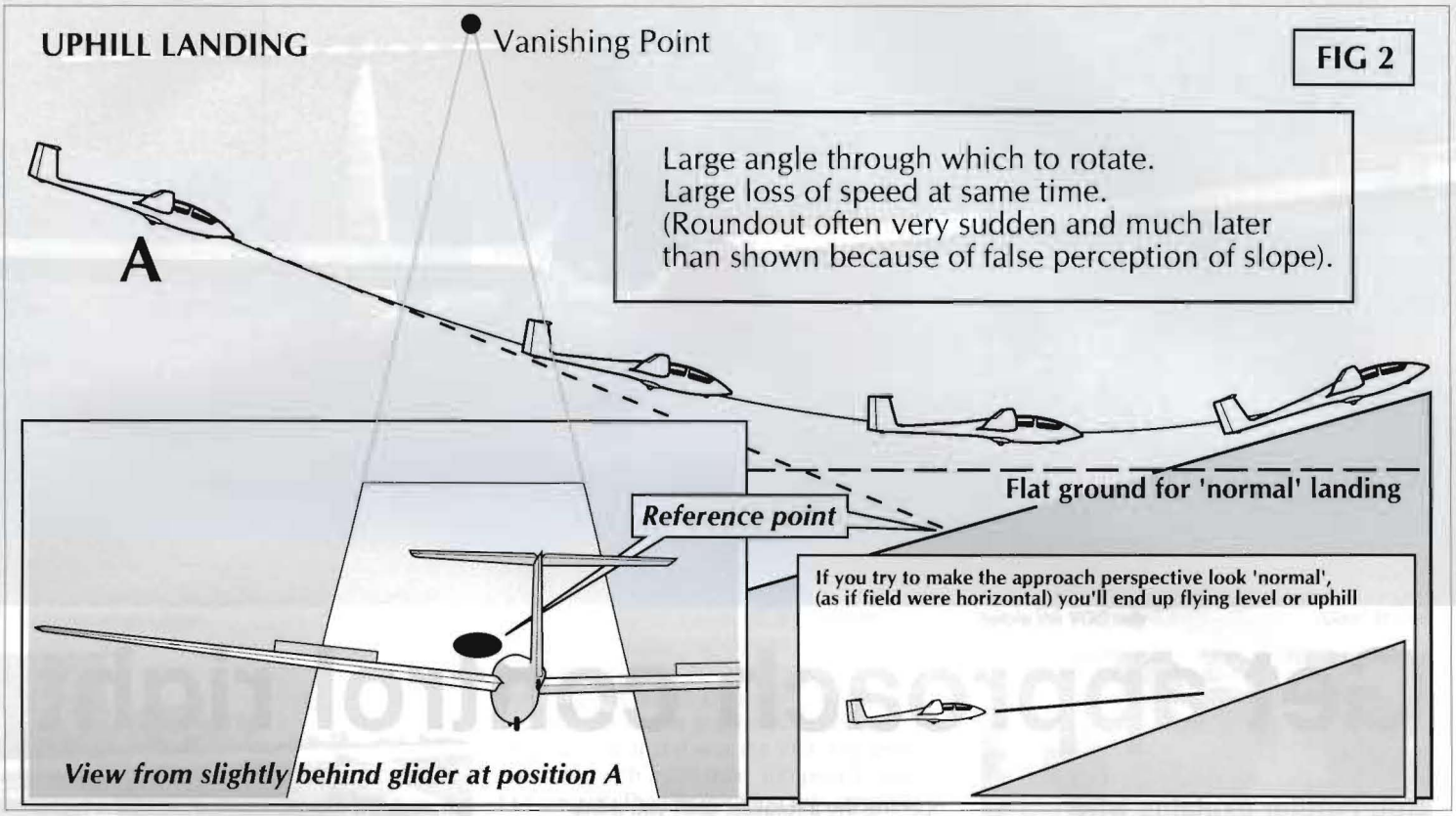
The final turn should be far enough downwind of your landing area to allow you time to assess your progress, adjust your speed, and control your descent path using the airbrakes so that you eventually round out and land where you planned.

The wind will affect the approach and the position of the final turn. In strong winds you will need to be either closer in to your landing area, or higher at the final turn position used for a lighter wind. It is easy for instructors to criticise approaches, but many cannot demonstrate the perfect one. Where ➢



*Top: ASW 19 coming in to land (the **White Planes** picture co.)*

Above: the approach "funnel" (all diagrams by Steve Longland)



➢ better to practise than when flying solo?

When you are finding out what a new aircraft type can do, pick a specific landing area further into the field than normal, so that any misjudgment won't end in an undershoot. By making the landing area specific ("somewhere up the field" isn't good enough) you'll find it easier to recognise any mistakes you may be making.

You can only correct mistakes that you know that you're making!

Each aircraft has an approach funnel (figure 1, *on the previous page*) whose upper boundary is no-brake/best glide, and lower boundary full airbrake – which can be thought of as full airbrake/worst glide. The glide ratio figures in the illustration are approximate figures only, but note that as the wind speed increases the approach funnel shortens. The funnel's boundaries are aircraft-dependent, and will need reassessing for any new glider type you fly.

(Note: to make any foreshortening of the view more obvious, these drawings assume that the reference point (RP) is a perfect circle on the ground)

How to select an approach speed

There is a minimum speed above the stalling speed which will:

(a) give more responsive controls to counter turbulence;

(b) allow a successful round-out;

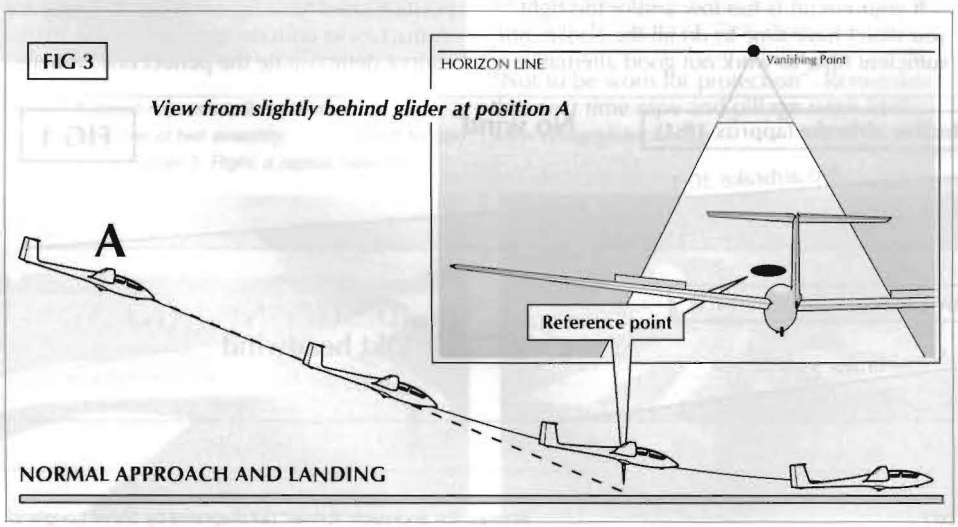
(c) allow for speed loss due to the wind gradient. If the wind gradient is very steep, any serious loss of airspeed can't be made up. The aircraft will try to maintain its trimmed airspeed (or you may lower the nose) but there may not be time and height for it to accelerate sufficiently for you to round out, or even start to do so if the glider has actually stalled on the way down. If an uphill landing is being attempted an extra 5-10kts needs to be added to the approach speed, depending on the steepness of the slope (figure 2, *above*), to prevent the aircraft "dropping on". Compare this with the "normal" approach in figure 3.

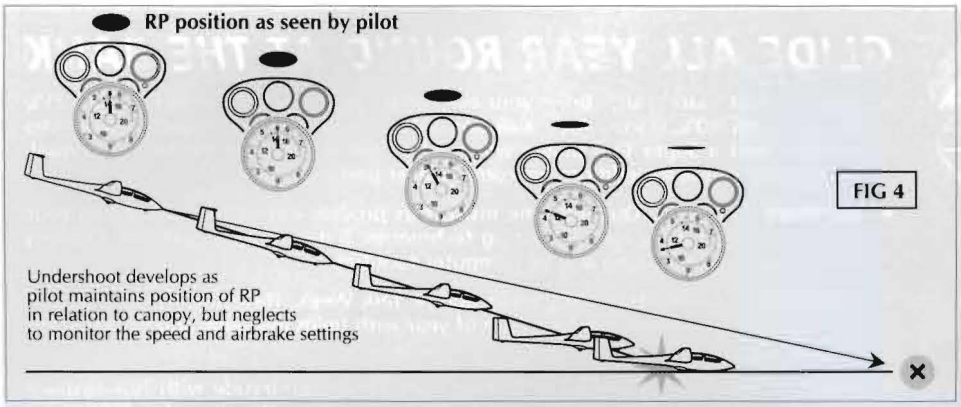
(d) give some float, however minimal. If the glider sits down instantly you didn't have sufficient margin – a gust or lull could have turned the landing into an arrival.

As you can see, the approach speed is dependent upon the glider, the wind, and the terrain. The rules of thumb used in training may not be applicable to more exotic single-seaters, so there is always a learning curve for each new type. Make sure the aircraft is trimmed properly to help you maintain a constant approach speed, since apart from the effects of any wind gradient, loss of airspeed can lead to an undershoot that isn't recognised until it's too late to do much about it. For example, a low circuit can lead to the RP, from the final turn onwards, being consistently in the right place in relation to the canopy (black ellipses in figure 4, *above right*), but unreachable due to insufficient and usually reducing speed – the pilot is effectively trying to fly the glider uphill – and/or poor use of the airbrakes.

The approach line

A gently curving approach does not sit well with landing in a very narrow field, so pre-select an approach line that is straight.





We tend to follow our eyes when landing, so if you want to avoid an obstacle, look at the point you want to reach, not at the obstacle. You will need to look to the sides from time to time, to ensure that other aircraft, vehicles, or even people are not encroaching on your intended landing area.

Why half to two-thirds airbrake?

These are the effective airbrake settings (that is, not the amount of airbrake visible above the wing, but their actual effect on the glide path) which allow the approach a margin of adjustment by taking the glider down the upper middle part of the funnel (figure 1). If the glider is undershooting the airbrakes can be closed to give the glider more "range" (better glide ratio). An undershoot with little or no airbrake will result in an actual undershoot since there is no energy margin left for recovery (see figure 4 again). If the glider is overshooting, more brake can be applied. With a well-braked approach the flight path is steep, reducing the length of the landing if the glider has had to pass over obstructions such as high hedges. After the round-out, speed will reduce quickly, which will also shorten the landing run. A poorly-executed circuit and high approach using full brake leaves no room for recovery. Faults such as low, close, full-brake approaches, or speed control errors that result in progressively-shallowing approaches and the airbrake setting having to be constantly reduced, can go unnoticed on a large airfield with a long undershoot area. They become apparent only in a field landing accident (occasionally with serious results), or on an instructors' course. Retraining takes a long time, so it's best (and cheapest in the long run) to make sure trainees get it right, and at the start.

The perfect approach

❑ circuit reasonably high and well positioned;
❑ speed selected, glider correctly trimmed;
❑ good lookout maintained. Nothing in the circuit pattern or on an opposing circuit that you haven't seen;
❑ make the final turn using the horizon for speed control (don't look down the wing);
❑ straighten up and check the attitude and speed;
❑ align on chosen approach path, checking for drift.
❑ when it is obvious that the RP is moving down the canopy, don't open the airbrakes until you think half-airbrake and **a constant airspeed** will get you to the RP;
❑ monitor speed and progress (don't forget to look from side to side occasionally);
❑ adjust the airbrakes to maintain the approach path. If you start progressively reducing the amount of airbrake, maintain the speed, shut the airbrakes completely, and fly on until you re-intercept the two-thirds-three-quarters brake approach line. Reopen the brakes, keep the speed constant;
❑ If at any time the RP starts to move rapidly up the canopy, close the brakes and regain the half brake approach line;
❑ when you can see that your RP is staying put and you are safely into the field, look well ahead;
❑ when the horizon starts to move up the canopy, check back on the stick to bring it to the same position as it was when you took off. Keep the glider flying just above the ground and, with a progressive increase in back stick, "prevent" it from landing for as long as possible;
❑ keep straight on the ground run. Hold the wings level as long as you can to prevent a ground loop.

Things to watch out for

■ The temptation to raise the nose to keep the RP in the right place when you've used too much brake, and are undershooting.
■ The temptation to lower the nose, increasing the speed to keep the RP in the right place if you are under-braked or using full brake. This can lead to very long floats indeed before the glider has slowed down sufficiently to land.
■ The wind gradient causing a sudden decrease in the airspeed, and an increased sink rate. Reduce the brake setting and lower the nose to regain speed.

If you cannot get to the final turn at the right place and the right height, then you have changed your landing area or landing direction. Recognise this fact and control your approach into the new landing area.

Crosswind approaches

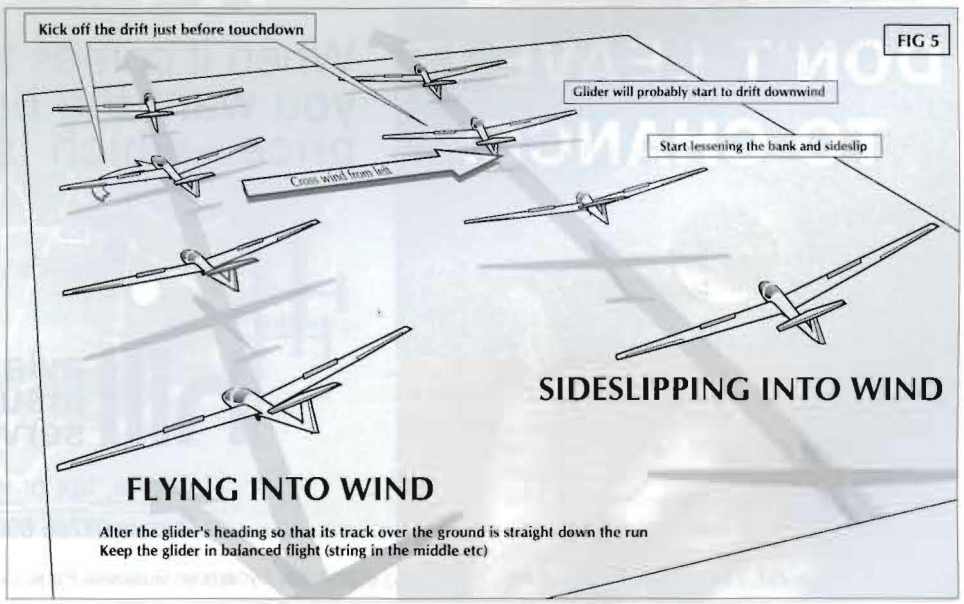
These add complications but don't change the basics. There are two ways to counteract drift. One is to fly the approach by heading into wind sufficiently to make the ground track along the run (figure 5, *below*). The glider is then flying sideways over the ground, but not through the air. Just before touchdown, use the rudder to yaw the glider towards the direction from which the ground appears to be coming. If this is done at the right moment you land without any drift. The second way is to approach with the into-wind wing low, effectively side-slipping into wind, and to roll level and straighten up just before touchdown. Generally, a combination of both is used.

Flaps and trailing-edge brakes

They may require the use of slightly different techniques, but the main aim of a constant speed two-thirds to three-quarters airbrake approach still applies.

This article has not been as technical as the previous one because approaches require good judgement, good tuition and plenty of practice. Near enough is not good enough.

This is one of a series by Bob Pettifer, who is chairman of the BGA Instructors' Committee





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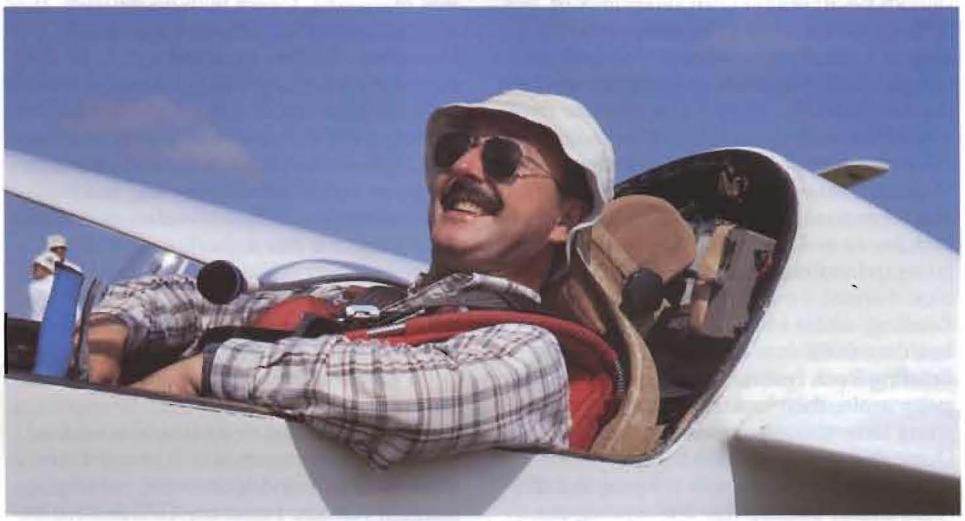
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Third time lucky

Andy Sanderson's jaunt around London took longer than on the M25 – but it was a lot more fun



Andy, above, had two goes at the 400km-plus challenge he set himself – and nearly didn't make it the third time

EVER since I did my first 500km flight in my old Vega, 890, I have been looking for new and interesting challenges. One of the things that had never been achieved from my home club of Essex & Suffolk GC (at Wormingford, near the coast just north-west of Colchester) was a circumnavigation of the London Terminal Manoeuvring Area (TMA). In 2000, I became determined to achieve this flight, and the following year, I tried it twice – and failed both times.

The first flight taught me a lot of things I had not anticipated about the necessary wind conditions; I made it only as far as Southdown GC at Parham. My main concern had been crossing the Thames, which I had never done before, and I reached it near Canvey Island. Looking across from 3,500ft I could see that the crossing was nowhere near as daunting as some people had led me to believe. (One of our members had previously done an out-and-return to Challock, so I had a good idea that it was possible). When I got there I found that in fact the river at that point is not much wider than a few kilometres and the worst problem, rather than the actual width of the river, is that on the both sides some of the ground, such as the marshes, looks unsuitable for landouts.

On that first attempt, I crossed the Thames safely, arriving at the other side at about 2,000ft; finding lift was straightforward. However, in Kent the lift seemed less reliable, and I got to my first turning point, Challock, at barely circuit height. It took me a good 20 minutes of scratching, having dumped waterballast over the caravans, to turn a scruffy bit of zero sink into a 4-knotter that took me to cloudbase at about 4,000ft.

"Everything will be easy now," I thought as I confidently pushed south towards Ringmer under some fantastic-looking clouds. But then I suddenly popped out into completely clear air, on the other side of what I soon realised was a sea-breeze front that had been attempting to push me into Gatwick's airspace.

Once on the seaward side of this, and unable to get back under the front (which was now marching across Gatwick), things took a turn for the worse. Underneath an inversion caused by the cold sea air, I was hedge-hopping over some very small fields towards Ringmer; after a titanic struggle, mostly below 2,000ft, I only just made it to Parham.

I had hoped that if I could squeak back inland again towards Lasham, things might improve, but arriving with only about 400ft to spare, I did what little I could of a circuit and landed at the far end of the runway. The natives were very friendly and I had plenty of time while waiting for my retrieve to visit the local hostelry, which the club has considerately positioned just a short walk from its gate.

For my second attempt, I decided to leave out Challock as a turning point and declared Wormingford-Ringmer-Lasham-Bedford Bridge-Wormingford. If each leg is flown in a straight line, the task would go within airspace even at 3,000ft, so although the declared distance is 411.38km, in reality it is ➢



Airspace, sea breezes and the need to cross the River Thames all complicate the task (Map: Steve Longland)

probably nearer 420km, not allowing for further diversions to better weather or under higher airspace. Because of the potential sea breeze problems, to be countered by a stronger northerly component to the wind, and not wanting to cross the Thames late in the day into such a wind, I resolved again to go clockwise. Going anti-clockwise may seldom be an option from Wormingford.

This time the strategy worked perfectly – almost. I got round as far as Alton with no trouble at all. However, towards the west the sky had gone blue. It was one of those days when blue really does mean blue, without the single hint of a haze cap anywhere. This, of course, slowed me to a crawl and it looked as though I was going to land out at Lasham. However, every time I thought was going to land out, I seemed to find another blue thermal. I managed to get as far up as Reading, where I had a very low point of less than 600ft over the recently-finished Reading Rock Festival, succeeded in getting away again, then looked as though I was going to land out successively at Booker, Dunstable, and Gransden Lodge. Unfortunately, the pace of my progress after Alton meant the day was fast running out. Although I now had a tailwind helping me back towards Wormingford, I got low south-east of Cambridge and eventually landed out at Hildersham at about half past seven in the evening, after 200km in the blue, about 40km short. Nevertheless, the attempt was far more successful than the first one, and it made me realise that my task was definitely possible, given the right conditions.

Needless to say, from that point on I waited and waited for the right conditions: a northerly or north-westerly breeze of about 12-15kt, a ridge of high pressure building from the west, and a weekend or a day when I could get away from work.

Typically, very few days like this came along, but finally things started looking good towards the end of June 2002, with the Azores High building nicely across the country, and staying in the right place for long enough for me to pick a suitable day.

On the day of Friday, June 28, having prepared everything down to the last minor detail the night before, I went out very early to the airfield. The sky was blue and the air had the right feel about it, fresh and cool. I rigged and watered the glider, made sure that everything was ready for the flight, then took the first launch of the day.

I stayed local for about 20 minutes before deciding to start. There was some fantastic streeting from the north, and the clouds were already quite large. Comments had been made earlier that perhaps the day had started too early, but as the forecast was for higher pressure to the west I hoped that, as I went around the task and the pressure built from the west towards me, perhaps I would not have too much trouble with spreadout. Heading south with a significant tailwind it took me no time at all to reach Southend, and I arrived at approximately 3,200ft over the coast. Ideally, I would have been exactly at the top of the available airspace, 3,500ft above sea level. But there appeared to be no suitable lift nearby, so I took the plunge and darted across the Thames towards Maidstone.

As luck would have it, when I arrived on the southern bank, I found a 4-knot thermal that took me straight back to 3,500ft, which was reassuring. I went with no difficulty over Maidstone and Staplehurst towards Hawkhurst, where I emerged into the FL55 part of the Worthing Control Area, and could then climb to cloudbase, which was approximately 4,000ft. From there, I tracked almost exactly down the edge of the TMA towards Ringmer. I rounded Ringmer and headed west, setting my GPS destination as Parham, since I knew it was a good place to land. Flying between 2,000ft and 4000ft, I skirted the northern tip of Brighton. There was a sea breeze front lying exactly along the coast at Brighton and although I was about a mile north of it I was very tempted to investigate the lift on it. However, common-sense dictated I should go down-wind only if necessary so I continued west towards Goodwood racecourse, passing south of Parham. I reset my GPS destination to Lasham, and headed north-west over Midhurst and Alton.

The sky was still reasonably good, although there was much more cloud and spreadout than I had expected, but still with some good 4-6kt thermals. At Lasham I found a thermal directly over the airfield. Because I was not 100 per cent convinced that I had rounded the turning point, I went round the clubhouse again just to make sure, and then headed off north towards Basingstoke.

'There were some very tricky times when I simply did not know what to do'

For the first half of this third leg, the conditions became much more difficult, with six to eight-eighths cover. The strength of the thermals had also decreased to an average of 2kt; flying into wind it took a very long time to progress northwards towards Thame and Aylesbury.

By this point I was convinced I was not going to complete the task, so I dumped my water and successively selected Booker and Dunstable as possible landing sites should I get low. I took every scrap of lift that was available, and if I needed to divert even more than 90° off track I did, simply to stay near cloudbase. There were a number of crop-free fields, but none of them looked particularly tempting and I resolved to stay as high as possible. There were some very tricky times where I simply did not know what to do, and occasionally I had to park under a very scruffy bit of lift just to wait to see what was developing ahead.

Eventually, I managed to get round Bedford Bridge and headed east towards Gransden Lodge, where I knew I could land and receive a friendly reception. But in trying to get within range of Gransden I had to cross an enormous grey hole, which offered no lift whatsoever. Late in the day, down to 2,000ft and already feeling low – in both senses of the word – I found another scruffy bit of zero sink which I parked in for at least 20 minutes while I watched the sky far ahead develop painfully slowly.

Eventually I had to backtrack about a mile towards St Neots to find the only real lift that was available nearby, and that gave me the extra 1,000ft I needed to cross the next big gap towards Cambridge South.

Once there, I easily got back to 4,000ft again in some very good lift, and headed east, skirting the Stansted airspace to the south. Once I was convinced that I was on final glide and down to 3,500ft I was able to turn under the airspace and head straight for home. As I passed near Sudbury to the east at approximately 2,000ft, I realised that I could get home, but bearing in mind the recent strong lift (and so the likely strong sink) I resolved not to overdo the speed until I was 100 per cent sure I could make it.

