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British Gliding Association

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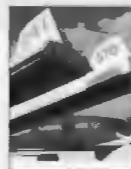
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Lasham's Andy Hall, just after completing his 750km, watches Paul Kite's Nimbus 3 finishing his on May 11. The UK 750s flown on May 10-11 this year take the total number of solo BGA 750km Diplomas awarded to more than 50. See p36 (www.whiteplanes.com)



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Europe, statistics and the succession

David Roberts (right) updates us on Europe, examines the statistics that clubs provide, and asks who might succeed him as chairman

THE last time I wrote my BGA Chairman's piece for your editor was October. How time flies – something that two of the BGA's longest-established member clubs have been celebrating this summer. In June I visited Southdown GC at Parham and London GC at Dunsstable for their 75th anniversary events (see pictures, below). Both put on a great show, though Southdown was luckier with the weather. The enthusiasm was evident, the spirit as good as it must have been all those years ago, and both clubs are looking forward with confidence to the future.

Less immediately enjoyable, perhaps, but no less important was the series of meetings I have been attending on gliding's behalf. In February I went to the European Gliding Union (EGU) annual congress: this was well attended by members and productive in agreeing policy. At EGU we work closely with our many European friends to form a strong representation on the many issues we face with the EU regulators.

Next came a General Aviation day at Eurocontrol, where Sir John Allison, President of Europe Air Sports (EAS) gave his powerful speech in defence of air sports (*We make our case in Europe*, June-July 2005, p4). This was followed by an EAS board meeting, where we decided, amongst many other things, to appoint Rudi Schuegraf, past Secretary-General of Deutscher Aero Club, as EAS programme manager. Two weeks later I went to the EAS annual congress, before attending a week-long EGU seminar to work on position papers, including one submitted to the European Commission in June proposing a change to the Annex II exemptions to EU Regulation 1592, so as to include gliders up to 300kg Maximum Take-off Mass (MTOM) single-seater and 450kg two-seater in order to align with micro-lights. Volunteers working for gliding, in the UK and across Europe, seem to spend more time in meetings than in gliders, so it did us all good to also enjoy some soaring during that week – for me, a welcome addition to the fortnight's holiday I managed to fit in at Benalla at the start of 2005. A further EAS board meeting in early June was followed by an EGU meeting

on June 23. That day EASA published revised proposals, in the form of a Notice of Proposed Amendment (NPA) and Regulatory Impact Assessment, for the Implementing Rules for maintenance ('Part M'), with a three-month consultation ending September 24. In response, EAS has set up a special task group, chaired by EGU, to be drawn from various countries and air sports to provide a structured response. It is clear that we have been listened to by EASA in the first round of consultation last winter, but there are still many issues to be resolved or kicked into touch, or even out of the stadium. The effort will be substantial, and of course comes right at the peak of the summer flying season – again!

One thing I have brought to the attention of my European colleagues in the last two years has been the need for reliable and comparable accident statistics to present our case, on the basis that, certainly in the UK over the last 17 years, there have been very few fatal accidents attributable to airworthiness or maintenance of gliders. The vast majority of fatal or serious accidents have been attributed to 'pilot error', or whatever is represented as that in today's parlance. Therefore, although of course every such accident is a great sadness for the individuals affected, the number caused by airworthiness or maintenance failure is statistically insignificant and so does not justify a complete overhaul of a system that has worked well under our self-governance.

Which brings me to the point, domestically. All accidents and incidents must be reported to the BGA so we have a sound, comprehensive database. Further, club annual returns should be accurate as regards the number of launches, and wherever possible, hours flown. I know the difficulties of accurate log sheets at some clubs. But accident statistics are only capable of proper use in arguing our case in regulatory circles if they are expressed as a rate per activity level: launches, hours, or members.

Last October I made a plea for new recruits for accident investigation, to widen the base of the small team we have. So far we have had no offers, so again, if you think you have the right experience and qualities, please step forward and contact John Hoskins via the BGA office.

