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VOL. 62 NO. 1

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Winter flying doesn't have to be dull. Why not try formation flying and dual towing? **Mike Collett** explains the Booker approach



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COVER STORY

Booker GC members have been learning dual tow and formation flying skills this winter. Our cover picture shows Gerry Leech tugging, with Doug Hilton/Simon Bull and Graham Saw/Mike Collett in the club K-13s. For the full story turn to page 38 (*Mike Collett*)

DEADLINES

April/May 2011

Articles, Letters, Club News: 9 February
Display advertisements: 23 February
Classifieds: 8 March

June/July 2011

Articles, Letters, Club News: 8 April
Display advertisements: 22 April
Classifieds: 6 May

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› The GAPAN Young Members group is sponsoring two gliding scholarships, to be flown during the second week of August (weather permitting) at Lasham. The aim of the scholarship is to assist an individual, who might otherwise not have the necessary resources, to achieve their BGA A Certificate (first solo). Candidates will also be expected to take the Bronze C exam. The scholarship will cover training (five days), accommodation (five nights), and BGA A certificate application and examination costs. Full details of the entry requirements are on the application form at www.gapan.org/file/250/gliding-scholarship-2011.pdf. The closing date for applications is 23 March and interviews will be held in London on 3 May, 2011.

› Applications for Royal Aero Club bursaries must be in by 31 March. Bursaries include The Peter Cruddas Foundation Scholarship (worth up to £1,000), The President's Award (two bursaries each worth up to £750) and a number of additional bursaries worth up to £500 each. They will be awarded to 16- 21-year-olds who wish to progress in their chosen air sport. Full details, rules and an application form are available at: www.royalaeroclubtrust.org

› Representing Britain in a busy year for internationals are:

Europeans (flapped) - Lithuania

Open Class: Pete Harvey (reigning champion), Steve Jones, Kim Tipple, David Findon (reserve); 18 Metre Class: Russell Cheetham (reigning champion), Gary Stingemore, Ed Johnston, Derren Francis (reserve); 15 Metre Class: Chris Starkey, Tim Scott, Matt Cook (reserve)

Europeans (unflapped) - Slovakia

Standard Class: Sarah Kelman, Matt Cook, Howard Jones (reserve); Club Class: Allan Tribe, Jon Meyer, Tim Macfadyen (reserve).

Womens Worlds - Sweden

Standard Class: Gill Spreckley, Fran Aitken; Club Class: Liz Sparrow, Ayala Liran; Jane Nash (class to be confirmed).

Junior Worlds - Germany

Tom Smith, Andy May, Matt Davis, Andy Cockerell, Luke Dale, Will Chappel (classes to be confirmed), Oli Barter (reserve)

› Want to improve your cross-country racing skills? Members of the British Team and local pundits will be on hand to help at the Comp-ette, running again this year at Lasham and Pocklington on 30 April/ 1 May. The event aims to improve skills through a combination of talking about it and doing it. The entry fee is held at £10. Please email Liz Sparrow (ebertoya@jee.org) to book a place at Lasham, or Tim Milner (timmilnervs@gmail.com) for a place at Pocklington.



HRH The Duke of Gloucester presents Tony World (Portsmouth Naval) with the prestigious Torch Trophy Trust award (George Blonsky)

LEADING LIGHT LIFTS THE TORCH TROPHY

TONY WORLD, of Portsmouth Naval Gliding Club, was presented with the Torch Trophy Trust award by His Royal Highness The Duke of Gloucester at a special event in London on 15 November, 2010.

The Trust presents annual awards to individuals who have been identified as making an outstanding contribution, as a volunteer, in their chosen sport.

Tony was nominated for an award by the BGA. Diana King, chairman of the BGA Development Committee, said: "Tony has been a formidable driving force within Portsmouth Naval Gliding Club for over 30 years. His infectious enthusiasm and practical encouragement has kept the club alive and helped countless pilots to make the most of their abilities."

DATES

NATIONALS, REGIONALS AND OTHERS

Women's Worlds	Arboga (Sweden)	15-27/6/11
Standard Class Nationals	Bicester	25/6-3/7/11
Competition Enterprise	Sutton Bank	2-9/7/11
18m Class Nationals	Tibbenham	9-17/7/11
European Champs (unflapped)	Nitra (Slovakia)	17-30/7/11
European Champs (flapped)	Pociunai (Lithuania)	31/7-14/8/11
Junior World Championships	Musbach (Germany)	6-20/8/11
Club Class Nationals	Pocklington	6-14/8/11
Open Class Nationals	Lasham	20-28/8/11
15m Class Nationals	Hus Bos	20-28/8/11
Junior Championships	TBA	20-28/8/11
Two-Seater Competition	Pocklington	21-28/8/11

■ **BGA Conference and AGM, 5 March, 2011 at The Belfry Hotel, Nottingham**

LASHAM REGIONALS

Lasham 28/5 - 5/6/11

EASTERN REGIONALS

Tibbenham 28/5 - 5/6/11

BICESTER REGIONALS

Bicester 23-31/7/11

DUNSTABLE REGIONALS

Dunstable 23-31/7/11

NORTHERN REGIONALS

Sutton Bank 23-31/7/11

MIDLAND REGIONALS

Husbands Bosworth 23-31/7/11

SHENINGTON REGIONALS

Shenington 6-14/8/11

GRANDSDEN REGIONALS

Gransden 20-28/8/11

LOBBYING AGAINST EASA PROPOSALS

THE European Commission EASA committee has received EASA's proposed implementing rules for pilot medicals. These will be considered in February, with agreement by the EASA committee scheduled to take place in May.

The detailed Acceptable Means of Compliance will not be finalised until the implementing rules have been adopted, following any necessary political process, at some point after May. These include implementing rules for a GP medical, which will replace the GP endorsed self-declaration. The proposed rules as they stand are likely to result in a disproportionately restrictive and expensive outcome when they apply to us from 2015.

The aviation medical examining industry in Europe generates income of many hundreds of millions of euros from JAA medicals. EASA employs former and current Aviation Medical Examiners as advisors and appears to be influenced by representatives from Member States

where it is likely that a tradition of control rather than good rulemaking has prevailed. It is, therefore, no surprise that proposed additional requirements brought about by the EASA medical proposals have not been included because of a safety need. The UK CAA's Chief Medical Officer has demonstrated to EASA that the medical incapacity risk under the GP endorsed self-declaration medical system is at least equivalent to that of the holder of a JAA medical. Unfortunately, EASA as a general rule appears to rely heavily on selected expert opinion and doesn't seem to respond well to counter evidence.

The BGA is engaged with its UK and European partners in lobbying for a proportional outcome during Commission and perhaps even Parliament deliberations on the EASA medical requirement. There may be a need, in due course, for members to contact MPs and MEPs and the BGA will advise the membership as the situation unfolds and, of course, provide the necessary details.



Keith Mansell MBE

Keith Mansell is awarded MBE

KEITH Mansell has been awarded the MBE in the New Year Honours List for his services to gliding. The award recognises the immense contribution that Keith has made to the sport over several decades. He was the BGA Treasurer for 23 years, served multiple terms on the executive committee and is now company secretary. Keith has served his own club, Midland GC, in a variety of roles over the years: CFI, treasurer, chairman and now president. He is also the Royal Aero Club Treasurer. Well done Keith on a well-deserved honour. ■ Congratulations also to Tony Segal, who has been appointed to an honorary fellowship of Brunel University, Uxbridge.

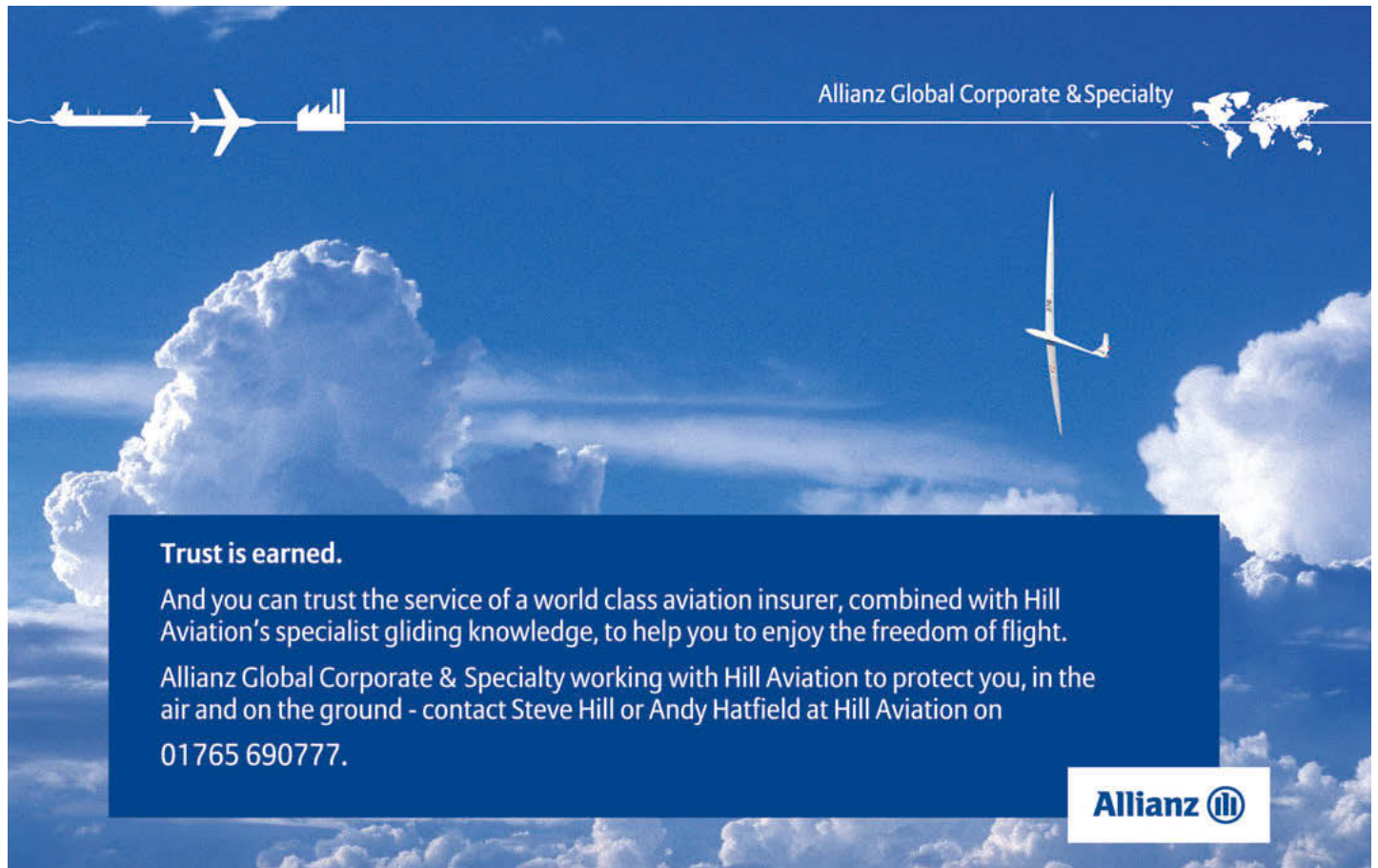
Talks and toys at BGA conference

MAKE a note in your diary not to miss the 2011 BGA Conference and AGM. It is being held on 5 March at The Belfry Hotel, Nottingham and features pre-conference sessions for club chairmen and CFIs, a highly visual presentation from gliding aerobatic experts, amusing tales from the 2010 world championships, and the opportunity to put your airspace, licensing and airworthiness questions to a panel of CAA professionals. There will also be a range of trade stands, with glider agents displaying some of the latest toys. Award dinner tickets, at £35 per head, are now available online at www.gliding.co.uk

Gliding with dinosaurs



■ **DAVID ATTENBOROUGH** in a glider flying alongside a pterosaur is not something you see every day! Computer-generated effects are mixed with live action footage in *Flying Monsters 3D*, which premiered on Sky 3D TV on Christmas Day and is being screened at IMAX cinemas worldwide this spring, before returning to Sky later this year. Turn to p14 to read about Devon & Somerset GC's involvement in this documentary, which tells the story of pterosaurs. (Image courtesy of Sky 3D)




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Please send letters (marked 'for publication') to the editor at editor@sailplaneandgliding.co.uk or the address on p3, including your full contact details. The deadline for the next issue is 9 February

HOURS ON THE GROUND COUNT

I HAVE just subscribed to S&G, so didn't see Platypus' original article (*Tailfeathers*, p17, Aug/Sept 10).

However, your responders (*Letters*, p7, Dec/Jan 11) seem to have missed a point. Yes, it does take 10,000 hours of practice to make a genius, but for glider pilots that does not mean 10,000 hours in the air. All of the time spent thinking and learning about gliding count towards the 10,000. So that means time spent on the airfield (and off) looking at the weather, studying meteorology, aerodynamics, competition rules, reading books by top pilots, and 'flying in your head'. What you can't do on the ground is learn about energy lines and changing weather patterns.

I well remember Bernard Fitchett's approach, which was to fettle his glider all winter, turn up at the first spring comp and win!

My own experience? In 1975, with 120 hours, I won the first two days of my first comp, but it was all downhill after that! Now, after a 25-year break from flying, my first flight was a 40-minute soaring flight, so thermalling was almost automatic from the start.

Iain Murdoch, Rugby, Warwickshire

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Airspace, responsibility and a great year ahead



BGA Chief Executive Pete Stratten reports on actions being taken to improve airspace safety and looks at the part that we, as individuals, can play in this

THE BGA is actively involved with the Airspace Safety Initiative – an industry, CAA and MoD ongoing project that, among other airspace safety aims, is reducing infringement of controlled airspace. As you would imagine, there is a lot of discussion and some valuable activity, particularly by the gliding community, led by the BGA, where internal monitoring activity plays a significant role in helping us to identify shortcomings and reasonable improvements necessary in our safety performance.

Our own and others accurate statistics, coupled with skilled analysis, play a crucial part in that work. As in identifying any safety concern, it's very important to avoid opinion-based hypothesis and to carefully consider the evidence.

The annual infringement statistics produced by NATS demonstrate that although the numbers of infringements dropped in 2010 – reflecting perhaps some great work at clubs, flying schools, commercial operators, airlines and RAF squadrons – there's an underlying issue that none of us should ignore in that each year a lot of aeroplanes and a few gliders are infringing temporary or permanent controlled airspace.

The Airprox Board also produces detailed statistics. These demonstrate that many late sightings and a number of almost-collisions occur between all classes of aircraft in all classes of airspace, both under and outside air traffic control.

Focusing on Class G airspace, it is apparent that there is a need for much better understanding by all users of the intent of others. With that in mind, the BGA is already developing an educational presentation about the 'where and why' of gliding that will be sent out to civilian and military operators, including

controllers, early in 2011. In addition, we are discussing with the CAA how we can work together, through existing or new processes, to improve operators' ongoing and day-to-day awareness of gliding activity.

So how can we, as individuals, improve airspace safety? Early last year, the BGA modified the Bronze Badge requirement to include additional checks of altimetry and NOTAM awareness, as well as revised guidance for training and testing of navigation. These basics will need ongoing reinforcement.

Experience in 2010 has identified a need to modify elements of our guidance to competition organisers for 2011 onwards.

All of us, whether pilots, instructors or CFIs, need to keep the pressure on to encourage individual responsibility. Using up-to-date GPS map data, carefully checking NOTAM info, using the AIS freephone number, careful use of the 1/2 mil and, crucially, understanding and respecting the needs of others with whom we share airspace, all contribute to safer airspace.

Gliding has faced a number of challenges over recent years, not least of which is EASA regulation. The BGA has developed, and continues to develop, organisationally to ensure that it can support the needs of its member clubs, to develop participation and to protect the sport. For the foreseeable future, the challenge of providing development support and, where required, helping clubs to increase participation will occupy an increasing amount of the BGA's efforts.

Promotion of gliding is an obvious ongoing need. Ever tried to explain what gliding is? How about a suggestion by a BGA volunteer working to develop our sport – "gliding is a sporting and recreational activity exploring the potential of unpowered flight". I think that's a neat description of a sport with seemingly endless opportunities to set ourselves challenges, to experience highs and lows and to have a huge amount of fun with a diverse bunch of people who share the same passion for soaring.

OPTIMISM, CHALLENGES AND AN MBE

BGA Chairman **Patrick Naegeli** comments that Keith Mansell is a truly deserving candidate for an MBE, and reports on a sense of cautious optimism on the part of many clubs, despite a tough 2010 and the challenges facing us in 2011



IT WAS with tremendous pride that I read of the award of an MBE to Keith Mansell in the New Year's Honours List. Whilst Keith's award was principally for his services to gliding, it might just have well have been for any one of the wide range of things that he has also done in support of his local community.

As many will know, Keith has been at the centre of UK gliding for several decades, at both local and national levels. He has served his home club, the Midland Gliding Club – where he is now president – in a variety of roles over many years. I did not, however, fully appreciate just how much he had contributed to the club until I had the great privilege of being invited to its 75th Anniversary celebrations in the summer of 2009. It was clear from my conversations with many people, and from the speeches that were made during dinner, that Keith has played a vital role in some of the most formative periods in the club's history.

The BGA also owes Keith an enormous debt of gratitude. He was BGA Treasurer for well over 20 years, a post that he held while he also served multiple terms on the Executive Committee. If all that was not enough, he is a continuing Trustee of the Philip Wills Trust. Obviously short of things to do, Keith volunteered to be BGA Secretary a couple of years ago.

Aside from the work that he does in each of his various capacities, Keith is a valuable counsel and source of information. Having been around for so long, he has seen just about everything. His knowledge of events – what happened, when, why and through whom – and historic precedents is regularly referenced by me and my colleagues.

In recognition of his many years of outstanding service, Keith was awarded the BGA Gold Medal in 2005.

Keith's contributions to aviation are not limited to his gliding activities. He is also a long-running member of the Council of the Royal Aero Club, where he is Treasurer and a member of the

Medals and Awards Committee. An all-round, truly deserving candidate.

Of course, Keith is not without his "endearing characteristics". His concern with approximate rather than precise punctuality does at least allow the rest of us some much needed, if unscheduled, thinking time before discussions actually start. I have no doubt, however, that he will be at the Palace on time. Just don't ask me to put any money on it...

Aside from Keith's MBE, we go into 2011 in pretty good shape as a movement. I came away from last autumn's Chairmen's Conference with a clear sense of cautious and pragmatic optimism on the part of many clubs.

There are, however, a number of challenges that we are likely to face in 2011 that will test our resilience as a movement.

2010 was not the easiest of years. The UK economic situation could be best described as fragile. The government laid out plans for an overhaul of public sector finances and national fiscal policy that will affect everyone – individual citizens as well as collective groups. The recent rises in VAT, fuel duty, energy bills and above inflationary increases in many other unavoidable costs will hit hard and quick. It is clear that the uncertain economic environment that we had been experiencing from late 2008 will continue into 2011, and maybe even beyond. Many of the downsides are already here or about to arrive.

For some groups, we know things will get especially tough. The planned rise in university tuition fees, for example, will only make the costs of being a student that much greater. At the same time, employment prospects for young people completing their education remain soft. All of these things come at a time when the BGA is looking to stimulate growth in youth gliding.

I do hope that my comments do not come across as those of a doomsayer, but as a practical set of observations of some of the things that we need to be especially prepared to deal with.

The BGA has revised its own objectives for 2011 so that it can:

- Maintain an appropriate balance of concern for development and regulatory activities – it would be all too easy to do nothing but deal with EASA stuff and not focus enough time on making sure that we have a vibrant and growing, not just compliant, movement.
- Plan and operate prudently, achieve a balanced budget, and be prepared to adjust activities in line with the club and external environments.
- Remain appropriately sensitive to the specific needs and predicaments of clubs and individuals.

The most important thing that any of us can do, however, is to fly, and enjoy our flying, as much as we can. That is, after all, what it is all about.

Have fun, stay safe.

Patrick Naegeli
Chairman, British Gliding Association
January 2011

SAILPLANE & GLIDING



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Carr Withall
Airspace



Alison Randle
Development



Bruce Stephenson
Vintage gliding

S&G is privileged to be able to call on the advice of some of gliding's leading experts. If you have a question for our experts on any of the subjects listed above, contact the editor (details p3).

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Part three: The misadventures of Shelby Cargo.



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SAME OLD STORY...

LET'S review what was being said in 2002. By looking at the class of 1997, Jim Rochelle, then chairman of Southdown, showed that over four years the decline in members showed a classic exponential decay pattern with the greatest wastage (60 per cent) occurring in the first two years of membership.

Jim concluded that for his club to maintain a full flying membership of 220, 48 new recruits were required each year. That's 21.8 per cent or a fifth of the club.

Many clubs report a 2 per cent conversion rate from trial lessons, ie 2,400 trial lessons each year to guarantee the 48 new members.

Based on Southdown's current launch rate of about 5,000 a year, only half of club flying would be for the hard-working (potentially quite disillusioned) club members.

Rather than creating whole clubs full of flogged dead horses, at last year's conference we wanted to switch focus from trial lessons firmly onto looking after existing members.

Something very interesting happened – the discussion kept veering back to membership recruitment and trial lessons, which can only mean that many glider pilots (and clubs) are hard-wired to rank trial lessons above club members. A cultural shift is required – which means we all need to contribute.



Alison Randle
BGA Development Officer
alison@gliding.co.uk

What can we do to combat churn?

ARE WE suffering from a collective selective memory? It is 10 years since high membership turnover (churn) was identified as being the primary cause of a year-on-year fall in glider pilot numbers.

In 2002, both Southdown and Derby & Lincs clubs contributed to papers outlining their findings and recommendations, based on research carried out at their respective clubs. Yet you are telling us that membership retention remains an issue for all clubs. We felt it was time to take fresh look at the topic at the recent Chairmen's Conference.



During his presentation, BGA National Coach Mike Fox posed the question "How do committees value things?". As money is a key factor for club survival, it tends to be income-generating items that are valued the most. But what

does the average club member value? Would looking at the way the club offers (and values) training make a difference? Mike joins us here with some ideas for how training can be packaged, presented and managed to give it greater worth within a club.

■ So we lose loads of members in the first year, **writes Mike Fox**. Who has the most contact with those members? To get right to the point; instructors and people that run the airfield have the most contact, so what they do has great influence.

To look at this from a positive aspect, if instructors and associated senior club members are delivering the club 'product', how could we run things so that we keep new members happy, confident and coming back for more?

How is flying training organised and structured?

Good quality in this area aids the student's confidence in the club and instructors. Is training structured properly?

Do your students know what to read up in Piggott (or whatever) for their next session? Do they get good quality ground instruction, as well as airborne instruction?

On the instructors' course, we talk often about this training structure. We model it on the course. Brief in a quiet classroom with time for explanations as to why we are doing the exercises and how to fly them, with Q&A. We then go out to the airfield, have a quick one-minute chat confirming that everyone is happy about who is flying when and observing what. We fly and debrief afterwards.

When we ask if this is done at home, the instructors often say that it's not doable at their club. There are ways, however, that it could be introduced, and I think it's an important aspect of retaining members and their confidence. Please don't dismiss this out of hand.

- At the morning briefing, find out pupils' needs. While others are towing out, do some communal briefs for students.
- One glider and two instructors gives time for quiet briefs and structure.
- Have a known point of contact at the club to organise training when the pupil arrives.
- Recognise that training is not just about time in the air.
- How is training charged for? Time in the air? Then those minutes will be what is focused on and valued by the membership and committee, but what is valued by the student? If a block of structured training was charged for, then that is what would be valued by everyone.
- Some clubs have a bookable system, which gives the opportunity for structured training, including time in the classroom. Members who know of nothing else are surprised at the ad hoc system most clubs run when they go elsewhere!

■ Clearly valuing and caring for existing club members is potentially a more fruitful occupation than constantly chasing new members from trial lessons. The sorts of solutions that Mike is suggesting aren't necessarily complex schemes. What can be done at your club?

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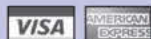


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Figure 1: Schwabbelack results

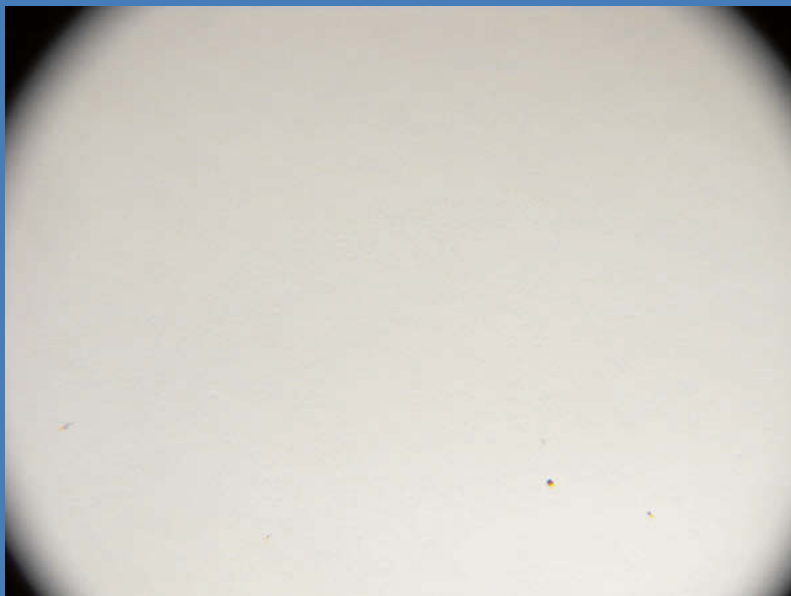


Figure 2: two-pack results

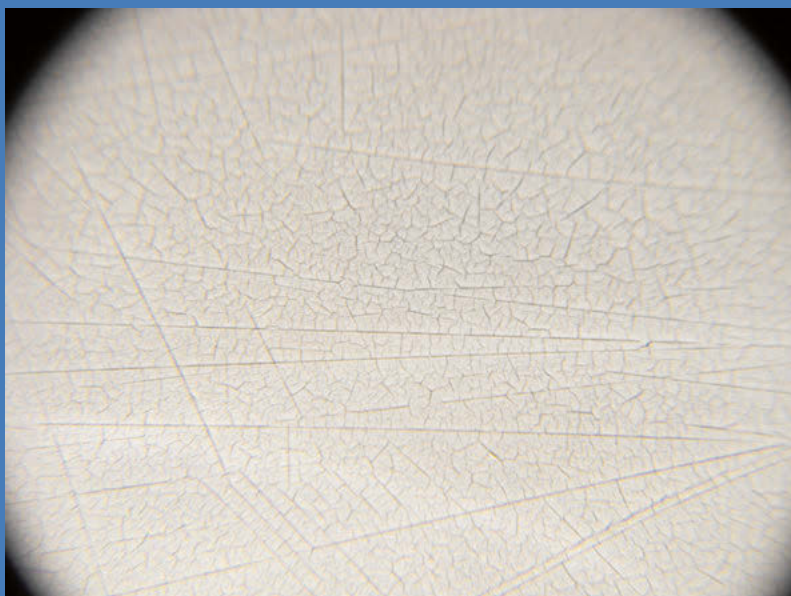


Figure 3: T35 results

FINISH

What happens if you spray samples of the three most popular glider finishes on to a length of wingtip and then expose it to the elements for seven years? Basil Fairston finds out...

I'M SURE most of us have watched the cracks spreading across our gliders as they age and thought of the balance between the cost of refinishing and the performance and appearance benefits it would bring. In November 2003, I was technical officer at Husbands Bosworth and, as a result of a busy winter schedule of refurbishment, I had samples of the three most popular glider finishes to hand. I also had a length of Libelle wingtip from a glider that had come to a sticky end. It was therefore not a great deal of effort to conduct an experiment that I had wanted to do for some time.

I rubbed down the Libelle wingtip and sprayed a patch of T35 gelcoat, a patch of Schwabbelack gelcoat and a patch of two-pack acrylic paint. When they had hardened, I gave them a quick rubdown with 1200 grit wet and dry and an even quicker hard wax polish and wired the wingtip, patches up, on to the roof of our competition scoring Portakabin. I speculated that each year of 24-hour exposure to the elements would be equivalent to several years of normal use. The plan was to see if there was any noticeable difference after a couple of years. Events intervened and I forgot about it until September 2010, almost seven years later.

When I finally removed the wingtip from the roof and examined it, it was covered with green slime and dirt so it was washed in warm water with detergent and dried. First impression was that the two-pack was perfect, the Schwabbelack looked smooth, but slightly dirty, and the T35 was very cracked. Examination under a magnifying glass confirmed the extensive cracking in the T35. The Schwabbelack did indeed have some embedded dirt, but it was only on the surface. It also had some pits in the surface, probably due to the rather brief rub down it had after spraying. A rub down with some 1500 grit wet and dry and a wax polish and it looked smooth and white with no cracks. The two-pack had some embedded dirt, but again a rub over with some paint restorer had it looking good as new.

On the results of this test, two-pack would seem

THING TROUGH

THREE GLIDER FINISHES UNDER THE MICROSCOPE

the best coating to choose for your new or refinished glider, with Schwabbelack a close second, but are there any other factors to be considered?

New glider finishes

The standard finish on Schleicher and Schempp-Hirth gliders is T35. The standard finish on DG gliders is Schwabbelack. All three manufacturers offer two-pack paint as an extra. The gelcoat is still used in the mould, but two-pack is applied as a finish over the gelcoat. This seems to give a long-lasting, durable finish.