As luck would have it, there was no sink on the final glide – if anything, there was lift. I crossed the runway at 120kts at about 100ft, pulling up and round to the left for a landing on runway 27, completing the task in 6hrs 54 minutes, at a very slow average speed of just less than 60km/h. The time was 17:45, and every person except one had already gone home!

Luckily two more had just turned up to pitch camp for the weekend, and between the four of us we derigged the glider and retired to the clubhouse.

So I finally proved the task was possible. I believe that without big wings it would be quite difficult from anywhere other than Wormingford (or possibly Ridgewell, Rattlesden, Wattisham or Gransden Lodge), as the need for a northerly component to the wind means that unless the day is very long (or the wings are even longer!), the Thames should ideally be crossed fairly early in the day and the South Coast negotiated before any sea breeze makes it inland.

The rest of the flight, however, should be easy on any good soaring day. Given better conditions inland, I am sure it could be done much more quickly than my 60km/h.

Above all, despite (or perhaps because of) the weather not being as good as forecast, it was a very enjoyable and satisfying flight.

Along with the exhilaration of having completed the task, one of my first thoughts was: "Well, what next?". I'm now thinking that perhaps it would be nice to combine another circumnavigation of the TMA with a 500km declaration, but as I believe that the 411km was already more difficult than the average 500km I suspect the combination may stretch my (and my glider's) abilities. That will probably not stop me trying.

Andy adds: if anyone else has recently circumnavigated the London TMA I would be interested hear from them, via the editor, so that we can swap notes

Hard work in Hawaii

Ian Dunkley discovers why, at Dillingham Field on Oahu, it's better to use the runway

LET'S start with a few questions. Correct answers are required before your check flight in Hawaii. **1.** What is the first visual indication of a towplane's engine failing? What should you do? **2.** Name two ways of removing slack from the towline. Where should you be when the slack comes out? **3.** Name four ways to increase the published stalling speed of a glider. **4.** What should your minimum height above the ground be while turning base or for a rope-break abbreviated pattern or emergency? **5.** What would you do if the traffic pattern were so full of aircraft that you couldn't get behind them to land safely? *(Answers below).*

These are some of 31 questions you are asked at Oahu; and there are 47 more items you're briefed on. That's before three check flights, including two "towrope breaks". Then you do an observed solo, pulling off at 1,000ft close in. After all that, if you didn't blow it, you can either claim to have spent all your cash, or fly solo.

Soaring Hawaii operates from Dillingham Field on the North Shore of Oahu, the most popular of the Hawaiian Islands, along with another outfit called "Captain Bill's Glider Rides". Both have cabins, according to Reilly's Law of Retail Gravitation, at either end of a 15ft open-but-covered walkway in the car park, where two competing girls greet you with the gliding version of: "Want a good time?". I chose Soaring Hawaii, not because their girl had the better chat-up line, but because they had gliders for hire; Capt Bill's was a pure joyride operation.

Both operate Schweizer 2-33s, (K-4s with unwarranted illusions of grandeur) and three-seater "milch cows" – the 2-32 used across the States for joy riding with "million-mile pilots", according to Capt Bill. Soaring Hawaii has, inter alia, two Grob Acros (one with cranked wings); an Astir; a 1-26; an IS-something-or-other; an ASW-17; and two Blaniks, one the T-tailed L-23.

The airfield is a 9,000ft single strip but beware of the parachute club that, depending on the wind direction, may shorten it according to your own "chicken factor". At one side is a 900-foot ridge, very close. On the other side is the Pacific. Neither makes a good landing area, so stick to the runway.

The final piece of information is the wind. As I understand it, Hawaii has trade winds which can blow in any direction they choose. Captain Cook must have struck lucky in finding the islands the first time, when he was welcomed as a God. After leaving he made the mistake of returning, only to find that the locals had decided that white Gods and tourism were no good thing, and killed him. That's sailing for you. Pity was, they relented later.

A west wind, straight down the runway, gives you impressive sea cliffs to work; a northerly, the ridge along side the runway, as does a north-easterly or north-westerly; a southerly gives you down from the parallel ridge, which must make life interesting. What did I get? An easterly, which meant that nothing worked, not even thermals.

So, after all that, what was the flying like? Mark Griffin, the CFI and owner of the operation, and I flew the 2-32, which rather pleased me as I missed out on flying one of these back in 1962 when they first came out. Nominally a three-seater, they are the backbone of most "glider flight" operations. The three compulsory check flights were some of the most comprehensive I have undertaken and make the annual or any UK site checks seem a non-event. These, the written test and the 47-point list revalidated my 1960 US Glider Pilot License.

The P1 sits in front of the 2-32, with two passengers side by side behind (their stick is stowed away). The rear seat would just about

'When landed at speed, it produces a satisfying airliner-type noise on the tarmac'

fit two successful slimmers; couples hoping to join the mile-high club would be disappointed and the pilot embarrassed.

The take-off was rather unusual: slack can be taken up with you on the apron, wing on the ground and pointing away from the tug, which itself can be pointing at an angle of 25° to the runway. With a good breeze you can be airborne, pointing at, not down, the runway while the tug has changed direction to head down the runway while still on the ground. So much for keeping the wings level and letting the tug pull you straight, you fly it. I would not like to try it with a 22-metre ship, to use the American term, but I don't suppose that they do it with them.

The 2-32 is rather heavy to fly, and quite large control deflections are needed, but is well co-ordinated with a good rate of roll. Just as well when you consider the tight circuits. Its reputation of tip stalling in turns, which I didn't observe when flying up to the stall buffet in turns, creates a requirement to fly at 75-80mph (65-70kts, 120-130km/h) when joining the circuit and maintaining this speed all the way round, the powerful spoilers being opened only on final, when quite a bit of forward stick is required. The aircraft, if landed on its wheel at speed, produces a quite satisfying airliner-type noise on the tarmac strip.

After checks, I could have taken Pat and our host up together in the three-seater, but they wanted to watch surfing. Anyway, Pat would have had to sit much closer to another man than is becoming for a new wife, and I'd already spent more than intended.

That leaves the answers to the questions. Question 5 proved to be highly relevant when at about 150ft on final one of Capt Bill's tugs that I was watching barrelling downwind pulled round tight in front and below me, not much more than a rope length away. I therefore assume the correct answer is: "Push in front". As the 2-32 had a good wheelbrake I decided to land behind him; just as well as in the event, for he must have seen me in his mirror; he aborted and went round, to apologise later. That leads to the answer to Question 1: "What do you do if you think the tug's engine has failed?" You don't release and over-fly him and land ahead, he "may be only changing tanks": you go off to one side, if there is room. The other questions you can sort out for yourself.

If you are passing through Hawaii, you can contact Mark at *soarhi@lava.net* and I know he will not only make you welcome, but also make you work. Ideally, choose a day with a westerly, but he does require a couple of days' notice as most of the 2-32 pilots are not instructors and can only give rides. I would certainly go there again (it's a good stopover on the way to New Zealand) just to get on the sea cliffs. But could I book the wind?



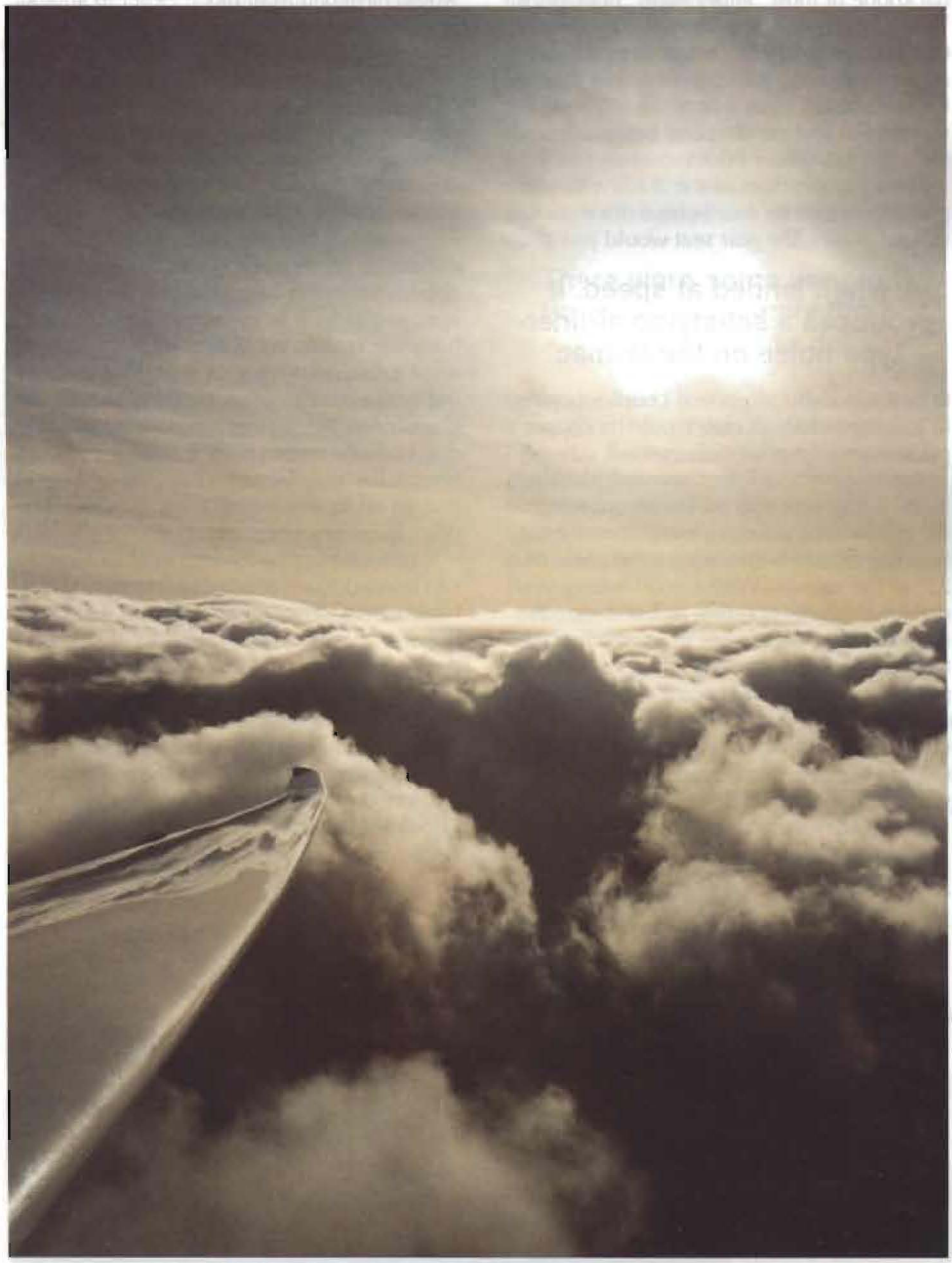
Dillingham Field on Oahu, one of the most popular of the Hawaiian Islands. This photo shows a Schweizer line-up on the 9.000ft runway, with 2-32s, a 2-33 and Cessna tugs. Note the proximity of the 900ft-high ridge. It is bigger than it looks

(Ian Dunkley)



W

**For sheer beauty, it
see when soaring i
rig next time you're**





*Above left, bottom and right: in S
ASH 25 at Borders GC, with CFI
looked interesting but perhaps no
to come. We had the most amazi
That might not sound so amazing
experience, used to far greater h*



*Left: John McWilliam's digital pic
(does Lembit know?). Top, at Kil
up the Castlemain River towards
bottom, belting along at 11,000ft*



*Far left and top right: Steve Olen
from the Clevelands GC site at D*

*Below right: tempting wave over
can happen even at the flattest s*



Wave

It is hard to beat the skyscapes you can in wave. We hope these inspire you to re in the right place and wave is forecast



n September 2001, after a decade's lay-off, Janet Ladley flew an CFI Robin Johnson (right). "It was late in the afternoon and the sky s not that exciting, although I think Robin had an inkling of what was azing flight. We finally broke off at 9,300ft because we were so cold. zing in itself but the skyscape was. Even for someone of Robin's r heights than I (I fly in Norfolk!) the view was extraordinary."



pictures of a day out in south-west Ireland in his PIK-20e, G-OPIK Kilcolman airstrip the day looks good; middle, wave bars extending ds Kerry International Airport, only an hour and £30 from Stansted; 0ft leaving one wave fast to look for the next one on the way home

lender's photos of North Yorkshire wave were taken after launching t Dishforth

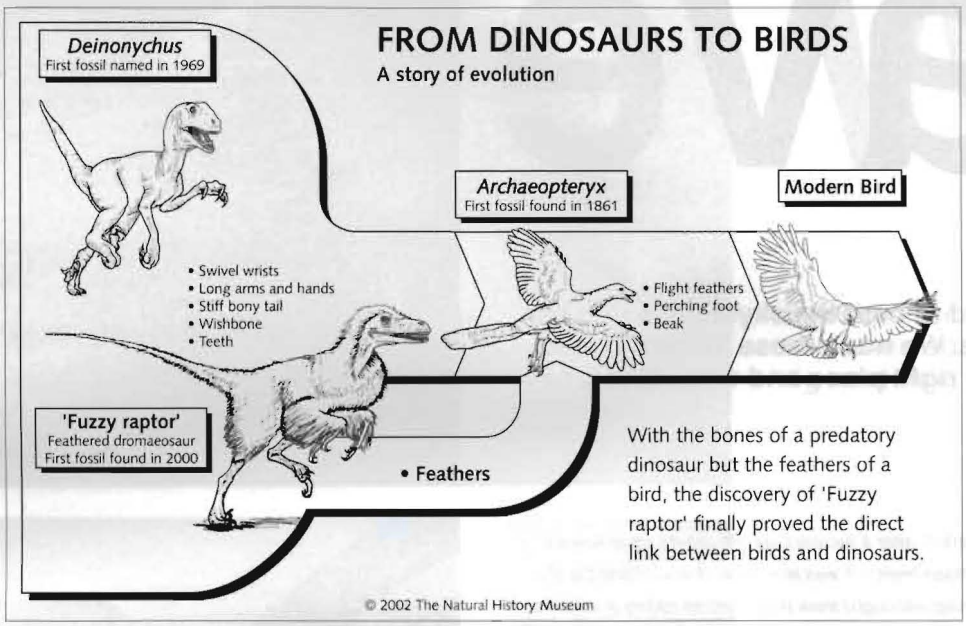
ver Lincolnshire GC. Lacking a tug, they couldn't reach it. "But wave st sites," says Dick Skerry, who took this picture as the light faded





How dinosaurs took to

Martin Simons updates us on new evidence on the evolution of birds from dinosaurs



Above: the latest family tree for birds, based on fossils discovered in China (Natural History Museum)
Right: Feathered Dromaeosaur, believed to be an evolutionary "missing link" (the Geological Museum of China)
Bottom right: the area of China yielding valuable fossil clues (the Geological Museum of China)

UNTIL very recently the earliest known bird was the Archaeopteryx. The first fossil of this creature, discovered at Solnhofen, Bavaria, in 1861, is one of the Natural History Museum's most important and precious possessions. Extremely fragile, it is rarely shown in public but you can see it now, thanks to a new exhibition at the NHM of fascinating recent discoveries concerning the origin of birds.

The preservation of the Archaeopteryx is so good that the feathers and the structure of the wing plumage are clearly visible. The conditions under which the Solnhofen lithographic limestones were formed were most unusual. Delicate structures such as feathers would normally have been destroyed but in this case they were saved. It is likely that other fossil skeletons also came from feathered creatures, but have been misunderstood in the past. There is apparently only one other complete Archaeopteryx anywhere. It is in Berlin.

Now there is much more to say. Some 125 million years ago, part of the region now called Liaoning in north-east China was subject to volcanic outbursts. During an eruption, in a matter of minutes, gases and fine ash must have choked and killed all life in the affected area. Almost immediately the bodies were covered in layers of the finest-possible dust, saving the remains from subsequent destruction by wind, weather and erosion. The material, now compacted into stone, is even finer than the Solnhofen limestone.

Continents have moved, climates have changed, oceans have advanced and retreated, but the Liaoning ash strata remain almost undisturbed. Fossils are abundant, to the extent that local farmers have established an industry, digging in quarries, splitting the rocks and selling what they find to museums and, illegally, to private collectors. Details of the fossilised animals are most perfectly retained. There is a succession of skeletal forms that are correlated with other sites of similar geological age throughout the world. In particular, where there are feathers, and there are plenty, it is possible not only to see what they are but also to analyse their structures. Fluffy down and stiff tail feathers can be distinguished from the asymmetrical primary feathers associated with fully-developed wings.

Each period of vulcanism, separated from one another by thousands and possibly millions of years, provides a snapshot of life at the time of the latest eruption. Most importantly there were small carnivorous, non-flying dinosaurs with plumage. It seems now incontestable that birds evolved from creatures like these. When the famous dinosaur extinction of about 60 million years ago occurred, some, with feathers, were already capable of flying and survived. Perhaps they were saved, in the postulated bitterly-cold climate, by the insulation provided by their plumage. (The contemporaneous pterosaurs could also fly but they had no such insulation and perished.)

The NHM exhibition contains 13 fossils from Liaoning, as well as its Archaeopteryx. Each species displayed is a study in itself but the centrepiece, one of the most perfect fossils ever found, is the Feathered Dromaeosaur, the so-called "Fuzzy Raptor".

'None of the theories seems to allow for the possibility that primitive birds were essentially not mere gliders, but soarers'

(Anyone who saw the film Jurassic Park knows what a raptor dinosaur can be. The Fuzzy Raptor was smaller but no less dangerous in relation to its size.)
This was not a flying animal. It was a meat-eating predator, with teeth, sharp claws and powerful hind legs that must have given it a very good turn of speed over the ground. But it was covered in plumage and its feathered forelimbs would have been capable of evolving into genuine wings.
In the Liaoning sequence at lower (earlier) levels, there are other flightless, feathered, dinosaurs. In the gut of one of these are the remains of a small shrew-like mammal; the creature's prey partly digested. Later than Archaeopteryx came Changchangornis, which was a small bird resembling a modern form. The multiplicity of fossils in one thin layer of ash indicates that these must have lived in large flocks, all being caught together, dying in thousands, and being buried in ash.

Many questions remain. Details are still to be filled in but the general story now is clear. Birds evolved from dinosaurs and the controversy over their origins that began in 1861 is apparently settled.

The first to fly? Not birds, nor pterosaurs. The first flying creatures were insects. Apart from cleaning their crushed bodies off wings and car windscreens we don't give them enough attention. They were already at it 300 million years ago, give or take 50 million. Much about their flight is still mysterious. The smaller ones paddle through the air like an infant child in water rather than relying on the Bernoulli equations. Some, it seems, sustain themselves in the air by generating a series of ring vortices, beating their wings to accelerate masses of air downwards, more than can be accounted for by standard aerodynamic theory. Newtonian reaction keeps them up. Probably the hovering humming birds do the same kind of thing.

The origin of bird (and pterosaur) flight remains a matter of some dispute. Recent videos, shown at the NHM, demonstrate that wings can be used to aid birds to climb vertical surfaces such as tree trunks. By beating air down, the bird can generate an upward reaction allowing it to ascend swiftly with only the slightest touches of claw on bark. This is not true flying but might have been an evolutionary approach to it. It is

the air



very possible that the rudimentary wings of the feathered dinosaurs were used in such a way. Then, likely enough, the animal could have launched itself from higher branches to glide, in the manner of a flying squirrel, from branch to branch.

Another possibility, illustrated by the same video, is that a fast-running raptor, with feathered forelimbs extended, would be able to make extended hops or gliding leaps, clearly an advantage in pursuing prey or evading other hunting animals. Longer wings and associated muscular growth could have led to real flying take-offs from level ground.

None of the preferred theories seems to allow for the possibility that primitive birds (and probably the pterosaurs, too), were essentially not mere gliders, but soarers (see *Soaring with Pterosaurs*, right). A creature that could extend wings of moderate span and area, but that lacked the necessary musculature and supporting skeleton to flap, could nevertheless take off by running a few steps from the crest of a low hill or coastal sand dune into the up-slope wind. It would then ascend in the manner of a modern hang-glider or sailplane after a bungy launch. Remaining airborne for as long as it required, it could search for prey over wide areas and for many hours. It need never beat its wings. In terms of lifting area and aerodynamic performance, radio-controlled model sailplanes of about the size and layout of Archaeopteryx, but surely much heavier, are commonplace.

It would, in evolutionary terms and on the geological time scale, not be very long before soaring over windward slopes led to thermal soaring, extending the search for food over vast areas in the manner of vultures and eagles today. The next thing then could have been the development of efficient flapping mechanisms and of greater manoeuverability, allowing the smaller, swifter dino-birds to catch some of those veterans of flight, the insects.

Visit the Dino Birds exhibition if you can. (until May 5, 2003, at the NHM in London). Of course you will choose a day when there is no possibility of flying yourself.

Martin Simons is an experienced sailplane pilot and aeromodeller. He has written numerous articles and books, not all about aviation

Soaring with Pterosaurs

VIEWERS of the BBC TV series *Walking with Dinosaurs* witnessed a 12-metre span flying dinosaur migrating over land and sea. Given the excellent research behind this series, including working out how the Pterosaur walked, I am sorry to have to describe the flying sequences as Tom and Jerry. Visiting a vintage glider rally on a hill site or even watching hang-gliders in operation might have provided clues to how a 12-metre Pterosaur flew.

Pterosaur wings, like bats', were formed by a membrane of skin attached to legs, body and arms. Unlike bats, where the outer section of the leading edge is provided by a very extended first finger (the other three fingers provide the wing structure), the Pterosaur's outer leading edge was provided by a very extended little finger. Its wing membrane relied entirely on tensioning to maintain its shape. The legs operated as the elevator and the large head, on a long neck, probably provided rudder control as well as a means of adjusting the c of g. The muscles needed simply to maintain the wings in the spread position would have been considerable. Flapping to take off or to maintain height would definitely not have occurred.

So what existed was a self-moving (with difficulty) 12-metre span glider, weighing only about 200lb (90kg), similar in size to a single-seat Fauvel flying wing. Conditions at the time must have been very temperate.

Walking, Pterosaurs rather resembled a 9ft-high, partially-unfurled umbrella; they would have been very easily blown on their backs, and, weighing so little, they would probably have flown at between about 15-20kts (30-40km/h). In the programme, much was made of their ability to soar low over the sea "like an albatross". For this to happen, it is necessary to have a heavy swell created by regular powerful storms with a vast extent of open sea, and a large, heavy bird with high-speed characteristics which can land on and take off from the water. None of these conditions would apply to Pterosaurs. It is reasonable to infer, therefore, that soaring low over the sea was not possible; hence, the assumption that they ate fish would be incorrect. Instead, their diet must have consisted almost entirely of insects, carried by the prevailing wind over a hill and caught in the wing membrane either in flight or by standing on the edge of the hill with the wings spread.

As Pterosaurs needed to land back close to their take-off point, one can only guess that they lived on the top of a bare plateau with a ridge facing the prevailing wind, which would have a nicely-rounded edge to prevent curl-over. To launch, they would have walked to a suitable slope, spread their wings with the leading edge close to the ground, and then... With no bungy or Vintage GC members to give a shoulder launch, did they, perhaps, use their head to lift themselves into the flying position and then shove themselves off with a nod? Lateral control must have been a problem with no trailing edge control. To turn to the left, say, did they slacken the membrane on the outer part of the left wing causing a spoiler effect?

And what did they land on? As their legs provided the elevator needed to control the flare close to the ground, they had no undercarriage. Some diagrams show a large chest bone that could have been used as a skid. They would only land close to a point where they would be able to launch due to their limited mobility, so they probably had a string of known "airfields" they knew they could operate from. Difficult landings would have been avoided because the outer part of the wing was very vulnerable to damage. They would never have landed in the valley, except by mistake.

That Pterosaurs had evolved showed that, at the time, large size was an advantage. Was this due, perhaps, to lighter winds needing a better soaring performance, and providing larger wings to collect insects? Most Pterosaur fossils are found in marine sediments, leading to the fish-eating theory. Surely these were just ones that had not checked the wind strength, failed to soar, had to ditch in the local lake and sank gently to the bottom undamaged, only to be dug up some 70 million years later?

Chris Hughes



View from the team manager

THE airfield at Bekescsaba, *writes Harry Middleton*, is grass with four runways (27/09, 36/18). It was quite congested with a large entry of 120 gliders and also had an army of underground creatures mining the area causing subsidence you could lose a glider down. There was the usual scattering of eastern European aircraft; tugs were a mixture of Wilgas, Zlins, and so on. Airfield facilities were adequate but not stunning.

The British Team for the 11th European Gliding Championships in July consisted of Mike Young and Dave Allison (Standard Class); Pete Harvey and Russell Cheetham (Open Class) Dave Watt, Alister Kay and Steve Jones (15-Metre Class) and Jay Rebbeck (18-Metre Class).