Returning to club statistics, I have been concerned for some years that some clubs' annual returns of membership numbers look a bit odd, to put it politely. There is an impression that the overall number of glider pilots in the UK is greater than the number we publish in *S&G*, based on club returns. To be blunt, if some clubs are under-declaring their numbers, then it is the other clubs who are paying for that. At the end of the day, the BGA requires a certain level of funding, and it is simple maths to arrive at the annual capitation rate based on our forecast of club membership numbers. The BGA Executive Committee has already taken



decisions as to how it intends dealing with this issue of "odd" returns.

As this issue goes to print, the Junior World Championships 2005 at The Soaring Centre, Husbands Bosworth, are but a few days away (see p22). A huge effort has gone into the preparation and in anticipation of a successful event I place on record my thanks to all the volunteers who have worked so hard on this. Do come and see the best of the Junior pilots from around the world, from August 6-19.

Celebrations were in order recently when it was announced that Andy Davis had been awarded an MBE for services to gliding. This is a well-deserved national recognition of our most successful glider pilot in international competitions in the last 20-plus years, who puts a lot into the gliding movement at all levels. Congratulations, Andy!

My term as Chairman of the British Gliding Association is approaching its close. The BGA constitution allows a maximum six years in post ("thank goodness," says my wife), and so I am on the look-out for an aspiring successor. Maybe a current member of the Association's Executive Committee will stand (they haven't told me yet!), or someone else with close knowledge of all that is going on. But if there is no 'internal' candidate, I regard it as my prime responsibility as Chairman to at least find two or more potential successors to be willing to stand for election by the clubs next March. Remember, it is you who choose, through your clubs, and if it is left to chance... who knows whom you might get!

David Roberts

Chairman, British Gliding Association
david@davidroberts88.wanadoo.co.uk



Just some of the pilots at London's 75th celebrations



The launchpoint at Southdown's sunny 75th event

Flying for Fun at Kemble

TWO member clubs, Bristol & Gloucestershire GC and Cotswold GC, attended the rebranded Popular Flying Association rally – *Flying for Fun* – at Kemble in Gloucestershire in July, with the support of the BGA and its gliding simulator. The rather indifferent weather didn't dampen the enthusiasm of the volunteers – indeed, Florian Mertens (right), of Cotswolds' affiliated university club, the University of the West of England, came to help out despite having gone solo only the week before. Congratulations, Florian, on soloing: at least turning up that Saturday didn't make you miss a good soaring day.



Remember your papers

THE BGA has been working with the Civil Aviation Authority, which is responsible for monitoring compliance with the new EU aircraft insurance regulations (see p62 of *this issue*, Q3), to minimise the impact of compliance checking. The BGA has successfully deflected proposals that glider owners or operators must submit evidence of cover annually and carry this with them at all times in the glider. Instead, there will be random compliance checks. It is very likely that the CAA will target a number of competitions over the summer to check the insurance documents of all pilots. Competitors at nationals and regionals are strongly recommended to have a legally compliant insurance document with them on site. Note that CAA staff have powers of prosecution for non-compliance.

Field landings

A BGA club has reported problems with a previously friendly farmer after gliders from elsewhere landed in his fields, caused damage, and left without making contact; it has had to placate the farmer despite having no links with the gliders involved. Please follow correct protocol when landing out and ensure you make every effort to talk to the farmer or their representative before removing gliders. If in doubt about what to do, read the code of practice in *Laws & Rules* (Part 4, RP1). Meanwhile, a micro-light recently landed in a field, called for a trailer and began to derig. Three fire engines, five police cars and an ambulance arrived! The police breathalysed the pilot, cautioned him, and declared the site a crime scene but, once they had contacted the AAIB, the pilot was able to continue with his retrieve. The British Microlight Aircraft Association suggests knowing your local police HQ phone number, and is advising its members that as a last resort it would be acceptable to phone 999 to advise that it is not an emergency situation.

MINDEN'S Gordon Boettger (seen on the right with Official Observer Tony Sabino, left) has flown the three longest flights in the USA, all within 53 days in his Kestrel 17. Eight days after the first flight on March 28, he set a second national record of 1,950km, landing after more than 13 hours. The scene was set for when a massive wave system was predicted for May 18. Met man Doug Armstrong co-ordinated information to update Gordon at all stages of his flight. Launched from Minden at 06.15hrs, Gordon went to Little Lake in the south of the Sierras, Chilcote, Northern California, then back to Little Lake before striking off north-northeast from Mt Patterson, finally landing on a duster strip after 2,056km/1,277 miles.