However, new gliders tend to shrink over the first few years of life, often causing waves in the wing surface and the glass cloth weave to be visible on the surface. A gelcoat finish is relatively thick compared to two-pack and can generally be rubbed down with fine wet and dry to re-flatten the surface at least once before breaking through to the underlying epoxy. This is unlikely to be possible with two-pack and attempting to remove the shrinkage could leave your glider with patches of a different white where the two-pack paint has been rubbed away.

When refinishing an older glider, shrinkage is less likely to be a problem. If cost was no object, then an option would be to buy the glider in gelcoat and have it rubbed down and re-coated in two-pack after three or four years. This is likely to be more expensive than having the two-pack applied when new, since it will involve transportation to a suitable facility to get the work done, more rubbing down and a new set of hard seals.

Conclusion

In summary, two-pack paint and Schwabbelack gelcoat are both good options for a glider finish and will give many years of service, while T35 will need a re-finish every decade or so, unless it is frequently waxed and kept out of the sun. Whichever finish you choose, it is probably not a good idea to park your glider outside for seven years!

What the agents said:

Peter Wells of Schleicher agent Zulu

Glasstek: Nearly all of the new sales are in

two-pack. It is a 2,500 euro extra, but gives you a glider with a long-lasting finish. If you do need to rub it down to remove shrinkage, you will probably go through to the gelcoat in places but the two-pack can easily be patched and the edges of the patch blend well with the existing paint. Because of the extra process, a two-pack repair is slightly more expensive than a gelcoat repair. For example, a small patch that cost £70 in gelcoat would cost £85 in two-pack.

Steve Jones of Schempp-Hirth agent

Southern Sailplanes: About 80 per cent of our new glider sales are in two-pack. It adds about 3,000 euros to the price of a new glider. Two-pack is very long lived, but is rather soft and easily scratched in comparison to gelcoat. My preferred material when refinishing is Schwabbelack, as it gives a very hard finish compared with two-pack and a longer life finish than T35.

Pox (the small pimples that sometimes appear on gelcoat) may be caused by wet sanding, particularly of polyester filler. Schempp-Hirth now only dry sand when the glider comes out of the moulds until the finish coats are on the seams. They then wet sand to get the final shine.

Right: The old Libelle wingtip used for the test. Above the test patches, the original Schwabbelack gelcoat (probably 40 years old, including the seven years in the open) was in quite good condition

Left, from the top: Schwabbelack – magnification shows some pits in the surface, typical of gelcoat that hasn't been rubbed down enough, and some embedded dirt. To the naked eye it looks very good

Two-pack – a few small surface pits and hardly any embedded dirt. two-pack is a paint and is made to flow into a smooth shiny surface when sprayed. This flowing ability makes it unsuitable for spraying on to a waxed mould as it will not wet out on wax

T35 – extensive cracking



Basil Fairston is a BGA inspector with composites rating, a full cat instructor and the BGA badges officer. After a degree in aeronautical engineering and a brief career in the offshore oil industry, he progressed to become a house-husband and gliding bum. He flies an ASW 27b at Hus Bos



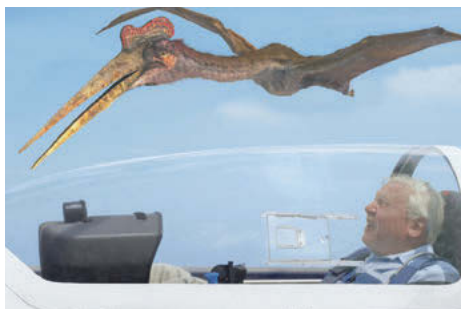


(Above and below) Computer-generated effects are mixed with live action footage in *Flying Monsters 3D*, a Sky 3D documentary telling the story of pterosaurs, giant reptiles thought to have been flying the prehistoric skies more than 160 million years ago (images courtesy of Sky 3D)

IS IT A BIRD? IS IT A PLANE?

NO, IT'S ONE OF THE STARS OF DAVID ATTENBOROUGH'S *FLYING MONSTERS 3D* FILM

Devon & Somerset Gliding Club was delighted to play a role in creating film industry history, as club chairman Peter Smith reports



IT'S NOT every day that we are asked to use the gliding club to help film gliders and dinosaurs flying together, particularly with Sir David Attenborough in the glider.

DSGC is on the Devon/Somerset border and a short hop from the World Heritage Jurassic Coast featured in the film *Flying Monsters 3D*, which premiered on Sky 3D TV on Christmas Day and is being screened at IMAX cinemas worldwide this spring. It is the first time that 3D computer-generated images have been merged with realtime recording to create a natural history documentary. Even Sir David, with a lifetime's experience in television production and management, was excited at the prospect.

The film crew needed to be in easy reach of the Jurassic Coast, and the beautiful countryside over which we fly provides the perfect backdrop. DSGC became the obvious choice of location, enabling us to play a small part in this bit of film industry history.

The closing sequence of the film will show

Sir David presenting from the front seat of the glider whilst flying alongside a computer-generated image of a pterosaur.

We recognised from the outset that we needed to be both flexible and commercial. Initially our DG-505 and Pawnee tug were to be used, but dates changed and the chosen day moved to a club cross-country week when both were already fully committed. Given the potential for claims should any vital club equipment become unserviceable on the day, and the size to which the operation had now grown, we felt it prudent for the film company to be self sufficient. Our treasurer, Peter Field, being well used to dealing with matters of this sort, drafted and negotiated the necessary contracts, which satisfied and safeguarded both parties' needs.

Early on Tuesday 26 May, a vast entourage began to assemble. Helicopter, refuelling bowser and rig, DG-1000 (hired from Lasham), tug, film crews, as well as world champion glider pilot G Dale, who was to fly Sir David.

Together with all the supporting vehicles and equipment, they very quickly took over North Hill! By an act of supreme good management the weather was not conducive to cross-country flying, so the assembled DSGC members were able to enjoy the spectacle and assist as required, and they pitched in wholeheartedly to do so. Roly, our membership secretary, even lent Sir David his shirt so that he in turn could lend his signature light-blue, short-sleeved shirt to our tug pilot, Peter Stapleton, to be Sir David's "stand-in" for some takes. Fortunately Roly has two shirts.

First take was a helicopter filming run along the Jurassic Coast, followed by filming the DSGC DG-505 against a static background, with and without canopy. Next were trial runs with the Pawnee launching the DG with the helicopter flying alongside, above and stationary, to gain every perspective for editing later.

Working alongside the main film team was a subsidiary film crew, recording a programme about the making of *Flying Monsters 3D*. This was shown on Sky TV over Christmas and includes clips of our members in various activities, including John Street, Les Hill and Roland Clarke opening up the hangar and bringing out a glider. In true showbiz tradition, Roly had to open and close the hangar door six times – resulting in just 1.4 seconds on screen!

Sir David was soon immersed in recording to camera, filming and the general ongoing activity. Despite his prominence and worldwide profile, he was totally unassuming and immediately put everyone at ease. He was approachable, entertaining, courteous and obliged with autographs, book signings and photographs, as well as entertaining us with an amazing depth of knowledge and experience, including confessing to a previous flight in a glider which clearly hadn't deterred him! His travel and work schedule would be demanding upon a man



Sir David Attenborough is filmed in Devon & Somerset's DG-505 (photos by Robin Street)

half his age (84). A real gentleman and how different from so many "personalities".

As the day and filming progressed, the cloudbase lifted and the sky cleared to give near perfect conditions, which ran well into the evening, enabling the filming to be completed in the day. All was finally put away and the field cleared and reverted to cross-country mode before close of play.

Robin Street produced a remarkable photo montage of the day, which will doubtless feature in our publicity for years to come.

A wonderful experience for DSGC and all who contributed and enjoyed the day (especially our treasurer some weeks later when the cheque arrived). Undoubtedly, the high spot for me was to be able to invite Sir David to become an Honorary Member of Devon & Somerset Gliding Club, which he graciously accepted. An inscribed and autographed certificate of membership is now prominently displayed in the clubhouse.

Flying Monsters 3D is a groundbreaking documentary featuring computer-generated effects and fictional elements to help tell the story of pterosaurs; giant reptiles thought to have been flying the prehistoric skies more than 160 million years ago.

Sir David Attenborough travels back in time to discover how and why these creatures took flight, and why after 150 million years of aerial domination they vanished.

Flying Monsters 3D was filmed over the summer of 2010, travelling to locations in New Mexico, the Jurassic Coast of Lyme Regis in Britain, an ancient pterosaur landing site in Southern France and a fossil pit in Germany where near-perfect pterosaur specimens have been found.

Sir David said: "3D gives added perception and understanding of how nature works. We can now show bones coming out from the rock to make the fossil remains come to life."

A brief clip about the making of the film can be found at: <http://tv.sky.com/flying-monsters-filming-monsters-and-gliders>

Flying Monsters 3D will return to Sky later this year.



After a day's filming, Sir David accepted honorary membership of Devon & Somerset Gliding Club



Sir David was entertaining and courteous, obliging with autographs and book signings

INSTI

In the last of an eight-part series on how aircraft instruments work, Steve Longland follows up his recent investigation of variometers with a look at why total energy compensation is a genuine 'can't-do-without'

THEORETICALLY, the sum (the total energy) of potential (height) energy and kinetic (speed) energy is a constant (figure 1). During flight a glider can swap speed for height and vice versa, but aerodynamic drag makes energy loss inevitable and, over the course of a flight, the total energy (TE) sum isn't a constant; eventually you have to land. However, for relatively short periods of time the sum can be treated as if it were a constant, and this assumption forms the basis of a fix for an inherent problem with what variometers are measuring, which is the rate of change of pressure at the static ports.

Large numbers of glider pilots don't give the problem a second thought because someone else – either the person who instrumented the glider or the syndicate's dedicated fettler – has already added TE compensation to the variometer and fixed it.

Before looking at what TE compensation is exactly, this is what happens if you don't have it. All an uncompensated variometer responds to is changes in potential energy – ie, the ambient pressure at the static – and providing the glider is flying at a steady speed there's no problem; compensated or not, the variometer indicates the glider's sink rate plus or minus any lift or sink. But take the case of a modest pull-up from, say 80kt into a 30 degree climb. Even in completely still air (figure 2A), an uncompensated variometer will interpret the exchange of kinetic (speed) for potential energy (height) as lift, which it clearly isn't, and the vertical component of the glider's speed will initially be a mightily impressive 4,000ft/min, or 40kt. This is still what's referred to as 'stick lift' and the height you gain is at the expense of the speed you lost getting there. There's no overall energy top-up of the kind you'd get from a thermal. The same massive over-reading also occurs if you dive – presumably one could call this 'stick sink'. In either case, once the speed steadies the variometer will go back to indicating the glider's sink rate.

The real problems start when there's genuine lift and sink about. If you pull up into a thermal the uncompensated variometer will go off the clock, but even if you could see an indication of the real vertical climb rate, what you'd be looking at is the sum (figure 2C, white curve) of the vertical component of the glider's speed (figure 2A) and the strength of the thermal (figure 2B). I could say 'let's assume it's

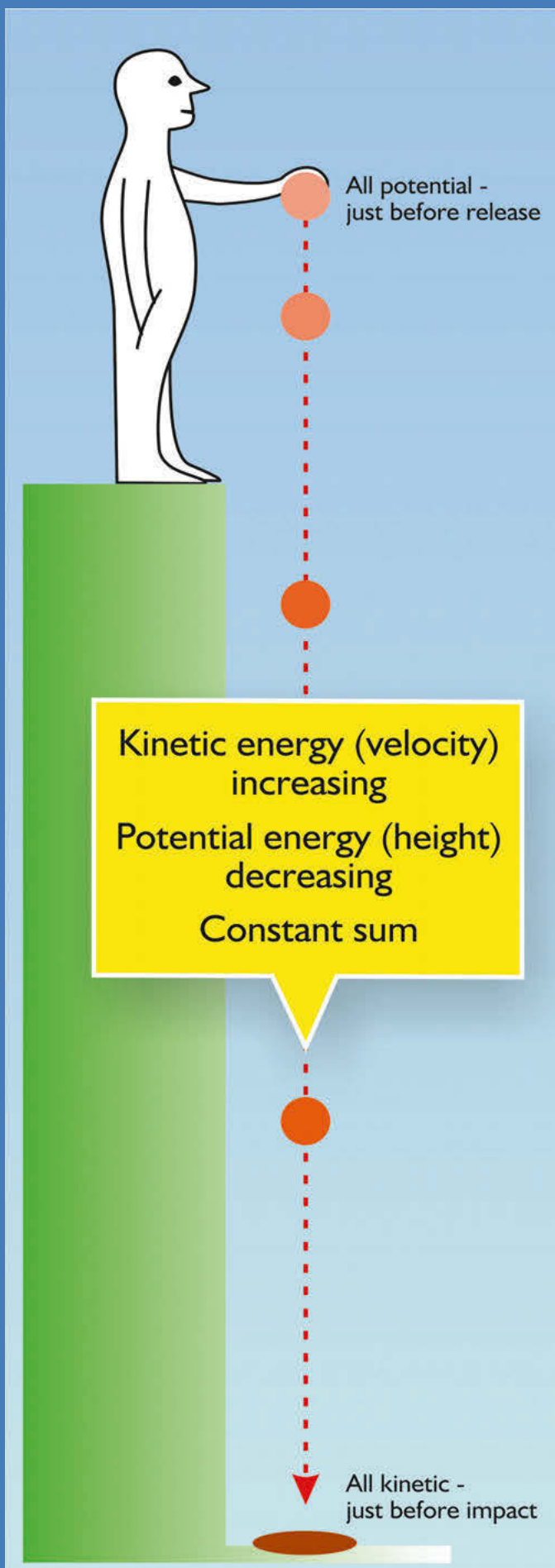


Figure 1: Potential and kinetic energies

RUMMANTS

TOTAL ENERGY

a 4kt thermal' and then set that tiny figure against the initial 40kt climb rate due to the pull up (a ratio of 1:10), but in reality not only won't you know their relative proportions – is it 85 per cent of one and 15 per cent of the other, or 1:1, or 7/93? – but they will change as the glider decelerates, as will the variometer reading.

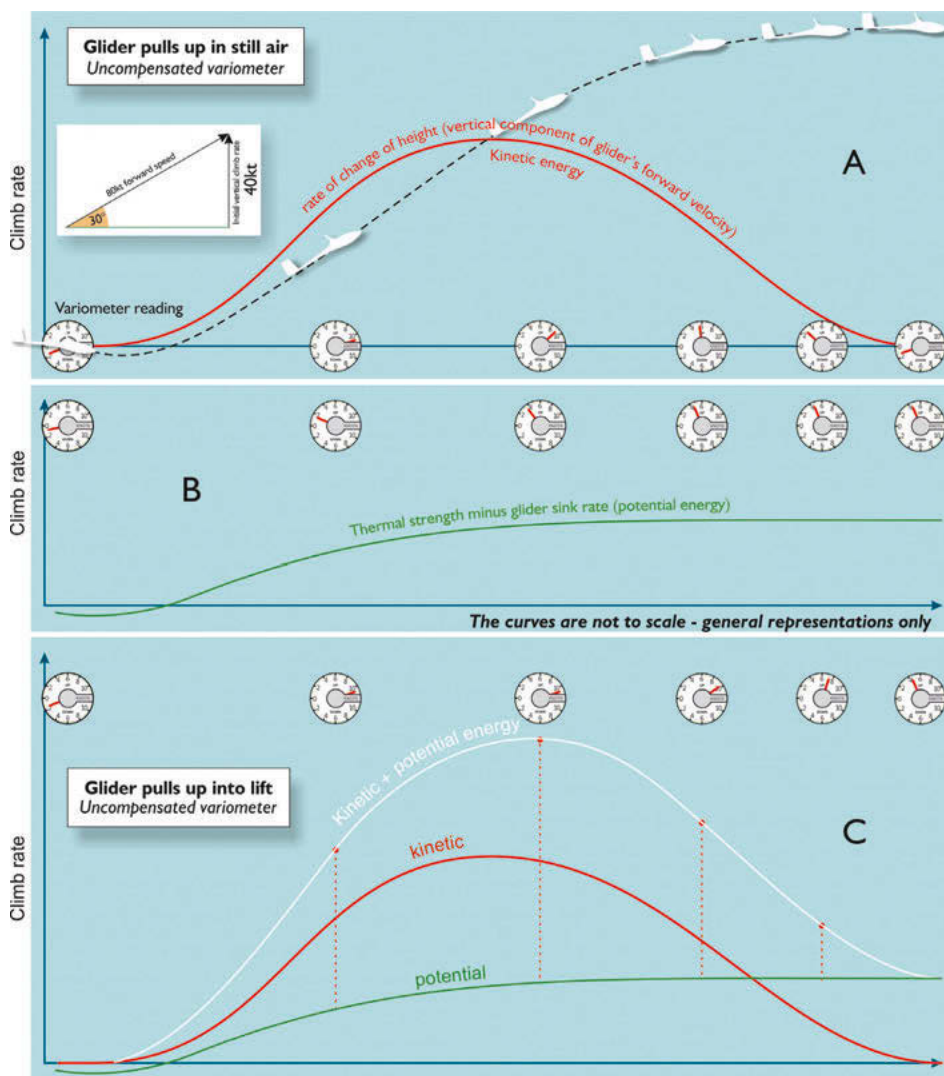
The result is that you won't know how strong the thermal is until you have pulled up and circled at least once, perhaps centred – not always easy to do with an uncompensated variometer – in order to find out whether what you're in was worth stopping for in the first place.

If you decided instead to carry on you'll meet the same problem again a bit further along track, and forever. Marketing love this kind of heartless tease, but on a cross-country it wastes your time and clobbers your average speed.

By comparison, a TE compensated variometer will tell you how fast you are climbing in a thermal, even during the pull up, and, as an added bonus, makes it much easier to centre because now – assuming the TE compensation has been properly calibrated – even small fluctuations in airspeed won't register as lift or sink. There is one exception to this which we'll look at later, but, apart from that, TE compensation is a genuine can't-do-without, particularly for modern gliders with their very high inter-thermal cruising speeds.

Total energy compensation

If we assume that, in the short term, the total energy possessed by a glider really is constant (or at least near enough as makes no difference), then any speed-related gain in potential energy/height will equal the kinetic energy that's gradually being lost as the glider slows down. What this means is that, in principle, we ought to be able to apply a pitot-related pressure correction to the static side of the variometer (in effect, to subtract $2A$ from $2C$), which would then leave us with a variometer that indicated only the effect of lift or sink on the glider (2B).



There are at least three ways of providing TE compensation, but their practical implementation can prove tricky, and system calibration isn't always 'one effortless skip and you're there'. Which is probably why most of us are perfectly happy for someone else to do it.

One early TE compensation system – still in use – comprises a two-part capsule separated by a flexible diaphragm made either of rubber, or very thin metal crinkled into the circular 'ridge and furrow' pattern characteristic of an aneroid capsule. One side of the capsule connects to the static (on

Figure 2: Kinetic and potential components of a climb

THERE ARE AT LEAST THREE WAYS OF PROVIDING TE COMPENSATION, BUT THEIR PRACTICAL IMPLEMENTATION CAN PROVE TRICKY

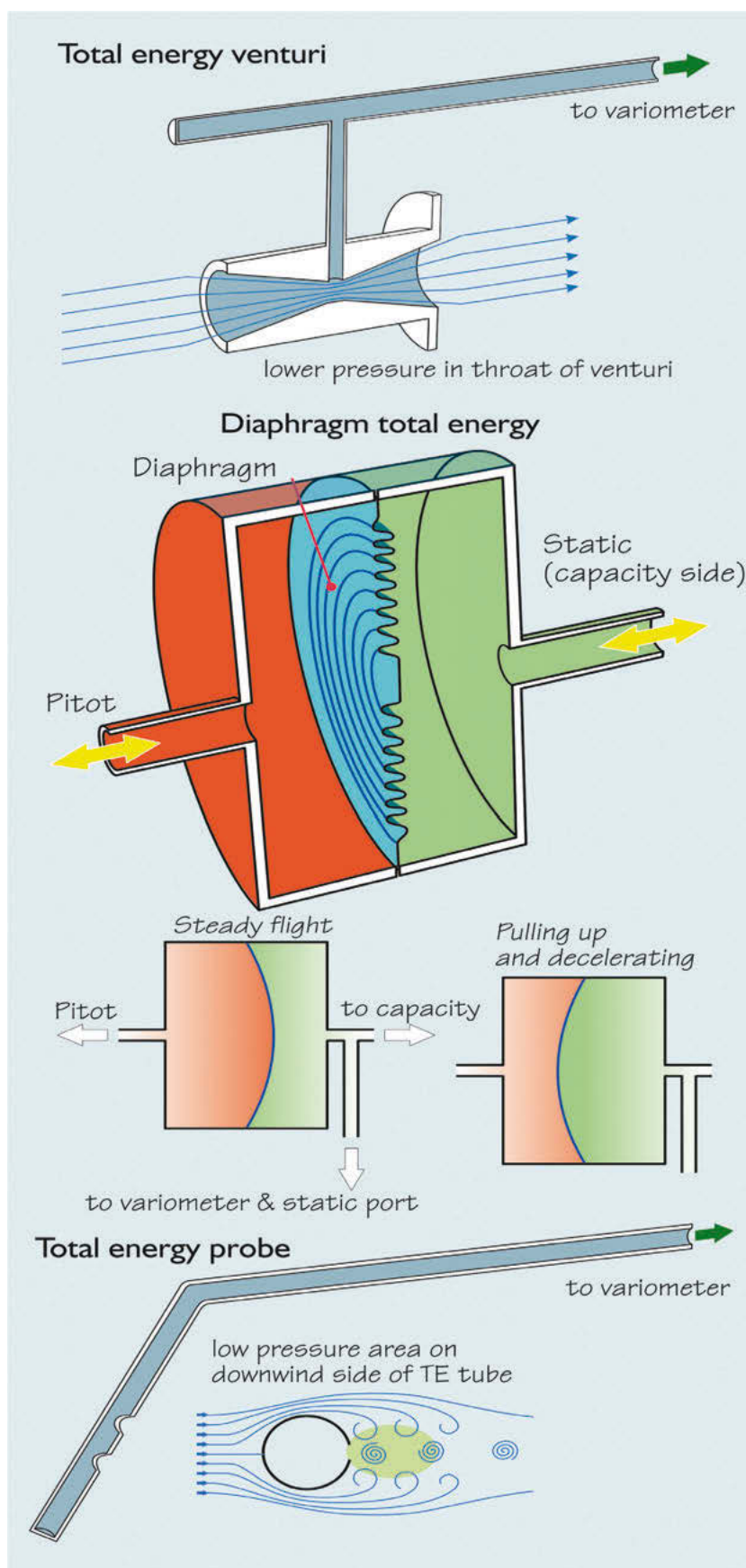


Figure 3: TE compensation devices

the capacity side of the variometer), and the other to the pitot (figure 3 – also 4A for how it is plumbed into the panel pneumatics).

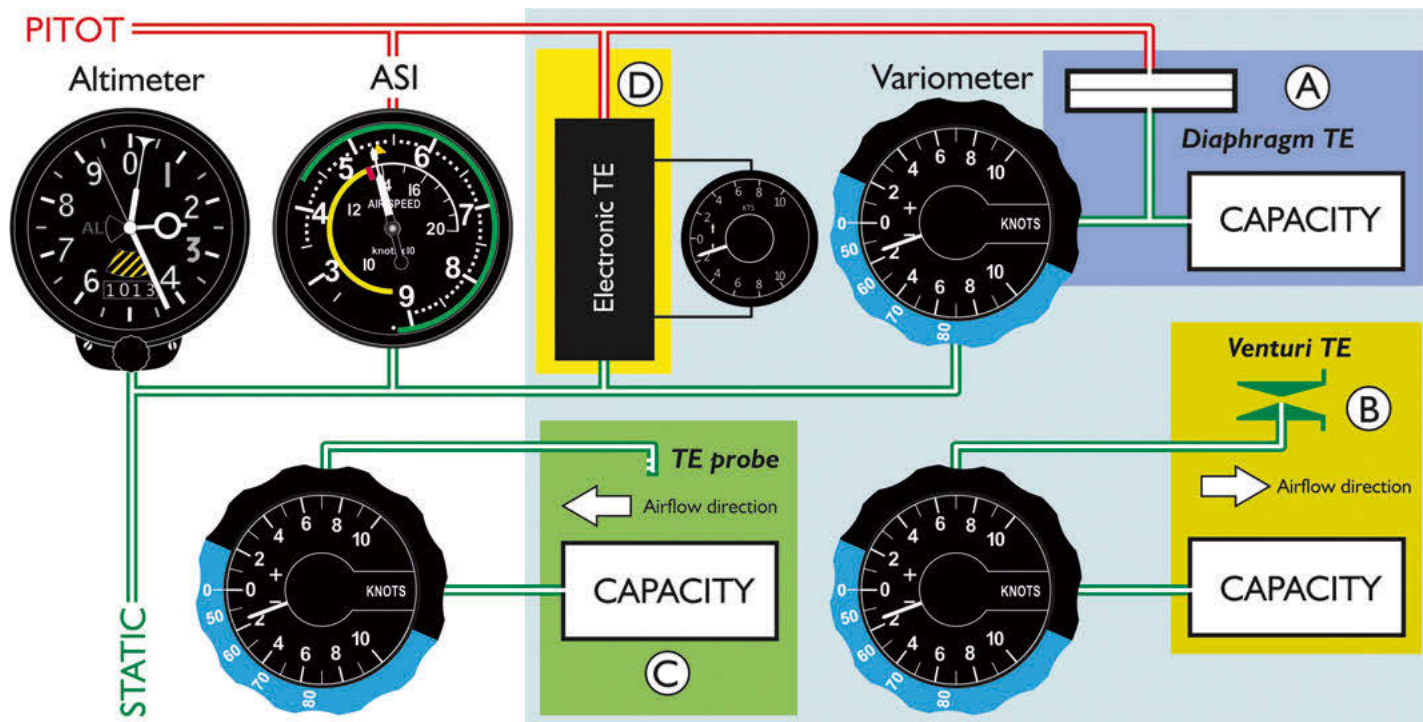
In steady flight, the pitot pressure is invariably higher than the static pressure (if it were the same the ASI would read zero), and this bows the diaphragm towards the capacity side (figure 3). As the glider climbs and decelerates the static and pitot pressures start to fall, with the pitot pressure falling at about twice the rate of the static. This bows the diaphragm towards the pitot side by an amount related to how rapidly the changes are occurring. Since everything on the static side of the capacity counts as 'capacity volume', the diaphragm's bow towards the pitot side marginally increases it, which in turn lowers the capacity pressure and reduces the flow rate. The opposite happens if the glider dives. Once the speed is steady again, the diaphragm won't bow any further. As with all TE systems, exactly the right amount of compensation needs applying at the right moment. Overdo it and the variometer will read sink when you pull up.

The volume of the TE capsule is minute by comparison with the capacity, but even though everything happening inside variometers tends to be a bit lacking in large scale drama, it's still surprising that such a tiny change has a measurable effect. The other effect is to make adjusting the tension in the diaphragm, especially one made of rubber, an experience well worth avoiding. The major drawback of this form of TE is that it only works correctly at one particular altitude...which is dependent on the diaphragm's tension!

Of the other TE compensation devices there are the venturi and the probe, with the latter being by far the most common. Both act as completely independent statics (figures 3 and 4), which simultaneously apply pressure corrections related to the pitot pressure at that instant – that is, to the glider's speed. One consequence of using either of these devices is that the pressure within the TE system is always lower than the ambient, so it is important that there aren't any leaks. Despite this lower internal pressure the variometer will still read zero when the glider is in steady and genuinely level flight, as any variometer should, because the pressure remains constant throughout, so there is no gradient and no flow.

A venturi creates the required suction by an increase in flow speed and related lowering of pressure in the neck. Venturis are less popular than probes because they are easily blocked by rain and are prone to icing. A probe creates suction by having a series of small holes or slots, which open into the low pressure vortices that form on the downwind side of any cylindrical object which lies across the airflow direction, in this case the probe itself. With both devices, the suction and the compensation applied increase as the glider accelerates, and decrease as it decelerates.

Modern electronic variometers apply TE compensation either via the software or the hardware, based on information from two pressure transducers, one on the pitot side and another on the static side. There's no need for any external TE device as such. All that's required is



Illustrations by Steve Longland

that, one way or another, the signal from the pitot side is subtracted from the static side's signal before the result is passed to the variometer.

One apparently insoluble problem with TE systems is the effect on the variometer readings of any gusts with a positive horizontal 'from the front' component. These abruptly increase the pitot pressure (or its equivalent), which the entire TE system interprets as an equally sudden decrease in the static pressure (ie, a climb). The result is that even if the compensation is perfect you can occasionally get indications of lift which are just caused by turbulence.

In conclusion

To have a happy and productive working relationship with an inanimate object like an instrument, you need some clarity about how both of you work. Unfortunately, 'users' – according to many engineers who presumably belong to the same group from time to time – are often a system's least reliable component, having evolved to be a resourcefully randomised, self opinionated and occasionally not very self-aware bunch whose main purpose appears to be to test every conceivable pattern of behaviour to its limit, occasionally with fatal results. In short, we are a lot more complicated than instruments and if problems do arise we are quite often the culprits.

So, the simple answer to a question such

as 'how much can you trust the instruments?' would have to be 'it depends'. Being the sort of chap for whom four words (but not five) are always more fun to read than two, I would add 'on you' to that.