Task-setting required improvement. On one practice day, our Open Class completed the max area (499km) and were back after 3hrs 35min – 50 mins under the task time!

The opening ceremony involved a march of the teams through Bekescsaba, a town of 70,000 citizens, while a Zlin with a IS-28 on tow flew up and down the pedestrian area at about 100ft – yes, 100ft – at approx 110kt!

Jay Rebbeck won the first day in the 18-Metre Class, with Al 2nd, Dave 3rd and Steve 5th in the 15-metres. Russell and Pete had a problem with a thunderstorm. The Standard Class day was cancelled because the entire grid could not be given a launch. A Wilga crashed at about 100ft on take-off while towing the last in the class to launch. The tug was badly damaged and the pilot was very lucky not to get hurt. The glider, one of the Dutch team's, flew the next day.

We then waited 10 days – several of them scrubbed – for our next day win, when we had two in quick succession, thanks to Russell and Jay. A final highlight was when Dave won the last day – an assigned area task in poor conditions – securing Silver.

This was another successful contest for British pilots. One big thank you I would like to make is to the crews. Without these dedicated people, comps couldn't happen. So, please accept the team's appreciation.

Standard Class: 1, Tomas Suchanek, CZE, LS8, 7170pts; 2, Claus Triebel, GER, LS8, 7135; 3, Yves Jeanmotte, BEL, LS8, 6960; 5, Paul Crabb, IRL, LS8, 6384; 15, Mike Young, GBR, LS8, 6643; 17 Stephen Crabb, IRL, LS8, 6403; **15-Metre Class**; 1, Frederic Hoyeau, FRA, ASW 27, 7084; 2, David Watt, GBR, Ventus 2a, 6985; 3, Göran Ax, SWE, ASW 27, 6974; 9, Steve Jones, GBR, Ventus 2ax, 6678; Alister Kay, GBR, Ventus 2a, 6590; **18-Metre Class**: 1, Petr Krejcirik, CZE, Ventus c, 7477; 2, Stanislaw Wujczak, POL, LS6-18m, 7325; 3, Manfred Hahn, SUI, LS8-18, 7097; 11, Jay Rebbeck, GBR, LS8-18, 6607; **Open Class**: 1, Tassilo Bode, GER, ASW 22ble, 7362; 2, Holger Back, GER, ASW 22b, 7326; 3, Jan Walther Andersen, DEN, Nimbus 4T, 7213; 6, Pete Harvey, GBR, Nimbus 4t, 7138; 9, Russell Cheetham, GBR, ASW 22bl, 6972. Full results at: **www.egc2002.hu/**



Decisive flying

Dave Watt flew his Ventus to Silver in the 15-metre Europeans in Hungary. He describes an enjoyable and successful comp

HUNGARY is a great place for gliding. It is very cheap, very flat and easy for outlandings. There are few airspace problems and the soaring is very good. What struck me most is that powerful continental conditions really do require a change of gear and very decisive flying.

Michael Grund and Goran Ax reinforced this point for me. You have to race all the time; you cannot afford to back-pedal nearing final glide at the end of the day in the way you often can (and often should) in the UK. The 18-metre British Team lost a fair few points in the last half-hour of some of our earlier flights. I won't be making the same mistake if selected to fly at Leszno next year. Fortunately, Michael had a bad first day, although he is so spectacularly fast that he very nearly made up the 500 points he lost.

Having Alister Kay and Steve Jones as team-mates was a key factor in my success. They are very relaxed, very switched on, very good on the technical side – especially with computers – and extremely good pilots. Alister is particularly good as a tactician in the air and on the ground. We also get on very well as friends when not gliding. The three of us tried to be consistent and waited for other people to make mistakes. This nearly always works when we are flying as a team and there are plenty of days. The more flying we do the more consistency pays off.

On the last day I was rescued when on my own (the first time I was separated from Steve and Al), when Zbigniew Nieradka, one of the Polish pilots, bobbed up just when I had lost the flow of the day. Although we were at about 2,500ft, there was the choice of a large blue hole or a big deviation. I don't know just how confident he was (I never got the chance to speak to him) but he set off into the blue to something I had not spotted at all and within a few minutes we were under a newly-forming cloud in 7kt. If it wasn't a lucky accident it was brilliant flying.



There was more thundery weather than I have had before – we lost more days than we would have liked. Although I hate assigned area tasks I was glad on some days to opt not to fly too close to the lightning.

What does bear scrutiny is how I went from 2nd in the Europeans to 28th in the Nationals. I felt very positive, the glider was performing fantastically, and yet I had only one good day out of eight! Weak weather is where I have most room for improvement.

Dave, whose crew was Ken Hartley, flies from Bicester and has done about 15 international comps

Main photo: Daniel Tuth of the Swiss team reflected in the wing and fus of Pete Harvey's glider (Pete Harvey)
Above: Dave Watt at Lasham (Bernard Smyth)

Is your club in a spiral dive?

Neil Rathbone, the chairman of Buckminster GC, asks if your club is entering a spiral dive and explains his club's plans to get and keep new members



Buckminster GC's site at Saltby. The hangar is in front of the wood in the foreground; new land rented by the club is marked in yellow. See overleaf for how the club plans to use it to generate income and keep members happy

YOU MAY find the scenes depicted in this article distressing. At least, that's the intention. My club has recently done some deep soul-searching and, as a result, we are embarking on a very different approach to development – you could describe it as lazy gliding at the right price. Our deliberations led us towards a new understanding of where we were going wrong. Could this help your club?

Just look at us all! Flying equipment bought with charity handouts; clubhouse equipment donated by members (generally because it was at the end of its useful life); and a membership that considers 50 years of age or less as mere youth.

Up and down the country, more gliding clubs than you can shake a half-million map at must have conversations at committee meetings and bars that go like this: How do we get more members? Promotion? Special offers? Knock £2 off what Neighbouring GC charges for a launch?

The stark truth is that our sport sucks. You can spend all day labouring at the launchpoint just to get one brief flight at the wrong time of day. I know of one respected senior businessman who spent a whole week on a course and got precisely four minutes in the air – he now swears by gliding: literally, whenever anybody dares to mention the g-word.

Then, if you qualify as a pilot you get to go on the duty rota, which means you're obliged to spend extra days at the club when you don't want to.

And the cost! A training flight can work out at £90 per hour (try it – just take your club's price for a 2,000ft aerotow and 10-minute flight of training exercises, then multiply by six to get the hourly rate).

As someone who once suggested that the BGA should do national advertising and marketing on behalf of member clubs, I now have to say that I was wrong. It's no use promoting the sport if it doesn't offer people what they want. We can get them to join (46 new members in one go was our big promotional success story) but then they soon discover that you have to be a masochist, and celibate, to put yourself through the process of learning to glide, and one by one they drop away.

Most of us can't see this because we are flying anoraks. We would do anything for that precious hour or two of floating silently over the ever-changing countryside, drawing energy from nature herself... sorry, I was drifting there. So, anyway, how did we, an average regional club, suddenly see a flash of inspiration?

The awayday

First of all, a couple of years ago one of our committee members had the bright idea of the awayday. Leave all the time-consuming minutiae of committee business behind and take ourselves, along with a select group of the more articulate club elders and stalwarts, off-site for a whole day to discuss strategy.

So Awayday 2000 was born and it was something of a revelation. Unlike when considering the purchase of a new kettle, over which committee members will argue for hours and even fight to the death, awayday participants were consensual, thoughtful, focused and most made at some point a really significant contribution to strategic thinking. Magic.



A nascent land-yachting club at Buckminster, Saltby. More income and same cost base equals more profit

The meeting concentrated on what we felt was the main issue – long-term viability. This to us meant making a profit year on year, so the financial model of the club was taken apart and examined. To give you some idea of the radical nature of our unfettered thinking, we had the temerity to consider:

- ❏ Abandoning all membership fees in favour of pay-as-you-go
- ❏ Having a one-off annual fee and flying thereafter is free
- ❏ Scrapping free reciprocal membership

Let me summarise very briefly some of the reasoning. We found that most of a club's costs are fixed (rent, rates, insurance, depreciation) while most of its income is variable, flying fees being around 70 per cent of the income. As flying is weather dependent, all ideas of business planning and cash flow go out of the window. So why not make income match expenditure? Our horror at the result of back-of-envelope calculations of such a membership fee led us away from that one, although it has to be remembered that if those are the real costs per member then the membership ends up paying them somehow. Free membership and pay-as-you-go might encourage more people to give it a go and enable people to dip in and out more easily.

Note that we were already starting to think of "marketing" to people's needs, rather than just promotion of what we have always provided. (Option one – you join for a year, option two... well, you don't join, option three... er, there is no option three.) But then ➢

we asked ourselves how we could abandon the large guaranteed sum we get each year and throw ourselves entirely on the mercy of the weather.

Reciprocals were considered because, for our club with its seven-day and all-weather operation, "reciprocal" means in practice one-way traffic to us from surrounding clubs that are closed for one reason or another. Should we charge a daily membership fee for using our facilities? However, the flying such reciprocals do is immensely valuable to us (remember the income comes mostly from flying fees) and in any case many were making voluntary donations to the runway maintenance fund and some also help us out with things like instruction. Why bite the hand that feeds? Especially in the bleak winter months.

In the end we bottled out and adopted a safe compromise, keeping with exactly the same financial model. Nevertheless, the deep C of A that we gave to our costs and income meant that we now understood how our club works financially better than we had ever done before. Armed with this new knowledge we did make some unusually sharp one-off changes in specific charges, which reflected our better understanding of where costs are incurred and how to make everything pay its way. For example, we agreed increases in launch fees to reflect the real increase in the cost of fuel, without the usual "so-and-so charge so much so we should do the same" since we figured that so-and-so might just be shadowing us, following the same logic.

We disproportionately increased the cost of parking a trailer to compensate for the fact that, in practice, most private owners fly less and physically contribute less to daily club operations, and the previous cost did not represent the true value of the space occupied. We also eroded the various concessions, apart from at the younger end of the scale, as the grey market is in fact our main market and often quite well heeled.

While our financial model was the main topic, we also discussed a number of other strategic subjects and came up with good ideas. The editor will never indulge me with the space to explain them all, but one is to use the airfield for complementary activities. More income, using same cost base, equals profit. These ideas resulted in a long list of things we would do. The one that was 100 per cent certain was that the awayday would be repeated each year.

Flipchart One: what people want

The requirements of the identified markets were agreed to be:

- Value for time
- Convenience (bespoke, even?)
- Availability (launch types/all weather/ seven-day operation)
- Equipment standard
- Organisation (admininstration, and motivation of pilots)
- Social scene/activity
- Pleasant atmosphere (welcome)
- Progress (especially in training)
- Advanced training (cross-country/ aerobatics)
- Good financial deal (offers)
- Hangarage and storage
- One-person operation
- Accommodation/catering
- Status/image
- Partner/family facilities
- Safety
- Thrill (racing/aerobatics)

Value for TIME (as well as money) was felt to be the main requirement – and significantly above all others.

Awayday 2002 – the sequel

Oh, how naive we were! Two years slipped by before we noticed and, although we moved into profit despite foot-and-mouth, and made progress on some of the awayday items (such as a nascent landyacht/blow-cart club for when we are not flying), most of them might as well have been pinned up on the mantelpiece and addressed to Father Christmas. What we had created was a wish list. A dream.

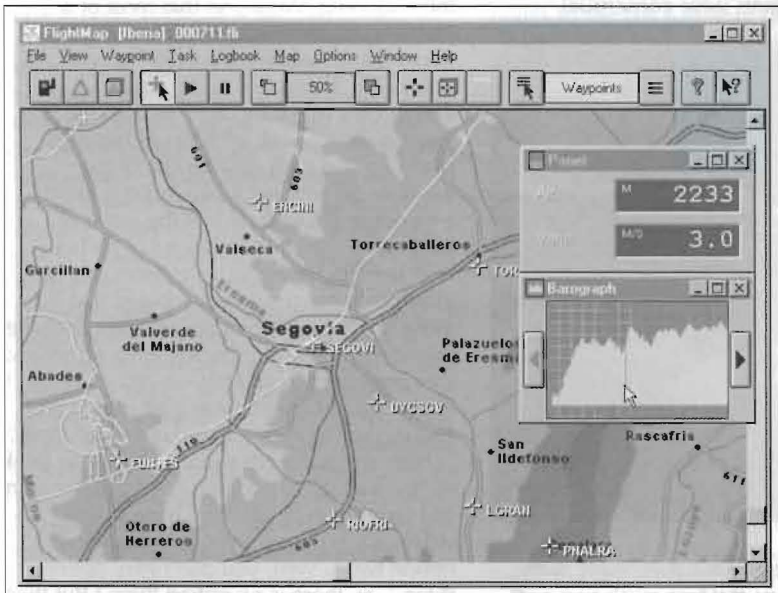
Our second awayday went harshly back to fundamentals. Who represents our market? What do these (strange "ordinary") people want? When we had made a list of the various types of flyers, and a composite list of all their requirements, we then compared that to a list of what we actually provide (cunningly prepared by devil's advocate yours truly the night before). The mismatch was total. For everything that we had agreed people wanted in their modern leisure pursuits we actually provided the opposite.

Roger Coote, the BGA development officer, who had kindly joined us for the day, confirmed that the mismatch we had discovered was true of most gliding clubs.

Think about it. People want, above all else, value for time. So we tell them that if they don't see the hangar doors open/closed then they're not being good club members. People want a sexy high-tech lifestyle hobby. So we put them in a K-13 designed and built before they were born with an instructor who knew Methuselah as a lad. People want a thrill. So we drag them through the turgidity of pre-flight safety checks and the BGA syllabus before we ever take them for a cross-country soaring flight. People want convenience. So we make them unpack the hangar or rig their ship before they fly.

Beware the chicken and the egg

Having spotted the mismatch between what we offer and what sane and sensible folk want (remember, not the anoraks) we came to the difficult bit. What could we actually do about it? Dreamy ideas of luxurious clubhouses with executive toilets were deservedly shot down as wish list creation. (If you have an awayday then beware of dreaming. If it isn't hurting your brain then you're not thinking hard enough.) Watch out,



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

Flipchart Two: what we deliver

The following was proposed as a "devil's advocate" view of what we actually deliver and we believe it to be largely true, both of us and of gliding clubs generally:

- The calibre and attitude of instructors varies wildly
- Which instructor you get is a lottery
- No-one looks after you or tells you what you are expected to do
- Members give you conflicting instructions
- You are expected to give up a whole day in order to fly for a few minutes
- When you qualify you have to give up extra days to help run things
- The launchpoint is a shambles – you waste half the day
- They all dress like scruff bags – even the instructors
- It is all older males and old equipment
- If flying is cancelled there is nothing to do
- There is no café or restaurant
- The toilets are disgusting and broken
- You can't find the place
- It's terrible value for money – £200 a year (plus often a levy) plus £95 an hour
- Most beginners give up after a few sessions

though, for the opposite seduction – the chicken-and-egg argument. This goes: "We haven't any money, so we can't afford X, Y or Z so first we need more members so that we can afford it... but those members would want X, Y and Z" – so back to where you started. In other words: we can't do anything. You have to dismiss this kind of thinking by asking yourself how exactly gliding, and for that matter any other clubs, got started? Did they have some magical pot of money to begin with?

If people are really keen to do something they make it work. The popularity generates cash and the cash buys the facilities. When we looked more closely, some ideas that cost money could in fact be self-financing. Let's take our awayday action for this year, for example. We realised that private owners would like to store their gliders rigged and ready to fly. Therefore why can't we offer a hangar to everyone who wants one? Come to that, why not also offer secure storage space for all those expensive bits and bobs? Until now our attitude was tea, sympathy, and "we'll put you on the list for one of the T-hangars, should one happen to become available; we just don't have the space, you see". (So you too can jolly well get a bad back like noble generations of glider pilots before you.) But wait a minute. If a member is prepared to pay the ground rent then why not increase the size of the airfield to accommodate them and their hangar?

The awayday was in mid-July and, concentrating on this one action, by the beginning of August we had a provisional offer from our landlords to rent a section of a field adjoining the current apron at a rate that we can more than cover from hangar space rental. In the process, we also found that we could probably rent some additional space, previously thought unavailable, at quite a reasonable rent, on which we could site a new clubhouse with great views of the flying operation.

For the flying anoraks like me, the moral of my tale has an aeronautical analogy. If we were in a turn and having to constantly input up elevator to maintain a horizon, we would soon suspect a spiral dive had developed, in which case we know that more up elevator only makes the situation worse. Yet year after year clubs like ours input more and more valiant promotional efforts and cost-reduction schemes, put a brave face on their entries in *S&G*'s Club News, but fail to see they are not solving the root problem of decline. Decline caused because the way we run our operations does not meet the expectations of Mr and/or Mrs Average, let alone those of Master and Miss Average, or these days Mr and Ms Partner (or Mr and Mr, or Ms and Ms).

If we are honest, given the unavoidable cost of aviation, perhaps Mr and Mrs Professional – or Recently Retired and Comfortable – form our main anorak-free market. We have to make ourselves an honest list of their expectations and, even if we don't like some of them, take specific actions to begin to meet them. All the evidence is that there is a strong leisure market out there, we simply have to offer ordinary folk what they want from their leisure rather than try (and fail) to impose our values on them.

Although, like most clubs, we are proud and think of ourselves as a cut above the rest, in truth we are fairly typical regional club, so our situation and our answers to it are likely to apply to most of you. We are now attempting to get ourselves out of the spiral dive. It isn't easy. Wish us luck. And do please try the awayday. We can't afford to have your club putting people off our sport as it spirals downwards.

Neil, a 47-year-old management consultant, took up flying 10 years ago (because of a trial lesson when he was 11). He has Silver, is a Basic Instructor, and a PPL with IMC and tug rating



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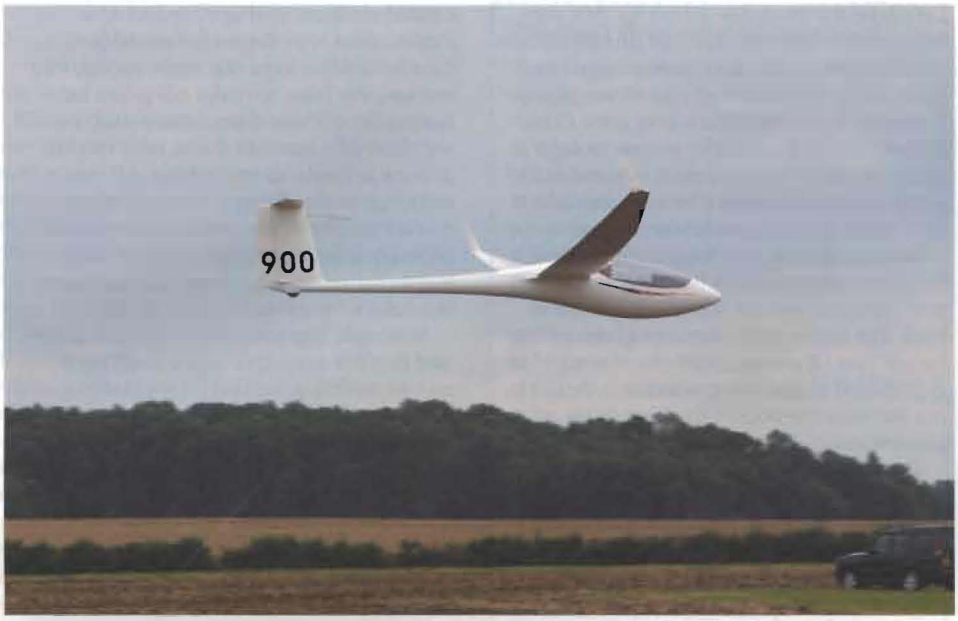
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Whatever the weather

Oliver Ward reports on a showery 15-Metre Nationals at Gransden Lodge and adds his own daily learning points

THE weather proved to be the deciding factor in the 15-Metre Nationals at Cambridge GC: the high performance of newer gliders gave little or no advantage. So tactics and, maybe, luck were more the deciding factors, but as the saying goes: "you make your own luck!" Of the tactics, cloud flying was the most obvious. It was easy to track other pilots' efforts on 130.4; this helped considerably when deciding if there was any advantage to be gained. Only two of my cloud climbs proved worthwhile – both were used to get to a comfortable final glide. On day four it became apparent after monitoring 130.4 that little advantage was to be had. There was significant streeting and by staying below cloudbase and following the energy lines, large distances were covered without turning; this resulted in some big diversions but still outweighed the cloud-flying pilots, who were using their height to stay on track and cross the gaps. The final day again saw many pilots entering cloud. However, the first two legs were under Daventry airspace, limiting the available height. It wasn't until later, when trying to get to final glide around the storms, that a cloud climb became essential.

Pos	Pilot	Glider no.	Points
1	C Starkey	900	3039
2	E Downham	N5	2852
3	T Scott	Z3	2786
4	N Tillett	T4	2667
5	O Ward	183	2662
6	P Jones	210	2548
7	S Steinberg	S1	2477
8	RF Thirkell	B3	2450
9	G Metcalfe	104	2443
10	P Jeffery	64	2308
11	J Wilton	634	2253
12	E Johnston	W7	2232
13	A Hall	241	2175
14	K Tipple	930	2172
15	B Cooper	68	2141
16	D Draper	301	2125
17	P Naegeli	520	2035
18	D Byass	161	2026
19	F Davies	25	2008
20	R Welford	W8	1993
21	W Aspland	325	1935
22	A Sanderson	890	1932
23	S Redman	56	1915
24	R Smith	Z9	1885
25	G Payne	GP	1877
26	M Pike	R11	1873
27	S Innes	HL	1805
28	P Rice	LD	1804
29	C Alldis	646	1743
30	D Heslop	J3	1363
31	H Jones	D2	991
32	I Molesworth	JJY	726

Day 1, July 27: on a fallback task of 212km the grid was launched into a soarable sky with competitors trying to decide on tactics as an early cut-off at 4pm was on the cards. Sarah Steinberg was first home, followed closely by Chris Starkey. Sarah had been the first to start followed 7 mins later by Chris; 5th place was taken by George Metcalfe, the last to start, 23 mins after Sarah.

■ Discovered how to encourage the director into lively debate!

Day 2, July 28: even hotter today but the trigger temps proved to be just too high with only six past Y and one finisher, Nick Tillett, This resulted in some of the more mediocre performers praying for a low total score; our prayers were answered with a 230pts day!

■ I enjoyed the hospitality of the US military. Had any gliders flown over I was ready to trade a flight in a glider for a go with a machine gun!

Day 3, July 29: many competitors found themselves stuck behind extensive storms, and a lot was said in hindsight! People who pushed on and through the storms on the final leg found themselves getting home, whereas pilots who held back looking for a cloud climb weren't so lucky, Andy Hall did the former; Phil Jones did the latter.

■ I got lucky: my last climb gave me a height gain of 6,500ft, of which the final part was in cloud up to 7,000ft AGL

July 30 – August 1: scrubbed, however, a comp forum was arranged and produced some lively debate; no doubt John will forward our remarks to the comps committee. Topics included the 5 min start height rule and the competition calendar.

Day 4, August 2: longest task of the week, and the fastest, significant streeting helped bring up the speeds, over-development on the second leg offered the dilemma of staying on track or diverting to better-looking sky to the north. The third leg looked like it was promising large gaps and long glides, so several pilots were tempted into the clouds; however, non-cloud flying pilots could follow energy lines for a greater advantage. A good climb after the last TP was essential as the final leg was dominated by a large gap between Newmarket and home.

■ Just make sure the glider that you are following is in the same competition!

Day 5, August 4: the day looked too good at 8am! Extensive over-development was the flavour of the day, aggravated by a low cloudbase, luckily the weather was recycling just fast enough for us to weave our way through, only one pilot completed the task without doing any cloud climbs! One tactic was to head for the sun on the ground; this guaranteed a climb but resulted in some extreme diversions.

■ The morning after: who said we weren't going to fly?



Main picture: winner Chris Starkey finishing
Above: Nick Tillett in Tango 4 arrives at Gransden
Photography © www.thirdlight.com



Lasham 2002

Wendy Durham has gathered the stories from the Club Class and 18-Metre Nationals – told in the competitors' own words

THIS year's report breaks with the day-by-day, blow-by-blow tradition for some excellent reasons: (a) there were two National Championships being run as a two-class event, (b) every single one of the nine days produced at least one task, in spite of weird weather, and, last but not least, (c) the editor can only spare three pages! So it seems intelligent to convey the flavour of the two competitions, rather than chapter and verse on what happened when – and who better to do that than the competitors themselves, in their own inimitable style?

Congratulations to the two champions – Phil Jones in the 18-Metre Class and Tim Milner in the Club Class – and to the day winners. And commiserations to an unharmed Denis Campbell (370), who misjudged his final glide on the last day but found that one of Lasham's smaller silver birch trees did a good job of cushioning the last few metres of his descent...