(Text: Roland Bailey. Photo: Len Dent)



Responses in the pipeline to CAA plans

SEVERAL developments on the UK regulatory front are being fielded by BGA staff and volunteers at present, with responses being prepared on behalf of glider pilots. Firstly, the CAA is seeking views on the future operation of "unmanned aerial vehicles" (UAVs). These are being heralded as an aviation revolution: as well as obvious military uses, they could serve in police and fire service surveillance, geographic surveys, power and pipeline inspections or as mobile phone and broadband relay platforms. The CAA is also reviewing Air Traffic Control (ATC) services outside controlled airspace, alongside a

poster campaign to gauge opinion. The BGA is not asking you to make representations at this stage but is preparing a response via the BGA Airspace Committee. Another public consultation causing much comment in the General Aviation (GA) press is that about "safety charges" for the period from January 2006 onwards. The CAA proposals cover all key CAA charging schemes, including Air Operators' Certificate, ATC and aerodrome licensing, personnel licensing and airworthiness and GA. The BGA is analysing the proposals' implications for gliding and preparing an appropriate response.

THE BGA expects that during 2006 all EASA gliders (imported into the UK after September 28, 2003) will be required to be registered with the Civil Aviation Authority (CAA) and carry G-registration markings. The BGA is in negotiations with the CAA and will liaise with owners as soon as there is something definite to report. Watch the monthly BGA newsletter and www.gliding.co.uk for updates.

THE venue for the Junior nationals has changed: it will be hosted by Windrushers GC at Bicester: see www.gliding.co.uk/bgainfo/juniors/juniors.htm

THE Popular Flying Association (PFA) has applied for Design Organisation Approval, an application in which the BGA has a 50 per cent stake. A decision is expected in late 2005/early 2006. Progression will be subject to ongoing discussions between the CAA and the BGA regarding the future of the UK glider fleet.

THE Spanish authorities have now published their report on the accident to a UK-registered Nimbus 4DT on July 31, 2000, near Toledo, in which one crew member died. The report is at www.gliding.co.uk/accidents/reports/nimbus4dreport.pdf (3MB). The BGA's report can be found on the accidents section of the BGA website, www.gliding.co.uk/accidents, and attention is also drawn to the report on the Nimbus 4DM (registration N807BB) fatality at Minden, Nevada on July 13, 1999, available via the database at www.ntsb.gov/. A useful article about flying long-winged sailplanes was published in the June-July 2003 *S&G* (*Flying big wings*, p60).

FOUR Counties GC has moved to RAF Wittering, near Stamford, from Barkston Heath. A new BGA club, the Suffolk Soaring Club, has been set up in East Anglia and will focus on cross-country soaring.

ON David Roberts' initiative, bearing in mind the peak flying season, Europe Air Sports asked EASA to extend the consultation period on the Part M NPA to 24 November 2005. Although verbal assent has been received, the extension is not yet officially confirmed.

GPS jamming trials are due to take place in Wales from August 30 to September 16, and may affect a wide area. There will be an AIC on www.ais.org.uk

THE applications deadline for the two Ted Lysakowski Memorial Trust awards in 2006 – a place on a cross-country course and mountain flying training – is October 31. These are a stepping stone to a level of experience you might not otherwise achieve. Ask your CFI or email George_Metcalf@uk.ibm.com

FIRST dates for this winter's CAA Safety Evenings are in the June 2005 *GASIL*, which is available for download from www.caa.co.uk/

THE Met Office is considering running short training courses for glider pilots and is seeking feedback. www.metoffice.gov.uk/training/ct_aviation.html

THE winner of the BGA 1000 Club Lottery for May 2005 was CE Wick (£35.25), with runners-up B Morris and P Fincham (each £17.62). The June winner was RP Saundby (£35.25), with runners-up MI Gee and JV Bradley (each £17.62).