ACKNOWLEDGEMENTS:

My somewhat belated thanks to Peter Baker, Alan Dibdin, Tim Macfadyen, Mike Fox, Mike Hutchinson, Peter Gray, Alister Morrison, and Colin Smithers of Plextek Ltd, for their invaluable advice, help, and occasional sacrifice of instruments for this series of articles. I don't know about anyone else, but I am far better informed now than I was before.

MISSED ANY OF THE SERIES?

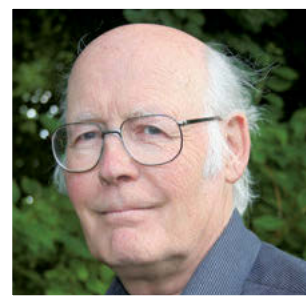
S&G would like to express our thanks and gratitude to Steve for his outstanding series of articles on instrumentation.

If you have missed any articles from the series, back issues of S&G are available from the BGA office (details on p3).

- The ASI – Aug/Sept 09
- The altimeter – Oct/Nov 09
- G meter/Turn and Slip – Dec 09/Jan 10
- The compass – Feb/March 10
- The GPS – April/May 10
- Variometers part 1 – Aug/Sept 10
- Variometers part 2 – Oct/Nov 10
- Total energy – in this issue

Look out for Steve's article on how to swing the compass in the April/May issue

Figure 4: Plumbing the panel



Born 1941. First glider flight in 1968 at Meir, Staffordshire. Joined Cambridge University GC in 1970. Soloed 1970. Instructor 1972 – lots of free time and requirements then far easier. Completed Diamonds in 1988. CFI twice (lack of judgement). Stopped instructing in 2005. Currently nearly 5,000hrs and still not getting it quite right. Date of decease, pending

FITTING THE FES

Chris Nicholas explains why he is looking forward to a rejuvenation of his flying with the decision to fit a Front Electric Sustainer (FES) to his LAK 17A



(Above and below) The Front Electric Sustainer system: an electric motor with foldable propeller can be started at a low altitude (photos courtesy of Baltic Sailplanes)



TWO features of sailplane engine developments attracted me to the idea of one day having a self-retrieving glider. One was the Stemme folding propeller in the nose cone, which would produce no extra drag unless the engine fired up, allowing perhaps a later decision. The other was the growth in development of electric motors fed by lithium polymer batteries, as exemplified in gliders such as the Antares. I was singularly unattracted to the idea of an internal combustion engine, or of a high drag pylon, which apparently needs a decision to be made considerably above the height at which I usually decide to abandon a flight and land out.

To my surprise, my two ideal features were brought into reality by Luka Žnidaršič, a Slovenian owner of a LAK 17A, like mine. The development has been reported on before in *S&G* (June/July 10, *Aero 2010*, p13), but I first heard of it before that from the UK LAK agents, Baltic Sailplanes Ltd. I expressed an interest in having my glider converted as soon as this was possible.

The reasons

Everyone has their own reason for deciding whether to have a self launcher, a self sustainer, or a pure glider. In my case, the choice of a LAK 17A in 2005

meant either a pure glider, one pre-equipped for a turbo engine to be added later, or to go for the turbo at the outset. I went for the middle road, pre-equipping, because I reckoned I would get a lot of road retrieves for the price of an engine, but it might be easier to sell the glider later if a turbo was an easy retrofit option for a second owner.

While I might have afforded the extra cost of the turbo (about £10,000 or more at the time), which I was “saving” by not buying a West German glider, I also didn’t want all the hassle that I thought went with the internal combustion engine/pylon arrangement.

Since then, however, I have felt increasingly inhibited from doing cross-country flights when the crops are too high, and fields in East Anglia suitable for landing

are almost non-existent.

In Competition Enterprise, which I have been to for many years, I have not been competitive in the last few because I got fed up with all the hassle of road retrieves, of which I typically did between three and five most years. They usually ended up for me with a return at midnight, which is not much fun for crew (or me!) when you have to be up rigging at eight o’clock the next morning. (Evidently, I am not alone – see Adrian Emck’s article, *S&G* Dec 2010/Jan 2011, *Comfort Zone*, p35.)

Furthermore, in recent years, the advantages of a turbo seem to have gained prominence. Several people come to competitions without needing a crew. Several leading competitors undertake tasks, or do an extra leg in pilot-selected tasks, with a reasonable assurance that it won’t result in an outlanding.

(For what it’s worth, I was in a minority of one for years on the Enterprise Committee in thinking that gliders with engines should be scored separately. I thought they had a very considerable advantage over pure gliders in Enterprise-type pilot-selected tasks.)

I have also found rigging and derigging increasingly difficult, partly just through age, and partly with the onset of some medical problems. Walking across a farmer’s field, or latterly anywhere, has now become difficult for me, and I’m heavily dependent on other people to do all the lifting and carrying. Until this year, I could rig and derig on level ground on my own, using one-man rigging aids. Now, I can’t even do that. With the front engine sustainer (FES), I will normally only have to rig/derig where I have friends easily available for a few minutes.

The performance of the latest development is either a climb rate of over 3.5kts for about 1,500m (4,921ft) climb, or level cruise for an hour. I think the latter will get me home from almost all cross-countries. And if not home, to a friendly gliding club where at least the logistics of a retrieve can be more easily sorted out.

The FES would appear to cover all my needs, and leave few reservations except the cost.

The decision

So, I decided to spend some of the kids’

inheritance on going for the FES. I suspect it will add almost as much to the value of the glider as it is going to cost anyway, so hopefully it won't deprive the kids too much in the end.

I am looking forward to a rejuvenation of my flying. I expect to have more hours (rarely need to fly for less than an hour in future!), more cross-country kilometres, be happier in competitions, rarely if ever need a retrieve crew, always get away from a wire launch, take fewer or lower aerotows, and thoroughly enjoy myself more.

Some technicalities

The LAK17A/B/19 family lend themselves particularly well to the conversion. They have a bulkhead in the nose suitable for mounting the brushless electric motor, and a sawn-off nosecone can be replaced by one of the identical shape which becomes a spinner, and holds the propeller.

The tail battery, which has to be carried for weight and balance purposes, is retained. Clever switching enables it to be kept on charge from the lithium-polymer batteries that are part of the conversion, via a DC/DC converter. The LiPos behind the wings balance the motor and leave the centre of gravity unaffected.

The LiPos also provide the power for the instrument panel. On my glider, the tail battery fed only the radio, and a separate battery behind the pilot fed all other instruments. The latter battery is no longer needed. The tail battery will act as a backup for the instrument panel, in case the LiPos go off-line and become isolated again by the clever switching.

A full day of instrument panel running will use only about 1/1000th of the LiPo capacity.

The journey

In November, 2010, I decided to take the glider to Slovenia myself. A colleague found that it is possible to ship a glider in its trailer for about £1,000. It would then have to be collected from the freight outlet, by somebody over there.

The ferry and road trip, etc, cost me about £600, plus expenses for overnight hotel, meals, and other incidentals. In my case, to meet winter requirements in Austria and Slovenia, I also had to purchase winter tyres, steel wheels to replace the wide alloys on my car (which cannot accommodate snow chains) and various extras, which cost about £800 but will last for many such trips, or

could be sold afterwards. It is too much to list them all here, but I have posted brief details on gliderpilot.net, and will be happy to email them to anybody else planning a trip to that part of the world.

The trip itself is over 2,000 miles there and back from my home in Suffolk. I spent a day and a half getting most of the way, driving and having catnaps through the first night. I had one night in a hotel, and finished the outward journey the next day. After dropping the glider off, and discussing details which I would not like to have left to just correspondence, I returned home with only catnaps again, and no hotel stop, on the return journey.

The wait

The glider will be at the factory for two to three months at least. Two other gliders were being worked on already. Luka Žnidaršič is effectively a one-man band, with some help from his father, and reckons to be able to do about six conversions a year.

The paperwork

The glider will come back with an EASA "Permit to fly". As I understand it, I will then have to apply to the UK CAA for a UK permit to fly validation. I believe this takes it outside of the BGA glider fleet.

The intention is eventually to have converted gliders covered either by an EASA-approved modification, or by something like that.

The details, apparently, are not yet established. As this will be the first one in the UK, it looks like myself and the glider are going to be guinea pigs.

I just hope it works out all right. I will let you know in the next instalment.

I DECIDED TO SPEND SOME OF THE KIDS' INHERITANCE ON THE FES. I SUSPECT IT WILL ADD ALMOST AS MUCH TO THE VALUE OF THE GLIDER AS IT IS GOING TO COST



Chris Nicholas started gliding in 1970 at Essex Gliding Club. He has a Gold and two Diamonds (500km still to do). A lapsed instructor, Chris has had three spells as deputy chair of the BGA Exec Committee, and several further spells as an exec member; he was Airspace committee chairman for several years and is currently a member of the Safety and Development committees. Chris is a regular competitor in Competition Enterprise and a very occasional (and unsuccessful) entrant in regionals



Chris Nicholas' LAK 17A will be the first in the UK to be fitted with the FES

NOT SO HAPPY LANDINGS...

Andy Balkwill's field landing accident prompts him to ask "When was the last time you had a field landing refresher in a motorglider?"



After hitting a steel post, Andy's ASW 20 had a large hole in the leading edge of the port wing

I DID MY CHECKS, LOWERED THE UNDERCARRIAGE AND FLEW THE CIRCUIT, TURNED FINALS, SELECTED LANDING FLAP... SUDDENLY THE FIELD WAS LOOKING RATHER SMALL

SOME of you will know I had a field landing accident fairly recently. What most of you won't know are the details of the event and so I thought it might be worth sharing them with you in the hope that you might learn from my experience and avoid a similar situation in the future.

The task was Grafham Water – Bromyard: 305km. It was a good day and I set off just after 12:00 with lots of good lift and had a great first leg, turning GRW with an average speed of 112km/h. Cloudbase was by now 5,000ft and all was going fine until I reached Long Marston, where a large area of spreadout forced me to divert north and generally scratch around in rubbish for a while.

I briefly contemplated turning Alcester and calling it a day, but I reasoned that the conditions would cycle. I then got a 2kt climb to cloudbase. There was sun on the ground in the distance so I pressed ahead under what seemed like endless black spreadout and emerged into the light just to the north of Great Malvern at around 2,000ft.

After all the heavy shadow on the ground I had expected some good lift once I got to an area with the sun on it, but I only found scraps. I "local soared" the area searching for lift and started to look for fields. But there were no fields clear of standing crop in this area, no pasture, no set-aside, nothing except a couple of playing fields and an area of ground cleared in preparation for building (which looked fine from 2,000ft, but which I suspected contained all sorts of nasties). All three options looked sufficiently big, although one of the playing fields was certainly on the small side.

At this stage I could have headed downwind to search for better field options, but with little chance of finding lift back

under the black clouds this was not very appealing. (I hadn't bothered to look for fields on my long glide under the spread-out because I'd been confident I'd find lift once out in the sun again.)

I continued to try to work the scraps of lift while staying local to the three field options – I was sure that any second the lift would get going and I'd be away in 4kts and then off to Bromyard. But, no, I continued to lose height gradually and, after 20 minutes, decided at it was time to land.

During all the local soaring, I'd been consistently drifting eastwards (to be expected in a westerly!) and, in the absence of any smoke or other signs, assumed the ground-level wind to be broadly westerly. I'd also had plenty of time to re-assess the field size, slope, etc, in more detail – they still looked OK.

By the time I'd decided to land, I was in a position where only one of my three options remained available if I was to be able to fly a proper circuit (the other two were by now too far upwind). I did my checks, lowered the undercarriage and flew the circuit, turned finals, selected landing flap...

Suddenly the field was looking rather small. Air speed was OK and I rounded out, but the ground speed seemed high. I touched down and pulled on the wheel brake as hard as I could, but it soon became clear I wouldn't stop before the end of the field so I aimed for the corner.

I was probably doing around 10mph when the port wing hit a steel post at the edge of the field. The glider shuddered to a halt and it all went very quiet. I was fine; not a scratch, but the glider had a large hole in the leading edge of the port wing. I won't bore you with the details of the retrieve – relatively straightforward.

So what went wrong?...

I think there were a number of factors which contributed to the accident – some of which you have probably spotted already.

The flight had gone well right up to the

point I got to Malvern. I hadn't been low and so hadn't taken too much notice of the state of the fields and had not spotted that the harvest was yet to start in earnest.

I had set off under the spreadout knowing I would not be particularly high when I emerged, but confidence borne out of the earlier good conditions probably contributed to me not thinking to pay much attention to fields along the way just in case when I got out into the sun there was no lift.

I should have selected the best of the three fields and local soared only that one – especially as one was “on the small side” and another had a dubious surface. The result of local soaring all three was that the decision on which one to use was not made by me.

On landing, I found that there was no headwind – instead a 90 degree crosswind from the north (and this remained the case while I awaited the retrieve so it wasn't just a temporary condition). I'm not sure what was going on – possibly a local effect due to the nearby Malvern Hills. But I guess that the lesson is that if you don't have a clear indication of the wind direction at ground level then don't assume it will be the same as it was back at the airfield or on task.

The kinetic energy in a glider is proportional to the square of its speed. As a result of there being no headwind, my ground speed was 55kts. Had I been landing into a 10kt headwind, the ground speed would have been 45kts and I'd have had 50 per cent less energy to get rid of, meaning a shorter float and shorter ground run. If there had been the expected headwind, I would have stopped in time.

Finally, having trawled through my log book, I noticed that I have only ever had four “real” field landings in 12 years of cross-country flying (lots of unplanned landings at alternate airfields, but those are rather different). I think this is as a result of the relatively cautious way I fly – tending to stay high at the expense of obtaining increased cross-country speeds.

However, the consequence has been lack of currency on picking a field. I don't think I've ever done any field landing checks since my original cross-country endorsement. I had assumed that having “regular” (not so regular as it turned out) field landings had the effect of keeping me relatively “current” but I think I might have been guilty of some complacency here.

It makes me wonder how many other regular or occasional cross-country pilots are similarly out of practice on their field

landings. So my question to you is “when was the last time you had a field landing refresher in a motorglider?” (One more good reason for the club to get permission to use motorgliders!)

So were there any positives from this?

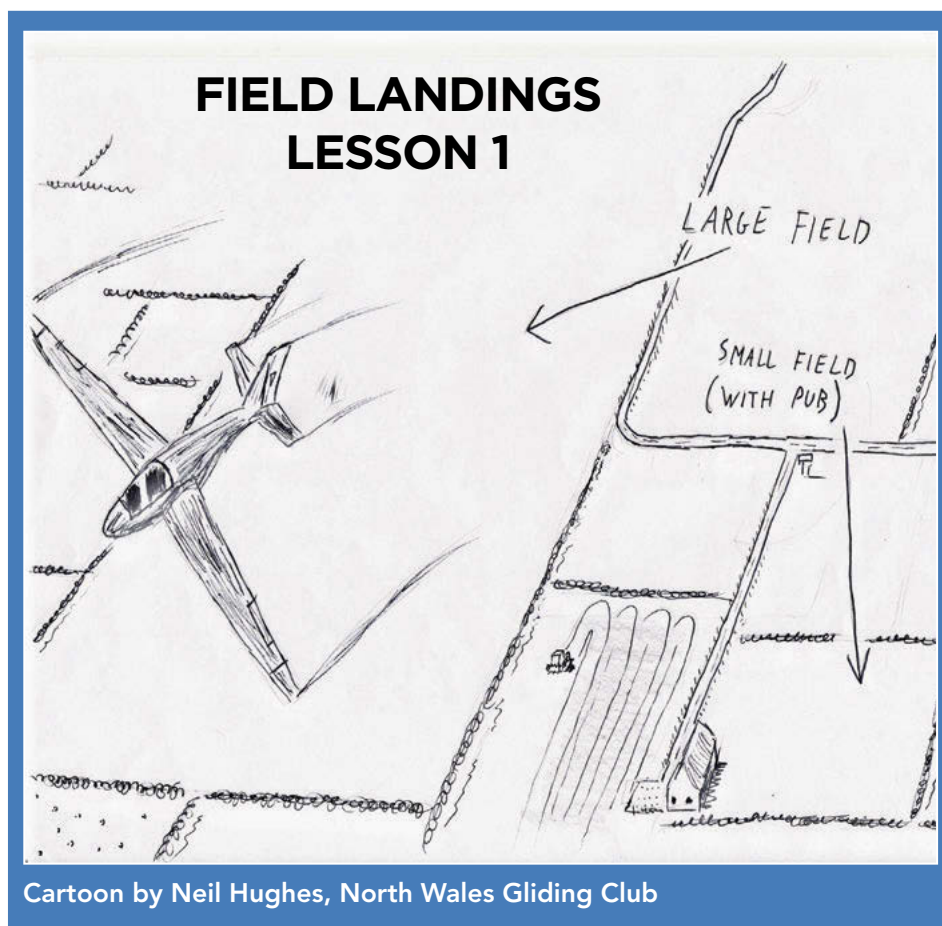
Yes, I think there were:

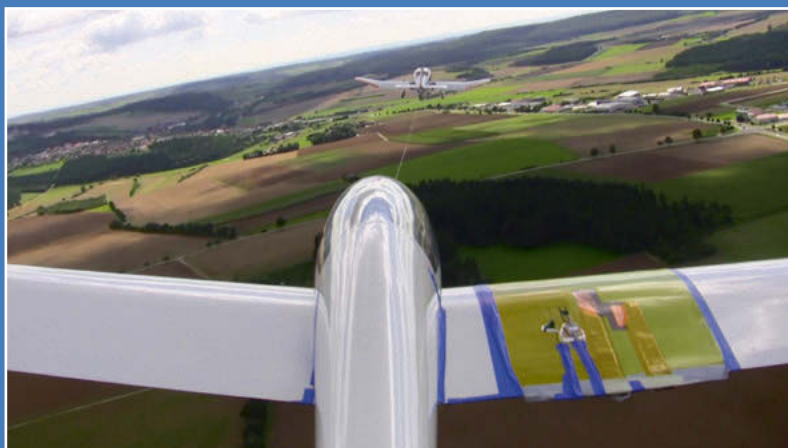
- I walked away unscratched.
- The glider is repaired.
- I flew a good circuit (into an albeit bad field) so there was no risk of stalling/spinning-in as a result of a “bad circuit into a good field”, which would have been far more serious.
- I had the presence of mind to aim for the corner of the field and let the wing absorb the impact when it became clear I wouldn't stop in time (the end of the field had a ditch with water in it and old tree stumps camouflaged in long grass – neither of which would have been pleasant to encounter head on).
- I've learnt some good lessons...

So I hope the above has given you all some food for thought. I'm off to have a refresher on field selection in a motorglider!

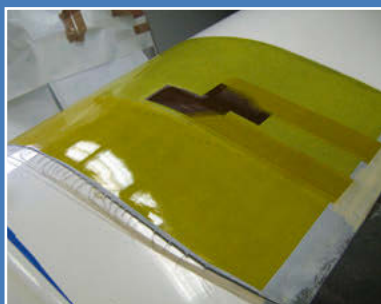


Andy Balkwill started gliding in 1995 at the age of 35. He has around 750 hours and has been an Assistant Rated Instructor for five years and a BI for around five years before that. Andy also has a PPL (SLMG) and a share in a T61F Motor Falke. He has been flying cross-country since 1998, initially in an ASW 15 and more recently in the ASW 20FL in which he has completed around 15 300kms, as well as one 500km and numerous shorter flights





A camera on the tailplane allows observation of the wing installations during flight (Akaflieg Dresden, Jürgen Frey)



(Above left) This 'wing glove' of the Akaflieg Dresden includes pressure probes and heated fields to learn more about laminar-turbulent airflow transition on wings in free flight (Above right) Simple calibration of the sideslipping angle scale: An average thumb on the 'long arm' is about 2° wide



The static pressure probes of the DG-300/17 are calibrated by using a towed probe, which is let down underneath the glider, where the air mass is not influenced by the glider



(Above) One of the guests at the meeting was the 23m one-of-a-kind Open Class glider LS5, which came to be proof flown for final certification

(Right) For stability research with the Zacher program, a simple measuring tape is fixed between stick and instrument panel



IDAF

THE 2010 Idaflieg Summer Meeting was held from 15 August – 3 September at Aalen-Elchingen airfield in southern Germany, *writes Jochen*

Ewald. Unfortunately, the weather at this time did not show its best side for the research flights, clearly 'below average' for the late August weeks in this perfect South German soaring region east of Stuttgart. Nevertheless, work was possible on a number of the projects planned for this meeting.

Students from the German Academic Flying Groups (Akafliegs), working with employees of the DLR (German Centre of Aeronautic and Spaceflight Research), the Institute for Flight Guidance and Control (IFF) of the Braunschweig University and the LBA (German FAA) supporting them, mainly focused on the performance evaluation of the Arcus T prototype and research about improving and enhancement of the evaluation methods.

They also looked at the 'special projects' of some Akafliegs, while the Zacher scheme flying characteristics evaluation suffered from the weather. Only a few new pilots were introduced in this scheme on the two-seaters, K-21 and DG-1000, while evaluation flights of other gliders available were barely possible. The performance evaluation of the HPH 304S 'Shark', taken to Aalen by the manufacturer, also had to be postponed to next year's meeting.

In addition to the 'standard' performance evaluation, some special research was done on the Arcus, as well as on the evaluation method. Three additional flap settings were evaluated alongside the factory installed 'standard' settings. This appeared sensible and quite interesting, regarding the unusual wingshape of this glider. The influence of the cockpit ventilation open and closed was also tested. This point has been added to the performance evaluation in 2008 and is now evaluated with each glider: the more knowledge can be gained about effects of open/closed ventilation, the better manufacturers can optimise their design.

There were also improvements to the measuring equipment tested. An additional system of very sensitive and fast, precision variometers, developed by Konrad Baerfuss of the IFF, is now installed in the 'black boxes' of both the comparison glider, the DG-300/17m, and the glider to be evaluated. First tests on how to evaluate the 'circling polar' of gliders were also made – until now, the performance a glider has during thermalling could only be calculated 'the mathematical way', but it never has been measured whether the theory mirrors the practicality of circling correctly.

The Dresden Akaflieg continued their research on what's happening on the wing concerning the airflow

FLIEG 2010

IDAFLEG SUMMER MEETING 2010

transition from laminar to turbulent 'in reality'. On their Twin-Astir, they installed a wing glove with hot-film and hot-wire sensors, pressure probes, and additional probes in front of the wing to measure the angle of attack and changes caused by turbulence. In this way, they wanted to watch the instabilities in the airflow that appear shortly before the laminar-turbulent transition, the so-called Tollmien-Schlichting waves. The data gained was registered by a new computer system the Akaflieg installed in a 'black box', making things much easier than before, when a laptop computer in the cockpit was used. First results showed that, in flight, the transition occurs earlier than it does in the wind tunnels. Finding out more about the 'why and how' of these effects should be invaluable to improve airfoil design.

The Akaflieg Karlsruhe's AK 5 underwent last tests for final certification, while the Akaflieg Braunschweig's SB 14 underwent research to find the precise position where the boundary layer underneath the wings changes from laminar to turbulent airflow, to place the zigzag tape to prevent laminar separation bubbles from building up correctly. To make the laminar bubble position visible, a coloured oil-mixture is painted on the wing. This fluid shows the airflow status clearly by being 'blown back' in laminar airflow and forming 'puddles' where the laminar separation starts. This is watched and filmed by small video cameras under the wing. The Akaflieg Stuttgart's 20m flapped two-seater FS-33 underwent winglet airflow tests, to optimise these for circling and prevent the airflow around them from stalling when slightly sideslipping, as happens easily during thermalling. To document what happens, small video cameras are used, filming the wool threads taped on the winglets.

There were two interesting visitors to Aalen-Elchingen during the meeting: the one-of-a-kind LS5 Open Class glider, which was proof-flown there by Ingo Luz of the LBA for final certification, and the solar motorglider Icaré 2, with which Prof Voit-Nitschmann tested a new set of Li-Ion

batteries, giving it more energy for the launch. It had not flown for some time and was prepared for Klaus Ohlmann, who wanted to try and break some records in the solar glider class during autumn and winter.

Although the weather did not permit as much flying and research as planned, the 2010 meeting led to interesting results which will have great influence on the further development of gliding. It also gave the participating Akaflieg students invaluable experience in practical research which 'dry studies at the university' can clearly not give them.

Hans-Ludwig Meyer, former test pilot of the DLR, also visited the Idafleg meeting and presented the students with the product of his genius. During the past few years, he, together with a group of other experienced test pilots and scientists, have collected all available data and information on glider testing and assembled this in a 'glider test flying manual'. This contains everything needed for safe preparations and glider test flying. It is an invaluable aid for the Idafleg students, who now can profit from the experiences of earlier generations during their test flying. This manual is not written to be a 'static' description, but will be upgraded and expanded according to upcoming changes concerning the development of gliding and certification rules.

As in previous years, the results of the Idafleg summer meeting were due to be published during the Idafleg winter meeting in January, 2011. Reports from the 2009 meeting and reports about other interesting Akaflieg projects are available in printed form (in German). The 2009 Idafleg report (costing 20 Euro, plus postage) can be ordered at:

Idafleg e.V.
Boltzmannstraße 15
85748 Garching
www.idafleg.de

THIS YEAR'S MEETING LED TO INTERESTING RESULTS, WHICH WILL HAVE GREAT INFLUENCE ON THE FURTHER DEVELOPMENT OF GLIDING



Just days after the Dec/Jan issue of S&G had printed, we heard the sad news that Jochen Ewald had died, aged 55. Jochen was a regular and valued contributor to S&G over many years, with his flight tests and reports from Vintage Glider Club and Idafleg meetings. Our picture, taken by David Weekes at the VGC rally at Eggersdorf in 2005, shows Jochen as many who knew him will remember him best – knotted handkerchief, stubble, big grin and sitting on a vintage glider
■ See page 68 for a full obit



This page, from top:

A series of heavy snow showers before Christmas resulted in Kent GC's airfield having around a foot of snow covering the grass and the access lane being blocked on some days. Boxing Day saw temperatures below zero and a firm crust on top of the snow which would almost support a person. Tug manager, Martin, was unhappy about the drag on the wheels of the Pawnee and so a runway was rolled along the centre of the airfield by a collection of volunteers happy to do anything to generate some heat. A fast taxi test in the tug revealed all was OK and so flying started late morning (Top left pic by Peter Mather Top right and pic left by David Pye)

Austin Hartland (Midland GC) spent most of last November working in Nepal on a school build project in a small village high up in the Lamjung region. The scenery was quite stunning, with the Annapurna Himal to the west and Himal Chuli, Peak 29 and Manaslu towering above to the north-east. Eagles soared in the morning thermals and incredible wave systems developed – Austin looked on in envy! After the project, a small group took a three-day trek up into the mountains and it was while on this trek that Austin took the photo (bottom left) at around 12,000ft near Bara Pokhari. The mountains in the picture – Annapurna South (on the left) and Machhapuchhre – are around 23,000ft high)

■ If you would like your previously-unpublished photographs to be considered for inclusion in Gliding Gallery, send them to editor@sailplaneandgliding.co.uk





This page, clockwise from top
 Steve Lynn took these stunning images during a November trip to South Africa with Ed Downham and Carr Withall: Nice skies back to New Tempe, from the ASH-25; the runway at New Tempe; on aerotow, but with storm approaching; Carr Withall, northbound on a 687km O/R; Krugersdrift reservoir



A CRACKER OF A CHRISTMAS DAY

Bruce Cooper and John Williams were delighted with Santa's gifts – a world record triangle and 2,000km diploma flight



Great wave at Esquel (John Williams)

ABOUT a girl...well, that La Niña anyway. She's getting the blame for every undesired bit of weather on the planet, whether it's floods in Queensland, a perishing North European winter or a jet-stream-free Patagonia, *writes John Williams.*

So, depending on your perspective, it has been a great year to spend a few months in Argentina (to get away from weather miseries back home) or a lousy one (because the expected day after day of great Andean wave systems just didn't materialise).

Three UK pilots made the trip this year: Bruce Cooper to help Jean-Marie Clement (JMC) fly the Nimbus 4DM, Roy Wilson with his Ventus 2cxt and myself with the Antares. The whole experience of getting into the country and then spending time in it are lifetime experiences to start with, but what we were really there for was the big wave.

We've often said that Scottish wave can be great – but you may have a long wait for the big day – and that's just how Patagonia turned out this year. You just have to be ready

for the very few options that do come. And that's where Roy suffered from the inherent disadvantages of a turbo. Not the get-you-home thoughts that many pilots have when heading off to fly over hostile terrain, but having a pure glider or self-sustainer really hurts when you can't get a launch. You just had to have a self-launcher to fly on the two best days this year. The first was far too windy for the tug to manoeuvre safely and the second was Christmas Day, when understandable family commitments meant no available tuggie. Roy did, however, nail his 1,000km diploma by flying impeccably on what had been billed as nothing more than "a training day".