Now, for the "look and feel" of an amazing week of the oddest weather mixture Lasham has seen in years, over to the competitors.

Saturday, August 10

Andrew Hall (18-Metre Class): The great thing about gliding competitions is that you get to fly on days you would otherwise never do; the first day of the 18-Metre Nationals at Lasham was a day when I would not normally have got past logging on to Weatherjack. So here I was at 16.15 setting off on a 164km task into a very uninspiring sky. The start gate had only just opened but I had figured, along with most others, that just to get back would be an achievement. The first TP was Melksham. Initially the run out was good with some streeting but conditions deteriorated sharply after Andover, where cloudbase reduced to 2,000ft ASL and climbs became weak. Apart from one cloud climb near Upavon that got me to the dizzy height of 2,500ft ASL, it was a case of working low level, picking fields and thermals alternately; each time I chose a good field I somehow climbed away and had to go and find another. Eventually the draw of Keevil with the aerotow option (I had no crew) became too much. Six points seemed like poor compensation for the effort involved (not to mention the aerotow cost) but a day win is a day win and I have the glass to prove it!

Sunday, August 11

G Dale (Club Class): After the fun that the 18-Metre Class had yesterday, we know we are in for a hard time. The forecast? Front rapidly approaching, rain by mid-afternoon. We go north – OXS-THM-GOR – and back, 150km. Sounded a bit ambitious at briefing.

Launching – we all get away and start as early as possible under a rapidly-decaying sky ("looks like rain" remarks some wit over the radio). Overcast – strato cu – from west, and really poor out away to west of the start line, so let's get going and stay east.

First snag – for some – is the airspace over the centre of Reading. Guess where the only energy line goes? Next choice – when to stop going way to the right of track and push out under the overcast west to the turn. Eventually we pluck up the courage to do so and, surprise, it's working fine!

A neat bit of tactical flying at the first turn (got to get something right, after all) and off ➢



Above: the two grids at Lasham, with the 18-Metre Class on the runway in the foreground

Left: on the last day, this glider didn't quite make it over the finish line

(photos: Bernard Smyth)



Lembit Öpik MP (left) and18-Metre winner Phil Jones. The 18m results below are subject to the 22-day rule

Pos	Pilot	Glider & fin no.	Points
1	P Jones	Ventus 2CT E8	4127
2	J Rebbeck	LS8 628	4086
3	M Wells	LS8-18 321	4073
4	D Chappell	LS8-18 R3	3983
5	R Browne	LS8-18 L58	3915
6	G Smith	LS8-18 42	3825
7	A Kay	Ventus 2CT 66	3815
8	S Jones	Ventus 2CM 44	3775
9	B Marsh	LS8-18 D7	3774
10	R Pentecost	LS8-18 95	3726
11	C Starkey	ASW 27b 900	3711
12	L Wells	LS8-18 LS	3696
12	J Hood	LS8 352	3696
14	G McAndrew	Ventus 2T 71	3685
15	H Jones	Ventus 2C 584	3676
16	M Pike	Ventus 2CT R11	3586
16	F Davies	LS6c 25	3586
18	A Clarke	Ventus 2CT 24	3583
19	P Jeffery	LS8-18 64	3556
20	D Masson	LS6-18w LS6	3508
21	W Aspland	LS8-18 325	3488
22	G Stingemore	LS8-18 X1	3421
23	J Luxton	LS8 685	3353
24	M Young	LS8 57	3349
25	P Naegeli	Ventus 2CT 520	3334
26	D Campbell	ASW 27b 370	3328
27	A Hall	LS6c 241	3287
28	D Watt	Ventus 2A DW	3276
29	J McCoshim	LS8-18 161	3274
30	WJ Murray	Ventus 2CT 250	3262
31	L Tanner	LS8 LT	3209
32	M Jefferyes	DG-600 656	3208
33	SR Ell	LS8-18 E11	3160
34	J Langrick	LS8 781	3136
35	I Cook	Ventus 2CT V11	3114
36	JR Taylor	LS6-c 607	3064
37	K Draper	LS8-18 301	3055
38	G Corbett	Ventus 2CT 170	2978
39	S Redman	LS8 56	2965
40	R Bromwich	LS6c 855	2934
41	B Morris	LS8 868	2852
42	R Jones	Ventus 2CT 46	2566
43	A Emck	LS8 36	2553
44	C Alldis	LS8-18 646	2536
45	J Gorringe	LS6 HL	2517
46	T Moulang	Ventus 2CT 666	2402
47	J Giddins	LS8 601	2297
48	C Lyttelton	ASW 27 CL	1308
49	P Davis	Discus 2b 540	1124
50	M Dawson	Ventus 2A W2	0

➢ to Thame, where everyone seems to be congregating. Highlights of the third leg: an SHK appearing from under my nose, floating up gently in a weak thermal. Hell, I'm getting creamed by a wooden glider! And a long hard push to a glider climbing well low down in the sun at Goring – Luke Rebbeck, a solid 5kts from ridge-top height. Didn't know there was a ridge at Goring. Should get out more often. Unfortunately, just as I irrevocably break the link with the lead gaggle, he straightens out at my height and leaves. His thermal just stopped dead at about 1,300ft. That kind of day, really.

Cloudbase at 30km out comes down to something ridiculous – 1,500ft AGL and reducing by the mile. Half of us flop into strips and fields near Reading, the lead gaggle skips over and land just north of Basingstoke. When we look at the sky we've just fallen out of we all feel a little better – but only a little.

Results? I get hammered, so I don't look any further! Better luck tomorrow.

Tuesday, August 13

Liz Sparrow (Club Class): The task is 202km: Lasham-Oxford South-Winslow-Welford-Lasham. How can my Pegasus beat the Cirrus handicap advantage?

My plan: "stick fully back in thermals, fully forward in between". A cracking climb over Basingstoke convinced me, so I raced off... nearly landing near Goring, where everyone caught me up. New plan: stay with the gaggle – I climbed a little, but it wasn't good. South of Oxford we had just enough height to glide through the TP and hit the only remaining sunshine – but none to spare. I pushed on, the Dreaming Spires looking increasingly close, and finally got established in the sunshine, which went nowhere near the TP. I drifted across the sunny patch taking any lift I could find until conditions let us turn Winslow. More spreadout had me nearly on the ground before I eventually got away under a street going back towards Oxford. A big gaggle was under the street but I had a hunch that the sunny edge would work, getting a climb which jetted me to cloudbase leaving the crowds far behind. As the sun crept around to the north of the street I swapped over, staying high all the way to Welford. A blue hole looked like wave down track, and hitting the sink I lost out, soon grovelling in the weeds close to Kingsclere mast. Happily the "CFI's-save-me-thermal" got me on to final glide and I switched to the Finish frequency, when I became convinced I had radio failure, it was so quiet. I am delighted to have won a day in my first Nationals. Thanks to all who made it possible.

Wednesday, August 14

Neil Goudie (Ted Lysakowski Trust Award winner, 18-Metre): Conditions at Lasham for this task – LAS-OXS-ASH-LAS – were poor and P1, Pete Harvey, was keen to move away from the area as soon as possible. Luckily for us launching from the back of the grid meant only a short period of flying in the start line area, which resembled a swarm of bees. His first decision was fly to the north-eastern side of Basingstoke (while dumping all the water) to pick off any thermals from the town. This was achieved, although a bit lower than I was used to. Then it was a matter of following the clouds more or less on task. However, he was ruthless when it came to leaving cores that were dying, if it had been me I would have still been circling in the mega 0.8kt thermal

'Luke Rebbeck and I scratched around until we found half a knot, which took us to 1,200ft'

over Basingstoke. Leaving Oxford South he ignored the gaggles and ran into another good core, staying away from the obvious high ground we ran into Ashbury with the main pack behind us.

Leaving south from the turn he liked the small street that was developing but almost immediately wished he had gone east into what appeared to be a better airmass. We pushed towards Newbury getting lower and lower then picked up a reasonable climb, which other 18-metre ships were using. Despite the weak climbs, Pete again said there was no point in staying. We pushed towards the hills at Kingsclere, where a good thermal meant we were only one decent climb from home, but so late and with such a high wing loading we just couldn't find it. Pete decided discretion was the better part of valour and landed on the north side of Basingstoke. (My suggestion of making the ultimate sacrifice by lowering the wing loading by 235lb was not accepted by Pete!).

I also flew on Monday with Ken Hartley, and with Sarah Steinberg on Friday – a very useful learning curve!

Thursday, August 15

Brian Spreckley (Club Class): Another promising forecast with Pater Baylis saying maybe, just maybe we might see an 8kt average thermal. The wisps of steam scattered around the sky before the start failed to fulfil their weak promise and it was actually quite difficult to find any climbs at all. The wisps turned into 6/8 strato cu almost as soon as most of the Club Class had started and 3kt cores were elusive but existed under the greyer parts of the sky. Half way down the first leg, later starters were rewarded with excellent streets with lines of energy on their south edge, enabling fast progress at the dizzy heights of 3,500ft.

The first critical part of the flight was at the Marlborough turn: a 6kt climb to cloudbase followed by a run along the wavy edge of cu toward Didcot pulled us ahead of the main pack. Spreadout and a measly 1kt greeted us at Didcot just downwind of the towers, so after a few hundred feet off again into the blue chasing wisps. From then on it only got worse, small wisps promising lift rarely delivered, Bletchley provided 2kt into the turn but stopped at 2,700ft.

The wisps slowly disappeared and by the time we had rounded Towcester we were gliding into a hazy blue sky, but at least were not confused and disappointed by the appearance of wispy cu. On the last leg cu appeared on the ridge south of Benson; a long very slow glide from the last 2kt blue climb brought us to them at 500ft. I might have known what to expect: no thermal. Luke Rebbeck and I scratched around in positive vario until we found half a knot which took us back up to 1,200ft, with this princely altitude we set off for Goring, where there was some sun and wind on the ridge. We climbed real slow in several thermals back to 2,000ft and drifted toward Lasham in whatever we could find. At Basingstoke it was beginning to look like the game was over when out of the town came a beautiful 4kts, the best thermal since Marlborough. Shame we only needed 1,000ft to get us home.

Saturday, August 17

Gary Stingemore (18-Metre): Task brief: 7kt thermals forecast, four-hour assigned area task – bargain...add another 2 butts. Four hours later we're still on the grid – task C then D. First off, nightmare, first thermal 0.7kt. Both the director and metman must have been at an all-night rave (that's a scary thought).

After dumping all the water I manage to climb...a little, and start from 1,600ft, off we go into the better air (better, not good!). Richard Browne asked me my position and I gave him 83km etc...pause: "You can't be!" he cried – yes, I still had task C in the machine. As I reprogrammed, Didcot beckoned. Smack over the top of the chimneys – nothing. Looking west, Wantage, our first turn, was in the sun so I set off. Down to 5-600ft (are you starting to get the picture?) climbed in 2kt, off to Oxford, down to 1,000ft at Cowley – a weak climb to 1,200ft, set off again. To cut a long story short, this continued until the second turn,

'At this point Mike Young and Graham Smith passed overhead – **!'**

Calvert Junction, where, arriving at a downwind turn low I got the best climb of the day to 3,000ft. A mixture of thermal and some wave I think. The day was rapidly dying, if it had ever begun. I programmed Chalgrove in, should make it by 400 ft. A weak climb at Oakley, and Benson was now in range. So, only four of us left: 71, 241, 321 and me. A bit of chat about where we're landing, then Graham McAndrew pipes up: he'll be using the turbo. Both Martyn Wells and myself banter with him about the 5kms he'll lose, windicapped, and he does the gentlemanly thing and lands in a field (big enough for an aerotow, of course!). As we overfly Benson Martyn goes right, I go left, and we land in our respective fields.

Due to having the incorrect task in, I miss the start zone by 16 metres, winning the day and immediately losing it in one fell swoop. Damn technology...

Sunday, August 18

Howard Jones (18-Metre): Like most of the days this week I had no idea whether we would fly, but was sure that if we did it was going to be a hard, risky slog. I was in two minds as to whether I even wanted it to be a day. On the one hand I was way back in 21st place after a mixed week, but with the points so close I could make up several places with a good day result. The flip side being that my eldest brother Phillip was in first place by only 50 points; a marginal day could easily ruin his bid for a second National title. Our task was Lasham-Wantage-Oxford East-Welford-Lasham. After much sitting about, the call finally came for us to launch. Time to focus the mind!

Off tow, the climbs were very weak under some fairly solid top cover. There was a rash of early starters and I positioned myself to follow. As I flew through the zone I got a steady 2kt and opted to stay. The rest of the gaggle quickly joined and we climbed to the dizzy heights of 2,400ft and left.

Down track around Kingsclere I saw a handful of the Club Class in fields. Things didn't look good; the few cu that we had been using had now all but disappeared. The only way forward seemed to be to go west over the hills, where there were more cu and it looked a little brighter. Some others were moving that way, but I calculated I could cross a large gap directly on track and reach Welford, where some small cu were forming, at about 900ft – so off I set.

I found a climb at about 700ft, which allowed me to reach the first turn. I had now managed to put about 20km between the pack and myself. Setting out for Oxford I felt that the weather behind was beginning to improve, which boded well for the rest of the task if I could just get in and out of the overcast second turn. Amazingly, a Club Class glider was coming the other way. As we traded climbs I saw that Luke Rebbeck was the one attempting the impossible.

The glide in and out of Oxford seemed to be lasting forever but I could see the gaggle circling over Abingdon and I crept in underneath. I knew that with the rate it was improving they would quickly be hot on my heels. At this point Mike Young and Graham Smith passed overhead – ****! As we moved to the next clouds, the climbs rapidly improved to 5kts on some occasions and I knew we were going to get back! From there it turned into a race and the three of us made rapid progress, arriving back within a minute of each other with the main gaggle pouring over the line shortly afterwards.

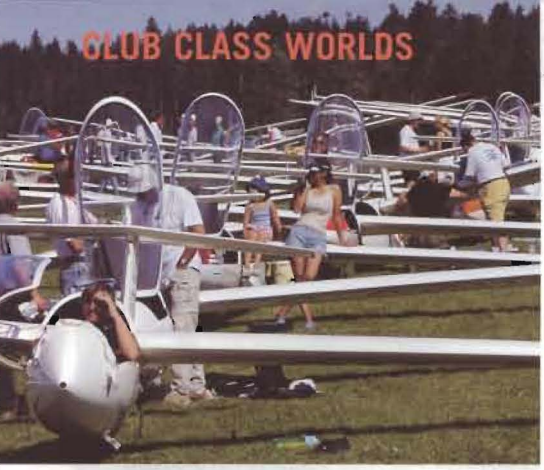
I had an amazing flight and was rewarded with my first Nationals day win and a rise of six places. Phil had managed enough to win overall, but best of all I watched a fellow competitor climb out of a tree unhurt and walk away with his son. I hadn't been that happy all day.

See you next year!



Club Class Champion Tim Milner with Lembit Öpik MP. The Club Class results below are subject to the 22-day rule at the time of going to press

Pos	Pilot	Glider & fin no.	Points
1	T Milner	Std Cirrus VS	4190
2	A Jelden	Std Libelle 948	4041
3	B Spreckley	Std Cirrus 127	4011
4	J Williams	Std Libelle 937	3953
5	D Draper	Std Cirrus JRG	3902
6	L Rebbeck	LS4 ETG	3863
7	K Tipple	Astir III JZY	3834
8	G Dale	ASW 19 Y4	3760
9	G MacDonald	Std Cirrus G81	3746
10	E Sparrow	Pegasus FRX	3680
11	C Watt	Std Cirrus FMT	3667
12	J Tanner	ASW 19 GCA	3631
13	K Barker	ASW 19 SH5	3630
14	A Nunn	ASW 19a SH6	3599
15	S Shah	Astir CS/DG-100 FEF	3556
16	E Smith	LS4 452	3545
17	R Fox	LS4 KCL	3497
18	D Le Roux	Std Cirrus 569	3428
19	C Emson	Std Cirrus 278	3369
20	N Parry	LS4 264	3353
21	G Spreckley	ASW 19 882	3351
22	DM Byass	Pegase 101A 987	3347
23	A Garrity	LS4 692	3331
24	G Goudie	LS4a GG	3327
25	A Eckton	ASW 19 SC	3315
26	GN Thomas	SHK-1 DTG	3234
27	M Cook	ASW 19 X19	3213
28	M Jordy	Pegasus 285	3208
29	M Pettican	ASW 19a JBT	3197
30	J Crowhurst	ASW 19 V4	3179
31	I Evans	LS4a WL PZ	3079
32	R Hart	Std Cirrus D49	3020
33	R Johnson	DG-101 435	2962
34	M Tomlinson	LS4 615	2914
35	D Wardrop	DG-300 393	2674
36	J Pack	Astir CS 51	2633
37	P Healy	ASW 19 X96	2627
38	M Sheahan	Std Cirrus JFA	2594
39	NP Wedi	LS4 EN	2562
40	M Wilson	Std Libelle CPM	2554
41	M Lee	LS4 L11	2490
42	J Hitchcock	LS4 LS4	2327
43	D Copeland	Std Cirrus 168	2217
44	A Walford	PIK-20D 392	1923
45	J Ballard	LS4 A9	1587
46	M Edmonds	DG-300 Y1	1471
47	DR Payne	Pegasus EB	1341
48	D Piggott	Grob 102 396	372











Rich Hood earned Silver again at this year's Club Class Worlds in Germany. S&G asks him what the secret of his success is...

I THINK several factors made the difference. They included a fantastic "practice" comp, the Overseas in Spain in May – 10 days of flying in great weather, competing against world-class pilots. Confidence in my glider and equipment is also important – I really believe that my Standard Cirrus, 152, is a great sailplane. The team accommodation in Germany mattered, too: quiet, spacious – a great place to be after a hard day in the cockpit! The final factor was team spirit. That really helped us to relax as well as to focus.

What were your tactics?

I wanted to make sure that Day 1 was a solid one, then just kept the consistency level up. Though I did take risks, mostly I just waited for the others to make a mistake...

Did you learn anything useful?

I learned how it feels to be leading a World Championships going into the last day! It's hard to find a strategy of how to fly when you're in this position, but the best thing to remember is that you must have been flying really well to be in first place come the last day – so why fly differently now?

What was the comp itself like?

The organisation was, as you might expect, excellent. Director Axel Reich and his team ran a comp that reeked of professionalism, dedication and the aviation awareness of the German people. The way they attracted the interest of the public was especially good. On the middle Sunday, assisted by the good weather, there must has been about 1,000 spectators on site. This was helped by setting the task so that we came back over Musbach half-way round – and providing beer, food and music for the assembled crowd.

What was the flying like?

It was similar to good days in the UK, with cloudbase generally between 3,000ft and 6,000ft agl. Convergences set up in the west of the task area, due to the moist air from the Rhine valley meeting the drier air of the Black Forest. And there were huge areas of forest that, although daunting at first, gave us the best conditions.

How would you sum it all up?

Fantastic. There's no shame in coming second to Tomas, as he's probably the best pilot in the world at the moment. The final result was totally a team effort and without those guys and their own skill, my result could have been a lot different.

Rich, 27, has been flying for 11 years, at Syerston and, after a recent job move, now at Cambridge. Ian Craigie crewed for him in his second international comp. Rich also won the Silver at the previous Club Class Worlds, at Gawler, Australia, in January 2001, where team-mate Pete Masson won Gold.





Opposite and above: Rich at Musbach in Germany Left, from top: the Club Class grid; "Land long!" – with 54 competitors, this was the Director's perpetual cry; crowds watched the contest each day; Rich, Pete Masson and Paul Fritche – the four British pilots' team spirit was a vital factor in the end result, says Rich; extraordinary winglets on TD, Andreas Lange's glider Below: Winner Tomas Suchanek, who is also the European Standard Class Champion (see page 38)
the **White Planes** *picture co.*

Place & Pilot	Glider	Country	Points
1. Tomas Suchanek	Std Cirrus TS	CZE	7990
2. Richard Hood	Std Cirrus 152	GBR	7835
3. Pavel Louzecky	Std Cirrus SB	CZE	7538
8. Pete Masson	DG-101 EKP	GBR	7265
18. Afandi Darlington	LS1f L77	GBR	6752
27. Paul Fritche	Std Cirrus JH	GBR	6480

www.glidingteam.co.uk *www.musbach2002.de*

Rich wins second Silver





European Aerobatics – plenty of wind turbines

ROCKETS, wind turbines and exciting flying remain in the memories of the British Team at the European Glider Aerobatic Championships, held at Pasewalk from July 16-26. Jamie Allen and Paul Conran were pilots, Dick Happs and Judi Jones, International judge and assistant. Forty-five pilots from 12 nations flew in a superbly-organised comp, albeit one frustrated by the weather.

Pasewalk, in the north-east corner of the former East Germany some 13 miles from Poland, has a rural feel and the skyline is dotted with clusters of large wind-generators. The club includes many enthusiastic youngsters, who helped officiate. The grass field is large, mainly east-west with a smooth marked strip. All competitors flew either the Swift S-1, or Fox.

Low cloud and wind meant that it was not until 17.50 on July 23 that the first pilot launched for Programme 1. (Paul and Jamie used the spare time to visit Peenemunde, the former Nazi rocket research site, now a museum.) Even then, it was necessary to eliminate the last three figures and operate a start height of 1,000m/3,281ft, 200m/656ft lower than usual. The award of "hard zeroes" placed James and Paul 39th and 41st respectively. In Programme 2, though, Jamie and Paul pulled rabbits out of hats, coming 15th and 22nd of 45. But there was no chance to see if this was fluke, or good fortune, as the contest ended there. Winds hovered around the 12m/s (24kt) level, 2m/s (4kt) above limits. It was becoming obvious why the area had been chosen for those turbines! The squeeze on time meant the comp did not qualify as a European contest, since the pilots had not flown the minimum three programmes, and the results were not FAI ratified.

The overall winner on points was Jerzy (pronounced Yuric) Makula of Poland, a multiple world champion in this discipline, and one of the Ms in MDM, the makers of the Fox. Jerzy and his son flew a single-seat development Fox *(pictured above)* that has a retractable wheel (The other 'M' is Marganski whose daughter, Malgorzata, won the Known Programme in last year's worlds.) Poland won the team prize. The Brits were 30th and 37th of 45. We started the journey back to the ferry terminal in Hamburg (Cuxhaven) in blistering sunshine the next morning. **Jamie Allen**

Our thanks to Matthew Eastlake of DFDS, the ferry company, which gave a substantial discount on our tickets; to the BGA whose financial support was matched by the British Aerobatic Association (BAeA). Closer involvement of the BGA comps committee in glider aerobatic contests is planned; this is a welcome development. Any reader interested in being involved in the British contribution for the 2003 World Championship in Per, Hungary, should visit forthcoming UK contests (see p5 for dates)

Results (Percentage scores): Programme 1 (Known): Toth 81.08 Makula 81.05 Vavra 79.58 Allen 69.97 (39) Conran 60.99 (41); Programme 2 (Unknown): Makula 83.22 Fizia 79.54 Wilke 79.52 Allen 76.22 (15) Conran 75.30 (22); OVERALL: Makula 82.14, Toth 79.9, Kaminski 78.84, Allen 73.11 (30), Conran 68.18 (37); TEAMS: 1. POL; 2.HUN; 3.RUS

Competition Enterprise: – anyone for tennis?

IT'S 7pm, Andy Betteley and I hook up the trailers as a message from the stunning Miss Wells tells me that "Camp Wells" is ready to rock, with Jon Meyer *(below)* and Mark Parker in residence. Driving down the M4 we follow a pumping sea breeze front (a feature used throughout the week) and despite my failed attempts to contact the last of the motley crew we cruise to the Devon & Somerset GC site at North Hill in the knowledge that Luke Roberts will turn up – eventually!

The style of Enterprise quickly becomes apparent: as much flying as the conditions allow with tasks tailored to exploiting as many weather phenomena as physically possible in each flight. Combined with everything from a K-6 to ASH 25s and Stemme 10s, it makes for some fantastically diverse task-setting.

The week begins with low cloud and a rather damp feel to the air. The sort of stuff you dread in the middle of summer. However, there is a very upbeat atmosphere with people frantically rigging straight after briefing and then launching! The choice of launch time gave a range of starts from 11.00-14.00hrs. Thus gaggles were nowhere in sight and the routes varied from following the hills, to flying sea breeze fronts to the option chosen by an un-named junior – a route involving a four-mile trek out to sea. This just goes to show that local knowledge isn't everything.

Congrats also to Mr Betteley on sourcing a crew the night before in Exeter (with some assistance I might add) leaving them to sunbathe whilst landing out, hitching back (take your chute – works every time) and then getting them to retrieve him from the side of a hill! Well, almost a hill...