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FLARM

IT WAS with interest that I read your very small article about the FLARM collision avoidance system in the June-July *S&G* (p30) but with disappointment that I learned we must wait until a "future issue" for more details. The small article also noted "frequencies used could be an issue in the UK".

Why is it that we must wait on an article concerning an item of significant safety? That is, why must we wait so long that the entire Swiss fleet and almost the entire Austrian fleet of gliders are equipped with such items before it even becomes a topic for discussion in Britain? And how is it that only the British, as opposed to the French or the Germans, can possibly put "frequency issues" before safety? As the FLARM website opens acknowledges, there could well be legal risks associated with using FLARM anywhere in Europe but can we as human beings really afford to ignore the safety benefits in favour of the law?

It would set a good tone for safety if *S&G* was to publicise FLARM asap, rather than publishing close-up photographs of pilots doing beat-ups on its front page, not to mention a perfect opportunity for the BGA to assert itself over matters of a safety nature.

Dominic Hope, DINNET, Aberdeenshire

As well as the article that prompted these comments, S&G considered FLARM in some detail in our December 2004-January 2005 issue (p17) and Jacques Noel, one of several pilots S&G asked to review FLARM (who has just equipped the fleet at La Motte du Caire, France, with it), will assess it for us later this year - Ed

And more FLARM

I WAS interested to read about the FLARM. It's a pity that it's probably too late to use it for the Junior Worlds like the Sailplane Grand Prix in September. The main problems, I imagine, would be getting a radio frequency and CAA approval. I would argue such a system has great benefits for all aircraft, including the potential to dispense with Mode S even before its implementation.

Systems like FLARM have been under development for some years. There is a system called Automatic Dependent Surveillance Broadcast which is similar to FLARM (but uses data links to transmit the information to a base station) and has been implemented in several countries. So why is it taking so long to reach here? Two advantages of ADSB systems are its ability to operate outside radar coverage and within radar coverage to reduce the ATC workload. In gliding it could be very useful in making the public more aware of the sport. During a competition on-screen maps could show the progress of competitors with virtual scenes showing more. (Perhaps ground or air data links might be necessary to relay the information to the base airfield). But further than that observers, say in powered aircraft, could show parts of the actual competition around the route (these could provide the data link to the base station). Competing aside, I reckon the safety advantages of such a system are enormous.

Ray Swinfield, via email

Getting badge claims right

BASIL Fairston's article (Get badge claims right, June-July, p48) was excellent! It does however raise a couple of issues.

"At sometime in the future all badge claims will require a logger". Whilst I agree that this is fine for Gold claims and above, where airspace infringements may be seen as an issue, a lot of the early badge flights are still done by K-8s and club two seaters which are not equipped with such kit. The temptation to hurriedly install a logger in a club aircraft for a five-hour attempt may cause safety issues with loose batteries, cables and ariels, which an EW in the pocket does not. A K-8 is worth about £1,500. Forcing them to carry a £600 logger does seem to be over the top.

The rules on circles and sectors, explained so well by Basil, needs to be simplified so that both can be used, with a distance penalty of 1km for each circle used.

I urge that we mandate our International Gliding Commission representative to push for common sense in these areas.

At Benalla, Australia, we have both British and Australian OOs. I had to take a test to be an Australian OO. Most of the claims from Benalla go to the Gliding Federation of Australia, their form is easier to fill in and requires only one OO to complete. When are we going to simplify the British claim form?

Max Kirschner, via email

BGA Badge Officer Basil Fairston replies: This rule won't affect badges lower than Silver as these aren't FAI badges. I agree it would be sensible to continue to allow Silver durations by observation and Silver heights and perhaps one-way Silver distances (landing away) by barograph. Beyond this the UK gliding movement has voted with its wallet. My pile of maps lies collecting dust and I haven't had a claim using photos for the turnpoints for more than a year. I also agree that the implementation of the circle rule is wrong and should be as you say. I am not looking forward to having to turn down a badge claim from a pilot who uses the circle for the first turnpoint and then flies way round the turnpoint but into the sector for the second. Intuitively one feels that this pilot has done the distance and should get the badge. I hope our IGC rep does lobby to change this. Regarding the form, the Australian form is simpler but the OOs over there have to take an exam so are probably better trained than ours. The BGA form is more complicated but does provide the ability to cross check the facts. I see enough claims with errors to believe that we should stay with our form

Don Alejo: pioneer of the Andes

READING the articles on Andes soaring in the April-May issue (pp36-41), by RAFGSA pilots Rick Jones, Nick Smith et alia, triggered recollections of two further further exploits involving the Chilean mountain soaring pioneer Alejandro Williamson ("Don Alejo").