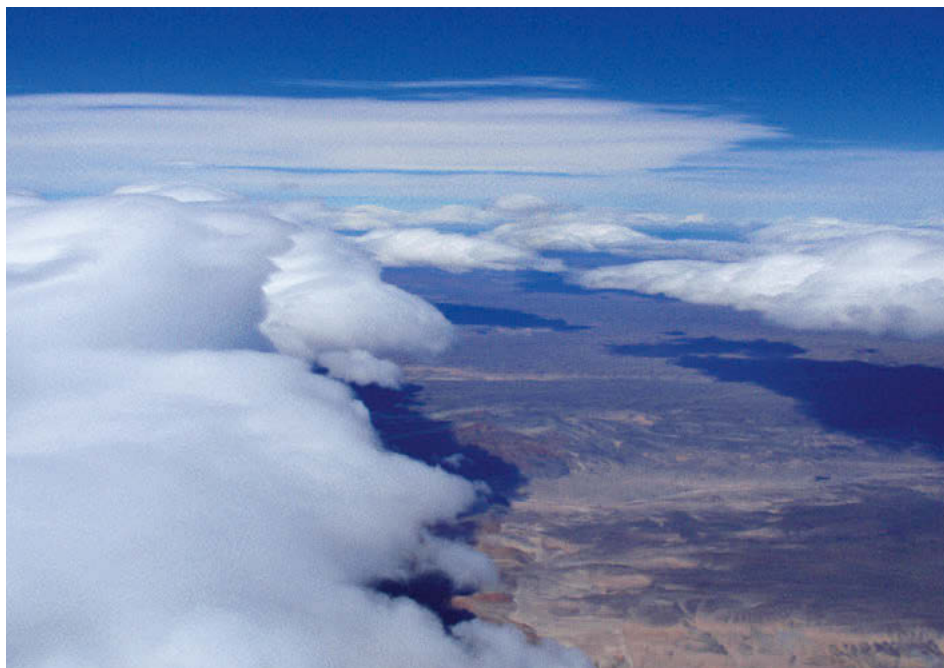
Bruce had a great flight with Sebastian Kawa, completing declared 2,000km, largely in the blue, to be the first Brit and first Pole to do so. And I had a few attempts at big declared flights, one taking me 800km from home on a 2,000km O/R before turning back and completing 2,205km for a National free 3TP distance record.

And then there was Christmas Day...

BRUCE COOPER, NIMBUS 4DM, 25 DECEMBER, 2010 1,650KM FROM BARILOCHE

OVER a year ago, we planned a large triangle, so you can imagine my "delight" when Klaus Ohlmann flew almost the exact same planned track on 8 December, 2010. Our study of satpics from prior years clearly indicated that the task had potential. There is a gap in the Andes where Pacific wet air flows through and marks the wave oscillations downwind deep into the Pampa and a careful look at terrain triggers (not just flat high ground) helped select a good downwind turn point.

One problem we had was a NOTAM issued that could be misinterpreted and had the potential to give problems. It was fairly clear that this was a "Nav Warning" and not a hard boundary. Over the Christmas Eve dinner I suggested that we should file a flight plan by fax and, if ATC accepted it, we should set off on the big triangle in the morning if the weather still looked good.



After five days on Google Earth looking for anything vaguely landable over untrodden Pampa, Bruce Cooper felt Google Mars might have been more appropriate (Jean-Marie Clement)

If it all went wrong we would be having Christmas dinner on the beach on the Atlantic coast. There was something about that triangle that left me feeling like a moth to a flame, I really wanted to fly it.

As they say in the old movies "sleep did not come easily that night".

It seems like we had to get up before we went to bed... declared the task and set off, very tired even before we launched, and it was the third early start in a row.

Now, not everything goes to plan on these epics. We delayed our launch to change the order that we would fly the turn points and lost valuable time in the process. You can imagine how much we laughed on crossing the start line southbound, only to find the Zander and Ipaqs demanding we went north. We'd declared it the original way after all! Sixteen hours later, we discovered that the task would have been impossible but for this "mistake". Was it Napoleon or JMC who said "Give me lucky generals!"?

After a correct start line, the flight to the 1st TP was straightforward and most of the 2nd leg followed the standard route south. Then came the pioneering bit I was really looking forward to... breaking away from the comfort and familiarity of the local routes and air strips and heading off over untrodden Pampa.

Despite rumours, I am not a random risk taker and spend very large amounts of time preparing to minimise the risks. I had spent around 10 days working on this one and almost five days on Google Earth looking for anything that looked even vaguely landable. I think Google Mars might have been more appropriate. The task area had only one road and almost no other sign of civilisation. The route to the second turn point was exactly how I had imagined it, strange, orange, rolling and uninhabited wilderness.

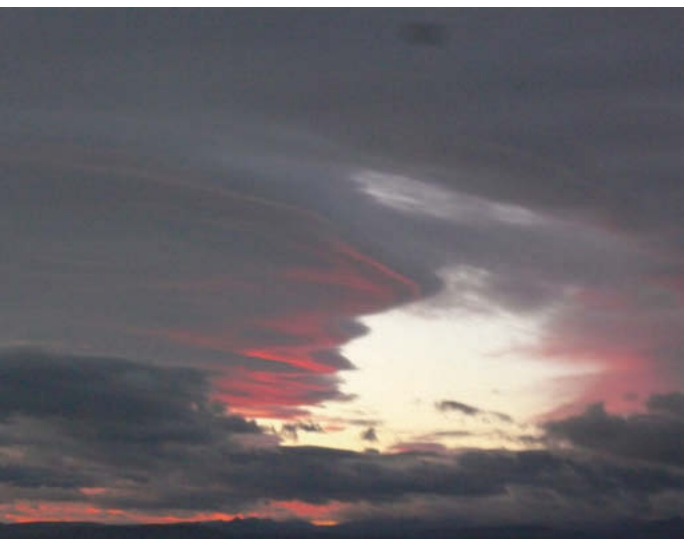
The approach to the final turn point was marred by my O₂ regulator failing – not funny above FL200 – and a struggle for O₂ which gave me a splitting headache that was to affect me for the remainder of the flight. I ended up putting the cannula in my mouth and just sucking.

The last leg was almost 8/8 for about 400km and slow going – we lost lots of time. John was just ahead and, as usual, a bit lower. The wind had been a headwind component for all but one leg so far and now it was swinging north. JMC was flying this part and I was doing the sums very carefully – we needed height more than speed so I persuaded him to back-off the MacCready. How much time





Bruce Cooper took up gliding at 14 on a Scripture Union sponsored gliding course at Portmoak. He currently flies at Edensoaring and Lasham. Bruce loves teaching soaring and his main passion is “adventure soaring” – using ridges, waves and convergences for distance flying. He has an ASW 27, three Oly 463s, 5,500+hrs, a Full Cat rating and a 1,000km diploma



Sunrise makes pink lenticulars (John Williams)

THE INNER VOICES GOT BUSY; THE ONE THAT SPEAKS REASON WAS LOUD, BUT IT WAS BULLIED INTO SUBMISSION BY THE ONE THAT SAID “WHEN WILL YOU EVER BE THIS CLOSE TO A DECLARED 2,000KM AGAIN?”

✎ did we have spare he asked – about 10 minutes, but we really needed more height to comply with the 1,000m rule. The final 60km were torture – we were desperate to gain more height, but did not have time to deviate. The wind was dying, what wind we did have was against us and there was no lift. We crossed the line with me encouraging JMC to stall the glider in the finish sector to minimise the distance penalty.

We saw the sun rise after we launched and the sun set before we landed 15hrs 38min later for what might be a new world triangle distance record of 1,650km.

It felt strange the next morning. I woke early and sat by the lake in bright sunshine, with not a breath of wind. It was an unbelievable contrast to the dark, overcast finish to the previous day’s flight after a long struggle home and, of course, the build-up for a whole week before. I felt a calmness that I have never experienced before, like a huge weight had been lifted from me, and felt that if that was to have been my last glider flight, I would have been satisfied.

For me, life is about memories not dreams. My Argentine adventures are memories I will savour for many years, both from the aspects of flying and friendships.

**JOHN WILLIAMS, ANTARES
25 DECEMBER, 2010
2,000KM FROM BARILOCHE**

AT THE dinner table on Christmas Eve, we all thought that the next day would be good, but not great, and guaranteed to be long. So it

made sense to try for the 2,000km diploma in four legs, hopefully avoiding the weaker conditions evident south of 45°S on the previous day’s satpics. And, just in case things turned out better, I chose a task that included two shots at a 1,000km out-and-return speed record.

For the third morning in a row, sleep was shallow and short. Up at 04:00, on the airfield at 05:00, covers off, turn points added, declaration made and in the air at 05:47. A head torch gives enough light to read an ASI, but lacks something as a landing light. Just two minutes of electric motor use to start ridge-soaring on Cerro Villegas and slide gently into wave while watching the grey undersides of cloud turn pink in the chill dawn light.

I’d set the start point 60km north to minimise the distance south; that would help later, but right now it felt like an unnecessary extension to a long task. Climbing en route left me in start sector at 13,000ft in a far from classic sky and a few delicate runs in cloudless gaps were needed before “proper” conditions were reached – just in time to file a distant flight plan with Bariloche Tower, which opened for business at 07:30.

Passing Esquel things felt better, cross-country speed started to increase and, despite a hefty headwind component, reached 175km/h with only 100km to go to the turn. Maybe the speed records were within sight? Minutes later, that thought was replaced with survival thoughts as the system just disappeared. Big gaps surrounded by uniform stratus and the occasional KH (Kelvin-Helmholz, not Kevin Hook) rotor cloud 45 degrees off-track to the west were all I could see. Upwinditis took over until a climb at a blow hole near Lago Fontana gave just enough height to creep into sector for a first 500km in 3hr 44min, far too slow for comfort. An escape by the same route and a tailwind helped get back north through the awkward bit and knowing that better lay ahead encouraged more aggression. And so the second leg turned out to be a whole lot quicker in 2hr 33m.

A double out-and-return has one big disadvantage; you can see the home airfield as you set out on the third leg. With limited daylight left, a wind forecast to die and a huge raft of top cover shutting out the sun, that familiar gravel strip looked indecently tempting.

But you can’t just quit after such a good second leg, so I told myself I’d push on, watching conditions and the clock, and turn back later if needed. That was enough to trick myself into getting on with it, and the reward was another good run on a single wave bar of 300km – just a wonderful way to buck that headwind. The time calculations felt better, 670km to go and six hours’ daylight – ought to be OK.

It wasn’t.

It was horrible. The only choice was to turn back or take a significant risk of dropping through a cloud layer into something a long, long way from home on Christmas evening. The inner voices got busy; the one that speaks reason was loud, but it was bullied into submission by the one that said “when will you ever be this close to a declared 2,000km again? Maybe never?”.

So off I went from one seething turbulent blow-hole to another. At 40km out, the

distance to run stopped counting down – I could only go upwind and couldn't see any gaps downwind. The cross-country speed dropped to 25km/h and the likelihood of getting home went with it. The retreat route looked awful too – so, while doing involuntary pelvic floor exercises, I set off downwind in the hope of finding something to maintain height at about 12,500ft, unpleasantly close to cloud. A tiny fracture line in the overcast appeared and provided 1kt up, enough to learn that it continued NE, 45 degrees off track for home and might just clip the turn sector that I'd mentally given up on. It did, and a third 500km leg of 4hr 8m was the result. There was now 550km left and 4hr 20m until darkness. (Don't waste energy thinking about that – use your remaining mental capacity to stay up and minimise the problem.)

Bit by bit, the cracks in the cumulus led onwards, with an occasional climb at a cloud edge 90 degrees off the expected, and then gaps bending around to the north with runs above cloudbase towards those lovely red blobs on the Oudie's snail trail. I almost reached them when they started to disappear – loud expletive – I'd slowed so much that the trail was timing out before I could reach it.

But the clouds were now readable and Esquel airspace was in reach. Speed increased, but the ground speed didn't. Checked the Lx – the wind that had been a problem at 60kts 236 degrees when southbound was now 50kts at 285 – a very unwelcome burden when a bonus was expected and needed. So the tension started to mount again – speed needed, but the clouds ahead were weak and evaporating. More calculations and I decided to run at 90kts – a really flat bit of the Antares polar – and concentrate as hard as I could on finding the very best line north.

After an hour of that, there was good news and bad news – I could reach Bariloche, but without the height needed to reach my finish point 60km north in the mountains and certainly not at the intended 10,000ft. The 1,750km was in the bag, but I really did want the 2,000km and they don't do diplomas for nineteen hundred and something. No choice but to push on.

Just north of Bariloche at 7,500ft, there was a tiny hot spot and 1kt up in the blue. There was now 1hr 11min until darkness, 100km to run and about 7,000ft needed at 100ft/min. It didn't compute. Decisions were helped by the climb just petering out at 11,000ft – the only chance was to track north and hope for more lift. No luck, but out of

obstinacy I carried on to cut the finish sector low and immediately poured the remaining battery power into the electric motor – I was still 70km from the strip and needed all the height and speed I could get to land in acceptable (and legal) gloom.

I had to cross a high col to get on the right side of a ridge – last rays of sunlight direct into the eyes – don't hit the granite! Race down the ridge at a speed that wouldn't get me home without its help – and follow the Nimbus (it has a handy tail light) to land after 15hrs 54m flying, with a whole seven minutes to spare.

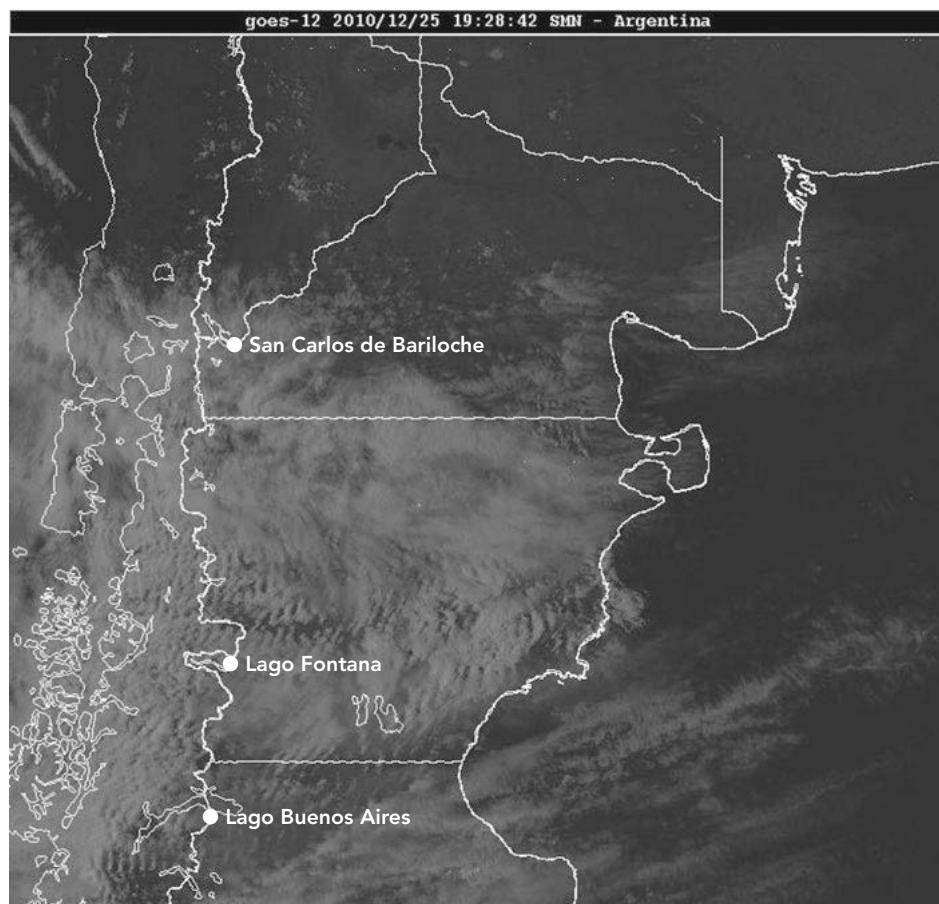
It was good to be back on the ground, but among the blend of exhaustion and adrenaline was a feeling of sadness and resignation that I'd given all, but not done quite enough.

The following morning after a physical sleep, but still mentally exhausted, I took a look at the trace. The best I could find was 1,993km. Hmmm. Then Jean-Marie had a look and found seven more kilometres – I'd been counting back from the finish rather than forward from the last turn – it was that tight.

What a way to spend Christmas – and the best of all presents.



John Williams was a keen sailor until "forced" to take up gliding in 1993 when his job moved him to London. After early years at Dunstable he moved to Scotland and became intrigued by wave opportunities from Portmoak. He is one of a small group of Scottish-based pilots who continue to explore the boundaries of "what might still be possible but hasn't been done yet". He has an Antares, 2,000+hrs, a BI rating and a 1,500km diploma




Satpic shows very nasty cloud cover at the third turn point of John Williams' flight

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WINTER WARMER

Being cold on a long flight is not good for decision-making. Diana King sees what difference heated clothing could make

I DO a good deal of wave flying throughout the year and often suffer from cold, particularly in winter. I am always reluctant to curtail a flight because of the temperature, but being cold for several hours is not good for decision-making in challenging conditions. So I was delighted to be asked to review some heated clothing for S&G.

Unfortunately the period available to do the evaluation was rather short and I had

only one opportunity to try the clothing in a flying environment. However, in the recent cold weather, I was very pleased to use the clothing for ordinary everyday activities. It would improve comfort at the launch point, though the battery endurance of three hours might rather limit its value for this purpose. During the time that I have had the clothing, we had one wave day when we could do some flying and, unfortunately, on that day it was

Phil's day on our own glider. I scrounged a flight in a Falke (unheated and rather draughty!) based at Shobdon and tested out the clothing for an hour or so at fairly low levels.

Jacket

The jacket has removable sleeves and heated panels in the lower back, powered by a neat little rechargeable powerpack that tucks into a pocket and connects to the panels via a cable. The powerpack displays how much battery power is available. The heat setting can be adjusted from 1 (coolest) to 9 (warmest). The recommendation is to wear the garment over fairly thin clothing, so as to be able to feel the warmth.

For flight, I removed the sleeves and wore the gilet over a fleece shirt and under my

Ozee suit. This was comfortable, but had the disadvantage that I could not reach the powerpack once I had zipped up the Ozee suit, as the powerpack was inaccessible in the gilet pocket. The connecting cable supplied was too short to route out of the top of the zip and keep the powerpack accessible in the glider pocket. I made this comment to the suppliers and they promptly supplied an extension cable which will overcome this problem. Even without an Ozee suit on top, it would be awkward trying to reach the powerpack under parachute and cockpit straps, so I suggest anyone buying this product should always ask for the extension cable.

Because I would not be able to adjust the settings, I decided on a medium heat setting of 5. At this setting it was a little too warm when flying at lower levels, but very comfortable at colder levels, keeping my lower back and kidney area warm for the couple of hours that I was wearing it. My personal preference would be to have the heated panels going higher up the back, as I feel the cold in my upper as well as lower back, but the heat does transfer to some extent.

As many of my wave flights are considerably longer than the designed powerpack endurance, I would normally aim to switch on for short spells to avoid getting cold, whilst conserving the power so that it lasts for the full flight. With the power extension lead, it will be possible to do this and also to alter the power setting to increase the heat at greater heights and reduce it at lower levels.

At warmer times of year, or for people who don't feel the cold so much, the jacket complete with the sleeves may be warm enough without any outer garment. For outside wear in very cold weather, the sleeves seem rather thin and, if it is cold enough to need the heating, I would always expect to need to wear something over the top.

My overall conclusion is that the jacket is an excellent addition to any serious wave pilot's flying wardrobe.

Insoles

The second item for review was a pair of heated insoles. These were supplied in a general size with the instruction to cut them to size, avoiding the areas where the heated pads and connecting wires are. Although I have small feet, I was just able to cut round these areas and still fit the insoles into my boots.

In use, a wire runs from under the heel and plugs into a battery pack, which can be hooked over the edge of a boot or attached to the leg with a Velcro strap. A switch on the battery activates the heating and a light indicates that the heating is working. When in place, the insole lies flat and is comfortable. In flight there was no sensation of warmth,



Diana King checked out the EXO² heated jacket and insoles in snowy conditions just before Christmas

ONE ADVANTAGE OF THIS SYSTEM OVER SOME OTHERS IS THAT THE POWER SOURCE IS INDEPENDENT OF THE GLIDER BATTERY SYSTEM

making me wonder if they were working. When I checked them after the flight I found that they were gently warm, which is probably sufficient to prevent feet getting unbearably cold in moderately cold conditions. However, I am uncertain whether they have quite sufficient power to provide enough heat for long periods at sub-zero temperatures. Ideally I need to review them again on a longer flight in more challenging conditions.



A battery pack hooks over the edge of a boot or attaches to the leg with a Velcro strap

In my view the insoles are useful for people who don't feel the cold badly. For those who suffer badly from cold feet, the power and duration may be insufficient to provide a complete solution, but I would certainly rather have these than nothing at all.

Conclusion

Both items are easy to use. The insoles in particular are easier and more comfortable to use than the other types that I have tried. The charging mechanism of both items is straightforward.

One advantage of this system over some others is that the power source is independent of the glider battery system, so using the heated clothing has no impact on the electrical flying instruments. The battery packs are light and small size, so they are easy to accommodate in a glider cockpit.

In conclusion, this equipment is a good investment if you plan on regular flights in cold conditions.



EXO² HeatSole: supplied with two power packs and one charger per pair, plus a Velcro strap for clipping power pack to lower leg if not wearing boots – £79.99

FROM THE SKI SLOPES...

IT'S 9.30am and I'm at 10,000ft in the Sierra Nevada, *writes BGA Communications Officer Keith Auchterlonie, who is a BASI qualified alpine ski instructor.* The air temperature is -17°C and there is a 20mph wind. I've just come up the chair lift and there is a nice warm feeling in the small of my back.

As many of my gliding friends also ski, the editor and I thought it would be a good idea to see how the EXO² garments performed in a skiing environment.

The heated jacket was very effective. With just a thin base layer below and a ski jacket above, I was more than warm enough even in these conditions. In fact, I only switched the power on when riding lifts early in the day. A single charge of the batteries would definitely be enough for a full day's skiing, even on the coldest days.

This is not a piece of dedicated ski equipment. You couldn't use it on its own – it's too short, there are no snow gaiters and there aren't enough pockets to hold all the bits and pieces you need on the mountain. However, it would combine well with an outer shell – battery off when it's cold and

on when it's really cold. You would probably want to run a wire into your shell pocket so that you could keep the battery and switch in it, rather than having to keep unzipping the shell to get to the EXO² garment.

I wasn't sure that the mitts would be robust enough for skiing, particularly among trees. However, after four days, they showed no signs of wear. The mitts are easy to use and provide good protection against snow ingress, although personally I prefer a glove to a mitt.

Unlike the jacket, you are not conscious of the heat source; your hands are simply kept at a constant 46°C. I found this a bit too hot, causing my hands to sweat and, again, I needed to switch the mitts on only intermittently.

My biggest gripe was that the mitts were difficult to dry. Even after leaving them switched on overnight, the insides were still damp in the morning.

I probably wouldn't buy these items just for skiing but, if I had already purchased them for gliding, I would certainly include them in my ski packing list.



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REFLECTING ON A STORMY RIDE

Martin Simons shares his memory of 8 August, 1967 – the one occasion in 60 years of flying where he has been truly frightened



Martin's K-6E, pictured in 1967

**COWS ARE
INQUISITIVE.
THEIR TONGUES
ARE ROUGHER
THAN THE
COARSEST GRADE
OF SANDPAPER
AND THEY WILL
LICK THE FABRIC
AND THIN
PLYWOOD OFF
WINGS AND TAIL
IN NO TIME AT ALL**

ONLY once in some 60 years of flying gliders have I been truly frightened. The third contest day of the London Regional Championships, August 1967, was expected to be difficult with thunderstorms and heavy showers, but with some hope of soaring in the clear intervals. The task was a short race from the site at Dunstable to Rearsby airfield on the far side of the city of Leicester, 105km away.

Thirty gliders were assembled ready for launch, but we had to wait in the cockpits for a heavy shower to pass. I had a P tube

to dispose of unwanted liquids through the floor. I made use of this while waiting. I had not realised that a crew member, Elizabeth, a volunteer from my student tutorial group, was sitting for shelter under the wing. It was exactly the wrong place. She was already wet from the rain so perhaps it didn't matter.

We were towed up into lifeless air. I and several others were down again within minutes, but started again with better prospects.

A mighty cumulonimbus cloud was building north-east of the track. I had read of pilots flying along the front of such storms, finding lift all the way as cold downbursts poured out from the cloud, forcing the warmer air upwards. It worked just so for me and I made rapid progress.

Leicester appeared ahead in no time, but the storm was squatting, dark and menacing, directly over the city. The cloud there had come down to the ground. An almost impenetrable leaden curtain, streaked vertically in shades of dark and lighter grey, towered above, up, up, vast and awesomely into the stratosphere.

My goal lay on the other side where all was black and dangerous, the rain furious with hail and lightning. Lightning striking a glider has been known to blow the aircraft

apart. The anvil cloud capping the storm was spreading above, cutting off the sunlight. The world seemed almost as dark as night. I was terrified.

As I hesitated, I saw another sailplane to my left, but higher. He headed off into the murk. I was much lower and losing height now. It would be madness to try to follow across the city where there could be no safe landing. I could, and should, have turned back a short distance to a disused airfield I had seen, the runways wet with recent rain. Instead I chose field a few kilometres ahead on track. For the sake of a few extra points in the contest score, I decided that was where I should touch down. It was a mistake.

I saw no obstructions and was committed. The ground was not flat but I could land uphill using a little extra airspeed to make a climb, conforming to the slope, before touching down. At the last moment I realised that the ground was steeper than I had thought, and irregular. I had to pull up harder. The first contact was gentle, but instantly there was a hefty thump and the glider came to a sudden standstill. There was a rumbling noise that I could not understand. When I looked down in the cockpit, I saw blades of grass sticking up through the floor. I had damaged my precious sailplane.

I scrambled out. The rumbling continued. The wheel of the glider was spinning round; it was off the ground. The fuselage was resting across what I thought at first was a ditch, but soon recognised that I had landed across some lynchets, medieval strip fields which still terrace the landscape of England in many places.

As I stared, I heard the flute-like note of another glider nearby. Someone was floating a few hundred feet overhead and I hastily used the radio to say: "Don't land here!" Whoever it was took my advice and disappeared into the gloom. I never found out who that was or where he came down.

I had seen no cattle before landing, but they had seen me and were hurrying up the slope towards me. Cows are inquisitive, always ready to investigate unexpected

happenings. They are especially destructive of wooden gliders. They like the taste of cellulose dopes and other aircraft paints. Their tongues are rougher than the coarsest grade of sandpaper and they will lick the fabric and thin plywood off wings and tail in no time at all.

I had landed near a suburban housing estate. As the cattle approached from one side, a horde of excited children came running from the other. I had a brilliant idea. A couple of energetic youngsters led the crowd and as they came up, I yelled at them: "Help me keep these cows off!" Utter mayhem followed.

The boys, girls and infants, in their efforts to help, ran wildly about waving their arms and shouting. The cows took little notice, stumbling dangerously nearer to the wings and delicate tail members with their sharp, heavy feet and rasping tongues.

The children were soon jumping over and climbing on the glider. Some decided to play hide and seek around it, others peered into the cockpit, wagging controls, poking and wondering what the various knobs and switches did and threatening to blow down the pitot tube, wrecking the airspeed indicator. More kids came running as I frantically tried to protect my machine and worried also about the damage I myself had done in landing.

English policemen are wonderful. I was rescued by a couple of them who arrived in their beautiful car. The children were instantly subdued, the cows, reluctantly, moved off. The bobbies radioed for help.

My crew had followed me by road, so were



Martin Simons prepares to launch in his K-6E

not far away. As the storm grumbled on and at last moved away, we de-rigged the glider and, piece by piece, carried wings, fuselage and tailplanes through someone's garden gate, down a very narrow passage between two houses and into the street where a crowd gathered to watch us load everything into the trailer. We drove away waving, with thanks all round and small cheers from the children.

Footnote:

Of the 30 who started, eight pilots braved the storm and reached the goal. One of them, older and more experienced than I, admitted to me later: "The last few kilometres were not very nice." Nobody was struck by lightning.

My sailplane was a K-6E newly imported from Germany. The damage to the belly proved to be trivial; a glass fibre fairing had been cracked. I was able to repair it overnight and fly again the next day.



Martin Simons flew at Derby & Lincs and at Lasham before joining the London Gliding Club in 1964. He completed his Silver C in 1965 and Gold C distance in 1967 during the London Regionals. Martin was editor of the *LGC Gazette* and later of the *Australian Gliding* magazine, from 1970 till 1980. He has written many articles and some books, including a series of three volumes describing sailplanes from 1920-2000



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INFORM

Looking for something different to do over winter? Formation flying and dual towing are just two examples of ways that you can try your hand at new skills to keep yourself interested, as well as current, for the upcoming season. Mike Collett explains how...



WINTER flying doesn't always have to be dull. Most of us have, at some point in our flying career, wanted to try formation flying. However, I'd guess that very few of us have taken off in formation with another glider and spent that entire flight, right up to the landing, in formation.

At Booker, a number of members wanted to learn more and try our hand at this with someone who knew how to do it properly. This rather onerous task fell to Graham Saw of the British Glider Aerobatic team, whose flying experience covers instructing, competing and displaying gliders.

It was decided that this should be done in two K-13s due to 

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✎ their draggy nature, which would allow us to formate more easily, as well as allowing us to dual tow them; this being the best way to get the two gliders together right from the start of the flight.

The dual towing aspect creates some issues in itself. Firstly, you will need to find a couple of people that have done it before, a dual tow rope which has one short rope and one long rope, plenty of space and finally, and most importantly in my mind, a thorough briefing in which everyone involved with the launch must be a part.