The week continued with seemingly miraculous flights. Paul Kite managed to turn Lasham on a black, overcast and windy day ideally suited to sitting in front the TV. On another occasion, Lemmy Tanner, convinced it was waving, set off in the opposite direction to all, accruing the greatest distance and winning a day. Bill Longstaff made a heroic 40km ridge run from Yeovil below ridge level, almost needing to top up for his final turn, save for a gap in the trees. Heroic, considering that no-one apart from Bill reckoned the wind was more than 5kts.

My most memorable day was when we Juniors pushed on for glory only to be caught out by a changeable sea breeze that suddenly shifted 15-20km inland. All of us, apart from Miss Wells, ended up in a field. Having arrived at a small ridge where a couple were canoodling, I spent 20 minutes at 300ft waiting for a thermal. However, when they upped and left the ridge refused to bear me anymore. I land, call Anna, and hear that Mark and Andy are defending their gliders from the inquisitive yobs of Yeovil. Jon was placating a farmer and Luke was in a lion pen! (This is a story in its own right, but after some very brief training, starting with running in fear of his life, he tamed them, and... it's a very long story!)

With an air of apprehension I make my way to the nearest house, only to be greeted by a beautiful young blonde called Sophie. Like Gwyneth Paltrow, only more gorgeous. Within 20 minutes I am playing tennis and



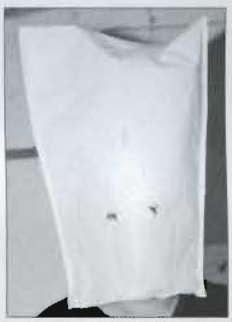
40-0 down in the first game. Fortunately Sophie saves me the embarrassment and double faults five times and I win the game.

Just as I serve for the first set I get a call from Anna, now on her second retrieve of the day, saying: "We won't forget you, Andy." I relax and lose the first set.

Afternoon tea and the second set rolls into dinner and conversations about lack of wind holding the glider in the air and don't you feel scared that there is no engine... etc.

It's dark as I say my farewells, but should I happen to fall from the sky near Blandford I might have to pop in to play the deciding set... **Andy Perkins**

On behalf of the six Juniors pilots invited to this year's Competition Enterprise (July 20-27) in memory of the late John Fielden (see page 59). I would like to thank ***everyone*** *at Enterprise for extending such a warm welcome and for the support to make entry viable. If you fancy a comp with no pressure, just fun, or even a change from the club task week, the proposed dates for next year's Enterprise are July 12-19*





Rolex Western Regionals – the met man hides

THE weather was so unkind to the Rolex Western Regionals (Nympsfield, Jul 27-Aug 4) that Met man Sid Smith, at one briefing, wore a paper bag over his head as a disguise *(seen above with and without)*. The first two days (Sunday and Monday) were hot and mostly blue: on day 1, pair-flying juniors Leigh Wells and Luke Rebbeck finished the 150.1km task second and fourth respectively, with Jon Meyer first and Nick Wall third. Day 2 (which with hindsight seemed almost good) included a remote start further inland at Aston Down to help competitors get away, but still half the field managed 50km or less. Leigh Hood would have won the day if the start zone penalty weren't set at 100pts – OK on a 1,000pt day but punishing when the winner achieved only 244pts. Leigh Wells and Luke took first place again (137km of 152km), sharing it with Robert Nunn (120km in a Std Cirrus). Then high pressure gave way to high cirrus and thundery showers – a trough line stalled over central England. Day 3, Friday, was a racing task in conditions better than forecast: all bar one pilot got round 180km, at speeds that devalued the day by half. Leigh Wells won (103.4km/h), with Luke (102.5km/h) second and Andy Davis/Barry Walker in the Duo Discus third (104.3km/h). On Saturday, rapidly-developing showers on track forced a scrub half-way through the grid launch. And that was it. The comp was notable for a sizeable Juniors entry, six women out of 35 pilots, and prizes from Rolex and local jewellers' Deacon's. Leigh Wells and Luke Rebbeck were a convincingly-strong combination, but the final points tell the story: Leigh as overall winner scored just 1,354 out of a possible 9,000. Still, to judge by the Juniors crew who wandered through the canteen on Sunday morning clad only in a cream-and-brown duvet – having lost all his clothes – at least the Saturday night party was fun. **Helen Evans**

1: Leigh Wells, LS8, 1,354pts; 2: Luke Rebbeck, LS8, 1,343pts; 3: Andy Davis/Chris Rollings/Barry Walker, Duo Discus, 1,219pts. Director: Tim Macfadyen

Bidford Turbo Regionals – a good week in June

THIS year's Turbo Regionals (June 15-23) was the best yet. We had 23 entries with nine types of glider and seven contest days out of nine.

Day 1 (191km triangle – Andoversford-Pitsford-Bidford): The weather looked OK but with only a low cloud base. Twelve gliders passed Y but only five actually completed the task. Rod Witter had a wedding to attend so he teamed up with Tony Moulang, who flew the task but unfortunately logger problems meant no points. This was to prove significant later in the contest. (1st, Dave Findon, Nimbus 4DT 48; 2nd, Bill Murray, Ventus 2CT 250; 3rd, Jon Wand, ASH 26E BY).

Sunday was scrubbed.

Day 2 (148km polygon – remote start Evesham-Clee Hill-Great Malvern-Stratford West-Bidford): Well, it looked good but soon deteriorated after the start. Although only a 12-point day it proves Bob Starmer in his Duo Discus 377 picks his P1s well. Last year he had Justin Wills but this year it was Derek Piggott – and Derek won the day. (1st, Derek Piggott, Duo Discus 377; 2nd, Jon Wand, ASH 26E BY; 3rd, five equal!)

Day 3 (254km polygon – Burley Gate-Bicester Rail Bridge-Northampton South-Bidford): Today turned out much better than predicted and we had a real racing day with three Ventus 2CTs in the top four – are these the glider to have? (1st, Rod Witter, Ventus 2CT W54; 2nd, Ian Cook, Ventus 2CT V11; 3rd, Dave Findon, Nimbus 4DT 48)

Day 4 (assigned area task – five hours): This was supposed to be the day of the year so I set a large AAT to give competitors the chance to do 500km and 750km goal flights. Congratulations to Jon Wand for his 500km Diamond goal and, I hope, to David Findon on his BGA 750km Diploma. (1st, Alastair McGregor, Discus BT 306; 2nd, Rod Witter, Ventus 2CT W54; 3rd, Mike Costin, Ventus 2CT JQR)

Day 5 (273km polygon: Ludlow-Little Rissington-Northampton West-Bidford): Today was another really good day weather-wise but after a rather long day yesterday I thought I would give everyone a racing task to get stuck into. (1st, Rod Witter, Ventus 2CT W54; 2nd, Alastair McGregor, Discus BT 306; 3rd, Bill Inglis Ventus CT JSL)

Day 6 (141 km triangle – Birdlip-Chipping Warden-Bidford): Well this was probably the strangest day of the week. As soon as we launched the weather deteriorated, with lots of embedded cumulus. Nearly all started with the exception of Rod Witter and Mike Costin. Just as we sat down to have a cup of coffee, speculating on another 12-point day, Bill Murray called five minutes so it was off to the finish line. As Bill finished the weather brightened and we were confronted with a glorious wave-filled sky. Rod and Mike launched and Rod managed to do the task almost entirely in wave. Probably the most meritorious flight was that of David Innes in his Nimbus 4DT, who completed the task at 32km/h – a speed slower than the stalling speed of his glider. (1st, Bill Murray, Ventus 2CT 250; 2nd, David Findon, Nimbus 4DT 48; 3rd, Rod Witter, Ventus 2CT W54).

Saturday was scrubbed.

Day 7 (301km polygon – Burley Gate-Moreton in Marsh-Lyveden-Bidford): A really good-looking day. With only 28 points between 1st and 2nd and 146 between 3rd and 8th it was all to play for. Cloud streets stretched for miles into Wales and all competitors used them to full advantage (1st, Ian Cook, Ventus 2CT V11; 2nd, Z Goudie, Discus BT 381; 3rd, Alastair McGregor, Discus BT 306)

Dave Findon won the week after a lot of hard work and determination but if Rod Witter, who came second, had earned points on the first day thanks to Tony Moulang's efforts things might have been different. Ian Cook, a previous winner, secured third place just ahead of Alastair McGregor, who was a newcomer to our competition. Well done, everyone. **Pete Freeman**



Inter-University task week – now links are stronger

THIS is a comp unlike any other: gliders from K-13s to the Astir and SHK, and abilities from pre-solo to the occasional instructor or Diamond. Many students start to glide when they get to university, so most pilots are either just solo or stretching their wings to go cross-country. A "proper comp" would mean that only a very few could score points for their university team. We aim to get the gliders cross-country; when that isn't possible Bronze soaring legs, five-hour attempts or first solos all score highly. Achievements are rated on merit by a committee: if someone has achieved a personal best, then they are in the points.

This year we pitched our tents in the most welcoming of all fields: the Yorkshire GC at Sutton Bank. Although a number of university clubs failed to materialise, representatives from four turned up, with six aircraft. Bob Bickers managed to escape the 18-metres to visit and announce the BAE sponsorship deal (see August-September 2002, p4). Bob also handed over cheques from the BGA to go to the top three placed clubs.

Day 1: A site check day. The achievement book is full of people trying to claim scores for just flying. Andy Langton and Euan Burnet from Nottingham added a new twist to the classic "got glider but forgot batteries and chutes" by driving off to get the SHK from Syerston with the K-13's kit with them. So HPE's batteries and chutes get the longest cross-country of the day award and Andy got given 'Dave of the Day'.

Day 2: In good thermal weather TPs were set, which could be visited in any order. Both K-13s went on task along with the single-seaters. Nottingham's even made it home; Edinburgh's landed out. Single-seaters mostly got back, although Tim (Edinburgh) landed out 77km away on a 50km attempt (from Sutton Bank with a 2,000ft tow that isn't enough to beat the one per cent rule). Andy Langton won the day with a double O/R in the Astir and finishes in both directions!

Day 3: Windy. Locals showed us how it was done with long wave flights. Many people took winch launches in a bid to jump from the ridge into wave: 222 (Andy, Nottingham) climbed to 8,900ft. Martha got her first solo for many months and her first Bronze leg. Others flew on the ridge for the first time, experiencing the delights of lift without circles.

Day 4: Nobody managed much. In the evening we were rather shown up by the YGC dining-in night, but we did stage a bit of a comeback. Toby was beaten by a girl arm-wrestling in the bar! (The computer wants to change that to "a girl arm-wrestling in the bar beat him" but if that happened I had definitely gone to bed by then.) The two Rachels managed the shortest flight of the day – from ceiling to floor in about half a second – and, believe me, the bruising is impressive!

Day 5: Penny (Nottingham) soloed and got a Bronze leg.

Day 6: Ah, at last! The cold front might have cleared so we planned epic flights: 500s and 300s. The 50km army (Toby, Tim and Rachel H) grabbed two K-13s and a K-8 and prepared to go south. In the end, the haze caps that we hoped would burst into neatly-spaced cu vanished, leaving a blue day. The landout calls began and so started a long day of driving. The 13s wisely stayed local and Rachel H managed her five hours. The SHK (Andy Langton) made it to Grantham (170km) and Lee from Birmingham flew his Cirrus 150km on what he described as a sightseeing tour of Yorkshire. A most impressive flight by Tim Sands of Edinburgh in the K-8 (94km to Kirton-in-Lindsey) won the day and completed his Silver. Apparently the non-working radio helped, as he couldn't hear a large number of people declaring the day crap and coming home!

Day 7: Most people decided to take advantage of the heat and lack of clouds to go to the beach. The shenanigans at the subsequent evening's barbecue are not really suitable for publication, but inter-university links are without doubt stronger than before.

Overall, Imperial College placed last, Birmingham third, Edinburgh second and Nottingham *(pictured)* came top for the second year in a row. A great week was had by all: dry weather and a very welcoming YGC helped enormously. Thanks, everyone! **Guy Hall**

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The chance to learn

the ***White Planes*** picture co.

David Wardrop (seen above) says what Ted Lysakowski Trust winners learned from their awards – and how you could benefit

THE DISTINCTIVE blue posters of the Ted Lysakowski Trust, prominently displayed on clubhouse noticeboards, are familiar to many readers. What is probably less well known is quite what the trust has to offer and who can benefit from it. When I spoke to my fellow recipients, a common theme emerged: pilots feel that they are under-qualified, over-qualified, or fly at the "wrong" club, to apply. In fact, however, diversity is a key element of the trust's successes to date. The 12 previous winners range in experience from pre-Silver to nationals pilots and regional examiners. The trust has offered them an insight into different areas of gliding and a memorable training scheme, a stepping-stone to further progress in their gliding careers. This article describes some of what they have learned.

Trust awards are divided into three areas: a cross-country flying course; a two-seater competition flying course; and a mountain soaring course in Rieti, Italy. The first is open to people with no (or limited) cross-country experience, offering them the opportunity to take part on a BGA soaring course with experienced national instructors. It aims to help pilots gain the knowledge and expertise to start and progress their cross-country flying. Previous winners felt they had learned more in a week than they had in the year beforehand, both in terms of practical flying skills and of theory. Non-flying days included briefings on weather, McCready theory and thermalling.

The two-seater competition flying course offers a unique experience, the opportunity to fly with some of the UK's leading pilots (including in the past world champions) in a rated competition, which has so far been at Lasham. For pilots who have a small to moderate amount of competition flying, or are seriously starting to think about racing sailplanes, the course is a superb learning ground. The competitive edge to the training, because the P1 on any given day is always keen to win, means that the P2 gains an exclusive insight into the techniques used and skills required to fly fast in competitions. These award-winners gained the confidence to push on and not take every climb, and observed when and how to press on, balancing risk and return to keep average climb rate as high as possible.

As the British weather is so variable in any given week (and sometimes on any given day) the ability of the P1s to change gear, adapting thoughts and strategies to different conditions, also offered useful insights. The height bands used often surprised P2s, but gave them the confidence to glide and cruise at heights they would not have been comfortable before. The power of positive thinking, awareness of rivals' strategies, and good task planning were other learning points, reinforced by post-flight analysis.
In general, the week broadened horizons: participants completed their first cloud climbs, 300kms and racing finishes.

In 2000, I was one of the fortunate people to win the third category of the award, the mountain soaring course. Rieti, in the heart of Umbria, is a truly magical place to fly. Set in a valley beneath Mount Terminillo, the site is a gateway to the mountains that form the backbone, and soaring playground, of Italy. During my course I enjoyed seven days flying out of eight, completing over 2,000kms of flying in some of the most memorable conditions and over the most beautiful terrain. The course was well structured, with a progressive approach to mountain flying, and very well organised with briefings and debriefings morning and evening, which were always in English. The flying was intense, and I was invariably exhausted at the end of every day, due in part to the flying and also the excellent entertainment laid on by our hosts, but I was always raring for more flying the next day. Every Rieti award-winner (whose experience has ranged from 200 to 3,000hrs) found it the perfect antidote to the British summer, with the conditions and infrastructure to achieve real improvements in flying skills and confidence.

The instruction helped to target pilots' weaknesses, focusing on using good energy lines, especially appropriate in a place where lift and sink can be equally extreme. The dramatic landscape concentrates the mind on wind and ground features, and the high climbs, often up to 5,000ft, illustrate the unevenness of thermal structures: constant re-centring is needed to exploit the multiple bubbles which combine to create the whole thermal. The quality of the course also gave ideas on how to improve the running of courses in the UK.

My own experience, and that of others who have benefited from the trust, has always been positive. The breadth of experience gained has been an excellent basis on which to build the expertise required to succeed as a soaring pilot. All recipients owe a debt of gratitude both to the organisers of the trust and to the many others who have been involved in Trust events. I'd strongly encourage individuals to apply for the respective parts of the scheme. Why not give it a go?

Club news

Andreas (Isle of Man)

RECENT radio interviews and a display at the Manx Festival of Aviation led to an influx of trial lessons and a few new members. However, we may have been too successful: our ongoing instructor shortage means we could soon have to start a waiting list. Dave Bullock's useful and constructive visit in July cleared Bob Fennell to use the Ogar for basic gliding instruction. Unusually for us, we have had several wave days; Dave Wiseman took his L33 to a new club height record of 5,500ft. So Silver heights can be achieved here; we are now investigating getting at the local ridge (tantalisingly just out of reach) for Silver durations. Silver distance is still a bit tricky, though! Congratulations to Deryck Ballington on his all-Manx Bronze and to Richard Rose, a new tuggie. Thanks and best wishes to instructor Richard Jackson, who now flies jets for BA. Special thanks to Brian Pearson, from Staffordshire GC, who made possible mid-week flying to keep the club going.
Brian Goodspeed

Aquila (Hinton in the Hedges)

CONGRATULATIONS to John Giddins for his 750.7km flight (HIN-WES-BSE-WPL-HIN) in July; and to Barry Woodman (first solo/Bronze Leg). Aquila welcomes you all year round, and training continues unabated: see *www.aquilagliding.co.uk* for up-to-date information.
Hugh Gascoyne

Bannerdown (RAF Keevil)

MANY hours and kilometres were flown in June and July. Ron Peach and Ian Francis acquired Silver durations and Peter Croy soloed. We hosted the year's third inter-club, giving us 90hrs of flying. 300s were set for all three classes on Saturday - a bit of a struggle to Evesham but good beyond. Julian Cooke (Discus) achieved Gold/Diamond in the Novice Class. North Hill won the day with Bannerdown second. Sunday's tasks ranged from 210km to 118km. Shalbourne won, with the other three sharing second place. Bic Smith is welcomed back after a long absence.
Derek Findlay

Bath, Wilts & North Dorset (The Park)

AT a barbecue to celebrate our first 10 years' flying at The Park, Sue Cutler and helpers catered for 110; we were very pleased to be re-united with several original Bath club members. Simon Adlard brought the usual good weather for our second soaring week and the BGA course: we flew every day with soaring on most days and many cross-country flights. Congratulations to Janice Hume (solo), Doug Mills (Silver distance), and Mike Edwards (500km). Nick Bowers ran a successful school course. We said goodbye to Keith Auchterlonie, who has become BGA communications officer.
Joy Lynch

Black Mountains (Talgarth)

WE have moved into the new clubhouse and invited reasonable offers for the old one but surprisingly none were made! Steve Moss has taken over from Tony Crowden as tugmaster. We look forward to autumn wave and can always offer visiting pilots a warm welcome, great ridge and wave with virtually no airspace restrictions plus plenty of local hostelries for accommodation and refreshments.
Robbie Robertson

Booker (Wycombe Air Park)

DESPITE the generally dreadful weather we have achieved a record number of first solos: George Whales; Mark Lucas; David Morrison; Brian O'Sullivan; Bob Craigie; Stuart Baldwin; David Blake; James West; John Brimacombe; Peter Norbye; Jeremy Luck; Geoff Bourne; Iain Garden; John Allen; Cris Gillgrass; Stephen Murphy (cadet); Daniel Taylor (cadet); Paul Nuttall; Nick Garland; Rod Christie; Dinesh Mahathevan; and Christian Brunschen (BBC Group). Mike Philpott (BBC LS8) flew his first 500km. The Aboyne expedition is filling up. There is also considerable enthusiasm to repeat the very successful Jaca expedition. Danny Lamb and Alan Green (also company secretary) have joined the committee.
Roger Neal

Borders (Milfield)

THE summer has seen some good soaring with a mixture of wave, hill and thermal. Two of our pilots flew in wave to Northumbria GC, just over 60km away, to reclaim the inter-club Hotspur Shield. George Hall completed Silver with this, but was beaten to the trophy by Derek Robson, who arrived first. Our annual visitors from Popham, who normally fly microlights, enjoyed their best soaring week yet, with climbs to 12,000ft (some have even booked on to our wave weeks).
Bob Cassidy

Bowland Forest (Chipping)

OUR early start /late finish *ab initio* training sessions and weeks have paid dividends. Congratulations to Alex Eden, Amy Barsby, Russ Weaver, Nick Buckley, Mark Benson and Daniel Littler on solos; and to Jadge Singh and Len Thomas on re-soloing. Thanks to all the instructors who gave their time. We have acquired a Junior to replace one of our K-8s.
Eileen Littler



Left: ***Andreas GC's*** *CFI Bob Fennell didn't realise that he'd feature – or, at least, his legs would feature – in* S&G. *Photographer Brian Goodspeed asks why, if Bob was checking for something rattling in the back, that young lady had such a big smile on her face. Our commitment to accurate reporting, however, forces us to acknowledge that loose change* ***was*** *found lying on and under the cockpit floor. The culprit, to his credit, owned up*



Burn GC*'s Steve Naylor relaxes in the doorway of the workman's hut he's converted to a launchpoint vehicle*

Bristol & Gloucestershire (Nympsfield)

LEIGH Wells won the Rolex Western Regionals with an 11-point margin over Luke Rebbeck (see p48). Fred Ballard went solo in June; Fritz (Fred) Richter made good use of our fixed-price-to-solo scheme by re-soloing after a break of 60 years! Roger Targett did a superb job on a "new" club K-13. Richard Smith and chairman Steve Parker flew 537km O/R to Halesworth in East Anglia. On a trip to Gap-Tallard Steve turned Mont Blanc with Jed Barrett and Rob Simpson. Jed also made the Matterhorn on another day. The club's DG-505 was out there too, with James Metcalfe again instructing.
Bernard Smyth

Buckminster (Saltby)

THE Aerobatic Nationals saw almost ideal weather, and the largest field of competitors yet (helped by the introduction of the beginners' event). The weather did not hold for the following week's Golden Jubilee flying (we received a grant to fly 100 children). Tasks were flown both days of our inter-club. Rasher (the Kirton in Lindsey 'Pig') was collected and, apart from a few moments, has remained at Saltby. For results from the Saltby Open (aerobatics) see *www.aerobatics.org.uk/* or *www.buckminstergc.co.uk/*.
Paul Rodwell

Burn (Burn)

THREE local universities are bidding to build the European Spallation Project on our site. This £1billion project accelerates hydrogen atoms into a bath of mercury, which in turn spills out stray neutrons. These are then used in various experiments to further basic science. All good stuff, but we can think of half a dozen local sites where this project could proceed without having to move a gliding club or upset a local village. All this was made very clear to the proposers at an open meeting in our clubhouse. On Saturday, July 13, Bob Baines did a first 500km; Alister Mackenzie, Darren Lodge and Rod Salmon flew first 300kms. Dave Bell did his 300 on a different day. Rob Nichols did five hours and Carl Zatorski soloed at 16.
John Stirk

Cairngorm (Feshiebridge)

WE have a new Grob 103A Twin 2 Acro, with GPS and logger, primarily for cross-country and wave training. We played host to the "Walking on Air" charity for the disabled, who brought along their modified K-21. Many disabled people were introduced to the joys of soaring and at least one experienced the joys of landing out in Glen Feshie! We also hosted the Inter-club League with Richard Arkle (Deeside) winning the last day and Fulmar winning overall. We are busy preparing for Octoberfest: for details see *www.gliding.org*
Chris Fiorentini

Cambridge (Gransden Lodge)

VIC Shelford has both Bronze legs; Chris Millson flew 50km two days after his height and duration to complete Silver (and is learning to rig Dad's DG-202).

John Hingley flew 300km and Ariane Decloux did 500km to complete Diamond. On June 19, Mike Young and Sarah Steinberg flew 750km in Standard Class gliders. We think these are record flights as Sarah is the first woman to fly that distance in the UK and Mike's flight (Bruton, Whitchurch, Tibenham, with Gransden as a remote start/finish) is the first UK Standard Class 750km triangle. The 15-Metre Nationals had five competition days between rain and thunderstorms. Chris Starkey flew consistently well to win. Thanks to all the volunteers for helping it run smoothly. Congratulations to Graham Drury, winner of the Midland Regionals, and Richard Kalin, third at the Northerns. Expeditions to Ontur in Spain and to Sutton Bank are planned.
Gavin Deane

Clevelands (Dishforth)

THE expedition to Lusse did not bring the expected weather, but a good time was had by all; Paul Whitehead again proved that he can fly 490km, once he located the wing pins for his ASW 19. (Thanks to Terry Mitchell of Bicester for bringing them out in his luggage: bet that gave Security something to look at on the x-ray). Paul also flew the Northerns, finishing third. Well done to Grinner Smith for winning Club Class at the Inter-Services and to Andy Peat for completing both Bronze legs.
Polly Whitehead

Cranwell (RAF Cranwell)

THE summer months brought excellent weekend weather when many parts of the UK had torrential rain. RAFGSA "Team Condor" provided two K-21 aerobatic displays at the Waddington Airshow; Al Docherty's team provided nifty ground handling. Steve Benn achieved his 1,000th hour, somewhere over Syerston, and Pete Kingwill his Diamond goal. Nick Smith has 500km; Mick Lee added a 400km to Cranwell records. We provided overnight hangarage for Charlie Brown's Spitfire (aka Cranwell replacement tug) following a local show... and some irresistible spoofs (see p55).
Paul Skiera

Crown Service (Lasham)

SINCE our arrival from Odiham our trusty Lima 99 has been turning heads as a different-looking K-13 among the scarlet flock! Instructor John Blackmore flew it locally for 6hrs 25mins the day after I put in an 8hr 24min local soaring flight. We are now receiving suitable psychiatric treatment! We will be sorry to see the old girl go as L99 is up for sale after 20 years with the Crown Service (formally DRA and RAE) club.
Gary Pullen

Dartmoor Gliding Society (Brentor)

A GREAT effort to publicise the club gained some enthusiastic recruits and brought back one or two lapsed members. We hope another spot on BBC local TV will keep us in the public eye. A barbecue (very successful), a flying week (successful when dry) and a further newsletter (much appreciated) have all helped to keep momentum going and will be repeated. As well as a group of serious, regular *ab initios* and another of early solo pilots, we once again have a small class working toward Bronze. We have also enjoyed practical demonstrations of landing out, by instructors.
Phil Brett



Amy Barsby (left) and Jadge Singh (right) with instructor Alan Roberts after soloing at ***Bowland Forest GC***

Deeside (Aboyne)

IN spite of the generally poor weather Jack Stephen achieved a 750km, the first in Scotland. Andrew Warbrick enjoyed some great wave to 19-20,000ft on July 27. Congratulations to Tom Crawford on going solo. A party visited Cairngorm for the second leg of the inter-club. Despite the weather we had a great time; our thanks to CGC for their hospitality, great food and for sharing their famous ridge with us. Thanks to Richard Arkle's winning the final day, and some gamesmanship from our scoring expert and first-day fliers, we managed to pull up just behind the joint leaders. There are a few places available for our wave season (see our ad, p66).
Sue Heard

Dukeries (Gamston)

WE have enjoyed our English summer (two hot days and a thunderstorm). Our Janus made its August pilgrimage to the two-seater comp at Pocklington and we have booked a week at Portmoak in October. Tim Sharpe, who has been waiting for his 16th birthday, went solo very soon afterwards with a Bronze leg on his first solo flight followed by his second leg. Martin Vincent has his Basic Instructor rating. Mike Terry is now an Assistant Instructor. August 12 brought our first club aerotow day, with the Robin from Saltby. This year we will be in the wave above site instead of listening to Camphill talking about it on the radio.
Mike Terry

Essex (North Weald/Ridgewell)

ALL is revealed about the incantations I mentioned last time: congratulations to Graham Winch on his R/T licence. Well done to James Jolley and Kevin Smith (solo) and to John Whitwell (Silver distance). Our flying week at Ridgewell marked 25 years of gliding at the site. Some very good flights were achieved despite mixed weather. Thanks to Sue Martin for an excellent barbecue and to other members for all their hard work on the week. In recent storms, Ridgewell was hit by a mini-tornado, which not only rattled teacups and eyeballs of members in the clubhouse but moved our T-hangar, with a K-13 inside, some 20 feet! The glider escaped with a few grazes. Vouchers and our special flying Sundays at North Weald continue to sell well, resulting in the club gaining welcome new members.
Peter Perry

Essex & Suffolk (Wormingford)

DESPITE variable weather, we are managing some decent flying. Notable recent achievements include Silver Badge (Ken Rogers), Silver height (Kim Smith) and first solo (David Morris). Phil Duffin is now a full-rated instructor and Andy Sanderson has finally circumnavigated the London TMA (see p31).
Steve Jones

Fulmar (Easterton)

CFI Rick Jones did his 300km from Bicester, completing Gold, then returned from Englandshire to take the Astir to 12,000ft in wave. All our aircraft are back on line; thanks to all who worked to achieve this. Three pilots and crews went to RAF Cosford for the Inter-Services; Guy Davidson came 3rd in the Club Class. Stu Naylor and I left Cosford and arrived at Feshie some 500 miles away to fly in the Inter-club League on the same day. We completed the journey in an AA lorry with Stu's very sick car on the back and a Cobra trailer behind... Stu, Guy and I managed to scrape enough points to win. Not bad for the club's first year in the comp!
Mark Brown



Janice Hurne was recently sent solo by Nick Bowers, right, at the ***Bath, Wilts and North Dorset GC***

Herefordshire (Shobdon)

THANKS to Mike Dodds we have no fewer than four video cameras installed on our Blanik, which document every move and record any deviation from the standard BGA instructor's manual. The front cockpit's panel-mounted unit shows a mugshot of the occupant, revealing some very interesting expressions, while a second in the rear cockpit records the instrument readings. The third and fourth are behind the rear cockpit looking forward, and out at the wing tie-down point looking inwards, and have already provided some amazing footage. Anybody who wishes to record himself or herself flying in this way is most welcome to pay us a visit; just remember to bring a blank cassette. New arrivals this summer include two *ab initios*, while chairman John Bastin is moving to France.
Mike Hayes

Highland (Easterton)

A RECENT highlight was the two-week visit of the Angus T-21. Thanks to Francis Webster for bringing it up and to Guy Davidson (Fulmar) who flew us all in it. We've read the reports in S&G, and now a good few of us have had the chance to fly one. It even did one flight to 7,000ft in wave on a day that took some gliders to 12,000ft. The Inter-club League at Feshie was a wet affair with only one competition day. We came joint third with Portmoak. At least we can still look at the trophy as it sits in our new clubhouse! Work on the latter continues. Congratulations to Tony Butler on Bronze/Silver height, and to Peter Goodfellow, who went solo then got a Bronze leg on his first K-18 flight.
Roy Scothern

Imperial College (Lasham)

OUR summer expedition to LSV-Schwarzwald, Germany, was a great success – many thanks to all involved, especially instructors Dave Williams, Hemraj Nithianandarajah and Peter Reading, and Alan Bamford and Duncan Ashley, who improved the launch rate considerably by learning to drive the winch. More than 150hrs were flown: achievements included Cross-Country Endorsement soaring flights for Jamie Denton

Please send entries to *helen@sandg.dircon.co.uk* or Helen Evans, 7 Ollney Road, Minchinhampton, Stroud GL6 9BX to arrive by **October 15** for the December-January issue (December 10 for the following one)



The Soaring Centre

At a glance

Full membership: £196 pa + £50 entrance fee

Launch type and cost:
Winch, £5.50; aerotow to 2,000ft, £18

Club fleets:
2 Discus; Pegase; 3 PZL Juniors; Bocian; K-8
4 Puchacz; Duo Discus; SF25 Rotax Falke;
3 Supermunk tugs (also 5 private tugs)

Private gliders: 90

Instructors: 69

Type of lift: thermal, very occasional wave

Operates: 7 days a week, all year round

Contact:
Office, 01858 880521; clubhouse, 01858 880429
office@thesoaringcentre.co.uk

www.thesoaringcentre.co.uk/

Radio Frequency: *Air/Ground, 129.975 MHz*

52 26.442 N 001 02.818 W

THE Soaring Centre is the second biggest gliding club in the UK, with 337 members, six two-seat training gliders and 90 privately-owned gliders. Based on part of the wartime RAF airfield site near the village of Husbands Bosworth in Leicestershire, we operate 365 days of the year, weather permitting.

The airfield is grass, which is cut regularly and levelled every year. We operate on 27 or 09 depending on the wind, launching via our four-drum winch or three Supermunk tugs. Five privately-owned tugs are also available for busy days. Winch launches regularly reach 1,500ft or more, and we have no real airspace worries, with FL75 over the airfield, and FL105 just east of us.

We run intensive gliding courses every weekday between April and September, with full-time instructors, tug pilots and winch drivers to ensure that every possible inch of gliding is squeezed out of the temperamental British weather. We also run evening courses on Tuesdays and Thursdays and a popular winching-only evening on Wednesdays.

At weekends there is a very active cross-country scene, with a task and met briefing every morning, and plenty of club members just itching to race each other. Warwick and Loughborough university students also fly with us.

Every summer we hold the hugely-popular Midlands Regionals competition – you might just get an entry for next year if you apply now! We also hold an annual Task week, and host one leg of the regional Inter-club League. Every other year we also run a nationals – this year, the Juniors. We have annual trips to Aboyne and Sutton Bank, and many members overwinter in the Southern hemisphere, in locations such as Australia and South Africa, often bringing new gliding records back with them.

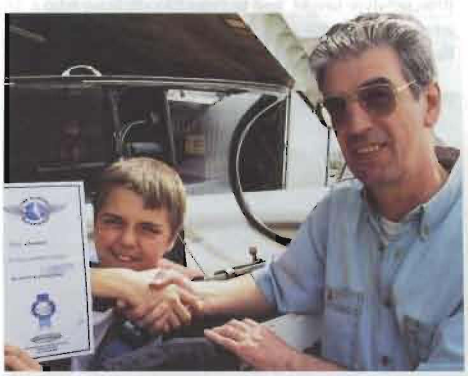
In 2002 we completed a further extension to our clubhouse (the red brick building on the photograph above), which now offers excellent facilities including a large briefing room, TV room, task planning area with permanent online access to up-to-the-minute weather information, bar, cellar (very important for perfectly-chilled beer, I'm told!), kitchen and dining area, members' kitchen, office, seven bunk rooms, and showers.

We also have three large hangars for club gliders and tugs, a purpose-built hangar for the Duo Discus, winch hangar, and glider workshop.

This year we celebrate our half-century, with a party on October 19, 50 years to the day since founder members Mike Hunt and George Thomson first met at the YMCA in Coventry. The club was initially at Baginton (Coventry) Airfield, but when this developed into a commercial aerodrome, restricting gliding, the club purchased part of the old wartime airfield at "Hus Bos" and moved here in 1964. The Coventry GC has since grown steadily and in the early 1990s metamorphosed into The Soaring Centre.

Of course I'm biased, but I really believe that we are possibly the best gliding club in the UK at the moment. We have great club gliders, experienced instructors, a fabulous clubhouse, a big airfield, friendly members, a great atmosphere, and we fly all year round – so if you haven't visited us yet, we hope you will soon.

Siobhan Hindley
Photos: Sid Gilmore



Hus Bos instructor Richard Cartwright and "Gliding Experience" student Tom Ebinger by the hangars

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Club news

and Katie Sykes; Alan achieved his Silver height. All involved thoroughly enjoyed the experience and are already looking forward to next year's. Chris Smart, Duncan and Hemraj have left college to pursue something called "employment"... we hope it won't interfere with their gliding too much! Many thanks to them for all their contributions during the past four years.
Alan Bamford

Kent (Challock)

FIVE members entered the Midland Regionals, including Graham Drury, who won. Chris Luton has flown 300km, this time qualifying for a "slate" by not going round too many turning points. Teddy Raw, an ex-WW2 pilot, has Silver, and Chris Dunne, Tim Bartsch and Klitos Kiracou have flown first solos. Another Bronze theory course is planned for autumn. We eagerly await delivery of the first of our K-21s and will be looking for a loving home for the K-7.
Caroline Whitbread

Kestrel (RAF Odiham)

CONGRATULATIONS to our DCFI, Marc Morley (300km and 500km), and to Neil Armstrong (Silver). Thanks to Ted Norman at Bicester who enabled a club expedition while we were grounded by the Farnborough Airshow. Two successful mini courses were held; two more are planned. Marc Morley and Mark Pickersgill represented us at the Inter-Services.
Simon Boyden

Lakes (Walney Island)

ROBBIE Morris has soloed; had exams not got in the way he would have soloed on his 16th birthday, but as they say all good things come to those who wait. The club visit to Hus Bos enabled Dave Heron to gain his cross-country diploma but was cut short by worsening weather. Our old Capstan, now in Peter Redshaw's hands, has been fully renovated and is ready to defend its title at the two-seater comp, unfortunately the Cosim just won't respond. Alan Meadows has taken over as tugmaster; our thanks to John for his long service.
Peter Seddon

Lasham Gliding Society (Lasham)

COLIN Short gave an aerobatic display in his Pilatus at the Farnborough Air Show. David Youngs (Surrey University GC) and Phoebe Denton (Imperial College GC) were selected by the organisers, the Society of British Aerospace Companies, to work for them for a few weeks before and during the show. Agreement was reached over shared airspace, enabling Lasham to function normally. The regionals enjoyed some good weather. Marc Morley gained his Gold distance and Diamond goal, followed by his Diamond distance. In June and July, David Masson flew 744km in an LS6, Patrick Naegeli 756km in a Ventus 2, and Graham McAndrew 764km in a Ventus 2. Over the same period, 21 flights of over 500km, and 50 flights of over 300km



*Robbie Morris is congratulated by Dave North on his solo at **Lakes**. Alan Meadows and Dave Heron watch*



*Combining the vogue for trying different tugs with the enduring appeal of vintage aircraft, **Cranwell GC** appears to have found a spectacular new launch option. But has Charlie Brown's Spitfire got enough horses to tow that K-3?*

were made. Congratulations to Steve Jones and David Allison for their results in the European Championships in Hungary. We welcome Veronique to the office team.
Tony Segal

Lincolnshire (Strubby)

WELL, it's finally happened: a 300km out of Strubby. Congratulations to Dave Ruttle and Phil Pickering on this great feat of derring-do (Strubby, Newark Knaresborough, in the Janus). Dave must have had a rush of blood to the head that weekend because next day he ambled around 240km, stopping on the way back to claim the rose bowl from Kirton, in the company of Derek Woodforth. Dave Ruttle and Steve Crozier continue to dabble in the competition scene with Dave venturing over to Spain for the Overseas Nationals. Both have had good showings in regionals – well done, lads. Alan Childs flew a Silver distance. We had a rigged aircraft at a local school fete recently, which generated a lot of interest. Sadly we have lost Dave Draby, one of the quiet assets to the club.
Dick Skerry

London (Dunstable)

WE were all saddened by the death of Dick Cooper, our tractor and winch maintenance engineer for the past 30 years, who at times achieved wonders to keep us all flying. Our sympathies go to his family. The annual seaside outing around the Isle of Wight, this year on July 13, proved popular for 10 aviators. Steve Lynn is still heaving, as duty at base came his way on the day. We shared a stand with the Vintage GC at the PFA Rally with a vintage glider on show, which created lots of interest. Twenty new members attended a recent LGC introductory evening. Well done to Pete Harvey and Ed Johnston on 1st and 2nd places at the Standard Class Nationals. Congratulations to cadets 16-year-old Andrew Mills (solo on his birthday), brother David (re-solo) and Stuart Carmichael (Silver distance). The LGC-based Faulkes Flying Foundation has run five courses this year. We welcome Liz Hopwood to the office. The Euro 2002 expedition's three-week tour went from Switzerland through Austria to Slovenia and back, finding glorious wave and mountain flying.
Geoff Moore

Mendip (Halesland)

JULY saw Simon Lloydbottom doing some "real" flying, adding a glider solo to his power one. Our open week failed to produce soaring but it's an ill wind... in flat conditions, Edward Gardener re-soloed after a 47-year break. During his Service career he founded the Red Devils parachute team. With well over 900 jumps to his credit, landing in an aircraft has been quite a novel experience. The Dimona has been sold and a search is under way for its replacement. Top of the wish list is a 100hp Falke, which would be more than capable of doubling as a tug for our current fleet.
Keith Simmons

Midland (The Long Mynd)

WE won Rockpolishers! The team was led by Dominic Haughton and typical of the level of performance was that of Intermediate Tony Danbury, who got round a tricky 120km after sinking to 450ft at TP2. On June 19 David Rance did a 614km O/R to East Anglia and Ian McArthur was among those who flew to Newport Pagnell and back, missing his 300km by a wingspan. He missed it by a couple of fields on the 28th but his progress, along with other young pilots' (such as John Roberts, David Darcy and Sarah Platt) is considered a benefit of the club's arrangement with the Discus syndicate. On July 19 three course members soloed (congratulations Martin Berry, Katherine York and Paul Kerman). Martin McCurdie has joined the office team.
Roland Bailey

Norfolk (Tibenham)

AT our recent well-attended AGM, chairman David Hill stood down due to business commitments. During his four-year term of office we purchased two Robin tugs and the fleet moved from wood to glass. He is succeeded by Roy "Woody" Woodhouse (strictly a short-term engagement, says he), who previously served 15 years as secretary and 17 years as CFI. Woody is joined by Norman Clowes, taking over from John Herring as vice-chairman, and Bonnie Wade taking over as secretary from Josie Briggs, who was deservedly praised for all her excellent work. New CFI Dave Munro has formed an Instructor Committee to look afresh at all flying issues. The Wednesday boys had an unexpected treat prior to the Jubilee celebrations when the full-scale rehearsal flypast was routed directly over the club-house. We are saddened at the untimely death of Al Raffan in a motorcycle accident. Al, with other Fenland pilots, regularly visited us and was much respected and liked. Our condolences go to those near to him.
Alan Harber

North Wales (Llantisilio)

FOUR pilots have soloed so far this season: Dave Hughes, Harry McNee, yours truly and Brian Portlock. Now the fight starts for who will get Bronze first and who gets time in the single-seaters. Our dear old K-8 has been going through a particularly rigorous C of A. Ken Fixter and Eddie Lees have been slaving away to put some sparkle back in the old girl. Thanks, fellas! Our club week in August was punctuated by grotty weather, but some useful flying was achieved.
David Trotter

Northumbria (Currock Hill)

THE subject is the Hotspur Shield, our inter-club and intra-Northumberland cross-country trophy. The eponymous (it's in the dictionary, Ian) figure is Harry Hotspur (Sir Henry Percy, 1366-1403), no mean thrower-down of gauntlets (see Shakespeare). This we did in 1999 by setting up the shield. Weather and foot-and-mouth kept

Club news

things fairly quiet. But on July 13 our only female BI flew to Milfield in the Astir to regain it, their Keith Latty having landed at Currock earlier that day. Alas, on July 28, Derek (Cliff) Robson, ex-Currock member, arrived in his ASW 24, as did George Hall in their Astir. The shield has primed the cross-country pump in these parts. About 15 members experienced, alas, pretty iffy weather at Aston Down in July. However, on his way back, Dave Mands launched at Syerston and flew to Kirton in Lindsey to complete Silver. Back at Currock, Ted Brandi caught up with his missus, Nicky, with a Bronze leg. She responded by flying her second. Jim Smith has soloed. Frank McLoughlin and Hugh Grant refurbished a launchpoint vehicle. A planning application has been made for a wind farm on Currock Hill proper, inside our circuit pattern. The tips of the blades are likely to be 350ft above the lowest point of our airfield.
Leonard Dent





*David Mills (left) has re-soloed at **London GC** while brother Andy, 16 (right), has soloed. Father Trevor instructs and two other sons also fly there. David originally soloed at Halton; Andy has now completed his Bronze – in six weeks*

Oxford (RAF Weston on the Green)

DAVE Weekes, Steve Trussler and Toni hauled their flying wardrobes to Germany for the VGC rally and were amazed to find people flying things older than theirs! A motley crew took some newer kit to the regionals at Husbands Bosworth where CFI Cris flew the club DG to great effect and demonstrated final glide techniques that worried both the front-seat pupil and the starlings in the tree tops around Hus Bos. Howard Stone, Simon Walker and Maz Makari did it large for OGC with strong performances, with Maz getting a special award, for, er, something or other. And OGC continues to dominate the Inter-club League. Garry Cuthill, Matt Gage and Carole Shepherd all successfully completed their BI course, and Darren Goby achieved both the goals he set himself this year – getting his PhD in something scientific and, more importantly, going solo.
Steve McCurdy (with help from N Swinton)

Peterborough & Spalding (Crowland)

FIVE members travelled to Achmer for the VGC Rally with K-6cR and newly-refurbished K-7. They returned in time to take part in our own "Flying Fortnight" – when members take annual holiday, camping at the airfield, or just dropping in when they can, with the aim of flying every day. The BGA DG-500 was available for members to fly during the first week, which proved to be a great success. A K-6E has changed hands within the club; the new owner achieved a 6hr 20min duration on his third flight in his new toy. Our CFI did his 500km in June. Robert Theil has his Silver. Jim Crowhurst, Steve Crozier and Adam Laws did the Western Regionals.
Joan Pybus

Portsmouth Naval (Lee on Solent)

WE seem to have gone cross-country mad! Everyone is leaving Pompey behind and gliding north. (Gliding south, although promising pain au chocolat et grand glasses avec vin rouge, usually ends in an impromptu swimming session.) Tony Wahlberg and Nigel Clark flew Diamond distances. Other 300s were completed by Jerry Lee, Tony World, Alan Clark and Henry Freeborn, while Bill Roebuck and I did 250s. Alan was second in the Inter-Services Sport Class and Keith Walton and the pink Nimbus won a day amongst the big boys. I have managed to get my Silver Badge.
Pete Smith

Scottish Gliding Centre (Portmoak)

IN July we went to East Fortune Festival of Flight Air Museum for the annual air-show. Our Walking On Air K-21 proved very popular. Our aerobatics display had to be called off at the last minute but we were given a slot in the commentary to publicise our club and gliding in general. The BGA communications officer, Keith Auchterlonie, has moved north and joined our club, and we all look forward to the publicity events that he is no doubt planning. Apologies to all Scottish clubs as the SGA ASH 25 met with an unfortunate accident when it last visited our site, but we're hoping it will be back in circulation soon. First solos include Robert Furness, Bill Irvine, Angela Fraser and Ian Fraser. George McKay and Pete Benbow have Bronze.
Ian Easson

Shalbourne Soaring Society (Rivar Hill)

WE have run two public courses, an *ab initio* course and task week, all of which were thoroughly enjoyable.
Wendy Coome

Shenington (Shenington)

CONGRATULATIONS to Brian Boyle and Andy Turton (solo); Jon Duvall (Bronze Badge); Andrew Salisbury (Silver duration) and Geoff Powell (Silver). Gary Brightman, Damien Dyer and John Vella Grech all completed 300km in June. Jane Jervis and Jonathan Sherman are Basic Instructors. We have had a busy social life, with Beagle Pup club and BMPA fly-ins, and a Big American Barbecue. We were surprised by some wave at the end of July – 10,000ft is pretty good for us flatlanders! Our task week has been a bit of a no-go due to the weather. Thanks to Simon Adlard for an excellent BGA soaring course. Our midweek courses remain busy so please do warn us in advance by calling the office or emailing. For news see *www.gliding-club.co.uk*
Tess Whiting

Shropshire Soaring Group (Sleap)

COLIN Ratcliffe finally got his Diamond goal, starting from Seighford, not Sleap, then repeated it from Sleap a couple of weeks later. Ric Prestwich and Chris Fox also managed 300km on the same day. The restrictions of last year combined with generally poor weather for most of this year have had a depressing effect. Arthur Lowens, Ian Hicks and Len Kirkham have put their Nimbus up for sale. The Twin Astir syndicate also faces problems as age takes its toll on enthusiasm. Tony Adams has again flown solo at Seighford. We were glad to see Laura Scott back for a brief visit before going to Bidford for a month and we warmly welcome back Jim Lynchehaun after a few months' lay-off.
Keith Field

South Wales (Usk)

THE club celebrated its 40th anniversary with a highly-successful hangar party to which all past and present members and many local farmers were invited. Despite unpromising weather there have been some notable flights - Allan Donnelly has flown two 300km flights, Enzo Casagrande rapidly followed his first 300km with two more, and Andrew James flew 480km on a day that most thought not good enough to fly cross-country. Congratulations to Brian Crow (Assistant Instructor) and to Huw Morgan (re-soloing after a 10-year break). Task week produced less flying than recent years, so a new activity of playing competitive boules was introduced.
Maureen Weaver

Southdown (Parham)

WHEN, in the chronicles of wasted time, we remember to no good purpose our many smoked barographs, we can only marvel at the newly-installed computer kit at Parham. With state-of-the-art software it analyses, diagnoses and produces graphs on every topic but is unable to influence the weather. Consequently we dispatched a squad to St Auban and received in return the services of Sylvain Bernon. He is far too polite to comment on our climatic peculiarities and is a welcome addition to our instructor community. Our vintage gliding enthusiasts, led by Andrew Jarvis, took a wooden fleet to Germany for a very successful rally. Our task week started with a damp whimper and ended with a bang. The most spectacular thunderstorm of the year hurst over the airfield on July 10; late arrivals did not so much land, as come alongside the jetty. Between showers, Lee Cowen and Alan Saunders went solo while John Rayner and Andy Wood gained Silver Badges.
Peter J Holloway

Staffordshire (Seighford)

WELL DONE to Mark Burton (K-6) and Brian Pearson (DG-400) on Gold distance/Diamond goal. Chris Jones, Nick Rolfe and Paul Crump (also BI Rating) have their Silver Badges. Alan Jolly has Bronze Badge, allowing him to fly his Astir (well done, Al!). Several members went to Chauvigny in France for summer flying. Thanks to Pete Lowe for arranging a general flying week (230 launches and more than 60hrs flying). Cheers also to Ian Davies, Chris Fox and Mike Abbott for looking after the Friday Flyers. The club K-21 took part in the two-seater competition at Pocklington. October's trip to Milfield is as popular as ever. Thanks to all those involved in the planning of the AvGas tank installation. For news, please visit *www.staffordshiregliding.co.uk*
Paul (Barney) Crump