We've adopted the technique of setting the ropes up on the ground in position and bringing both the gliders and tug into place. This saves any issues involved in taking up the slack on the two ropes, which can prove problematic. I should say at this point that you should not try either dual towing or formation flying unless you are under the supervision of people who know what they are doing.

The take-off is usually a non-event, as the wing runners will be on the outside wing of each of the gliders and holding the wing back a little to counter the tendency of the rope to pull the gliders towards the centre of the tow while the controls are ineffective. The gliders will initially hold out line astern and, as the combination climbs, the glider on the longer rope will drop into low tow and the one on short rope moves to the centre. The only other thing to remember is that the glider on

the short rope must release first otherwise life gets interesting.

For the formation flying, we found that the only way to allow the gliders to formate was to degrade the performance of a K-13 even further by the lead glider using a small amount of airbrake. This allows the forming glider to have greater performance and to allow it to manoeuvre into place.

Once in place, it's down to picking an appropriate reference point on the other glider to hold station. The lead glider is in control of where the combination is going and ensuring that you don't both land out. This would obviously be covered by the pre-flight briefing, which is integral to making the flight a success rather than a waste of a launch.

It is also important to note that both gliders must have a way out if they are unhappy at any point.

When a flight like this works the satisfaction is immense and you can also get some superb pictures, as you can see from the front cover and this feature.

All in all, this was a great way to spend a winter's day and broaden one's experience. Formation flying and dual towing are just two examples of ways that you can try your hand at new skills during the winter to keep yourself interested, as well as current, for the upcoming season.

■ **Turn to page 42 to read more about formation flying**

(Above and overleaf) Dual towing is the best way to get two gliders together right from the start of the flight (Chris Collett)



Mike Collett has been CFI of Booker Gliding Club for two years. He has over 2,000 hours in gliders (plus over 300 in powered aircraft) and represented the British Junior Gliding team in the previous two world championships

■ MY FIRST exposure to formation flying was taking part in a six-glider flypast at the Biggin Hill Air Display several years ago, emulating the D-Day invasion of troop-carrying gliders and 120 parachutists.

Preparation consisted of a briefing beforehand, but with the flying training 'on the job' in front of the thousands of spectators. The formation wasn't particularly tight and certainly not up to the standards of modern display teams but, given the preparation, still managed to look very impressive.

With hindsight, it would have been much better to have developed the skills and practised in a controlled fashion. This is what we are now doing at Booker, with the challenge of maintaining the formation from the dual tow to landing.

I am part of a group of pilots at Booker who are developing the skills for no reason other than to improve our flying competence. Before each flight we have a thorough briefing with the pilots involved, where each aspect of the flight is agreed. Details such as where we will be flying, direction of turns, speeds, use of airbrakes (in lieu of throttle which power pilots have to help positioning) and eventualities are all covered.

The flying definitely concentrates the mind, as you are aiming to hold a constant relative position and are flying much closer to the other glider than in a typical thermal. Key to the whole process seems to be flying accurately and consistently; it's a lot of fun and very rewarding. We must be doing something right as there are always positive comments from observers on the ground and it is generating interest from other members who are keen to train as well.

- DOUG HILTON

FORMATION FLYING

It's hard, but fun, to hold formation. It is also something not to be tried without expert guidance. Graham Saw explains Booker GC's approach



I SUPPOSE this all started one non-thermic day at Booker, when a few bored instructors decided to dual tow the K-13s for fun and I said "what are you going to do on the way down?" We decided to have a go at formation flying. The first thing you realise is how hard it is (no surprise!) and why the military spend a few quid when training their steely-eyed fighter pilots. The second thing is how much fun it is when you manage to hold formation. A background of aerobatics helps as fast, accurate inputs to the controls are essential when trying to keep a constant position with the other glider.

For training, we use two two-seaters to give four pairs of eyes and normally use dual tow so we start in the same part of the sky – it is too easy to spend most of the flight trying to catch up with the other glider!

Thorough planning and a briefing are

essential for safety and a successful flight – just meeting up after a cross-country and 'having a go' does not work and could be dangerous.

This is a great way to overcome the 'winter blues' and learn something new. If you have a military pilot in your club, get them involved. It could fast-track the learning process.

Glider formation flying guidelines

- One glider leads, the other formates (these roles must NEVER be reversed!)
- The lead glider must have poorer performance (with identical gliders, the leader cracks open his/her airbrakes or uses some flap) so the forming glider can accelerate, decelerate and alter height, relative to the lead glider. Both gliders should release in close proximity and height. (Achieved by two tugs well briefed, or dual tow.)
- Relative positions on release are very



✍ important – minimise join up delays.

- If dual tow is used, the forming glider should be on the longer rope so it releases later and higher, which helps the joining up phase.
- Both gliders should be trimmed for their respective airbrake positions and speed before commencing formation work. (Need octopus to hold stick, airbrake and trim!)
- For each flight, ensure a complete briefing for all pilots (including tuggy) or the flight will be a total waste of time, or dangerous.
- Agree and brief the flight pattern that will be followed. This may result in a series of turns in the same direction with straight flight pattern in between. This may be dictated by the circuit landing direction in use.

Briefings (glider pilots and tuggies)

- Decide WHO is lead and who is the forming pilot.
- Decide what speed the lead pilot flies.
- Decide which side forming glider is on (this decides turn direction of lead glider).
- Height and position, relative to the airfield, of gliders when releasing from tugs.
- Join-up procedure. Work out the best way for the gliders to join without delay. A dangerously high closing speed will not be apparent until too late. Approach with enough lateral space (say, one wingspan) such that an inadvertent overshoot still has a safe separation. You can then move closer when the speeds and positions are synchronised.
- Flight pattern of gliders, including landing phase.
- Actions if anything goes wrong.

Positioning

Before first attempt, position gliders on ground in relative formation positions and note view/angle of glider (especially important for forming pilot) whilst sat in glider. Note reference points on lead glider to position on (see figure 1 above right).

Pilots' specific jobs

Lead glider

- Controls flight path of glider combination throughout the flight. (Lookout, airspace, gliding range, etc.)
- Must fly accurately when flying straight or turning with constant speed (handling speed 5 or 10kts above min sink speed), string in middle, constant bank (say, 30° of bank), etc. All adjustments should be smooth with almost imperceptible changes of attitude.
- Straight flight – airbrakes (or position 1 flap) cracked open constant amount. With K-13, cracking airbrakes to the depth of the caps

seems to be about right in straight and level flight.

- Turning – always turn AWAY from the forming glider, otherwise the forming glider must slow down and reduce height – dangerous!
- Increase brake amount (or flap position 2) as forming glider travels further on the outside of the turn. With K-13, use double the airbrake as used in straight and level.
- Do NOT try to help positioning by forming on other glider (two gliders forming on each other does not work!).
- Landing – allow for 'wingman' when approaching.
- Judge for 1/3rd airbrake approach (gives forming glider better control range).

Forming glider

- After release, join up as quickly as possible with the lead glider, on the briefed side. (Extra relative height from tow should help this phase.)
- Move into position smoothly and safely, such that the leader can see you.
- Regularly check the yaw string – it is natural, but wrong, to use rudder to keep away from the other glider! (You should have same bank angle.)
- Never get in front of the other glider.
- During turns, ideally increase relative height in the bank so you remain in line. (This is why the lead glider helps by increasing its drag in turns.) If you cannot increase height and keep up with the lead glider, then stay on the same level so you are not left behind.

Safety

- Full briefing of all tuggies and glider pilots with total understanding who is doing what, otherwise the flight will be a waste of money and dangerous.
- Forming glider should be positioned such that it is never above and behind the lead glider, so it can always turn/accelerate away.
- If either pilot becomes unhappy with the formation – CLEAR EXPEDITIOUSLY! Make positive turn away from other glider or accelerate away by lowering the nose, whichever is appropriate and put distance between the gliders! The other pilot, lead or forming, should recognise this as a signal that the exercise is over and not attempt to continue – debrief afterwards on the ground.
- Briefing should include confirmation of which way formation is likely to break/separate if necessary.

Guidelines by Graham Saw and Doug Hilton

THOROUGH PLANNING AND A BRIEFING ARE ESSENTIAL FOR SAFETY – JUST 'HAVING A GO' DOES NOT WORK AND COULD BE DANGEROUS

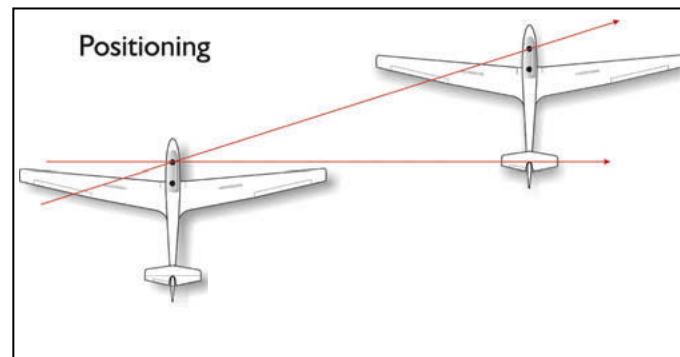


Figure 1: note reference points on lead glider to position on

VIEW FROM THE BGA:

This is great. It's wonderful to add yet another strand of fun to this fantastic sport of ours.

As with all worthwhile challenges, of course, extra rewards come with extra risk.

This article can only hint at the magnificent satisfaction to be had, but gives a good introduction to the hazards – there are several!

With that in mind, although it is good to learn from your mistakes it is much better to learn from someone else's, so why not pick the brains of someone with formal formation training? There are plenty of (ex)military glider pilots in the BGA; I've not found one to be reticent.

Best technique is to buy him or her a beer, ask a few questions and sit back.
– ANDY MILLER, BGA SRE(MG)
Ex-military; currently instructing – formation and other things – with Ultimate High at Kemble

✎ important – minimise join up delays.

- If dual tow is used, the forming glider should be on the longer rope so it releases later and higher, which helps the joining up phase.
- Both gliders should be trimmed for their respective airbrake positions and speed before commencing formation work. (Need octopus to hold stick, airbrake and trim!)
- For each flight, ensure a complete briefing for all pilots (including tuggy) or the flight will be a total waste of time, or dangerous.
- Agree and brief the flight pattern that will be followed. This may result in a series of turns in the same direction with straight flight pattern in between. This may be dictated by the circuit landing direction in use.

Briefings (glider pilots and tuggies)

- Decide WHO is lead and who is the forming pilot.
- Decide what speed the lead pilot flies.
- Decide which side forming glider is on (this decides turn direction of lead glider).
- Height and position, relative to the airfield, of gliders when releasing from tugs.
- Join-up procedure. Work out the best way for the gliders to join without delay. A dangerously high closing speed will not be apparent until too late. Approach with enough lateral space (say, one wingspan) such that an inadvertent overshoot still has a safe separation. You can then move closer when the speeds and positions are synchronised.
- Flight pattern of gliders, including landing phase.
- Actions if anything goes wrong.

Positioning

Before first attempt, position gliders on ground in relative formation positions and note view/angle of glider (especially important for forming pilot) whilst sat in glider. Note reference points on lead glider to position on (see figure 1 above right).

Pilots' specific jobs

Lead glider

- Controls flight path of glider combination throughout the flight. (Lookout, airspace, gliding range, etc.)
- Must fly accurately when flying straight or turning with constant speed (handling speed 5 or 10kts above min sink speed), string in middle, constant bank (say, 30° of bank), etc. All adjustments should be smooth with almost imperceptible changes of attitude.
- Straight flight – airbrakes (or position 1 flap) cracked open constant amount. With K-13, cracking airbrakes to the depth of the caps

seems to be about right in straight and level flight.

- Turning – always turn AWAY from the forming glider, otherwise the forming glider must slow down and reduce height – dangerous!
- Increase brake amount (or flap position 2) as forming glider travels further on the outside of the turn. With K-13, use double the airbrake as used in straight and level.
- Do NOT try to help positioning by forming on other glider (two gliders forming on each other does not work!).
- Landing – allow for 'wingman' when approaching.
- Judge for 1/3rd airbrake approach (gives forming glider better control range).

Forming glider

- After release, join up as quickly as possible with the lead glider, on the briefed side. (Extra relative height from tow should help this phase.)
- Move into position smoothly and safely, such that the leader can see you.
- Regularly check the yaw string – it is natural, but wrong, to use rudder to keep away from the other glider! (You should have same bank angle.)
- Never get in front of the other glider.
- During turns, ideally increase relative height in the bank so you remain in line. (This is why the lead glider helps by increasing its drag in turns.) If you cannot increase height and keep up with the lead glider, then stay on the same level so you are not left behind.

Safety

- Full briefing of all tuggies and glider pilots with total understanding who is doing what, otherwise the flight will be a waste of money and dangerous.
- Forming glider should be positioned such that it is never above and behind the lead glider, so it can always turn/accelerate away.
- If either pilot becomes unhappy with the formation – CLEAR EXPEDITIOUSLY! Make positive turn away from other glider or accelerate away by lowering the nose, whichever is appropriate and put distance between the gliders! The other pilot, lead or forming, should recognise this as a signal that the exercise is over and not attempt to continue – debrief afterwards on the ground.
- Briefing should include confirmation of which way formation is likely to break/separate if necessary.

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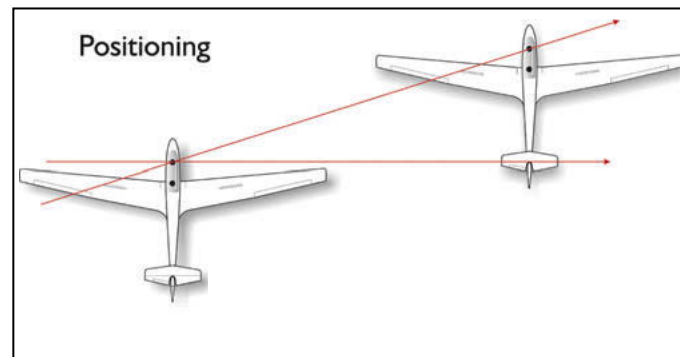


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TAKING NOTICE

Paul Ruskin explores how to get today's NOTAMs on to a PDA

MANY of us fly with PDAs, which we use to keep ourselves clear of airspace. Each day we are meant to check NOTAMs (Notices to airmen) that might affect us. The format that NATS provide these in is well known to be obscure – reading lists of lats and longs is not a good way to self-brief. Of course there are programs that help interpret this information in a graphical format – and these are very useful, but this information still needs to be printed or transferred to a map.

Is there a better way?

This article describes a simple process by which NOTAMs can be reviewed and downloaded on to a PDA so that they appear as airspace, and give a warning if we stray too close. It is easy and takes little time (five minutes including NOTAM review). This can

be done before heading out to the airfield – even the night before (you still need to phone the AIS line on 0500 354802 on the day of course). My particular way of doing it uses Spine (a free program) and SeeYou PC and mobile (not so free) – but a similar process works with other PDA software, and several are described later.

Here's what you do

Download NOTAMs into SPINE (press the 'DOWNLOAD' button shown in figure 1, below). Either the evening before, or the morning of the flight, download the NOTAM data into SPINE (Soaring Pilots' Intelligent NOTAM Editor – www.enborne.f2s.com/gliding/spine.htm). This is an easy program to set up, and will download NOTAMs within a certain radius of your chosen home airfield. I use a radius larger than I am ever likely to fly, so I

can leave that set whatever the conditions. It will do a certain amount of filtering itself – there's a setting for 'Gliding' – so many of the irrelevant NOTAMs are ignored automatically.

Review NOTAMs and delete those you don't want. Pressing the 'PLOT' button produces a new window (the picture in Figure 2 – see right – looks cluttered, but the map needs to be small to fit on the page – it's much better on a reasonable screen).

Figure 2 – SPINE Plot window

Use the + and – buttons to scale the map to the area of interest. Then, by moving the mouse around this window, review each NOTAM in any area you're likely to fly. The NOTAM text appears in the panel to the left of this window, and also in the window we first opened. I find the best approach is to delete NOTAMs which either won't affect me or which I don't want on the PDA. For example, I don't want to be told each time I fly that Bourn no longer has an ATZ, and there's not much I can do about the occasional free balloon. So they go. I leave the interesting stuff – air displays, Red Arrows transits, BBME, etc. SPINE is smart about this – if you delete it today, it doesn't usually come back tomorrow, so you're just looking at the new stuff.

I then generally print the map plot, and that goes in the aircraft with me as a paper backup. I also write on the paper the relevant times of the key NOTAMs, since SeeYou won't present me with that information in the air.

Save the NOTAMs in a file that SeeYou can use. In the main SPINE window there is a 'SAVE AS' button. Underneath it, select the file format required (for SeeYou use TNP). Save the edited NOTAMs to a file (eg "SPINE output.air") in the same directory as the SeeYou airspace files (but you can put it anywhere you like). SPINE remembers this directory so there's no selection to be made next time.

Start SeeYou on your PC. The very first time you do this, you need to tell SeeYou to add the airspace information from the "SPINE output.air" file. (Use Tools/Airspace

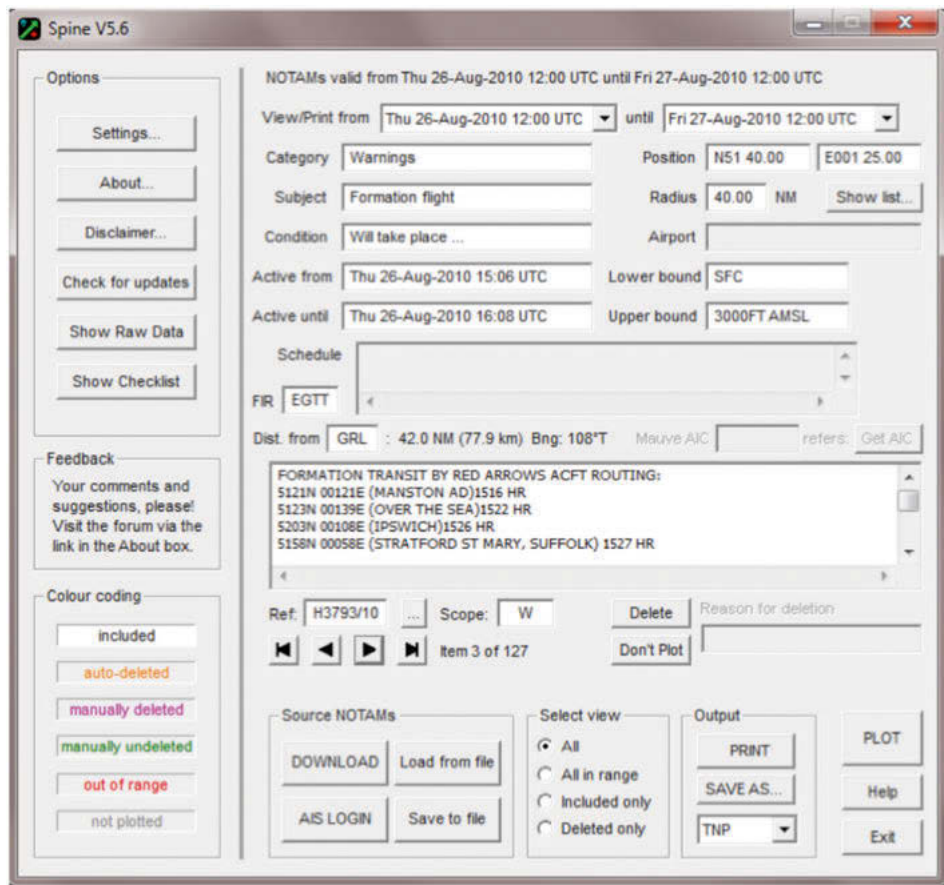


Figure 1: downloading NOTAMs into SPINE

SeeYou treats the NOTAM information in the same class as Danger Areas – so you can change the way that this is displayed – for example thickening the line if you want (in Tools/Airspace select Danger Area under Items and then select the style you want). You can also, if you want, change the label of the airspace in SPINE – see Settings/Output.

SeeYou has a useful feature which allows you to transfer the data from SeeYou PC to SeeYou Mobile. With the PDA connected via USB to the PC, you use File/Mobile Wizard. So long as you have the airspace box ticked, your NOTAMs will transfer, along with any other settings that you've selected. (You can also use this feature to transfer maps, waypoints and so on.)

Using other PDA software

The process described above works with SPINE, SeeYou PC and SeeYou Mobile. What happens if you don't use that software? It may well be possible to use an alternative NOTAM editor – I leave that to you to find out how to do, since SPINE is free. But it's certainly possible to use SPINE with other flight management software. My thanks to a number of people who have provided the following guidance:

The TNP format files (“SPINE output.air”) mentioned above should work fine in Glide Navigator II. You can use Microsoft’s ActiveSync (available as a free download from www.pocketpc.com) to browse the Pocket PC PDA. With Windows Explorer, copy the files to a suitable directory on the PDA, such as “My Computer/Mobile Device/My Pocket PC/Storage Card/My Documents”.

XCSoar

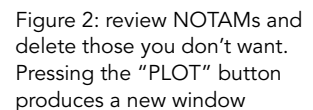
Connect to the PDA as for Glide Navigator II. Then copy the “SPINE output.air” file into the XCSoar data directory on the PDA. In the system configuration menu, select it as second airspace file (you only need to do this the first time).

If you have XCSoar on an SD card, you can write the file directly to that card before plugging it into the PDA.

ClearNav

Save the “SPINE output.air” file to the SUA folder on a USB stick, but change the file extension of the saved file to .sua (so “SPINE output.sua”). Plug the USB stick into the ClearNav USB socket used for downloading before switching on, “Update Airspace” as usual, then include the new file from the settings menu.

WinPilot can use an OpenAir format file, which SPINE can provide. From its manual: “User Airspace file must have extension *.txt, and has to be placed in \My Documents\folder on your iPAQ”.



**BGA NATIONAL COACH
MIKE FOX ADDS:**

In my view, this technique is an excellent tool to provide a flight map of complicated shaped temporary airspace which your flight takes you close to.

For the vast majority of small NOTAMs however, it is simpler and less prone to error to check the AIS web page, use SPINE to find individual warnings if required and mark them on your 1:500,000 before you go.

Please do continue to manually check the AIS website for NOTAMs, using this great technique as an extra method of staying out of today's increasingly complicated airspace

I HAVE BEEN ENCOURAGING OTHERS TO CONSIDER GLIDING FOR THE DISABLED AS BEING PART OF THEIR SPORTS THERAPY DEVELOPMENT



‘WOW’ FACTOR

The adrenalin rush experienced while flying with Walking on Air has got Leslie Barr and Maria Duncan hooked on gliding



Above and top: Leslie Barr is full of praise for the Walking on Air team, which has helped him develop confidence and new skills. He has also plucked up the courage to experience the manoeuvre he dreaded – a loop – during a trip to Feshiebridge

CALL me Herbie, were the words of introduction from Herbie Milton, one of the volunteers at Walking on Air for the disabled, based at the Scottish Gliding Centre, near Kinross. As soon as the words were said, *writes Leslie Barr*, I had an immediate flashback to the 1970s when my family went to a cinema in Glasgow and saw *The Love Bug*, the first of a series of films based on the extraordinary VW Beetle called Herbie. Much as I enjoyed the main feature, it was the accompanying documentary about gliding which left its mark on me that night. I knew that some day I would like to be up in a glider, even though I did not have a head for heights.

In fact, the opportunity arose one winter's day in the early 1980s at an airfield near Arbroath and it was an occasion which could have put me off gliding for life.

As an adult in the company of some young air cadets I was determined to fly, although I was really scared stiff. I explained to the pilot that I did not have a head for heights, but regardless he decided to do some steep manoeuvres. My fear was

compounded by the fact that the glider did not have a canopy.

Once on terra firma I welcomed my mug of hot coffee and Mars bar to recover from the experience. I did not realise that the Mars bar was hard and, as soon as I had taken a bite, I broke my two upper front teeth. It was

a day which made its impression in more ways than one! I decided I would never again go up in a glider.

However, circumstances were to change my decision some 20 years later.

Shortly into the new millennium, I was diagnosed as having a rare neurological condition with limited life expectancy. In the midst of all this I was inspired by Lindsay Cant, who I had known for some years when resident in Kinross. She is a remarkable young lady whose attitude to very serious health problems is quite humbling. As she had been talking about being up in the Walking on Air glider I felt encouraged to have one shot at it as I possibly would not be able to do it again. I was saying to myself, "If Lindsay can do it, so can I".

When I arrived at the Scottish Gliding Centre (SGU), the staff and volunteers were so understanding. John Henry was my pilot for the special day. I was very grateful for the experience of soaring above Loch Leven and the nearby hills, which were so familiar to me. It was a day to remember and cherish.

In a different spirit, I thought to myself, "I'll never again be able to glide". In fact, my physiotherapist advised me not to continue due to the risk to my health. But once again, circumstances were to change in an extraordinary way, much to my surprise. I regard it as a miracle, and that's another story.

After several years, my original diagnosis had to be revisited as a result of a steady improvement in my health. So I was able to resume gliding in the summer of 2009. I have appreciated and enjoyed the opportunity

to be in the glider, which can quickly be adapted with hand controls. The team of pilots and helpers are so helpful and patient as they encourage people like me to develop confidence and learn new skills. Lindsay always talked about doing a 'loop the loop', which I can assure you was never going to be on my agenda. Well I addressed that fear on a visit to Aviemore with some members of Forth and Tay Disabled Ramblers in May 2010. There was a space in our programme which allowed a fellow rambler called Maria Duncan and me to visit Feshiebridge, where the Walking on Air glider was conveniently located at the time for an annual event. What a marvellous coincidence!

It was a wonderful flight, so near to the snow-covered Cairngorms even in May. It was also my chance to experience the manoeuvre I dreaded. I took the plunge and asked Joe Fisher, my instructor, to do my first loop. Lindsay was so surprised when I told her my story and, to mark the occasion, designed a special card which I cherish.

Maria (pictured right), who also had the opportunity to fly at Feshiebridge, has encouraged a number of fellow disabled ramblers to participate in wheelchair curling at Kinross Wheelchair Curling Club and, as a result, we have become hooked on another sport for the disabled, which is growing in membership throughout Scotland.

In turn, I have been encouraging Maria and others to consider gliding for the disabled as being part of their sports therapy development.

Yes, my story has been one of changes and it is great to be able to encourage others, as others have encouraged me. Maria's story is wonderfully inspiring, especially as her health has progressively deteriorated, and there is no better person to tell it than Maria herself.

Maria Duncan's story...

I joined a group called the Forth and Tay Disabled Ramblers in 2006 when I discovered that, due to illness, I was no longer able to walk any great distance. I so thoroughly enjoyed the experience of freedom in the countryside that I couldn't wait to go out again and again. I have never looked back – have been on countless rambles, been on a rambling holiday, made so many new friends and found out about things like the Seagull Trust (a charity which runs canal barge trips for the disabled) and the Kinross Wheelchair Curling Club.

In 2009, on a ramble, I was given a leaflet about Walking on Air – Gliding for the Disabled. I considered it, decided it was something I wanted to do then filed it at the back of my mind. However, my daughter mentioned it later that year, asking if I was going to do it and would I like that as part of my Christmas present. I immediately said yes. Wonderful! I decided that since it cost £40-£50 for my first flight and three months' trial membership, it would be wise to wait for better weather. I managed to wait until four days after my 62nd birthday in the spring of 2010 before taking to the skies over the SGU's airfield at Portmoak, where I had the time of my life.

The gliding club includes a fantastic group of volunteers in Walking on Air, who give up their time to share their love of flying.

On the big day of my flight, fellow rambler/curler Leslie Barr came along to take some photographs and, with my son boosting my morale and my friend trying to convince me that I was mad, I took to the air. IT WAS FANTASTIC – and I booked to go back again, and again, and again.

I decided to use this event as a sponsorship for the benefit of Forth and Tay Disabled Ramblers and raised approximately £350, for which I was very grateful to all who sponsored me.

This first experience of gliding meant so much to me – yes, I do lots of other activities, but since being diagnosed with Multiple Sclerosis and digging myself out of the depression that goes with the diagnosis, I always felt that there must be more to life!

As my legs have become weaker and weaker as the years go by, I have felt heavier and heavier within myself. The first time I took off in the glider I asked my instructor Joe Fisher if it would be okay to curse – I didn't – I just said wwwwoowww! The adrenalin rush was amazing – and still is every time.

The peace and quiet and restfulness of being up in the glider often leaves me speechless (something most folks who know me will find hard to believe). The sheer weightlessness is truly fantastic.

I could never find enough adjectives to describe all the wonderful feel-good feelings I have and I can never thank everyone enough for the help (mental and physical) and encouragement they all give. What next? Goodness knows. Time will tell.

■ Gliding is a sport open to all – due in no small part to enthusiasm, persistence and cunning solutions devised by club and BGA volunteers over the years. For instance, did you know that great care has been taken to ensure that the glider cockpit layout does not confuse the colour blind? The next stage in the BGA's equality work is to encourage clubs to look at how they involve a more diverse range of people to take part and for all glider pilots to be able to fly to the best of their abilities. The BGA has opened an 'Innovation Bank' for clubs to post and find useful solutions. Further details are available from www.gliding.co.uk/bgainfo/clubmanagement/innovation.htm



■ For details of Walking on Air and its objects and activities, contact the secretary, Andrew Gordon, on 01383 850286 or Irene Donald at the Scottish Gliding Centre on 01592 840543 www.walkingonair.org.uk

■ British Disabled Flying Association – www.bdfa.net

■ BGA CLUBS WITH FLYING FACILITIES FOR THE DISABLED:
Devon & Somerset GC
Fenland GC
Herefordshire GC
Lasham Gliding Society
Norfolk GC
Shalbourne Soaring Society
Shenington GC
Stratford-on-Avon GC
Scottish Gliding Centre
Ulster GC
Wolds GC



Vintage gliding has become an eclectic, diverse club

VINTAGE OPTIONS

VGC secretary Bruce Stephenson introduces a regular look at the world of vintage gliding and says 'why not try it?'