Stratford on Avon (Snitterfield)

JULY'S successful cross-country and badge week saw 22 pilots compete, encouraged by the enthusiasm of the organisers and task-setters: Diana and Phil King, Mike Coffee, Martyn Davies and Barry Kerby. A total of 9,032km was flown in 14 gliders. A barbecue organised by Jo O'Brien and Liz Pickett rounded it off. We thank all who took part in the flying and the ground handling. A disastrous expedition to Sutton Bank in late May, when only three days were flyable, was compensated for by a super week at Camphill in June. Thank you, Sutton Bank and Camphill, for your renowned hospitality. Congratulations to Gordon Graham (Silver); Ian Kennedy (Silver duration); David Searle (Silver duration plus cross-country); Charles Stearman (Silver duration); Nick Jaffray (Bronze); Steve Farmer (Silver height); David Ireland (Cross-Country Endorsement); and Chris Bingham, who re-soloed after 31 years, having flown three solos in a T-21 in the ATC at Cosford.
Harry Williams

Obituaries

Surrey & Hants (Lasham)

SIX S&H gliders took part in the Lasham Regionals in June; special mentions for John Simmonds, fifth in the A class, and Peter Keutgens, well up the field in the Bs in his first competition. All the fleet has kept flying, on most of the summer's flyable days. Chris Sterritt paid his dues in K-8 474: over six hours to get Silver height and duration in one flight. Mike Borrowdale flew five hours to complete Silver, and Andy Lenthall did 50km. Ron Baker did 303km for Gold distance/Diamond goal, and an O/R to Leicester South gave me Diamond goal. We plan to send S&H gliders to Aboyne this autumn and Jaca in spring.
Graham Prophet

The Soaring Centre (Husbands Bosworth)

CONGRATULATIONS to: Dave Booth and Brian Marsh (750km flights in June); Toby Wright (Diamond distance); Phil Tiller (Diamond goal); Brian Scaysbrook (Silver height), and Patrick Musto (Bronze, and Silver duration). We held another very successful Midland Regionals in July, with 57 competitors. Well done to Brian Marsh, second, and Dave Booth, third. On October 19 we celebrate the club's 50th anniversary, with a dinner in the clubhouse. We are bidding to hold the Junior World Gliding Championships at Husbands Bosworth in August 2005. Martin Allen and Rob Barsby are now Assistant Instructors. Bob Bowles holds a CAA Motor Glider Instructor Rating, which allows him to instruct up to SLMG PPL standard. We are sad to report the death of Gus Cunningham, a former club CFI, on August 5. See also Club Focus, p54.
Siobhan Hindley

Trent Valley (Kirton in Lindsey)

THE weather has not been great but the achievements have. Andrew Turk in his K-6CR has flown 314km and Gordon Bowes, K-6E with attitude, completed 390km. Jeanette Kitchen has taken "our" K-6CR round a 177km triangle at 65km/h. It must be my turn in it soon. Paul Nock has Silver height and 4hrs, 59 mins and 15 seconds of his five hours (these electronic barographs are sometimes too accurate). The wooden cup was amazing: 11 gliders flying over 2,000km on days when some of us would not have even rigged. Gordon Bowes came second and Steve Wilkinson took first . Ray Parkin arrived with Saltby's CFI Les Merrit in a race-tuned K-7, and captured the pig; he redeemed himself by fetching it back in his Discus. Horst Lange, Paul Nock and Paul Daubany have flown two-hour flights.
John Kitchen

Ulster (Bellarena)

JIM Weston was one of five pilots representing Ireland in the European Gliding Championships in Hungary. Competing in the 15-Metre Class, he achieved a number of personal bests, including one 503km task at 114km/h. In a more relaxed holiday mode CFI Harry Hanna accompanied a party from Lasham to Jaca in Spain and soared in the Pyrenees, with flights averaging four to five hours. Congratulations to: Herbie McCullagh on achieving Silver duration and missing Silver height by the smallest of margins; Peter Holmes on his PPL and Brendan O'Brien on soloing.
Seamus Doran

Wolds (Pocklington)

THE Standard Class Nationals were a great success – partly due to the interesting weather but mostly thanks to the organisation and commitment of Wolds members. Congratulations to Peter Harvey and to Mike Fox, who was leading the field at one stage and did very well. With Mike Fox coming first and Bob Fox (dad) coming second in the Open Class of the Northern Regionals, and Simon Barker first in the Sports Class, we have had to buy another pot of Silvo to polish all the silverware. Well done to Martin Fryer (BI), Steve Gibson and Adrian (solo), Gareth (50km), and Paul Shaw (Silver). Stacey



*Brendan O'Brien, on first soloing at **Ulster GC**, seen being congratulated by CFI Harry Hanna*

McCann moved into her fourth decade with a memorable party that coincided with the best soaring day for years - a number of 300kms were completed with Simon Barker completing 500km. The most remarkable achievement is that of Captain Kirk (Graham Wadforth) who has, at last, gained his five hours. Well done to all.
Ged McCann

Wyvern (Upavon)

PAT Farrelly has taken over as CFI and Brian Penfold as secretary. An LS4 and a K-21 are looking resplendent following refinishing in Poland. Five successful *ab initio* courses have been run, thanks to a great deal of effort from the instructors and supporting ground crews. The Longest Day was well attended, with members of Bannerdown and of the Glider Pilot Regiment Association joining us. A task fortnight in June yielded a multitude of badge claims and legs. Over 4,000km was flown; Dennis Strangroom managing a seven-hour flight. Visit us at *www.wyverngliding.org.uk*
Brian Penfold

York (Rufforth)

CONGRATULATIONS to Anthony Hollings (Silver); Sergio Salicio, Phil Moncur and Ian Hutchinson (solo); and commiserations to Jay Smith on doing more than 400km of a 500km badge flight before realising that his barograph was not switched on, and abandoning the last TP. Well done to Terry Newby on his Bronze with Cross-Country Endorsement. It is with regret that we announce that Peter Ramsden, tugmaster and committee member at Rufforth, has died suddenly at his home on August 16. He will be sadly missed.
Mike Cohler

Yorkshire (Sutton Bank)

THE Northerns had only four competition days, but everyone enjoyed themselves. Well done to Simon Barker, Kay Draper and Paul Whitehead (1st, 2nd and 3rd, Sports Class) and Mike Fox, Bob Fox and Richard Kalin (1st, 2nd and 3rd Open Class). Our President Moira Johnson (a founder member who first flew at Sutton Bank in 1934) presented the prizes, Nick Gaunt directed, Barry and Janet Lumb controlled, with Kelly Janski on radio and Tony Kane providing met. Nick Gaunt, Phil Lazenby and David Hayes set the tasks. Barry and Janet raised about £200 for the Yorkshire Air Ambulance charity. The club is top of the Northern Inter-club League. Our record distance was broken by Derek Taylor and Chris Teagal at 658km. Well done to Jamie Quartermain and Alan Crowley (Diamond goal); Kelly Janski and Rory O'Connor (Silver distance), and Nick Brain, Melvin Gifford and Jeff Kay (solo). Nick at 16 is probably one of the youngest pilots to solo here and Jeff one of the oldest after years flying just about everything but gliders.
Bryan Boyes

John Burn – Bannerdown

"JB" (1949-2002) arrived at Bannerdown in 1980, where he became one of a small group of Hercules flight engineers based at Lyneham who were keen glider pilots. John had previously flown with Chilterns GC and with Fulmar in Scotland. He was already an instructor, which he resumed with us. John started his RAF career as a ground technician, transferring to aircrew and flying in Shackletons and then Hercules as a Master Air Engineer. After leaving the service he joined British Caledonian as flight engineer and later British Airways, completing his time with them as an instructor on Jumbos. He qualified in our motorglider and later became a member of the syndicate operating the "Kittiwake" as a tug. After giving up instructing owing to work schedules John's arrival at the launchpoint was frequently accompanied by a comment appropriate to safety, put quietly and firmly and always meaningful. One could say that John was "careful with money" and it made him a natural for the post of field treasurer, a task that he carried out skilfully for many years. This experience qualified him for oversight of the Logstar computer programme, which was developed by him into the very effective management tool that it now is. After harrowing spells of surgery and radiotherapy in hospital John returned to the club looking and behaving like his old self, plainly not the case. His approach to illness was managed in the same disciplined way as his flying. He sponsored assistance to cancer charities and took on more ground duties at the club to compensate for not flying. Club representatives attended John's funeral in Hartlepool, where they were able to talk at length with his family. JB will be sorely missed and the club extends its sympathy and condolences to his sister Joan, who cared for him in his difficult times.
Derek Findlay

Frank May – Dartmoor Gliding Society

WE were all saddened by the death of tough, gentle Frank May (1924-2002) ex-Devon Regiment, Glider Pilot Regiment and Parachute Regiment, who helped the club greatly in its earliest days. Although health problems stopped him soloing he found great pleasure in flying dual and in all other activities. Our affection was clear from the numbers attending his requiem mass and expressing sympathy to his wife, Mary.
Phil Brett

Tony Saint – Bristol & Glos

TONY (1930-2002) joined the club when it moved to Nympsfield in 1956 and remained an active member until the late 1970s when his work took him away from the area. Tony became a full cat instructor and tug pilot and was in a team of three who built a Skylark 3 from a kit. But this did not prevent him from having fun with his gliding, and he was always good company. For a while he worked at Xerox and for several years arranged for the club to borrow a copier during our competitions in the days when copiers were not readily available. In 1961 he married Liz Wales, also an active club member, and they had two children, Brenda and Richard. Tony's friends and family will attend a ceremony in September, when his ashes will be scattered at the club.
Ken Brown

Walter Neumark – London, Derby & Lancs

WALTER Neumark, who died aged 82 in May, learnt to fly gliders at London GC in 1939. After wartime service, he got his Silver in 1947. He instructed for 17 years and in 1959 flew a replica of Percy Pilcher's 1896 Hawk glider. In later years the interests of this enthusiastic and creative man developed from gliding to new airsports. A significant figure in parachuting, parascending (he received the FAI Tissandier Diploma for the conception and realisation of parascending) and paragliding, he sat on many aviation bodies, including GASCo and the Royal Aero Club. He is survived by his wife, Ariane.
Marc Asquith

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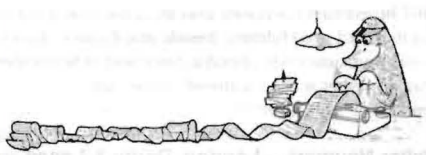
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John Fielden: a very special kind of hero

John Fielden died at his home in Devon on June 19. He was 80. His family held a celebration of his life at Branscombe on July 20. The following is from an address given by Justin Wills on that occasion.

JOHN WAS a man with an astonishing breadth of knowledge coupled with an inventive genius and enormous enthusiasm, which he imparted to everyone around him via his infectious optimism. For him the petrol tank was always half full, never half empty, and the road hereafter was downhill so he wouldn't need the stuff anyway.

I met John through our shared love of aviation in general and gliding in particular. And we shared something else: we had both been introduced to flying by our respective fathers. John's father, Wing Commander 'Pop' Fielden, had flown in the First World War and then, declining to enter the family cotton-spinning business, set up a barnstorming flying circus. Thus John, born in 1921, was virtually suckled on dope (the aircraft variety) and one of his earliest memories was of Pop installing wooden blocks on the rudder pedals of an Avro 504 so that John could reach them. His first solo was typically eccentric: one day Pop found himself at a local airfield without the Avro or the family car. He telephoned John, who was alone at home, asking him to bring the Avro to the airfield which John duly did, the prop being swung by the gardener. John was about 12 at the time.

Later, Pop and John tried duck shooting over Lincolnshire in the Avro. This involved John sitting on the coaming of the rear cockpit, armed with a shotgun, with his feet hooked under the lap straps, whilst Pop flew from the front cockpit. The scheme proved considerably more perilous for the humans than for the ducks who, when pursued, took evasive action in the form of very low flying. With his better view over the upper mainplane, John would attempt to guide Pop by tapping him on the respective shoulder to indicate the desired direction. The situation was further complicated by the need for all shots to be directly fore or aft since the slipstream made lateral shots hopelessly inaccurate. One Saturday afternoon they were following a duck which decided to turn to starboard. John tapped his father on the right shoulder and was astonished when Pop turned to port. A further thump on the right shoulder was to no effect and only resulted in his father pointing vigorously at the ground. John looked down on a sea of upturned faces 50ft below. They had flown over Stamford football ground in the middle of a match. Pop later explained to the magistrates that he had been preparing to do a forced landing, due to loud bangs from the engine, but that luckily it had picked up.

During the Second World War both Pop and John flew in the RAF. Pop flew Lysanders on SOE operations and John was initially sent to Washington as an Air Attaché to select US instructors to train RAF pilots. From there he travelled to Canada, where he did the same job, before returning to the UK where he flew first Wellingtons, then Lancasters.

After the War John moved to Devon and developed his outstanding talent as an inventive electronics engineer. This occupied him professionally for the rest of his life and produced many brilliant innovations, including the world's first electronic electricity meter. This, and allied inventions, are used in countries as widespread as India and South Africa.

In 1959 the Taunton Vale Gliding Club started gliding at Dunkeswell, and John was one of its earliest members. He went solo almost immediately in a T-31, and then embarked on some extraordinary adventures in the club Tutor. Bungying off Branscombe cliffs into the wind blowing up the escarpment was one thing, but bungying off downwind to discover whether it was possible to



John Fielden (left) in John Bally's Stemme (Jon Hart)

soar in the curlover below the top was far more interesting, especially as there was not much in the way of landing area at the bottom. However, both John and the Tutor survived, and the following year he bought Nick Goodhart's Skylark 3. He practised by flying every soarable day after work, taking off at 5pm and staying airborne as long as possible, often using the sea breeze. In 1961 he entered his first nationals, and came second in League Two. In 1964 at Lasham he won League One and became British National Champion with an amazing display of flying virtuosity. In his write-up of the competition John listed three lessons he had learnt from previous contests:

- do not follow other gliders
- avoid gaggles whenever possible
- exploit special knowledge of sea breeze fronts, convergences, and late evening conditions.

On the first day he was one of only eight finishers, arriving an hour after the last landing by following the downwind edges of woods and coppices back to Lasham from Aldermaston. Two days later the task was free distance. After several cloud climbs John arrived near Northampton under a featureless grey sky from an approaching warm front. Heading north he used every scrap of lift, one climb from 1,500ft to 3,000ft taking over an hour. Eventually, near Cranwell, he located a sea breeze front and spent two hours at 40kts winding his way towards Hull, where he had to land because he could not get high enough to cross it safely. Throughout this portion of the flight he had not been above 800ft.

The final day was distance along a line through Sutton Bank. The track lay between two depressions with large cumulus embedded in general overcast. A series of cloud climbs got John to Stamford where he climbed very slowly into cloud, and then briskly to 10,000ft. The ground below was completely covered, but further towering cu ahead beckoned him on. After repeating this four times John wrote: "...although the ground had now been out of sight for over two hours, since I was sure it was a sea breeze effect, I was fairly sure I was just inside England somewhere." In fact he was able to locate himself, fly under the airway at Doncaster, and then continue cloud flying in the sea breeze up to Middlesbrough. There he was just about to enter a final towering cumulus when he noticed half the ground underneath was covered in fog so he decided to glide it out to Newcastle, landing at 8.35pm. Further north the fog was 8/8ths.

After the contest John ordered an early wooden-sparred Slingsby Dart, which proved not really suitable for his type of flying. However, two years later, following the sale of Dunkeswell airfield and the fencing of the runways, John and the club sold all their gliders to finance the purchase of a new site at what is now North Hill. Two years of hard work followed until flying could recommence. John's business was struggling at the time, but undaunted by the lack of a suitable glider, in 1970 John flew the club Bergfalke with his wife Val from North Hill to Great Yarmouth, establishing the UK two-seater 400km goal record, which stood until two-seater records were abandoned nearly 30 years later.

Given his background and his achievements, John was a natural ally for my father Philip Wills when he wanted to establish Competition Enterprise in 1974. This was set up to counter the tendency to restrict pilot choices during competitions on the grounds of potential unfairness. Both John and Philip felt this tendency, which brought with it a great increase in both the number and complexity of competition rules, would not only reduce the amount and the quality of the flying done at contests, but also would lose the interest of the general public, and even of crews. Thus Competition Enterprise was designed to maximise flying and to include record attempts whenever the weather allowed. Thanks to John's enthusiasm and inventive task-setting (including the area task) the contest continues to this day, and has attracted a fascinating cross-section of gliding characters, many of whom are regular attendees.

A high point came in 1976, when early on August 1 John towed me off from North Hill whilst Mike Carlton with Brian Spreckley started in a two-seater Caproni. Through some instinct John took off in the tug at 1pm and climbed to 8,000ft over North Hill to hear our radio messages that we were crossing the Channel at Dover. By that evening we had broken both the UK single-seater and two-seater distance records, landing in Germany and Belgium respectively.

John's knowledge of micro-meteorology in the West Country was quite extraordinary. Once, at North Hill, on a stable blue day, he told us all to go to the beach and come back at 5pm. I was then launched as the sniffer, with John towing. I released at 2,000ft in what appeared to be completely smooth air whilst John explored further west. I sank steadily earthwards and John passed me on his way back at 1,500ft. To my astonishment I heard him call over the radio: "OK to start launching, Justin is climbing in wave". Thirty seconds later my vario swung to 1kt up and we spent an unforgettable evening shuttling between Taunton and Crediton, landing almost at dark.

John was a unique combination of scientist and romantic. He had an incredibly quick analytical mind, so quick that it appeared almost intuitive, but the solutions he proposed were always the outcomes he wanted, and he would not rest until he found a way to achieve that outcome. Quite late in life he underwent a relatively routine operation on his intestines, which went disastrously wrong. Two further operations became necessary and it appeared that as a result of the trauma to his system he would simply die of starvation. John thought about it and proposed to his surgeon an entirely novel way of internal feeding. The surgeon felt there was nothing to lose, tried it and it worked. John's idea was featured in The Lancet. He applied his own reasoning to every situation, and had absolutely no interest in conventional wisdom other than in its amusement value. He had a marvellous chuckle, which he would readily direct at himself if he perceived that he had made an error. He was always deeply interested and empathetic to everything and everyone around him.

He was a person whom you left always feeling happier about yourself and the world. Above all he was a constant source of enthusiasm, fresh ideas and inspiration upon which advancing years had absolutely no effect. Kipling wrote: "If you can fill each unforgiving minute/With 60 seconds worth of distance run,/Yours is the earth, and everything that's in it,/And which is more, you'll be a man, my son". In John's case he could have written 90 seconds, but then John was much more than a man, or even a steadfast friend: he was a very special kind of hero.

Badges

DIAMOND BADGE *(for 750kms, see page 4)*

616	Robert Tait	Highland	12/5/02
617	Stephen Thompson	Lasham	22/4/02
618	John McCullagh	Lasham	19/6/02
619	Mike Edwards	Bath, Wilts	19/6/02
620	Andrew Reid	Bidford	19/6/02
621	Peter Stafford Allen	Fenland	23/6/02
622	Jeffrey Howlett	Pboro & Spalding	19/6/02
623	Howard Stone	Oxford	19/6/02
624	Robert Baines	Burn	13/7/02
625	John Wright	Bicester	13/7/02
626	Ariane Decloux	Cambridge	13/7/02
627	Anthony Parker	Cotswold	13/7/02

Diamond distance

1-874	Robert Tait	Highland	12/5/02
1-875	Stephen Thompson	Lasham (Vinon)	22/4/02
1-876	John Gilbert	Essex & Suffolk	31/5/02
1-877	Michael Thorne	Bath, Wilts	31/5/02
1-878	John McCullagh	Lasham	19/6/02
1-879	Mike Edwards	Bath, Wilts	19/6/02
1-880	Andrew Reid	Bidford	19/6/02
1-881	Jon Wand	Bidford	19/6/02
1-882	Mark Davenport	Lasham	24/6/02
1-883	Peter Stafford Allen	Fenland	23/6/02
1-884	Jeffrey Howlett	Pboro & Spalding	19/6/02
1-885	Howard Stone	Oxford	19/6/02
1-886	Marc Morley	Kestrel	28/6/02
1-887	Robert Baines	Burn	13/7/02
1-888	Toby Wright	The Soaring Centre	13/7/02
1-889	Gordon MacDonald	Lasham	16/7/02
1-890	John Wright	Bicester	13/7/02
1-891	Ariane Decloux	Cambridge	13/7/02
1-892	Anthony Parker	Cotswold	13/7/02
1-893	David Tanner	Lasham	20/6/02

Diamond goal

2-2815	Allan Donnelly	South Wales	15/4/02
2-2816	Stephen Thompson	Lasham (Vinon)	17/4/02
2-2817	Hugh Stevenson	Cairngorm	12/5/02
2-2818	Chris Gibson	Lasham	31/5/02
2-2819	David Bell	Burn	31/5/02
2-2820	Graham Kench	Buckminster	31/5/02
2-2821	Andrew Preston	Aquila (Ocana)	11/6/02
2-2822	Andrew Turk	Trent Valley	19/6/02
2-2823	Nick Newton	Booker (Benalla)	31/1/02
2-2824	Nigel Clark	Portsmouth Naval	19/6/02
2-2825	Colin Ratcliffe	Staffordshire	19/6/02
2-2826	Andrew Watson	Cambridge	31/5/02
2-2827	James White	Booker	19/6/02
2-2828	Glyn Yates	Staffordshire (Tibenham)	19/6/02
2-2829	Donald Johnstone	Fenland	19/6/02
2-2830	Gary Brightman	Shenington	19/6/02
2-2831	Terry Salter	Lasham	28/6/02
2-2832	John Vella Grech	Shenington	19/6/02
2-2833	Jeffrey Howlett	Pboro & Spalding	19/6/02
2-2834	Marc Morley	Kestrel (Lasham)	19/6/02
2-2835	Ian Craigie	Four Counties (Bicester)	19/6/02
2-2836	Oliver Peters Bicester		19/6/02
2-2837	Simon Buckley	Cotswold	19/6/02
2-2838	Nicholas Aram	Bicester	14/7/02
2-2839	Albert Wahlberg	Portsmouth Naval	19/6/02
2-2840	Paul Brown	Cambridge	13/7/02
2-2841	William Prophet	Surrey & Hants	14/7/02
2-2842	Phil Tiller	The Soaring Centre	13/7/02
2-2843	Richard Jones	Fulmar (Bicester)	13/7/02
2-2844	Mark Burton	Staffordshire	13/7/02
2-2845	Ellen Packham	Wrekin (Bicester)	13/7/02
2-2846	Huw Williams	Four Counties	13/7/02
2-2847	Alan Crowley	Yorkshire	13/7/02
2-2848	Jeremy Lee	Portsmouth Naval	14/7/02
2-2849	John Norman	Wolds	13/7/02
2-2850	Alan Green	Booker	13/7/02

Diamond height

3-1578	Francis Broom	Shenington (Minden)	7/6/02

GOLD BADGE

2221	Richard Thirkell	Southdown (Minden)	23/3/02
2222	Simon Edwards	London (Cerdanya)	26/3/02
2223	Hugh Stevenson	Cairngorm	12/5/02
2224	Stuart Naylor	Fulmar	5/4/02
2225	David Bell	Burn	31/5/02
2226	Pete Startup	Devon & Somerset	31/5/02
2227	Colin Ratcliffe	Staffordshire	19/6/02
2228	Andrew Watson	Cambridge	31/5/02
2229	Donald Johnstone	Fenland (Tibenham)	19/6/02
2230	Gary Brightman	Shenington	19/6/02
2231	Jeremy Lee	Portsmouth Naval	16/4/02
2232	John Vella Grech	Shenington	19/6/02
2233	Jeffrey Howlett	Pboro & Spalding	19/6/02
2234	Guy Hall	Scottish	27/6/02
2235	Albert Wahlberg	Portsmouth Naval	19/6/02
2236	Richard Jones	Fulmar (Bicester)	13/7/02
2237	John Fryer	Wolds	13/7/02
2239	Graham Kench	Buckminster	31/5/02

Gold height

John Potter	Derby & Lancs	
Richard Thirkell	Southdown (Minden)	23/3/02
Simon Edwards	London (Cerdanya)	26/3/02
Stuart Naylor	Fulmar	5/4/02
David Chalmers	Highland	16/2/02