IF LIKE me, mounting restrictive legislation and a lack of disposable income affects the way in which you participate in our beloved sport, don't despair, there is an alternative...

But before I begin, I need to ask YOU a question. What do you REALLY want from your flying? Now be honest here, really honest, because many of us spend good money after good because of one simple little thing... we were never quite honest, or clear

of what it was that we want from our sport in the first place!

Only you can honestly answer this question. If you are motivated by competition flying alone, and can somehow absorb the mounting costs to stay competitive, you won't find me criticising your enjoyment! Others may want chase numbers, the 100km, 300km, the coveted 500km and the dizzy 1,000kms, while others may just want to get up amongst the clouds and well...dream.

But, what if I said that you could get yourself equipped in a machine that was

perfectly capable of 36:1 or better for less than the cost of that instrument panel in that competition machine? Or what if I told you about the fabulous adventures that you can choose from each year, to soar to your heart's content amongst some of Europe's most spectacular scenery?

Well, that possibility is more than real and could provide a whole new outlook on gliding. The answer of course is the Vintage Glider Club (VGC)!

Founded in 1973 by our irrepressible president, Chris Wills, 40 years later this quiet success story continues to develop and work for its members and the gliding community as a whole.

Vintage gliding, contrary to some beliefs, is not all about "vintage men" in anoraks staring back into the past with rose-tinted glasses. It has become an eclectic, diverse club that offers everything to everyone, with more and more younger pilots (especially on the continent), turning to Classic and Vintage gliding. Many new owners are only now discovering those neglected machines that were once the "cutting edge" in our sport and, in some cases with virtually no money changing hands, more are taking advantage of the opportunities that these beautiful machines offer.

Nor is vintage gliding a step down in skills. Try stepping out of your club Junior or Puchacz into a humble Grunau Baby – now talk to me about skill!

But the best I will leave to last! Vintage and classic gliders really come into their own when you talk about syndicates. At our club, seven of us got together and are currently refurbishing an EoN Baby and an Oly 2B. The cost? Well for starters, both gliders were given to us and have insurance costs that are a fraction of glass ships. Wait for it... the full year's running costs are under £100 per individual for BOTH gliders. It's a bit of a no brainer really!

www.vintagegliderclub.org/

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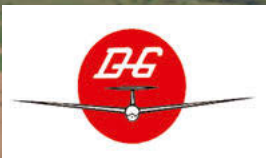
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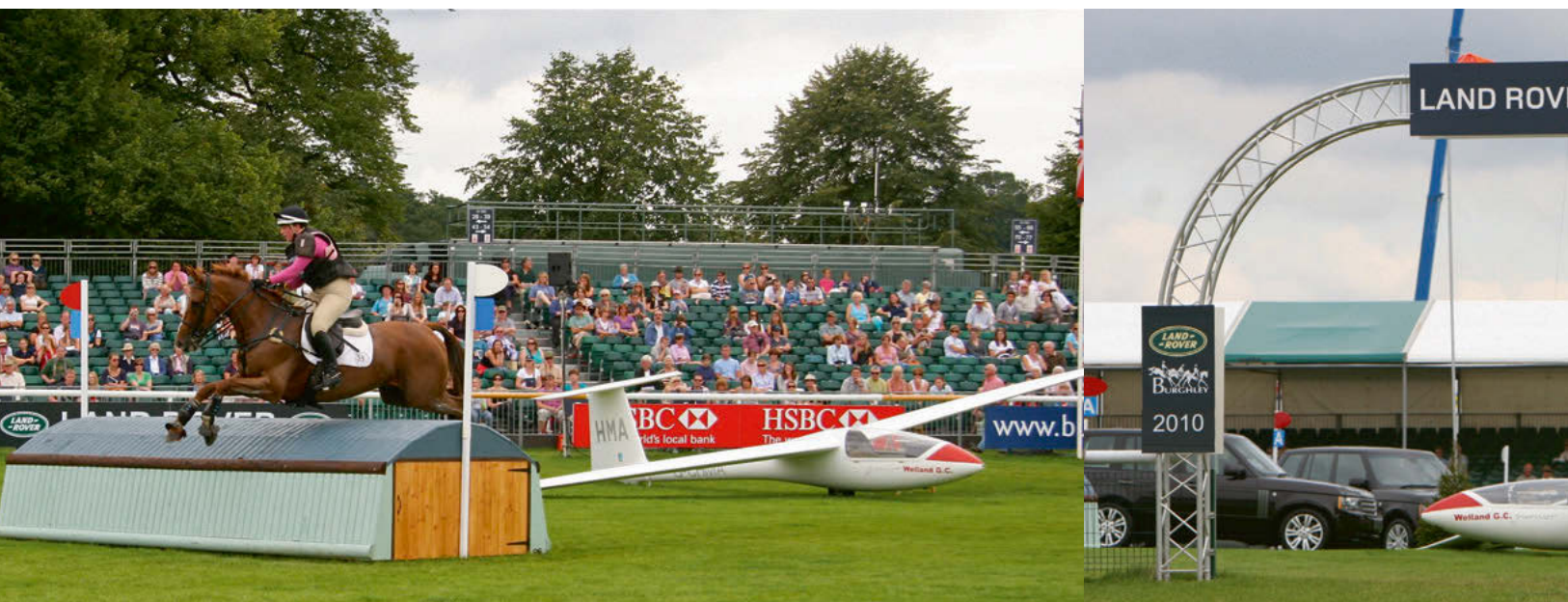
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Course builders designed a scaled-down hangar and mock-up Pegase trailers as jumps, while the club's Junior formed part of the arena scene

JUMP TO IT WITH

Jockey/pilot Jane Cooper reveals how Welland GC got involved with Burghley Horse Trials



FOR a horse-loving glider pilot, there can't be many better offers than a free pass to The Land Rover Burghley Horse Trials, so I was excited to hear that the theme of last year's cross-country course, as it passed through the main arena, was to be gliding and that Welland GC had been asked to provide a glider as part of the backdrop for this televised event.

For those of you less well-groomed in the art of three-day eventing, the competition consists of dressage (think aerobatics without the aero-bit), cross-country – a five-mile gallop with 36 challenging obstacles thrown in (think cross-country flight with 36 land-outs) and a final show jumping element (think hangar packing at the end of a bank holiday weekend's flying).

Now, clearly, three-quarters of a ton of well-shod thoroughbred hooves and gelcoat is not a terribly good mix, so it was a relief to know that the club's Junior was to form part of the arena scene rather than an integral part of one of the jumps!

Having photographed Welland HQ, the course builders designed a scaled-down hangar and two mock-up Pegase trailers as jumps. I didn't actually see any scaled-down members arguing in front of the hangar, but there was a jump elsewhere on the course that looked uncannily like our clubhouse

with a selection of gnomes in front of it (see far right). Which members these gnomes represent will be a source of continued discussion over wet winter weekends I am sure. Oh, and the finishing touch in the main arena was a miniature windsock.

Three of our club members had been able to deliver and rig the Junior earlier in the week with a bit of assistance from course designer Captain Mark Phillips. I was a bit sorry to have missed this bit since he and his former wife, Princess Anne, had been horse riding heroes for me growing up.

Our job (my husband and I – see, the royal-watching paid off) was to de-rig the glider and return it to the club at the end of the Saturday cross-country section so the arena could be set up for Sunday's show jumping finale. In return for this, we became proud possessors of an access all areas Burghley pass.

Now, I'm old enough to remember the heady days of the 70s, when cars were charged a fiver for entry to Burghley and that included all the occupants. Many's the time I've been wedged in the back of a Volvo estate between packets of Mr Kipling's apple pies, small children, muddy Wellingtons and even muddier terriers.

These days, entry to Burghley is a little



Photos by Paul Porter

Welland chairman Roger Tallwin tests Capt Mark Phillips on his centring technique

GLIDING THEME

more expensive and per person, so as one half of a couple with a K-6 and a horse to support, I rarely get to indulge in this annual event. The thrill of having a pass on our windscreen, which meant we were waved straight past the hoi polloi to park alongside the main arena, is not to be understated! Mind you, anyone peering in the back windows in the hope of spotting some celebrity being waved through would have been disappointed to see just our RSPCA rescue case Border Collie, gazing in superior manner at the obligatory black Labradors being walked by.

Oh, what excitement as we passed by the main arena and saw our gleaming Junior resplendent in the corner. (I later discovered it was gleaming particularly well as club member and honorary photographer Paul Porter had been posing with it – sorry, polishing it – earlier in the morning.)

Anyway, having admired the Junior, we set off to walk the cross-country course (thank goodness you don't have to do that on your 500km) and to look around the tempting trade stands. Well, tempting to me, obviously, my other half having his head inclined upwards at the gliders from nearby Wittering scratching overhead. I should think there was some serious head scratching going on inside those cockpits, too, as they

wondered how anyone had managed to land out in Burghley's main arena!

After the temptations of the Dubarry stand, my husband was cheered by the discovery that Land Rover owners were being provided with free food and drink – even those with a battered 1997 Range Rover. This truly was a free day out!

Once the final horse had traversed the course, it was time to enter the main arena to help Paul and Henry de-rig the Junior. This was an opportunity for some PR as various small children had a sit in the cockpit.

With cheery assistance from the delightful Clerk of the Course, Philip Herbert, we were then guided back through the crowds (no doubt wondering at the oddly-shaped horse that required a 30-foot long, five-foot high trailer) safely on to the A14, Welland-bound.

Thanks are due to club chairman Roger Tallwin for knowing the right people to ensure Welland GC achieved its moment in the spotlight, to the club members who worked so hard converting a trailer to take the Junior, and to the rigging team. Thanks, too, to Burghley for a fabulous free day out – well, apart from the Dubarry boots purchase, that is!

PS Just to reassure readers, the horses were found not guilty at the end of the trials.



Jane Cooper took up gliding in 1994, soloing in 1995, and is a Silver C pilot at Welland GC. She took up horse riding at the age of six, soloing shortly afterwards when the leading rein snapped. She is in a K-6E syndicate with her husband, Jo, but luckily has her Gelderlander horse, Tom, to herself. This may explain why she has only 200 hours gliding, but about 2,000 hours riding



One jump looked suspiciously like the clubhouse

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LEAGUE CHAMPIONS

RAF WITTERING, located beside the A1 near Peterborough, must be one of the UK's greatest aviation assets, **writes Mike Jefferyes**. It is currently home to a fleet of Harriers (on such a massive runway!) and, at weekends, to Four Counties Gliding Club.

It was a great thrill when Colin Davey, Four Counties CFI, confirmed the invitation for the 2010 Inter-Club League Final to be held there on 4/5 September – sharing their outstanding facilities with the five competing clubs: Shenington (Edge-Hill – Midland League and last year's hosts), Bath, Wilts & North Dorset (The Park – S Western League), Midland (Long Mynd – Rock Polishers League), Gliding Centre (Hus Bos – Eastern League) and Essex & Suffolk, last year's winners, plus Norfolk (a combined East Anglia team) – and the Barbarians (see below).

Security formalities were essential but, largely completed in advance, simple and unobtrusive – our thanks to the RAF.

Saturday's weather was disappointing with very weak lift, often hard to find. Tasks went south-east hoping for better, Pundits as far as Bury St Edmunds. Valiant efforts were made, but no finishes. Keith Laidler, Long Mynd, flew his LS4 furthest of the other Novices, but sadly not enough for a contest day. Mark Player, Ventus 2 from The Park, was winning Intermediate, his 79km making a contest, with John Stuart and John Parry (DG-505 for The Mynd) second and Steve Pozerskis (ASW 20 for Hus Bos) third. Winning Pundit was Russell Cheetham (JS1 for Hus Bos) with 115km,

followed by Chris Aldis (LS8/15 for The Mynd) and then Mike Thorne (DiscusBT for The Park).

Dave Sharp of Four Counties GC welcomed us on Friday night with a novel suggestion, to field an extra team of Barbarians, made up of a mixed team of pilots from clubs not competing in the final, to be scored for fun, and not influencing the main results. The most notable Barbarian achievement was Peter Davey (ASW 20) with 54km, effectively the 2nd Intermediate, with the Barbarian Pundit 4th.

Downloading of loggers and computing of scores had to wait until Peter (our scorer) was retrieved by his father Colin (our director). Meanwhile, his mother Hilary and her team of ladies, who never seemed to stop feeding us and smiling, made the final preparations for an unforgettable Pig Roast, which more than made up for the disappointments of the weather.

Saturday's scores put The Park, Long Mynd and Hus Bos all equal on an equivalent eight league points, with all to play for on Day 2.

Sunday offered a little more hope, with a front close-by and sun to the north-east. Tasks were set north, Pundits as far as Tuxford (144km O/R). The start-line was extended east, all to be released south of the line and able to go (downwind) from tow. Many did – some straight into fields, others scratched away.

Again, Keith Laidler of The Mynd was furthest Novice, but despite efforts interpreting scores, rules and windcappings, his 34.2km could not be turned into a contest score. Similarly the Intermediates had a no contest

day, despite 63.8km by Steve Lambourne (Pik 20B from The Park). One Pundit turned day 2 into a contest, enabling Al Cook (Shenington DuoDiscus) to come 3rd with 27km and Mike Thorne 2nd with 29km for The Park. Again it was Hus Bos who won the Pundit Class, with Richard Browne (ASG29E) achieving an impressive 118km.

Totalling the scores for the two days again left The Park, Long Mynd and Hus Bos all equal on 8 league points, forcing us back to the 1,000 point scores to decide the winner.

A team score of 352 put BWNDGC (The Park) into 2nd place, narrowly ahead of Midland GC (Long Mynd) with 341 points in 3rd place. If weather had been kinder and the Mynd Novice, who won both days, had achieved a score, things could have been quite different. Add this to the millions of "if only" stories. Clear winners with 507 points were The Gliding Centre (Hus Bos), who won the Pundit class on both days, but (and happily the league is always a team effort) they would not have achieved the eight league points and victory without Steve Pozerskis' 3rd place on Day 1.

Congratulations to Hus Bos for an impressive team win – league champions 2010. Congratulations also to all teams and pilots for the effort made and the enjoyment shared, which was very largely due to the sterling work of Colin, Peter and Hilary Davey and all the team at Four Counties. Very many thanks to them all for such a welcome and for sharing their superb facilities with us. Now we know why they're always smiling!

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■ EARLY November 2010 saw the achievement of a notable trio of first solos at Darlton. Three of the club's junior members, Simon Brown – 16 years and a day, and 17-year-old twins Elspeth and Gareth Case, all took that exciting step in their gliding career within a couple of weeks of each other.

They all joined Darlton GC in 2010 and are intensely keen, enthusiastic and eager to learn. Their flying funds have been boosted by the award of a bursary of £250 each from The Caroline Trust, which has been a major factor in their total commitment. At club junior rates, the £250 bursary equates to 50 winch launches and 600 minutes of flying time for these youngsters. Such funding is a wonderful incentive, attracting new junior members to our sport during these uncertain times.

The photograph, taken by CFI John Maddison, shows Gareth, Elspeth and Simon all looking pleased after their solo achievements.



Charlotte Kitchen, looking concerned before solo flight

■ SIXTEEN-year-old Charlotte Kitchen was sent solo at Burn on 2 January, 2011, and describes her experience:

"As I was getting lined up, all that was going through my head was, "this is it, I am now going to die". However, as I released I thought, "pheew, stage one completed". I soon started to think that I wanted my feet back on solid ground, so headed back to the airfield. Halfway into my circuit, I thought I was a bit high, but I dealt with it and, as I glided onto the runway, relief flooded into my body and everyone was congratulating me."

Charlotte's before and after pictures might remind us of our first solo.



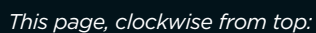
A delighted Charlotte Kitchen after her first solo flight



Club president Jimmy Hogarth lays the first wreath at Borders' airfield memorial during the club's annual Service of Remembrance held on 11 November, 2010, with the Rev John Evans. Fifty members, veterans, and locals attended the service (G White)

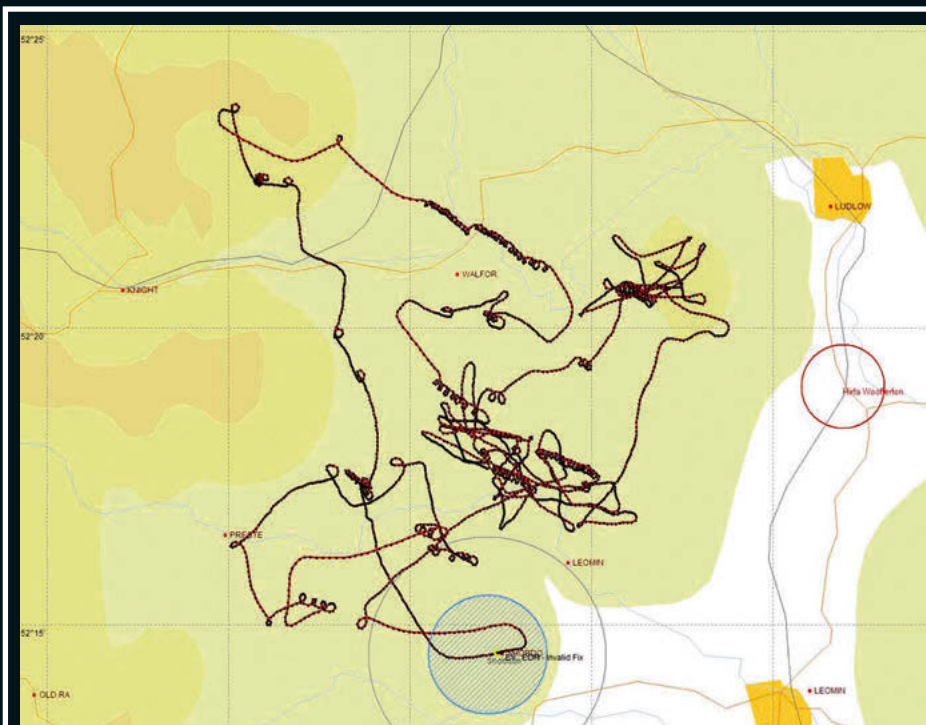


Cotswold club members Tom Gouch and Sarah Gouch, née Cook, arriving at the clubhouse for their wedding reception in their syndicate K-21. The Jaguar is owned by Adrian Giles, who also took the photograph.



Hangar packing at Hus Bos in late November
(Alan Foxon)

Our thanks to all the photographers and to our *Club News* contributors for sending these in. If you'd like to submit your previously-unpublished photographs for possible inclusion somewhere in *S&G*, send them to editor@sailplaneandgliding.co.uk



■ A GROUP of Surrey Hills GC members went to Shobdon last Easter in the hope of finding wave. Richard Fitch was lucky in finding weak wave and floated around for three hours. He was very surprised later to see that his trace resembled a Welsh Dragon. If you have an interesting shape traced during a glider flight, why not share it with S&G?

CLUB NEWS

BANBURY (HINTON IN THE HEDGES) **WWW.BANBURYGLIDING.COM** **520435N 00118784W**

WE can reflect on a really successful year, maintaining our membership and resources despite the recession. We now have a lovely clubhouse and a launch point bus with a tea bar. We are also now a Junior Gliding Centre and Ashley Valentine will be developing that area. We are modifying one of our K-13s with nose and tail wheels (thanks Pete Fincham and Roger Coombs) and the Pawnee radio has been replaced (thanks Pete Nicholson). Finally, we say a huge thank you to our outgoing chairman, John Giddins, who has served us in this role for the past six years. As he stepped down, we presented him with a fine bottle of malt whisky.
Laurie Clarke

BATH, WILTS & NORTH DORSET (THE PARK) **WWW.BWND.CO.UK** **510742N 0021445W**

FROM October our maintenance team, led by Eddie Gunner, with Ron Sexty, Norman Hill and co-opted members, have been busy maintaining the club aircraft. This loyal band ensures we have fully serviceable aircraft all year round, but it is during the winter they do most of the work. During the year, we have benefited from improved cable towing and retrieve times from the cable quick release mechanism made and fitted to the Land Rover by George Kamp. This system, along with some improvements to the launching procedure, should help us to improve our launch rate. Despite the cold weather the club is still a magnet for the keen members.
Jan Smith

BICESTER (WINDRUSHERS) **WWW.WINDRUSHERS.ORG.UK** **515458N 0010756W**

CHANNEL Five came to Bicester in September and have shown what we get up to on www.five.tv/shows/yoursport/clips/episode-4. Recently four new glider pilots have first soloed. Congratulations to Lee Hitchens, Simon Jones, Tom Mitchell and Brad Walker. We are delighted that Francesca Aitken has been selected to compete in the Women's Worlds in Sweden in 2011. Gliding at weekends continues through the winter while the club fleet is overhauled under the guidance of Ken Hartley. We reopen seven days a week in April. The Bicester Regionals in July 2011 is open for booking on the website www.windrushers.org.uk/competitions/regionals/2011. At the recent

AGM, Tim Harrington was gratefully awarded the Alfur Trophy for his continued help with accounts and finances. Thank you, Tim.
John Staley

BLACK MOUNTAINS (TALGARTH) **WWW.BLACKMOUNTAINSGLIDING.CO.UK** **515848N 0031215W**

AUTUMN has seen an influx of visitors to Talgarth from other clubs, many of whom enjoyed our frequent wave. During October, we had plenty of ridge running, as well as Gold height east wave right above the airfield for four consecutive days that could be contacted from a 900ft aerotow! Although Bo, our summer instructor, has returned to NZ for the winter, we continue to fly at weekends and, when wave is expected, during the week, thanks to the efforts of our rota master, Martin Pingle. The club Pirat has had a major refurbishment and now looks fantastic. The airfield is in great condition and we are looking forward to cold, but fun, winter soaring.
Robbie Robertson

BOOKER (WYCOMBE AIR PARK) **WWW.BOOKERGLIDING.CO.UK** **513642N 0004830W**

BOOKER is continuing to find ways of keeping its members interested and in the air; aerobatic training and dual towing (see p38) have been keeping the K-13s in the air until dusk recently. Next year, we plan to alter our training regime introducing a more structured programme and reintroducing a "fixed price to solo standard" deal. We're also extending our range of expeditions to include Talgarth and Serres, in the French Alps, while keeping our autumn trip to Aboyne. The tug workshop has almost finished a major overhaul on our Motor Falke, which should be earning its keep again in 2011.
Roger Neal

BORDERS (MILFIELD) **WWW.BORDERSGLIDING.CO.UK** **553514N 0020510W**

ON Thursday, 11 November at 11:00 we held our annual Service of Remembrance at the airfield's memorial. The service was ministered by the Rev John L Evans (ex Parachute Regiment) and organised by club president, Jimmy Hogarth. With approximately 50 members, veterans, and locals attending, it proved to be a great success. A big thanks to Jimmy, wife Eileen and all who helped make the day. November saw Dave Wilson and Colin Sword take to the air in the recently restored

Slingsby Eagle. The Eagle has a long history at Milfield and it's great to see it back in flying condition. With 2ft of snow, not much has been happening except a little tow skiing (see p55).
Rich Abercrombie

BRISTOL & GLOS (NYMPFIELD) **WWW.BGGC.CO.UK** **514251N 0021701W**

INSTRUCTORS learned what Junior Gliding Centre status will mean for them. They also discussed FLARM and recommended that all club gliders be equipped with it and all private owners be strongly encouraged too. Kevin Tarrant retired from instructing with our thanks, and Stefano Longo and Martin Talbot joined became Bf's. Congratulations to Matt Davis on his selection for British Team for the Junior WGC in Germany. The AGM was postponed until January. The dinner-dance is in March. Trevor Stuart flew the Bath run four times one October day as Andy Davis took 80 into Wales and the primary wave. Later he took his JS1 80 to Leominster and back – amazing for November. Peter Lazell went solo, congratulations.
Bernard Smyth

BUCKMINSTER (SALTBY) **WWW.BUCKMINSTERGC.CO.UK** **524912N 04228W**

CONGRATULATIONS are due to a husband and wife team that soloed in October. Kate and Martin Hutchinson had re-joined after a few years away from gliding. Buckminster Gliding Club has enjoyed a long and successful relationship with RAF Cottesmore and was privileged to be invited to have a 'last chance' look at the RAF's Harriers before they were officially retired from service. Anyone flying in the Saltby area should note changes in airspace restrictions. Towards the end of the year, the club welcomed a new addition to its fleet – a Robin DR400/180R, from a club in Austria, as a replacement for our long tug. The ferry pilots did well across Europe and back to Saltby in some difficult conditions.
Stuart Black

BURN (BURN) **WWW.BURNGLIDINGCLUB.CO.UK** **534445N 0010504W**

TONY Flannery, our chairman, is progressing discussions with our landlords who according to the local press, wish to divest themselves of Burn Airfield prior to them being disbanded in 2012. We congratulate Charlotte Kitchen

(Left to right) **Banbury's** new clubhouse and launch point bus; **Booker** has been keeping the K-13s in the air until dusk (Mike Collett); **Buckminster's** Stuart Black took this inside a 'wave tunnel' over Northumberland. Wave is seen on the inside of the cloud, upward wind is to the left and crest of the wave at top



on two bursaries designed to promote gliding by young people, namely from the Royal Aeronautical Society and from the Caroline Trust. Bad weather prevented her from having her first solo flight on Boxing Day, her 16th birthday, but she was able to start the New Year by having the flight on 2 January (see p54). We also congratulate Graham Higgins on becoming a Basic Instructor. With new members continuing to join us, our membership level is now up to 112, the highest since 2005. Finally, to allow members to expand their horizons in 2011, the club is planning an expedition to Olsztyn Aero Club in Poland in June.

Chris Cooper

CAIRNGORM (FESHIEBRIDGE)
WWW.GLIDING.ORG
570613N 0035330W

WE enjoyed seeing our old friends and making some new ones at last year's Octoberfest, with the "top of the tree" award going to John Strzebrakowski for a climb to 13,500ft. This year's Mayfest is proving very popular with the first week already fully booked out; however there are still a few places left for the second week at the time of writing. Please book with Chris at chris@cabrich.com and check out our website for full details.

Chris Fiorentini

CAMBRIDGE (GRANDSDEN LODGE)
WWW.GLIDE.CO.UK
521041N 0000653W

WE'RE looking forward to a fruitful soaring season after the icy conditions this winter. Congratulations to James Shaw, who went solo in November. The club's firework evening was a great success – thanks to Andy Jude and Jem Davies and to Janet Birch and Peter Warner for the excellent food. Prize-giving took place in December. Phil Jeffery won three trophies, one of which reflected his 600km flight in May 2010 – this broke the CGC 600km triangle record and the UK 400km and 500km records! Derek Coppin, who died in June 2010, was posthumously awarded the Kelman Clock for the longest cross-county flight during the winter season. The AGM will be on 11 March, 2011.

Lorna Sleight

COTSWOLD (ASTON DOWN)
WWW.COTSWOLDGLIDING.CO.UK
514228N 0020750W

CONGRATULATIONS to club members Tom Gouch and Sarah Cook on their recent

wedding. Following the ceremony, the happy couple flew in their K-21. In October, Sam Lazenby and Tom Wilkinson, both 16, achieved first solos; Tom on his birthday, while poor weather meant Sam missed out by a couple of weeks. Club members Kevin Russell and Andy Kingdom also soloed during the month. Pat Gilmore, who has been our office manager for over 20 years, retired last autumn. We wish her a long and happy retirement and welcome Gill Hayward to the post. Jon Huband achieved his first UK 500km last summer. We are proud that Andy Cockerell has been selected as a member of the British team at the Junior Worlds.

Frank Birlison

CRANWELL (RAF CRANWELL)
WWW.CRANWELLGC.CO.UK
530231N 0002936W

THE AGM went well in October and sees the club into the New Year in good order, thanks to the efforts of many doing their bit to ensure equipment and flying standards. We had a visit from a gyrocopter, which Peter Kingwill went off in. (Brings a whole new meaning to short field landings!) Despite the snowy conditions back in late November/early December, we have managed to fly in some very what some people might call pretty conditions? It has been very cold, but enjoyable! Club social evenings included a film night, Christmas party and lectures in preparation for the new season.

Zeb Zamo

CRUSADERS KINGSFIELD (CYPRUS)
WWW.RAFKROTIRI.CO.UK/CRUSADERS
3501N 03344E

IT'S beginning to cool down – only 26°C in the daytime, how will we survive? As a prior British colony, we have inherited daylight saving – which means the sun goes down between 4-5pm and makes for a very short flying day as we share our runway, having afternoons only. Despite the cooler weather (he he) and the shorter days, we have sent another local member solo. Well done to Harris Scottis. Also, Derek Smith has successfully passed the Full Cat test under the supervision of Peter Brown – congratulations to him.

Jo Rigby

DARLTON (DARLTON)
WWW.DARLTONGLIDINGCLUB.CO.UK
531444N 0005132W

DARLTON junior members were very active in November with notable success in first solo achievement. Twins Elspeth and Gareth Case

and Simon Brown all made the grade (see p54), with Roland Bucher and Joanne Codd joining them in this memorable event. At our Annual Dinner and Awards in October, a number of key members received recognition for their flying achievements or other valued contributions to club life – everyone enjoyed the evening. Site development at Darlton continues to improve the facilities for the members with, hopefully, an official opening of the new clubhouse in the spring.

Geoff Homan

DARTMOOR (BRENTOR)
WWW.DARTMOORGLIDING.CO.UK
503517N 0040850W

WE exceeded (nay smashed!) our target of 3,000 launches for 2010, installed a wood burner in the clubhouse making it warm and toasty, and 'cut and shut' a K-7/13, plus wide screen, to create a simulator. We have continued weekly tuition with students from the CCF at Kelly College; Jacob Knight, Mike Keller and Darren Willis have gone solo and Matt Mackay has achieved a Bronze leg. David Jesty has achieved all three Diamonds, while the Exeter University Gliding Club (and others from North Hill) enjoyed wave conditions in October up to 9,000ft. In recognition of her experience and knowledge in child social work, Karon Matten has been appointed BGA Child Protection Officer.

Martin Cropper

DEESIDE (ABOYNE)
WWW.DEESIDEGLIDINGCLUB.CO.UK
570430N 0025005W

CONGRATULATIONS to Eamonn McGennis and James Cheyne, on their recent first solos. Despite variable autumn weather, some exhilarating wave soaring was to be had, with several visiting pilots bagging Gold heights, and Greg Corbett (London GC) a Diamond. The annual bonfire party was held early, in appreciation of Alan Middleton's retirement after years of technical support. Trophy presentations 2010: the Charles Davidson Memorial trophy for the most meritorious flight was shared by Alex Maitland and Tom Holloway, for their trip to Feshiebridge, via Fort William; the Bob Kerr Cross-Country Cup went to Roy Wilson, for the best flight, 565km; Roy also topped the Ladder; and Richard Arkle received the Photographic Trophy. The club thanks James Addison for reporting DGC news in recent years.

Fred Pell



(Left to right): First solos for Charlotte Kitchen at **Burn**; **Aston Down's** Tom Wilkinson, left, and Sam Lazenby, both sent solo by Brian Burlison, centre (Paul Lazenby); Kevin Russell, also at **Aston Down**; **Dartmoor's** Darren Wills after being sent solo by Ged Nevisky – 24 years after his first solo in an ATC motorglider



DERBY & LANCS (CAMPHILL) **WWW.DLGC.ORG.UK** **531818N 0014353W**

NOT a lot to report since the last issue as many days have been unflyable, but there has been some flying with wave making an appearance. As this is written in early December, EASA (Early Airfield Snow Arrived) has stopped flying and even access to the club, so that the AGM has been postponed. However, we continue to attract new members, a cross-country competition has been started on our simulator, the kitchen is being refurbished, and the hangar apron levelling is well under way, the work already done making it much easier to get gliders in and out of the hangar. A number of pilots visited Pocklington to sample aerotowing, and to take advantage of the extra height for spin checks.

Dave Salmon

DEVON AND SOMERSET (NORTH HILL) **WWW.DSGC.CO.UK** **505107N 0031639W**

CONGRATULATIONS to Dylan Davies and Will Bond, who both went solo within a few days of their 16th birthdays and, not to be outdone, Dylan's father, Wyn, was sent solo at the beginning of December. Andrew Mugleston and Lisa Humphries have both now achieved Assistant Instructor ratings. Well done to both. Recent trips have seen us at Portmoak and an icy Talgarth, where some great ridge and wave flights were had, including Henry Ford's landing into a field newly spread with manure! The arrival of snow has not hampered us too much and a stalwart band has been braving the icy blasts with aerotows.

Cheryl Smith

DUMFRIES & GALLOWAY (FALGUNZEON) **WWW.DUMFRIESGLIDING.110MB.COM** **545638N 0034424W**

ANOTHER successful two months, with Bob Rodger completing his BI rating here at Falgunzeon – the first time we have hosted a BGA course. Iain McIver managed five hours in his Skylark 3, and Allister McGregor did four and a half hours in the syndicate Skylark 2, finishing his cross-country endorsement. A first for our club was Grandpa John McIver flying in his LAK 17A, grandson Connor in a DG with an instructor, his father Iain McIver in his Skylark 3 and Allister McGregor in a Skylark 2 – all in the air at once! Numbers are up to 50, a first in our club's history.

Wendy McIver

EDENSOARING (SKELLING FARM) **WWW.EDENSOARING.CO.UK** **544152N 0023506W**

ALTHOUGH the club is closed for winter, plans for next year are under way. A wooden task week is planned for July, dates are set for some Walking on Air flying and we are running a raffle of two self-catering holidays. The club is small and the local membership has shown great determination not only to get solo but to make sure the club continues. Thanks to all visitors for flying with us and hope to see you again. We can't be sure of weather, but we do know Fiona's cakes will be as wonderful as last year.

Sandy McCarthy (Hawkyard)

ESSEX (RIDGEWELL) **WWW.ESSEXGLIDING.ORG** **520253N 0003330E**

CONGRATULATIONS to John Coles on going solo. He said that it was great being on his own in the cockpit after years of flying the fare paying public. Also to Mike Harris on his solo aerotow after only two check flights. At the invitation of Capt Jonathan Reed of the USAF, several of our members together with Anglia GC members visited RAF Mildenhall where they were shown around an operational KC135 tanker and a flight simulator. We extend our thanks to Capt Reed. We have closed Ridgewell for winter and, at the kind invitation of the Anglia GC, are now renewing our friendships with them and flying from Wattisham. We welcome new member Adrian Leeming.

Peter Perry

ESSEX & SUFFOLK (WORMINGFORD) **WWW.ESGC.CO.UK** **515630N 0004723E**

FLYING continues whenever possible and I can report more successes, including Dave Bolsden who, having suffered from a technology failure on his first 50km flight, repeated it two days later to get his Silver distance. Well done also Ray Rogers and David Cosby, both of whom re-soloed recently, and Paul Johnson, who achieved his Diamond height. Sincere apologies to Colin Woolf, whose first solo slipped through my net and was not reported last year. Well done all.

Dick Skinner

FENLAND (RAF MARHAM) **WWW.FENLANDGC.CO.UK** **523854N 0003302E**

WE have two new solo flights recently. Josef Mulae, from Halton flew with Instructor Sid Wright and then did his first solo on aerotow.

Lindsey also flew her first solo on aerotow. She has already flown solo from winch launches. Jon Oakley has qualified as a Basic Instructor and has also been cleared for tugging gliders on aerotow in our Rotax Falke, which continues to be very popular for aerotowing and navigation instruction.

John Doubleday

HEREFORDSHIRE (SHOBDON) **WWW.SHOBDOGLIDING.CO.UK** **521429N 0025253W**

WE had thermal and wave in the autumn, but no significant height or distance. We were upset by a Restricted Area, for the Wales Rally GB TV helicopters, on top of our local wave but managed to soar over the top of it! Mike Dodd has stepped down as secretary but remains our CFI. Diana King has taken over as secretary and Nigel Snee has also joined the committee. Finally, we were immensely sad at the sudden death of David Corbett after a short illness. David's family owns most of Shobdon Airfield and he had a pivotal role in supporting the gliding club throughout its existence. His last flight was only two weeks before he died. David was a good friend to us all and will be greatly missed.

Diana King

HIGHLAND (EASTERTON) **WWW.HIGHGLIDE.CO.UK** **573508N 0031841W**

THE snow that crushed the K-21 last winter has returned to prevent its homecoming, but once there is proper access it will come back better than before, sporting a spin kit. We now have the structural steelwork drawings for the glider shed replacing the hangar that collapsed and hope to start construction in the spring. Congratulations to new BI Roger Christie. The future of our companion club, Fulmar, rests in the balance while the RAF considers its options for the Tornado fleet. Our bonfire night was spectacular as Robert, our chairman, set off a firework from the back of the trailer housing all the fireworks for the display. Suffice it to say we ended up with a brief, but impressive, show.

John Thomson

KENT (CHALLOCK) **WWW.KENTGLIDING-CLUB.CO.UK** **511231N 0004950E**

WE'VE had two recent solos; Clive Root, who re-soloed after a 30 year gap in October, and John Davidge from Canterbury University, who soloed in November. We look forward to the

(Left to right): Dylan Davies after being sent solo at **Devon & Somerset** by Peter Harmer; Joseph Mulae was sent solo at **Fenland** by Sid Wright; bad weather stopped Lloyd Findlay from soloing at **Lincolnshire** on his 16th, but he achieved it just a few days later



developing relationship with the university. At the annual dinner in November we welcomed Dianna Britten, who gave us an enlightening talk about the triumphs and pitfalls of being a top aerobatic pilot. She presented our annual awards, which included ones for Peter Carpenter and David Pye for the Ridge run trophy; David Pye for League 1 in task week; Oliver Beams for League 2 in task week, the *ab-initio* shield and best Silver distance; Dave Crimmins the fastest 100km trophy; and Tony Moulang for the best flight from Kent – a mere 717km!

Stefan Bort

LAKES (WALNEY)
WWW.LAKESGC.CO.UK
570752N 0031549W

OUR K-21 returned from its 3,000 hour inspection and we had the money to pay for it thanks to our treasurer Andy Tebay, who has rescued us from a difficult financial position. The past year of this has been despite his other challenges. In recognition of this, he was awarded the trophy for services to the club at the recent Annual Dinner. Other trophies were awarded for enjoying the flying. Autumn provided some good wave flying over the Lakeland Hills and we hope that this will continue through the winter. The early snowfalls have enhanced the views of the hills. Andrew Green achieved Silver height with a climb to 12,000ft. It was his first attempt and he even took a barograph.

John Martindale

LINCOLNSHIRE (STRUBBY)
WWW.LINCSGLIDINGCLUB.CO.UK
531836N 0001034E

LLOYD Findlay has gone solo at 16 (and a very few days, weather stopped him soloing on his 16th). Tony Bowness has completed his Bronze badge. Bryan Bromley has his cross-country endorsement and has now got the maps out. Our long-suffering winch prime mover lorry is in the process of having a new clutch and is doing a wonderful impression of a trailer.

Dick Skerry

LONDON (DUNSTABLE)
WWW.LONDONGLIDINGCLUB.CO.UK
515200N 0003254W

DESPITE the wintry conditions, we have enjoyed some good flying conditions, including "sporty" ridge flying days and the occasional hint of wave. Free flying time for club members lasts through to the end of February. As spring

approaches, we are repeating our 'Full Monty' package, comprising simulated winch cable break exercises, spin awareness training, and field landing training. The winter programme continues with a series of presentations, Bronze lectures on Saturday and Wednesday evenings, the Quiz night, and the ever-popular Geoff's Sunday carvery. Congratulations to 18-year-old Greg Corbett on achieving Gold and Diamond heights in his Astir during a recent visit to Aboyne. Online registration for the Dunstable regionals (20-28 August) is now open.

Andrew Sampson

LOUGHBOROUGH STUDENTS UNION
(RAF WITTERING) WWW.LSUGC.COM
523645N 0002840W

FRESHERS week proved to be a huge success for the club and we now have over 70 members. Lots of flying has been had by all with the first weekend of term seeing Nicky Barratt go solo, so well done to her! We have also seen some November soaring, with Colin Warburton achieving his second Bronze leg. All of the socials have been well attended so far, with events such as go-karting and boozy bowling. Planning is under way for the expedition to Portmoak at Easter and a possible flying week at Wittering.

Sam Roddie

MENDIP (HALESLAND)
WWW.MENDIPGLIDINGCLUB.CO.UK
511544N 0024356W

THE weather conditions have halted operations here due to the recent snow fall. Hopefully it will be better soon. We continue to make progress with our new Junior Gliding Centre status and have signed up with Somerset County Council to be an accredited centre for the Give it a Go scheme, which assists young people of school age with a grant of up to £300 for those with parents on certain benefits. This figure can be redeemed at MGC for the new Junior Fixed Price to solo, which seems to have been popular with our local community. Our club expedition to Aboyne in September was a success, despite the awful weather. Some good flights were had by all who participated.

Terry Hatton

MIDLAND (LONG MYND)
WWW.LONGMYND.COM
523108N 0025233W

AT the time of writing, The Mynd is experiencing the same wintry weather as

most of the country, except we are somewhat higher. Access is a challenge at the moment, but the scenery both from the air and the ground makes up for the struggle. Hopefully the roads will have improved in time for our Christmas Dinner. Stunning views can currently be seen on our new webcam, accessed from our website. Our new K-8 is being refurbished and will be in use very soon – the K-8 is still a very popular glider at The Mynd. We welcome new member Peter Milwood, rejoining member Peter Wood and give congratulations to Mike Greenwood on becoming a Full Cat instructor.

Steven Gunn-Russell

NENE VALLEY (UPWOOD)
WWW.NVGC.ORG.UK
522612N 0000836W

WE'D like to welcome some new members to NVGC family; Jonathan Furniss, Nicholas Reynolds, Gerald Kelly, David Varallo, Michael Ruggieri and Tim Williamson. We have two years to get Tim ready so he can solo on his 16th birthday. Our recent AGM has seen a change to some committee roles. 'Desperate' Dan Chidley is now our Aircraft Member. Peter Valentine will be assuming Engineering Member. Despite trying to shed his role as the chairman, Philip Alexander will remain in the post, but with a team of three deputies to assist him and attend meetings in his absence. The only other notable change is to the PR Role which will see Ian Williamson take on the mantle – so here's me signing off.

Kerry Mertz

NORFOLK (TIBENHAM)
WWW.NORFOLKGLIDINGCLUB.COM
522724N 0010915E

FOLLOWING the resounding success of the Vintage Rally, the T-31 syndicate is being resurrected and the T-21 now has new owners with the intention of getting them both back in the air. The autumn wave expeditions to Portmoak and Aboyne proved much more fruitful than of late, with a Diamond height for David Taylor and Gold heights for Mike Crook, Phil Hayward and John Roche-Kelly. Congratulations to Beth Redpath on going solo on her 16th birthday, the latest on a growing list from our successful Cadet scheme. We are holding the Eastern Regionals from 28 May – 5 June, and hosting the 18m Nationals from 9-17 July. See you there.

Mike Bean

(Left to right): **Dunstable's** Greg Corbett after his Diamond height flight at Aboyne; Nicky Barratt after going solo with **LSUGC** at Four Counties (Gill Barratt); Cadet Steve Barnett receiving his wings from **Crowland** instructor Dave Crowhurst; solo for John Larnar at **Staffordshire**



NORTH WALES (LLANTYSILIO) **WWW.NWGC.ORG.UK** **530239N 0031315W**

THE much looked forward to trip up to Feshiebridge was made by 10 members, but unfortunately the flying week did not live up to our hopes. Although the temperatures were very favourable the wind direction was quite the reverse, so much so that most of us decided to leave early. The usual friendly hospitality and comradeship was undiminished. We are under a blanket of snow, but still managed to fly on occasions in bright cold conditions, after defrosting a frozen undercarriage on our K-13 – hopefully we may be able to repeat the operation. North Wales concluded 2010 in good financial shape and an increase in membership, which we hope to build upon this year.

Brian Williams

OXFORD (RAF WESTON ON THE GREEN) **WWW.OXFORD-GLIDING-CLUB.CO.UK** **515249N 0011311W**

THE combination of AGM and fireworks evening worked well, thanks to Di, Phil and Fi for organising food, and to Jon Christensen for bravely lighting the fuses. The committee remains unchanged this year, and Comrade Chairman Paul inspired us all to do great things. AGM Prizes went to Jean Fre Fachon for making a K-8 50km to Sackville look easy, Claudia Hill for winning the club ladder, Andrew Butterfield for holding his breath and going highest, and Neil Swinton for not annoying anyone. The 'Idiot' award went to JM and JH, who showed that winches will accelerate quite fast during a launch if not correctly secured to the planet! We are delighted to welcome Cecilia Craig to the instructor ranks.

Neil Swinton

PETERBOROUGH & SPALDING (CROWLAND) **WWW.PSGC.CO.UK** **524233N 0000834W**

FIRST, let me thank Merv Bull, who is stepping down as correspondent for the club after a long and illustrious term in office. Something we believe to be a first in gliding – Colin Norris proposed to girlfriend Andrea Edwards, at 2,000ft over the VHF and she accepted – congratulations to them both. Winter flying continues, weather permitting. Congratulations to Steve Barnett, our latest cadet to solo, and to the new Bocian syndicate; after seven years in the hangar the old lady is back in the air. This means 50 per cent of the flying examples of

this type in the UK are owned and operated in Crowland.

Martyn Edgar

PORTSMOUTH NAVAL (LEE ON SOLENT) **WWW.PNGC.CO.UK** **504855N 0011225W**

CONGRATULATIONS to Tony World on his prestigious "Torch Trust Trophy" award for making an outstanding contribution in his services to gliding (see p4). Tony celebrated with CFI Andy Durston by taking our Grob109 motorglider on an exciting tour of France, the Pyrenees and the Alps. First solos were achieved by Martin Westwood, Nairn McLean, Charles Sarel and David Hurst. Well done to all, as well as to Chris Parvin for his Basic Instructor rating and Neil Shaw for his Assistant Instructor completion. The club now has interim management of the airfield at weekend, pending a permanent solution from April when the Hampshire Police weekday presence concludes. Recent all-instructor and all-member meetings have been held, and provided good forums for comment and ideas.

Neil Shaw

RATTLESDEN (RATTLESDEN) **WWW.RATAIR.ORG.UK** **521001N 0005216E**

CONGRATULATIONS to David Salvage on passing his Assistant Instructor completion course. Andy Howells has organised a series of winter talks, starting with Paul Roche talking to members about flying in Australia. Bod Blanchard, Dave King and Brian Griffiths are completing the annual checks on the club's fleet, and general maintenance around the site will be carried out over the winter. The committee would like to thank all the club members for all their hard work.

Helen Page

SCOTTISH GLIDING CENTRE (PORTMOAK) **WWW.SCOTTISHGLIDINGCENTRE.CO.UK** **561121N 0031945W**

AS I write, the snow has closed many roads, the club webcam shows a complete white out and the forecast looks no better. John Williams is in Argentina with his Antares and is keeping us green with envy. He'll probably be home when you read this, but his blog will be available for some time via our website. In November, before the snow came, I managed to climb to 8,000ft in weak wave but, after two hours at minus 20, and with the frost beginning to sparkle on the wings, I called it a day. To those who should be

acknowledged here, I apologise as I cannot get to the club to note your names – you'll be mentioned next issue.

Ian Easson

SHENINGTON (EDGEHILL) **WWW.SHENINGTON-GLIDING.CO.UK** **520507N 0012828W**

WE'VE had plenty of achievements from members: new solo pilots in Tez Bowler, Guy Lown, Nigel Clarke and Martin Lawrence, together with Michael Bell and Lucy Wootton who've soloed at 16. We have a new Assistant Instructor in Paul Fletcher, and three new Basic Instructors; Tony Tayler, Phil Brennan and Paul Duffy. We'll be flying over winter at weekends and on decent midweek days. We are very sorry to report the deaths of Pauls Gibbs, a founder member, our landlord and ex-CFI who died suddenly in October; and Lu Kennington, who was one of our midweek summer course instructors, has died after a long illness (see obit p69). They will both be sadly missed.

Tessa Whiting

SOUTHDOWN (PARHAM) **WWW.SGC1.ORG** **505532N 0002828W**

WE have had more northerly winds this autumn than is usual, thus hill soaring has been paramount. It has brought many welcome visitors from Lasham, Kent, Riva Hill and Booker. As winter progresses, plans for our new hangar are well advanced, membership is holding up well and air experience flights are as popular as ever. Quiz night was well attended, and the profits were sent to Children in Need. Sussex glider pilots of a certain age will remember Paul Nurse, a student at Sussex University in the early seventies. He was a keen glider pilot, scientist and later a Nobel Prize winner. We congratulate him on becoming the new President of the Royal Society, and are delighted to know that he never lost his enthusiasm for gliding.

Peter J Holloway

STAFFORDSHIRE (SEIGHFORD) **WWW.STAFFORDSHIREGLIDING.CO.UK** **524940N 0021212W**

THIS autumn has seen steady progress. We have three new potential Basic Instructors busy trying to master the gentle art of flying from the back seat. The club winch shed its alternator, but fix-it star Graham Burton has repaired it heroically well. The other half of the Larnar team was inspired by his wife's recent first solo

(Left to right): trophy winners at the **The Gliding Centre** annual dinner (Barney Toulson); **Wyvern** members held a fancy dress party to say farewell to their old clubhouse. Work soon started on the new Wyvern gliding hub, with quick progress being made



and has followed in her footsteps. A number of members went to Yorkshire in October and did some wave hunting. The weather was not helpful, but some good flying was had. The south-east end of our field has been improved by the flattening of an old ridge. When the winter snow clears away we look forward to many smoother landings.

Neil Frost

THE GLIDING CENTRE (HUS BOS)
WWW.THEGLIDINGCENTRE.CO.UK
522626N 0010238W

HUSBANDS Bosworth saw some excellent late season soaring last year. Our annual awards dinner, which was well attended, featured the excellent Leicester Grammar School Band. Award winners include Richard Browne, Ken Payne, Chris Curtis, Steve Steadman, Claude Woodhouse, Rolf Tietema and Frank Roles, the winning Inter-club team - Steve Poz, Kevin Fisher and the captain Chris Luton – and last, but not least, Barry Broom. The latter was for the Grotty Potty, awarded for his unparalleled driving skills when the launch point bus almost demolished the office. Father Christmas paid us a flying visit in his Chipmunk on Saturday 11 December and a Burns night supper is planned for the spring.

Tricia Pearson

TRENT VALLEY (KIRTON IN LINDSEY)
WWW.TVGC.ORG.UK
532745N 0003436W

THE early winter blast in late November and early December brought all activities at Kirton Airfield to halt. The sheer depth of snow prevented flying activities and our pre-Christmas Dinner was postponed until January. Normal service has since been resumed and we are now looking forward to our Annual Dinner and Awards on 5 March and the new soaring season. We are working hard on a new marketing initiative through which we plan to take Trent Valley Gliding Club into the community in a series of exhibitions at events throughout the county. Congratulations to Ian Hall for his Silver duration and Dave Plumb for his Silver height (both at Portmoak).

Geoff Davey

VALE OF WHITE HORSE (SANDHILL FARM)
WWW.SWINDONGLIDING.CO.UK
513614N 0014030W

AT our recent AGM, the following officers were elected: Peter Berridge, chairman; Peter Scheiwiller, treasurer; James Wilgeroth,

secretary. Kevin Hale, Gerry Brown, Roddy Maddocks, Jay Myrdal and Paul Kellett were elected as committee members. Ed Fogglin continues as CFI. Many congratulations to Paul Kellett and Peter Jackson, who now have their Bronze badges and are determined to get their cross-country attachments before the spring thermals so they can put some kms on their ASW 15. On the social side, bonfire night was great fun with a huge bonfire, bowls of soup, hot dogs and a few fireworks for the determined few who braved the weather. I look forward to reporting on the success of our club dinner, which will take place in February.

Jay Myrdal

WELLAND (LYVEDEN)
WWW.WELLANDGC.CO.UK
522758N 0003430W

IN a local co-operation, the RSPB are giving local winter talks at our clubhouse. We provide warmth and refreshments, while they organise a short guided walk to see dozens of red kites doing their swirling social aerobatics at their roosts. Thirty people crammed into our little clubhouse with carrot cake has proved popular. Over the autumn, Phil Abbott went solo and Jo Cooper returned after a lay-off to do a 60km O/R to Nene Valley GC on 17 October, in thermal.

John Strzebrakowski

WOLDS (POCKLINGTON)
WWW.WOLDS-GLIDING.ORG
535541N 0004751W

CLUB members were sorry to hear in November that Terry Mottershead had lost his battle against cancer. Terry was an experienced instructor and very well liked. He will be missed by us all. The unseasonal snow and very cold weather in November did not prevent members from enjoying flights over the Yorkshire Wolds. Congratulations to Dick Midwinter and Alan West, who joined the instructing team as BIs and welcome to the students from York University Gliding Club, who have joined Leeds and Manchester University gliding sections at Pocklington. The winter programme of social events is under way again, to keep pilots enthused through the dark days.

Avelyn Dell

WYVERN (UPAVON)
WWW.WYVERNGLIDINGCLUB.CO.UK
511712N 0014700W

THE work immediately started on the Wyvern Gliding hub after the final farewell of the

previous clubhouse. Progress has been very quick and a very well done to all who have helped in the process. A successful solo was achieved recently. This flight was made by a soldier with just one limb! The Battle Back course allows disabled injured soldiers to experience the thrill and pleasure of flight, enabling them to gain some freedom from their injuries. This person was able to achieve this using the hand rudder modification, as well as the stick (his stick limb was a prosthetic!).

Matt Graeme-McMurdoch

YORK (RUFFORTH)
WWW.YORKGLIDINGCENTRE.CO.UK
5357100N 00111332W

RETIRING chairman John Taylor reported the club's financial position remained stable during the year, thanks in part to members who personally organised group gliding sessions for work colleagues and friends. This is an exercise which also boosted bar takings after flying ended for the day. Dick Brisbourne is our new chairman, following John Taylor's two years in office and a further three years serving on the committee. We thank him. There have been many good wave flights, our airfield being well placed to receive westerly winds from the Pennines.

Chris Brayne

YORKSHIRE (SUTTON BANK)
WWW.YGC.CO.UK
541338N 0011249W

LOOKING back, it was evident that the YGC spirit is alive and kicking. Bill Paton's 750km FIA triangle, Andy Wright's 750km, Steve Ball's Gold height, plus many other notable flights, were achieved. David Ryall, Harry Clark and Fred Brown all got their BI ratings. Steve Briggs coached our social side back into life with quiz nights, dining nights, and our very successful Open Day. Bonfire night, fronted by David Latimer and his team, put on the best show yet. Thank you to everyone who helped. This year we host Competition Enterprise in early July and The Northerns later that month. Check out our website for details. Come and fly with us – you will be made most welcome.

John and Sarah Marsh

S&G's thanks as usual to Debb Evans for editing this issue's Club News – Susan Newby, S&G editor



Highland's launchpoint bus and gliders. Easterton benefits from the varied and interesting golf courses and several world famous distilleries – all within a short 30-minute drive through stunning Speyside scenery (Martin Knight)

Inset left: a winter approach to Highland GC, Easterton (Ian Thomson)

Inset right: Highland's K-21 flying to the south of the site (Martin Knight)



> CLUB FOCUS

HIGHLAND

AT A GLANCE

Membership:

Full: £223

Junior/Student: £22

Senior: £157

Day rate (BGA clubs): £5

Reciprocal membership free to participating clubs

Launch type:

Aerotow to 2,000ft: £20*

(*£2.83 per min tug

airborne plus £2.50)

Winch (Club/Private): £5/£7

Club fleet:

K-21, Junior

(Fulmar Fleet: Duo Discus, Astir, Falke, Chipmunk)

Private gliders:

13

Instructors/Members:

12/35

Types of lift:

Thermal, ridge, wave and sea breeze

Operates:

Sat/Sun all year round

Contact:

Clubhouse: 01343 860272

Launchpoint:

07790 761277

www.highglide.co.uk

Long and Lat:

57.586900N 3.321302W

HIGHLAND GC was formed in 1971 by civilian members of the then Fulmar Gliding Club of the Royal Navy. Gliding took place at Milltown airfield, three miles north-east of Elgin. In 1975, the Fulmar club came under RAF operation and moved to Kinloss airfield. In early 1976, the Highland club moved to Dallachy, a former RAF Coastal Command airfield located close to the sea and only a few miles away from Milltown. At Dallachy the club prospered, despite soaring opportunities being severely limited by frequent sea breezes.

In 1991, the then club chairman was shooting in some fields at Easterton farm, just south of Elgin, when he realised the area would be ideal for gliding. A three-year lease was negotiated and the club moved to Easterton, where it has been happily located ever since. When, in 1994, the club learned that the estate owning Easterton was to be broken up and sold off, a potential disaster was turned into a brilliant success. Thanks to a National Lottery grant, assistance from the BGA and the hard work of several members, the club was able to purchase Easterton outright. The National Lottery came to

our aid again in 1997 with another grant, this time enabling to purchase a K-21 and a Junior. In 2000, after 25 years of separation from us, Fulmar moved from Kinloss to join us again at Easterton.

The airfield at Easterton comprises a grass strip over 900m long and over 80m wide. There are two hangars (the older hangar was destroyed in last winter's snow and is in the process of being rebuilt) and a comfortable clubhouse, which includes good toilet and shower facilities. Launches are either by our two-drum winch or via a Supermunk tug, which belongs to Fulmar.

Highland is the most northerly gliding club in the UK, but benefits from the benign weather of Strathspey and the Moray Firth. The airspace around Easterton is almost free from restrictions and the amount of air traffic in the region is low.

We get year-round thermal activity (some of the nearby distilleries provide good thermal sources) and there are several soarable ridges nearby, with one of them reachable from a winch launch. Most wind directions also have the potential for wave and there have been several climbs of over 20,000ft from the site.