Gold distance

Alan Johnstone	Booker	16/4/02
Hugh Stevenson	Cairngorm	12/5/02
Chris Gibson	Lasham	31/5/02
Mark Brown	Fulmar	5/5/02
David Bell Burn	31/5/02	
Graham Kench	Buckminster	31/5/02
Pete Startup	Devon & Somerset	31/5/02
Andrew Preston	Aquila (Ocana)	11/6/02
Marc Morley	Kestrel (Lasham)	19/6/02
Andrew Turk	Trent Valley	19/6/02
Nick Newton	Booker (Benalla)	31/1/02
Colin Ratcliffe	Staffordshire	19/6/02
Andrew Watson	Cambridge	31/5/02
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Glyn Yates	Staffordshire (Tibenham)	19/6/02
Donald Johnstone	Fenland	19/6/02
Gary Brightman	Shenington	19/6/02
Jeremy Lee	Portsmouth Naval	14/7/02
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John Vella Grech	Shenington	19/6/02
Jeffrey Howlett	Pboro & Spalding	19/6/02
Ian Craigie	Four Counties (Bicester)	19/6/02
Oliver Peters	Biceste	19/6/02
Guy Hall	Scottish	27/6/02
Simon Buckley	Cotswold	19/6/02
Nicholas Aram	Bicester	14/7/02
Albert Wahlberg	Portsmouth Naval	19/6/02
Paul Brown	Cambridge	13/7/02
Richard Jones	Fulmar (Bicester)	13/7/02
Mark Burton	Staffordshire	13/7/02
Ellen Packham	Wrekin (Bicester)	13/7/02
Huw Williams	Four Counties	13/7/02
Chris Luton	Kent (Lasham)	14/7/02
John Norman	Wolds	13/7/02
Alan Green	Booker	13/7/02
Allan Donnelly	South Wales	15/4/02

SILVER BADGE

11030	David Allan	Scottish	11/5/02
11031	Duncan Ashley	Imperial College	11/5/02
11032	Simon Twiss	Lasham	15/5/02
11033	Colin Sutton	Buckminster	5/5/02
11034	Herbert Milton	Scottish	12/5/02
11035	David Hatton	Four Counties	20/6/02
11036	Christopher Johnson	Staffordshire	31/5/02
11037	Mark Holden	Portsmouth Naval	16/4/02
11038	Marc Corrance	Surrey Hills	4/5/02
11039	Joseph Westwood	Yorkshire	27/4/02
11040	Donald Welsh	Northumbria	1/6/02
11041	Tracy Meech	Nene Valley	1/6/02
11042	Ewan Burnet	Four Counties	1/6/02
11043	Nick Rolfe	Staffordshire	31/5/02
11044	Timothy Davies	Norfolk	25/4/02
11045	Graham Wadforth	Wolds	15/6/02
11046	Stewart Renfrew	Bannerdown	31/5/02
11047	Ken Rogers	Essex & Suffolk	19/6/02
11048	Jonathan Crump	Staffordshire	19/6/02
11049	William Grieve	Scottish	11/5/02
11050	David Mawby	Cambridge	19/6/02
11051	Geoffrey Powell	Shenington	23/6/02
11052	Douglas Raw	Kent	24/6/02
11053	Peter Smith	Portsmouth Naval	19/6/02
11054	Ian Ashby	Cotswold	19/6/02
11055	James White	Booker	19/6/02
11056	George Darby	Bristol & Glos	25/6/02
11057	James Ward	Bidford	18/6/02
11058	Emily Bryce	Bicester	19/6/02
11059	John Bone	Essex & Suffolk	19/6/02
11060	Frank Dobbs	Dartmoor	13/4/02
11061	Huw Williams	Four Counties	29/6/02
11062	Ronald Peach	Bannerdown	29/6/02
11063	Andrew Wood	Southdown	19/6/02
11064	Martin Smith	London	12/7/02
11065	Matthew Weinle	Bidford	23/6/02
11066	Gregory Monahan	Cambridge	17/4/02
11067	John Rayner	Southdown	14/7/02
11068	Phillip Foster	Norfolk	13/7/02
11069	Karen Denyer	Bicester	14/7/02
11070	Gordon Graham	Stratford	13/7/02
11071	Michael Borrowdale	Surrey & Hants	24/6/02
11072	Paul Daly	Nene Valley	14/7/02
11073	Jonathan Baldock	Bristol & Glos	13/7/02
11074	Chris Gough	Shalbourne	28/6/02
11075	Robert Theil	Pboro & Spalding	13/7/02

UK CROSS-COUNTRY DIPLOMA

Pt 1	William Stephen	Borders	11/5/02
Pt 1	Jane Whitehead	Cambridge	1/6/02
Pt 1	Darren Lodge	Burn	1/6/02
Pt 1	Geoffrey Davey	Trent Valley	1/6/02
Pt 1	Philip Sillett	Norfolk	23/6/02
Pt 1	John Bone	Essex & Suffolk	19/6/02
Pt 1	Keith Grant		19/6/02
Pt 1	Christopher Huck	Cotswold	13/7/02
Pt 2	Jeanette Kitchen	Trent Valley	13/7/02
Pt 1	Gordon Pledger	Borders	13/7/02
Pt 1	Robert Martin	Lasham	13/7/02
Pt 2	Stephen Cook	Cotswold	13/7/02
Pt 1	Robert Theil	Pboro & Spalding	13/7/02

AEROBATIC BADGES

Alexander Yeates	Sports Known	28/3/99
Alexander Yeates	Int. Known/Unknown	2/6/02
Martin Conboy	Standard Known	26/7/02
Caroline Bois	Standard known	26/7/02

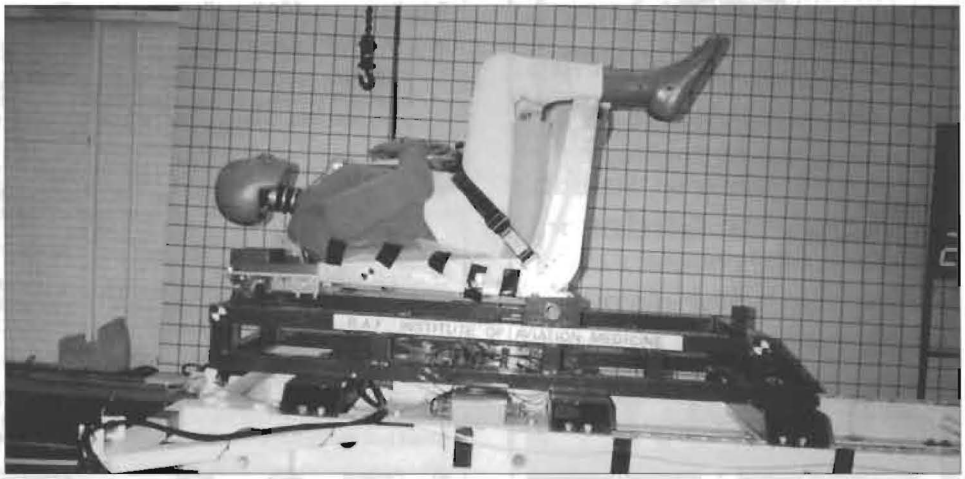
Don't hurt your head to save your back

A RECENT accident in a Standard Cirrus has shown a problem with the use of energy-absorbing seat cushions. As using such cushions in the interest of pilot safety is a BGA *Recommended Practice*, this accident was carefully followed up.

One member of the glider syndicate had been involved in a motorcycle accident resulting in spinal injury and paraplegia. To give added protection to his spine, he put a 2in (5cm) thick Dynafoam cushion in his glider. This cushion was then used by his fellow syndicate members for three years. The pilot involved in the present accident had noticed some problems. The top of his head was only 3/4in (2cm) from the rear canopy arch and the adjacent fuselage frame in flight. On a winch launch, his head touched the canopy. When flying out of a rough thermal and pushing the stick forward, he "bashed" his head on the canopy. He was 5ft 11 1/2in (182cm) tall.

Having tightened his straps, the pilot carried out a normal approach at 50kt (92km/h) and performed a fully held-off landing onto the grass of his club airfield. After a 100ft (30-metre) ground run he ran over a hole in the airfield surface hidden by long grass. His head banged the rear of the canopy frame and the corresponding frame of the fuselage. He suffered symptoms of concussion for several weeks.

The 2in (5cm) cushion has now been replaced by one of 1/2in (1.25cm) thickness. This gives the pilot involved a satisfactory head/canopy clearance of 2 1/8in (5.5cm). To make doubly sure, he has also stuck a layer of 1in (2.5cm) Dynafoam on to the under surface of the fuselage frame concerned.



Impact manikin on the test sledge *(Tony Segal)*

Recommendations

1) For low-profile gliders, with a semi-reclining seating position, use a 1/2in (1.25cm) thick Dynafoam cushion. This will also be flexible enough to fit the double curvature of the seat pan.
2) For upright seating position training gliders use a 1in (2.5cm) thick Dynafoam cushion.
3) For some types of motorglider there may be sufficient headroom under the canopy to use a 2in (5cm) thick Dynafoam cushion.
4) A very tall pilot, or one with a large sitting height (the distance from the buttocks to the top of the head), may have to remove the seat cushion and sit directly on the seat pan itself.

Practical use of dynafoam

My following suggestions were first published in *Popular Flying*, the journal of the Popular Flying Association:
1) The cushion should be placed directly on to a firm seating surface, not on to a sprung surface or soft foam cushions.
2) The foam can be easily cut and shaped using an electric carving knife.
3) When sticking two pieces of foam together, an impact adhesive such as Thixofix can be used.
4) If the foam is used in motorgliders or powered aircraft, it can be obtained in fire retardant form.
5) A cushion cover should be fitted. This should be made of porous material, such as denim or thin canvas. If an airtight material is used for the cover it will act as a bladder, and the contained air will cause rebound in an impact accident.
6) The cushion must be firmly attached to the seat. The foam is stiff, and if it were to slide forward in flight it could restrict full backward movement of the control column. However, the cushion must be removable. Various attachment methods are available – using Velcro, lift-the-dot fasteners, press studs, bolting a widened cushion seam to the seat, or tying loops around the seat harness or seat harness anchor points.
7) The material is an open cell foam, and so should be kept dry.

Dynamic testing of foam

The test was carried out on the impact test track of the Defence Evaluation and Research Agency (DERA, now QinetiQ), Farnborough, in 1994, with the support of Sqn Ldr Ian McKenzie (RAF), Les Neil and Mark Rees.

Three Hybrid III manikins were used; a 5th percentile female, a 50th percentile male and a 95th percentile male. The seat pan was an RAF personal survival pack and made of glass-reinforced plastic. The test was carried out at a peak g of 17g, and a vertical impact velocity of 9.4m/s (21mph).

Using the 50th percentile male manikin as an example, I quote the results for the load on the lumbar (lower) spine (in each case, the cushion was of Dynafoam):

No cushion:	2035lb f (9.06kN)
No cushion:	2056lb f (9.15kN)
1/2in thick:	1837lb f (8.17kN)
1in thick:	1690lb f (7.52kN)
2in thick:	1402lb f (6.24kN)

A 1in thick cushion that had undergone four years' hard club use in a K-13 showed only a slight reduction in energy absorption, the recorded spinal load being 1700lb f (7.57kN).
Samples of Dynafoam were rapidly decompressed in three seconds from 5,000ft to 25,000ft in the altitude chamber of DERA, Farnborough, thanks to the help of Wg Cdr David Gradwell (RAF) and Peter Harmer. There was no macroscopic change in the structure of the foam. A Dynafoam cushion should therefore cause no problem when flying at altitude in wave.

Effect of temperature

With increased temperature the vibrational energy of the atoms increases, resulting in an increase in rebound resilience. A temperature of 80°C is the maximum working limit; above this there is a gradual permanent decrease in properties.

At low temperatures the properties are affected, but the effects are completely reversible. Between 0°C and -25°C there is an increase in hardness, a decrease in resilience, and a slight increase in torsional stiffness. Between -25°C and -30°C to -40°C the torsional stiffness increases rapidly. Polyurethane foams become brittle at -60°C to -80°C

Conclusion

The value of energy-absorbing seat cushions in reducing spinal injury has been clearly shown. However, very tall pilots may be unable to use such a cushion owing to the low height of the canopy of modern low-profile gliders. The pilot should then sit directly on the glider's seatpan.

Tony Segal

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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
36	PA-18 Tug	G-BEOI	Minor	28-Mar-02 1300	Parham	51	None	920

The Super Cub tug was being parked to one side of the launchpoint. As it was turned through 180° the tail started to rise. The pilot switched off both mags but the propeller struck the soft ground as the aircraft came to rest on its nose. The wind was light with gentle gusts but a rut in the ground may have contributed to the incident.

37	ASW 20BL	–	None	Mar-02 1410	Incident Rpt	56	Minor	2069

The pilot was pulling his glider by the nose with the canopy open. His right hand held the cockpit edge just ahead of the front-hinged canopy's leading edge. The canopy fell down and severed the top third of his right index finger.

38	Mini Nimbus	2346	Minor	13-Apr-02 1600	Nympsfield	40	None	136

The pilot was taking a test flight prior to purchasing the glider. Pilots experienced on the type gave a full briefing. The first launch was correctly aborted when a wing dropped and the glider started to swing. Two hours later a second attempt was made. The pilot held the glider on the ground then developed a severe PIO, damaging the glider's nose.

39	Ka6CR	2348	Substantial	13-Apr-02 1314	Nr Perranporth	73	Minor	17

The tug gave the glider a normal tow to an area of lift near the airfield. The glider pilot had some difficulty in maintaining tow position. Upon releasing from tow the airbrakes opened and he did not notice so thought he was in strong sink. He made a hurried field landing during which the glider hit wires and crashed.

40	Pegasus	3578	Minor	29-Mar-02 1500	North Hill	45	None	21

On the pilot's second flight of the day the winch launch speed fell until, at about 500ft, the pilot pulled off. With little room to land ahead a short circuit was flown leaving the pilot rather high. With full airbrake the glider was flown to a landing well down the field in a rough area. The pilot failed to level off properly and landed heavily.

41	Mosquito	4451	Substantial	13-Apr-02 1640	Lasham	61	None	840

The pilot had not flown for nearly five months before taking a soaring flight. After three hours he became tired so returned to the circuit. On final approach he realised he had not lowered the undercarriage. He changed hands on the control column to lower the gear but in doing so lost control and substantially damaged the glider.

42	K-21	3673	Minor	02-Apr-02	Nr Lasham	72	None	29

The pilot was winch launched for a local soaring flight. At the top of the launch he turned right, downwind, and lost sight of the airfield in the misty conditions. He made a crosswind landing in a short, downsloping and stony field with wires at both ends. The fuselage and wing tip were damaged by the rough surface.

43	SZD Puchacz	3947	Minor	01-Apr-02 1315	Camphill	56 –	None None	2380 466

As it was cold in the stiff breeze P1 closed the canopy as the experienced P2 did his straps up then his pre-take off checks. At about 300ft P2 signalled that the winch launch was too fast. At this point the canopy flew open. A safe landing was made. Possible causes were - weak overcentre lock or catching lock with sleeve while closing CV vent.

44	Vega	2614	Minor	14-Apr-02 1410	Husbands Bosworth	58	None	197

After about 100 metres into the aerotow ground run the undercarriage collapsed. This trapped the towrope so the pilot could not release. However, the tug pilot noticed the problem and released. Examination showed it was possible to retract the u/c with the operating lever in the locked down position. Possible component failure is being investigated.

45	K-13 & K-21	1481	Minor	13-Apr-02 1658	North Hill	52 56	None None	209 351

This mid-air collision occurred when a solo K-13 was on a left hand circuit and a dual K-21 was on a right hand one. The solo pilot had seen the K-21 and thought he had turned finals with sufficient separation. P1 in the K-21 had seen gliders on the opposite side of the field but none in the circuit. The gliders touched wings but kept control and landed OK.

46	Capstan	1191	Minor	01-May-02 1520	Bicester	45 44	None None	4050

During an instructor training flight a "high speed stall" manoeuvre had been completed and the glider was returning to the circuit when the rudder failed to respond to pedal input. After a handling check to confirm this P1 made a safe landing. The rudder drive torque tube had failed at the lower end due to internal corrosion.

47	LS8	4178	None	28-Apr-02 1700	Jaca, Spain	56	None	

After encountering very strong sink from curlover in the high key position the pilot made a hurried circuit and omitted to lower the wheel. The glider was landed wheel up on the gravel runway.

48	Ventus CT	–	None	May-02 1240	Incident Rpt		None	200

At the top of the aerotow the pilot found the rope would not release. The tug pilot flew back to the airfield then released his end and both landed safely. Examination showed that the release worked normally but the large Tost ring had jammed in the GRP housing opening which contained both the release and a pitot tube and was slightly too small.

49	K-13	2285	Minor	05-May-02	Wormingford	29	None	59

The pilot had completed a check flight and one solo circuit. He checked the canopy was closed including "pressing lightly with his fingers on the canopy". Despite this, at 500ft the canopy flew open with a bang. He lowered the nose, closed the canopy then released and flew an abbreviated circuit to a safe landing.

50	K-13	1508	Minor	21-Apr-02 1534	Sandhill Farm	67	None	126

The pilot turned finals too far out from the field and flew a very shallow approach with little or no airbrake as he realised he was too low. Flying at 60kts he failed to notice a tree in the boundary hedge and hit it with the glider's left wing. He corrected the swing and landed safely. His speed could have been used to over fly the tree.

51	SF27	2956	Minor	21-Apr-02 1510	Winthorpe	39	None	16

This was the pilot's fifth launch on type. The glider was seen to have a prolonged ground run with the nose held down. The cable back released, probably on the ground, and at that stage the pilot rotated into a climb. Realising the cable had gone, he lowered the nose and opened the airbrakes, then closed them, ballooned and landed heavily.

➢

Accident/incident summaries (cont.)

AIRCRAFT Ref	Type	BGA No	Damage	DATE Time	Place	PILOT(S) Age	Injury	P1 Hours
52	DG-303	4955	Substantial	May-02 1700	Incident Rpt	68	None	1746

The pilot landed out and arranged for an aerotow retrieve to his base. During the tow the combination moved towards a lowering cloudbase and started to descend. The glider pilot became uncomfortable with this and decided to release. He selected a field and landed normally but failed to notice a rut which caused the glider to groundloop.

53	Pilatus B4	–	None	03-Apr-02 1700	Portmoak	35	None	150

The pilot was making an approach across the direction of launching so as to land near his trailer. While on finals a K-21 was launched as none of the launch crew had seen him. When the K-21 reached about 400ft the winch driver noticed the other glider and stopped the launch. The cable only missed the glider by about 50ft.

54	SZD Puchacz	3576	Minor	20-Apr-02 1626	Aboyne	45 50	None None	3000 0

P2 started the aerotow take-off with the stick too far back. P1 prompted him to move it forward when the glider "leapt into the air". P2 corrected by pushing too far forward. At this stage P1 took control but, during a sharp roundout, over controlled and struck the tail on the ground, which damaged the tail wheel.

56	K-8	2717	Minor	16-May-02 1130	Aston Down	62	None	4

The early solo pilot had coped well with his first crosswind (10-15kt) landing that day except for a gentle ground loop as the glider came to a halt. After a briefing to try to land more into wind he was cleared to try again. However, he again flew a crosswind approach but this time rounded out too high and landed heavily.

57	Mosquito	4451	Minor	11-May-02 1540	Lasham	–	None	750

The pilot was making a crosswind landing when he lost control during the ground run, allowing the glider to weathercock into wind. Rolling very slightly downhill, the glider hit a parked trailer.

58	Mistral C	4803	Minor	04-May-02 1840	Nr Lasham	38	None	115

On a cross-country flight the pilot had to make a field landing so chose a field in good time. The size, wind direction, surface and obstructions were checked OK. However during the ground run the left wing caught in a clump of crop and caused the glider to ground loop.

59	LS8	–	Substantial	May-02 1600	Incident Rpt	–	None	450

The pilot had landed out at a military airfield and had called out a colleague to assist in the retrieve. The de-rigging was carried out in very gusty conditions. While the two men were carrying one wing a gust hit the glider and spun it around through 180°. The other wing narrowly missed one man and resulted in a written-off wing.

60	K-13	3656	Substantial	26-May-02 1420	Cwmdu Valley	51 48	None None	1784 0

The experienced instructor attempted to ridge soar in variable wind conditions and found himself in strong sink and cut off from a valley leading to landable fields by a spur. He chose the only available field was 200m across the diagonal with an up-slope. He landed at speed and rolled across a 1m-deep undulation, which damaged the fuselage.

61	DG-300	4944	Minor	05-May-02 1653	Talgarth	–	None	356

After a soaring flight the pilot returned to the site lowering the gear early to make clear his intention to land. The gear lever was confirmed in the down and locked position during the downwind leg but never-the-less it collapsed immediately upon landing.

62	LS6B	4426	Minor	01-Jun-02 1445	Much Wenlock	35	None	275

While on a cross-country flight the pilot had to make a field landing. He chose a large freshly-cut silage field with a slight upslope. On finals he saw a large hollow so aimed to one side of that. This area had more of an upslope than the original area so he shut the brakes but was flying at only 55kts and landed heavily, collapsing the u/c.

63	K-21	2871	Substantial	03-Jun-02 1430	Dunstable	51 20	None None	656 0

During late *ab initio* training P1 simulated an "awkward height" cable break with just enough space to land ahead. P2 chose to fly a dog leg but then opened the airbrakes while the speed was decaying. P1 took over too late to fully recover and stop the glider drifting towards a hedge. The glider landed heavily and a wing struck the hedge.

64	K-18	2973	Substantial	20-Apr-02 1500	Parham	63	None	8

The low hours pilot was seen to start the aerotow launch with coarse control movements. As the glider accelerated he held the stick too far forward and the glider stayed on the ground well after the tug became airborne. He pulled off with only 100m of the strip remaining, did not use the airbrakes and groundlooped the glider, buckling the fuselage.

65	ASW 20CL	3516	Substantial	21-May-02 1025	Saal Germany	53	None	2192

The glider was being aerotowed from a grass runway in Germany when, after holding full left aileron to maintain the wings level, the right wing dropped positively on to the ground. The pilot immediately released but the glider turned through 30° and ran off the runway into a three-foot ditch. The left wing tank had leaked its waterballast.

66	LS8	4974	Substantial	18-May-02 1836	Ocana Spain	38	None	1500

While on a straight in approach from a competition final glide in Spain, the pilot forgot to lower the undercarriage. Someone inadvisedly called "undercarriage" on the radio and the pilot reacted by taking his hand off the airbrake lever to lower the wheel. While doing this he lost control of the glider which hit the ground heavily on the nose.

67	Discus CS	4608	Write off	01-Jun-02 1218	Cosford	21	Minor	42

The winch launch went normally until, after rolling about 20ft, the right wing tip touched the ground. The glider continued accelerating as it swung around through 70° and became airborne. The cable was seen to detach at this point and the glider impacted vertically from about 15ft. The nose was demolished but the pilot survived.

68	K-21	2591	Minor	30-May-02 1615	Booker	– –	None None	102 0

The aerotow commenced with a heavy shower nearby. Encountering heavy rain the glider released and the instructor became disorientated in heavy sink and near zero visibility. He lost the airfield and had to hurriedly land in the canopy of a forest as no clear fields were to hand. Both pilots were uninjured despite being trapped 40ft up in the trees.

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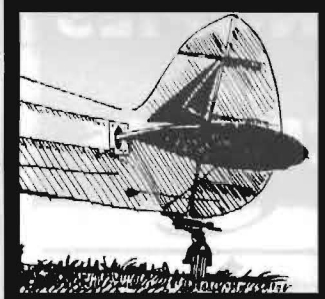
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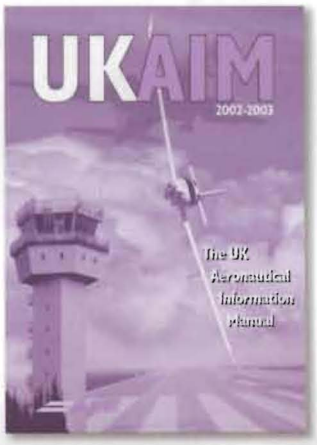
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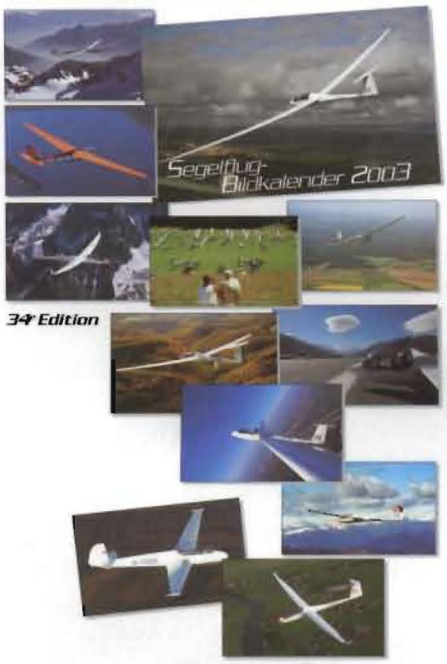
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