John Thomson



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CAA SLMG Instructors and Examiners

The BGA has approved a number of CAA rated examiners and instructors under the management of the SLMG SRE to support SLMG activity. Contact details are at www.gliding.co.uk/bgainfo/instructors/motorgliding.htm

Regional Gliding Examiners

BGA gliding examiners are appointed on a regional basis and directed by Senior Regional Examiners. SREs are listed on the BGA web site at www.gliding.co.uk/bgainfo/instructors/contacts.htm

Regional Safety Officers

RSO club allocations are listed on the BGA web site at www.gliding.co.uk/bgainfo/safety/documents/rsolist.pdf

Airworthiness Inspectors

There are a number of BGA inspectors across the UK. A proportion of them are approved to issue an EASA ARC. The Regional Technical Officers and the ARC signatory 'Chief Engineers' are listed by BGA region at www.gliding.co.uk/bgainfo/technical/contacts.htm

Airworthiness Guidance

Guidance for owners of Annex II and EASA aircraft is at www.gliding.co.uk/bgainfo/technical/news.htm

Accident Investigation

Chief Accident Investigator

Chris Heames

Other Information

Courses

BGA course information is at www.gliding.co.uk/bgainfo/bga/courses.htm

Fees

BGA Fees are detailed at www.gliding.co.uk/forms/bgafees.pdf

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The BGA Shop

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The BGA Shop - long proven to be a great shopping resource for everyone in gliding - now has a whole new direction. Following research into members' needs, the BGA has re-launched its shopping experience with a whole new look and plans for a much wider range of stock.

The BGA Shop has always been the best source for club essentials such as DI books, log books, text books, Laws & Rules, Operations Manuals, BGA badges, and one of the best for specialist media supplies such as books, videos and CDs - you name it! There has also been a limited range of clothing and the obligatory beanie hat, without which no self-respecting soaring pilot should venture into the sky...

The BGA Shop is moving forwards

Our commitment is to supply a diverse range of items to meet the needs of clubs and pilots along with an excellent level of service. The range of products will grow and grow - more gliding essentials will be added as the months pass.

Meanwhile, check out and bookmark www.bgashop.co.uk as a website favourite, or simply click on the link on the BGA website at www.gliding.co.uk to keep up to date with our latest products and ideas.

To access the all new BGA Shop go to www.bgashop.co.uk



Don't miss the new 2011 Calendar by the late Claus-Dieter Zink...and our new range of clothing!

BGA accident/incident summaries

AIRCRAFT		Damage	Date, time	Place	PILOT		P1 hours
Ref	Type				Age	Injury	
93	Nimbus 3	destroyed	6/07/10, 18:15	Lasham GS	51	minor	3420
Glider flew into power cables on final approach to a competition field landing. The marginal final glide was abandoned with enough height to fly a circuit but not enough height to inspect the field.							
94	ASW 27	substantial	15/07/10, 16:25	Norfolk GC	53	none	1653
Tail snapped off after a wingtip went to ground during the winch launch ground run. The pilot released before the wingtip touched but the glider had enough energy to groundloop.							
97	Skylark 4	substantial	27/07/10, 14:10	Dorset GC	68	none	184
Field landing with a light tailwind and unnoticed downslope ended with the glider running into a hedge at the far end of the field. Damage to nose, canopy & starboard wing.							
98	Nimbus 2	minor	26/07/10, --	Windrushers GC	77	none	7034
Rapid descent late on final approach led to the glider flying into a hedge, despite the pilot closing the airbrakes and setting flap to max. glide. After the impact, the drag 'chute was found deployed.							
99	Junior	substantial	1/08/10, 16:00	Rattlesden GC	47	minor	63
Groundlooped landing in crop field adjacent to farmstrip after a misjudged circuit. Low airtime pilot became disorientated after releasing from the aerotow and was unable to find the gliding club.							
100	Libelle	substantial	1/08/10, 15:50	The Gliding Centre	48	serious	not reported
Glider flew into power cables on final approach to a competition field landing. The approach was over a treeline and the cables were some 20 metres beyond the trees.							
103	Foka 4	destroyed	8/08/10, 15:10	Windrushers GC	--	fatal	--
AAIB investigation.							
104	SF25C	substantial	10/08/10, 11:45	Bannerdown GC	52 / 62	none / none	5500 / 1800
Heavy landing and prop strike after a low speed approach flown by an experienced pilot during type conversion. The damage was not noticed until after another circuit and landing.							
105	DG 100	minor	11/08/10, 16:05	The Gliding Centre	65	none	1194
Wingtip broken off during a field landing across a slight slope. Pilot mistook harvested rape field for cereal stubble field.							
106	Twin Astir	minor	15/08/10, 15:00	Shropshire Soaring Group	43	none	13
Early solo pilot distracted by lift in the circuit and forgot to lower undercarriage, damaging underside of fuselage landing on the runway. Pilot has extensive power experience.							
107	ASW 19	destroyed	18/08/10, 13:55	The Gliding Centre	--	serious	151
Airbrakes opened during the winch launch, unnoticed by the pilot who flew around for a couple of minutes after the launch before crashing into a field.							
109	Swift	substantial	22/08/10, 11:20	RAFGSA Chilterns	36	serious	not reported
Aerobatic glider stalled and entered spin when turning onto final approach at low level in strong wind.							
110	Discus	minor	23/05/10, 17:20	Lasham GS	32	none	39
Back up to 500ft agl after a practice racing finish, the pilot noticed that the undercarriage lever was swinging free - so he moved it to the locked position. The subsequent wheel-up landing across a disused runway damaged the underside of the glider.							
111	K-13	substantial	28/08/10, 16:30	Shenington GC	70 / --	none	500 / --
Tailplane and rear fuselage substantially damaged after failing to reach the airfield. Instructor cites increased wind speed and strong sink on final approach as factors.							

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Cambridge Gliding Centre



BGA accident/incident summaries *continued*

AIRCRAFT			PILOT		Age	Injury	P1 hours
Ref	Type	Damage	Date, time	Place			
112	SF25C	substantial	30/08/10,14:00	farm strip	41 / --	none / none	not reported
Damage to underside of fuselage and prop after hitting a sheep on take off. Late decision to reject the take off blamed.							
113	Grob 103	minor	9/07/10, 11:55	Lasham GS	20	none	33
Rear canopy opened during winch launch. Damage fortunately limited to canopy hinges.							
114	ASH 25	substantial	10/07/10, 17:15	Lasham GS	48 / 21	none / none	2140/150
Glider groundlooped after landing in a crop field. Skin near wing root fractured, tip of left aileron detached and other stress cracks.							
115	Ventus	minor	28/07/10,16:00	Bristol & Glos GC	-	none	2150
Heavy landing in turbulence and ground run across rough ground at a hilltop site blamed for subsequently noticed control restriction. Inspection revealed that an aileron pushrod was chafing inside the wing.							
117	SF25E	minor	18/08/10, 12:15	Devon & Somerset GC	75 / 46	none / none	300 / --
Wingdrop and heavy landing after landing in drizzle. Witness account reports high roundout and slow airspeed in gusting wind.							

Incidents

95	Libelle	none	23/07/10, 16:45	-	-	none	-
Minor groundloop at the end of a Silver duration flight. Slightly ballooned round out, crosswind gust, wingtip into crop and heavy wheelbraking all contributed.							
96	K-18	none	24/07/10, 16:05	-	-	none	-
Rush to launch between rain showers led to the glider being winched with an unlatched tail dolly draped over the rear fuselage. The glider pitched nose up after release but the pilot was able to make a successful landing with the dolly still attached.							
101	Kestrel	none	23/07/10,16:30	-	-	none	-
Loss of lateral control on approach ended with a wing drop and groundloop after touchdown. Inspection revealed that the three-hour soaring flight had been flown with the ailerons disconnected - the push rods actuating aileron deflection and the airflow re-centering the control surfaces.							
102	T-31	none	2/08/10, 13:10	-	-	none	-
Aileron control found to be ineffective early on during the aerotow. After releasing and landing ahead, it was discovered that the ailerons were incorrectly connected.							
108	DG 202	substantial	19/08/10, 16:00	-	-	none	-
Glider being towed by car when a wingtip caught on a trailer, damaging the wingtip and the trailer. The fuselage was pulled from the tail dolly, allowing the other wingtip to strike the car, crushing the aileron.							
116	K-6	minor	13/08/10, 15:00	-	-	none	-
Tow car reversed over and crushed wingtip. A combination of pilot turning the glider and the driver positioning too close caused the incident.							



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BGA BADGES

No.	Pilot	Club (place of flight)	Date
FAI DIAMOND BADGE			
7189	Frank Roles	The Gliding Centre	28/05/2010
7201	Donald McKenzie	Derby & Lancs	31/08/2010

FAI 1000KM DIPLOMA			
559	Bruce Cooper	Lasham	08/01/2010
		Nahuel Huapi (Argentina)	

DIAMOND BADGE			
760	David Jesty	Dartmoor	20/10/2010

DIAMOND DISTANCE			
1-1148	Frank Roles	The Gliding Centre	28/05/2010
1-1154	Donald McKenzie	Derby & Lancs	31/08/2010

DIAMOND GOAL			
2-2417	Paul Ruskin	Cambridge	17/09/2010

DIAMOND HEIGHT			
3-1731	Greg Corbett	London	28/10/2010
		Aboyne	
3-1732	David Jesty	Dartmoor	20/10/2010
		Portmoak	

GOLD BADGE			
	Timothy Jenkinson	Booker	06/10/2010
	Seth Helstrip	Bicester	20/10/2010
	John Roche-Kelly	Norfolk	28/10/2010

GOLD DISTANCE			
	Paul Ruskin	Cambridge	17/09/2010
	George Robertson	South Wales	27/05/2010

GOLD HEIGHT			
	Ian Easson	SGU	17/10/2010
	Michael Crook	Norfolk	17/09/2010
	Timothy Jenkinson	Booker	06/10/2010
	Greg Corbett	London	28/10/2010
	John Paterson	SGU	20/10/2010
	Seth Helstrip	Bicester	20/10/2010
	John Roche-Kelly	Norfolk	28/10/2010

100K DIPLOMA PART 1			
	Maurice Theo	Kent	12/09/2010
	Oliver Beams	Kent	01/09/2010
	James Fowkes	Cranwell	22/08/2010
	Owen McCormack	Lasham	18/04/2010
	Laura Turrall	Lasham	08/09/2010
	Karim Nakhla	Midland	26/06/2010

SILVER BADGE			
	Daniel Brown	Stratford on Avon	08/08/2010
	Mark Ashton	Cotswold	31/08/2010
	Maurice Theo	Kent	12/09/2010
	Mark Wolff	Booker	18/09/2010
	David Evans	London	17/09/2010
	Mark Wilson	SGU	24/09/2010

CROSS COUNTRY ENDORSEMENT			
	Daniel Brown	Stratford on Avon	08/08/2010
	Oliver Beams	Kent	11/08/2010
	Bryan Bromley	Lincolnshire	12/09/2010
	Paolo Nicolai	Bristol & Glos	02/10/2010
	Douglas Greenwell	Cambridge	15/10/2010
	Christopher Allton	Bidford	07/10/2010
	Irvin Hunt	Wolds	25/08/2010
	Robert O'Neill	Yorkshire	25/10/2010
	Stephen Collins	Staffordshire	24/10/2010
	Allister McGregor	Dumfries & District	24/10/2010
	Ronald Newton	East Sussex	17/10/2010
	Richard Barber	Shalbourne	20/10/2010
	Natasha Shoebridge	Lasham	28/10/2010
	Tomasz Sobkow	Kent	16/10/2010
	Thomas Farquhar	Borders	06/11/2010
	Nicholas Fellows	Northumbria	10/11/2010
	John Shaw	Yorkshire	30/10/2010
	Peter Goodchild	Yorkshire	13/11/2010

Jochen Ewald (1955-2010)

IT IS with great sadness that we have to announce the death of our beloved friend and club member Jochen Ewald, known far and wide as "Cassius", who died suddenly of a heart-attack on 16 November, 2010, aged only 55.

Unfortunately the photograph here doesn't show him in his typical guise. He was truly a one-off – knotted handkerchief, black socks and shoes and tatty old ex-jeans shorts – but with a wealth of experience and expertise and good-humour, but it does show him how he would probably want to be remembered – flying a vintage glider in an open cockpit.

Jochen was a very thoughtful person and, in many ways, a bit of a legend. He had a vast store of knowledge and quite wonderful stories with which he would regale us. He managed to get himself invited to all kinds of places and flew all kinds of aircraft. Sometimes we wondered if Jochen was exaggerating but we soon discovered that he actually did know all kinds of leading people and groups and had indeed experienced all the adventures he told us about. How many of us can boast of test-flying an Arcus and then publishing a lengthy test-report in the leading German aviation magazine *Aerokurier* (and in *S&G*)?

He was an expert photographer, which is how he earned his living and his

photographs could be seen in very many aviation journals, especially those to do with gliding. He regularly wrote articles for several aviation journals, including *S&G*, and his command of the English language, as well as his native German, allowed him to be recognised as an authoritative voice in both countries.

His involvement in the Vintage Glider Club was enormous and his expertise and advice was always listened to. He could speak with authority and experience when discussing different types of glider and construction, some of which were quite obscure!

He came back to the club in June/July and flew with us, intending to rejoin us. Some of us asked him how many different types of aeroplane he had flown – he replied that in gliders alone it was around 297. What a record!

At the funeral, his uncle (himself an aviation expert) was asked how Jochen had got the nickname "Cassius". He replied it was because when Jochen was young, he would always talk too much – like Cassius Clay (those of us who can remember the name will know what I mean). Our only comment is that if he did, well it must have been all to the good!

We could go on with hundreds of stories, but perhaps the best thing to say is... rest in peace dear friend, this world is a poorer place without you!

Andy Gardiner



**HE REGULARLY
WROTE ARTICLES
FOR AVIATION
JOURNALS,
INCLUDING
S&G, AND HIS
COMMAND OF
THE ENGLISH
LANGUAGE, AS
WELL AS HIS
NATIVE GERMAN,
ALLOWED
HIM TO BE
RECOGNISED
AS AN
AUTHORITATIVE
VOICE IN BOTH
COUNTRIES**

Lu Kennington (1952-2010)



LU KENNINGTON was buried at the Natural Burial Ground, Tysoe (just at the foot of the Shenington ridge) on 11 December. You can easily spot this from the air; it looks like a landable field, apart from the downslope towards the pond at the western corner and there is a small, pale, roundhouse near the middle.

Prior to the burial, there was a service in the packed-to-capacity church at South Newington with visitors from far afield, from numerous other gliding clubs and also from the other activities which Lu had taken part in during her very active life. Then, of course, there was a 'do' in the clubhouse.

The funeral arrangements were masterminded by her husband, Bruno, and the theme was largely 'do-it-yourself', which gave Bruno and Lu's very many friends a chance to help out; bar, catering, speeches, pall-bearing and, most of all, good company were all taken in hand and everyone was very grateful to be allowed to help.

Lu had an extremely active and varied life. She flew as BA cabin crew ("I work in aluminium tubing") and was later a researcher for the pioneering radio programmes *You and Yours* and *It's Your Line*, before becoming a full-time sailor.

Not surprisingly, Lu became an extremely proficient sailor and made several Atlantic crossings, as well as living on and running yachts – initially as chef and later as yachtmaster – in the Caribbean for some years.

After a spell living in Spain, Lu and her first husband, John, settled in the New Forest, where she worked in the world of yacht design.

In the early 1990s, Lu and John moved to North Wales and bought a bistro, which they ran for a few years. During this time, Lu discovered gliding – at Llewenni Parc – making her first flight in 1992. She continued to glide, although the bistro business and marriage both struggled and, by 1994, she had left Ruthin and moved down to the South Coast to start all over again, working hard in a caravan and leisure complex to support herself.

At about this time, Bruno Brown was

just leaving the Air Force and spent his resettlement training at Llewenni, where they first met on one of Lu's return visits to glide there. Bruno was, of course, one of the RAFGSA's most experienced gliding and motorgliding instructors already at that time.

In 1994, Bruno became one of the key staff working at 'The Gliding Centre' (not the subsequently-renamed Hus Bos gliding centre, but the original one, set up at Shenington as an intensive training school) and Lu started to come to visit – in those days an early solo pilot.

Despite comments in her logbook, such as 'Bruno says my turns are shabby', Lu progressed rapidly (landings are 'superb' and, later, 'pristine' – again, clearly Bruno's words!), becoming a BI in 1996, Half Cat in 1997 and Full Cat instructor in 2000. She also held a motorglider licence.

Lu worked at Shenington in catering (the 'Pre-Stall-Buffer' caravan and, later, bus) and as a winch driver. Then for several years she was a course instructor and deputy CFI, as well as being a dab hand at fabric work and other maintenance tasks.

During this period, Lu flew an average of 1,500 launches per year, with a peak of 2,500 in the year 2000. She was the most active UK instructor for at least two of her years as course instructor and, in addition to the course, visitors and most Shenington members were lucky enough to benefit from her patience, precision and encouragement.

Lu's logbook shows a final total of 12,500-plus launches and reveals that sometimes she had to work hard to meet the challenges of gliding success – her first 5-hour attempt totalled only 4:54 while the next go a few weeks later made the duration, but the distance (to HB) was disqualified by the 1 per cent rule. Typically, she didn't grumble, but simply did the whole flight again three days later.

On the day she finished her BI rating she didn't hang about, but grabbed a couple of workmen from the roadside and whisked them airborne before they had a chance to say 'no'.

Lu never had a gliding accident, although she did once scratch the paint on the belly of the Astir and was mortified to have done so – a superb example! She did have a few close calls and, on one famous occasion, found herself unexpectedly

inverted at low level while instructing in a K-13; very adept handling was required to roll erect in the time available.

Of course, becoming a top instructor was not the only goal Lu had set herself; she also took on the hitherto-unconquered feat of reforming Bruno, as a voluntary project. She succeeded! She and Bruno lived on-site at Shenington for some years and, more recently, in proper houses in and near Banbury.

Bruno made splendid remarks at the church service that he is aware of the risk of 'backsliding', isn't going to do it, and asks for our help if ever he shows signs of heading that way – the key phrase being "BAD Bruno! Whatever would Lu say?". That ought to do the trick.

Over the last couple of years, Lu and Bruno worked at Bidford – instructing, inspecting and catering – but their work was frequently limited by their joint battle against Lu's cancer, which they both bore with astonishing fortitude and good humour.

In the end, Lu had just got her driving licence back and re-soloed when her condition suddenly worsened and she died aged just 58 although – as always – looking younger even than that.

Mike Cuming

Conrad Greaves (1929-2010)



CONRAD (Con) Greaves took his last thermal heavenwards on 28 August, 2010, after a short illness, aged 81.

Con was closely associated with gliding for almost 50 years; from his first solo at the Royal Air Force Gliding & Soaring Association Club (RAFGSA) in Akrotiri Cyprus, on 20 May 1961, until his last flight from Rufforth Gliding Club last year.

When he returned to the UK, Con progressed through the cross-country and regional competition stages of gliding, and was selected to represent the RAFGSA in the Nationals Sports Class competition in 1969. A photograph on the cover of S&G's August-September 1969 issue celebrated Con's success in becoming British Champion.

Those who had not seen him during the intervening years until he joined the

✂ Yorkshire Gliding Club in 1996 may have had some difficulty recognising the face behind the bushy beard, moustache and long hair, dressed in a checked shirt and Rohans!

As British Champion, he was selected to represent the UK in the World Sports Class Championships in Marfa, Texas in 1970.

Con won the Northern Regionals in 1976 in a Blanik. It was probably the most heavily wing-taped Blanik that ever was seen, with every gap and cranny taped over.

It was during the mid-70s that Con began a series of UK national speed and endurance record-breaking flights from Vryberg in South Africa. For a time he held two solo, two P1 two-seater, and four P2 two-seater records. These record-breaking flights culminated at Christmas 1976 when, as well as the UK national records, Con won two two-seater World Records, flying in the original prototype two-seater Janus (registration double X-Ray).

For their flight on 28 December, 1976, a 762km 28 per cent triangle via Campbell and Odendaalsrus was set. The total flight time was 7hrs 42 minutes. The last 40km or so was littered with gliders who had landed out and they just scraped home. This was the first two-seater in the world to fly a 750km triangle and, of course, was the fastest in the world to do so.

Con joined the Sultan of Oman's Air Force (SoAF) on retirement from the RAF in 1976, where he continued his gliding in the Motor Falke SF25C, as well as taking the opportunity to further his other great hobbies of bird-watching and photography.

On his retirement from the SoAF, Con joined the Yorkshire Gliding Club (YGC) at Sutton Bank. He purchased his LS6, "521", and he trailed it to gliding sites around the UK and Europe.

Con particularly enjoyed gliding in Spain for exciting wave flying around the Pyrenees.

He reluctantly sold 521 during 2009; however, he kept flying from YGC and Rufforth whenever the weather was good enough. One of Con's friends from YGC tells of one of Con's more recent flights. "I only flew with Con once; a triangle from YGC to Pocklington, Rufforth and back to Sutton bank in a K-21. It was a flight I will never forget. From Rufforth to Sutton Bank was all blue and yet, under Con's guidance, I gained 3,000ft on that leg. We

used the height by doing aerobatics over the field. I was 80 and I guess Con must have been not much younger."

Such accolades and anecdotes from Con's peers have helped to ease Con's family's pain after his loss; if you have any such stories about Con that you wish to share with his family, please send them to davidannas@hotmail.com so that they can be collated.

Con was buried at his local church in Stamford Bridge, York on 7 September, 2010. As was befitting for Con, it was a perfect gliding day and Con's life was celebrated in style by a large number of his family and friends.

He leaves a widow, Dodie, and his three daughters, Lynda, Jane and Julie. A memorial bench will be unveiled at YGC Sutton Bank on 4 June, 2011 at a gliding fun day that is being held to raise money for York District Hospital, where Con spent the last week of his life. Please contact YGC or the email address above for further details.

David Annas

Richard Prestwich (1928-2010)



"RIC" PRESTWICH died at home on the 1 December, 2010, aged 82, nearly three months after deciding that a hospice was not the place for him.

"Ward of four and two carted out in boxes within three days," was how he summed it up; no one who knew Ric would be surprised to hear.

Ric's enthusiasm for life was unbounded; he shot, fished, sailed and flew both power and gliders. He went to Clare College, Cambridge, joining the University Gliding Club in its pioneering days.

He gained Silver C No 301 in 1952, Gold No 16 in 1965, with all three Diamonds by 1996 and, on the way in 1959, established the Rhodesian height record of 28,000ft in a cumulonimbus in his Skylark II – a record which he gleefully explained could not be broken, because Mugabe had banned cloud flying in Zimbabwe.

When I joined the Shropshire Soaring Group, Ric was first to rig and first to launch. When I arranged mid-week flying I could count on him being there. We

both had ASW 20 gliders, so there was an element of competition and, when comparing flight times, Ric was prone to forgetting to mention that he had had a relaunch while I wasn't looking, which might also have explained the absence of sandwiches in my lunch box.

Ric was a great raconteur and was welcomed as a dinner guest. He seemed to know everyone in the gliding world. He was also a very good walker and at Feshiebridge I found it hard to keep up with him on the mountains, despite a seven-year edge. He would spot deer, eagles, buzzards and any wildlife with excitement.

Since I retired, I have had powered planes and a self-launching two-seater glider. Whenever I rang to see if Ric would like to fly, the answer was invariably yes, even on the shortest notice.

No matter where we flew, it seemed Ric had an encyclopedic knowledge of the countryside. He'd either shot, fished or landed out there or been on expeditions looking for soaring sites on the hills. In North Wales he would show me a railway line, where a special station had been built in return for allowing the line across the owner's land. Passing Llandudno, he showed me where they bungeed off the Great Orme, the stately home where he had landed and been invited in for tea.

He'd explain the primitive launch mechanisms they used, such as a combined bungee and car tow. He'd climbed Cader Idris on his 70th birthday, and in his late seventies he was still in demand to skipper someone's boat in Croatia. Although he had officially given up shooting, he was regularly asked to go along as a guest.

Ric was exceptionally good company and, despite putting on a Scrooge act, he was very generous with his help and time. His sailing skills, including rope splicing, meant that we always had a steady supply of aerotow ropes.

As well as gliding in Africa and Europe, Ric had flown in Australia too.

In his late seventies he was undaunted by the distance, towing his trailer to Jacca. We last flew on the 23 May last year for 30 minutes to bring his total hours to just over 2,667.

Sadly, his last flight was in a powered aircraft; I'm sure he would have preferred it to be in the glider he'd flown two weeks before.

Keith Field and Ron Rutherford

James Walker McLeod (1912-2010)



ULSTER Gliding Club regrets the death of our oldest member, James McLeod.

James was born at Montrose on the East coast of Scotland on 19 December, 1912. He recalled that his first

encounter with aeroplanes was at the age of five, when an aunt took him to see men learning to fly at a field not far from their home. James recalled seeing biplanes in operation being assisted by men holding on to each wingtip whilst they manoeuvred on the ground. These would have been men training for the RFC prior to being sent to the Western Front during the First World War.

His father's work as a manager for Royal Liver Insurance led to the family moving to Northern Ireland. They took up residence in North Belfast and James was educated at Belfast Royal Academy, where he passed the grammar school's junior certificate. He joined the merchant marine, signing on with the Head Line shipping company, based in Belfast. This led to James travelling over much of the world's oceans whilst working his way up through the ranks. By 1932, James had completed his second mate's ticket, however the depression resulted in him being laid off for a few years.

James took a variety of jobs ashore and he turned his attention to flying. In 1935, at the age of 22, James applied to become a member of the Ulster Gliding Club. Unfortunately the club's two-seater training glider had been badly damaged at the time and there was no opportunity for James to take up the sport. Instead, he started flying lessons on De Havilland Gypsy Moth aeroplanes and qualified with A and B licences. He recalled much later seeing the new 'hot ship' of the day arriving, and that was the De Havilland Tiger Moth.

At the outbreak of war in 1939, James volunteered to join the RAF as a pilot thinking that, having previous flying experience, he was sure to be accepted. He made the mistake of listing his second mate's ticket as an educational qualification. The RAF decided that his skills at sea were much more valuable to the nation and James served at sea

throughout the war, including long service on the hazardous Atlantic convoy routes, mainly shipping scrap metal from the USA to Middlesbrough for the munitions industry.

He had a few narrow escapes, including once walking aft shortly before the wheelhouse was raked by enemy gunfire. In these years he was promoted to first mate and then to master.

James met Anna when his ship docked in Glasgow and they were married in Glasgow in 1945. They had a son and three daughters. Later, James became involved in the fishing industry, based at Killybegs in Donegal. He ventured into ship ownership with the 39ft *Martha Helen*, to be followed by others including the new-built 50ft *Mairead* and the 60ft *Muiranna*. In later life James was instrumental in opening a factory for the production of fishing gear.

James had always kept a very keen interest in flying and, following the death of his wife in 1983, James returned to the Ulster Gliding Club and was able to train as a glider pilot. To celebrate his 90th birthday, James hosted a dinner for all club

members in appreciation of the pleasure he had derived from the club over many years. His original letter of application in 1935 was found in the club's archives and was read out in James's presence at the club's 75th anniversary celebration in 2005.

James continued to participate, but chose to fly with a safety pilot in recent years. He was able to drive himself to the club, a round trip of about 200 miles, when almost 90. Thereafter, he relied on his family for transport and continued visiting the club up to three months before his death. He remained alert and very interested in everything to do with flying.

On 26 October, James watched one of his television favourites, the quiz *Countdown*. He then retired for his usual nap, but died quite suddenly. He was buried at St John's Church, Killybegs.

James was a true gentleman, highly respected by all who knew him. He was an important link with a bygone era and he will be greatly missed by the membership. We extend our sincere sympathy to the family circle.

Tom Snoddy



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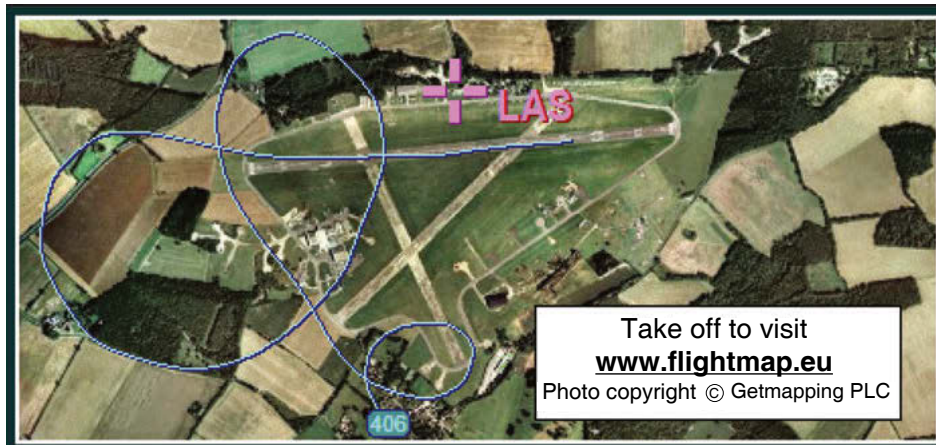
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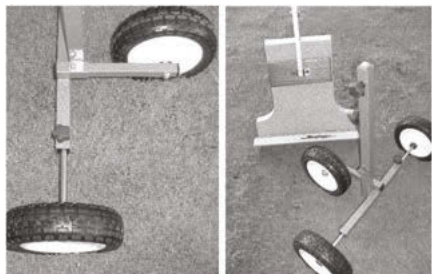
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