The first of these was recounted more than 40 years ago by Frank Irving of Imperial College GC on his return from the 1962 World Championships held at Junin in Argentina. There, apparently, the Brits saw a pair of Sout American clone "Souper" Cubs (with very long powerful engines) appear towing Blaniks, land and disgorge crews, who proceeded to unpack tents and set up camp. Asked where they had come from with all

this gear, the answer was "Chile". In case the enormity of this is not apparent, the height of the pass they had to traverse was 15,000ft plus. Williamson, the name of one of the Chilean pilots, was easily remembered as, at the time John Williamson was our own National Champion and in the British team there (flying a Skylark 4, as I recall).

For the next tale, fast forward to a chance meeting with a Chilean glider pilot. Asked about "Senor Williamson", he was delighted to say they were colleagues and to recount another of his exploits. It seems that, in the late 1960s, several Chilean pilots were encouraged to investigate long-distance soaring over the Andes and were supported with FRP gliders and a Cessna Bird Dog for tows and route-survey. On the latter task one day, it seems Don Alejo and a colleague went off in the Cessna and, investigating a short-cut across a lee valley slope, encountered sink which they were unable to outrun even with the plane's iron horses flogged to the limit. With few options for an imminent meeting with terra firma, he chose to land up a scree (a steep slope of loose stones) and, with gravity's help, came to a stop intact after a very short landing-run. However, gravity turned on them: they started to slide backward and were obliged to abandon ship and watch their plane tumbling down the mountain to its end (with the radio). For three days they "walked out" before coming to a village with a phone while the rescue authorities searched for them by air (and drafted suitable memorial epitaphs).

These tales indicate more of the stout stuff involved in pioneering Andes flying. Although scree-landings are not unknown in the wilder parts of Britain, a 15,000ft aerotow and three-day walk to civilisation put matters into perspective.

For confirmation and for background information, I am indebted, respectively, to Frank Irving and to Nick Smith, a member of the recent RAFGSA expedition to Chile, which sampled Andes routes opened up by Don Alejo, a truly great soaring pioneer.

Tony Gee, MARLOW, Bucks

Fair play

FOR two years I have complained that the otherwise excellent *Club Directory* (June-July, p34) has lumped the Isle of Man in with England. In the interests of fairness I must now congratulate *S&G* and the map-maker for at last getting it right. Not in the UK. Not in the EU. Not even governed by Westminster but where we belong, in our rightful place, as a separate country at the centre of the British Isles, nay, at the centre of the universe. We may not have the best of soaring sites but visitors are always welcome in our paradise.

Once again, thank you *S&G*.

Brian Goodspeed, via email

Please send letters (marked "for publication") to the editor at editor@salplaneandgliding.co.uk or the address on p3, including your full contact details. Deadline for the next issue is August 16

What would you do?

Neil Goudie, the winner of the 2004 CAA General Aviation Safety Award, reflects on the lessons learned when he landed out to help an injured pilot

ALTHOUGH it was an honour to be awarded the 2004 General Aviation Safety Award by the Civil Aviation Authority, I was slightly embarrassed as, in my opinion, what I did seemed instinctive and the natural thing to do at the time. However, on reflection, my actions did require a lot of quick decisions: I landed from 2,000ft in less than a couple of minutes from seeing the wreckage. There were, though, a lot of unnecessary errors made, which, considering the situation, was not unusual. I remember saying to myself at the time that I would not repeat them the next time I was faced with a similar situation. Fortunately, almost a year later, I haven't had to repeat my life-saving actions, and I hope the gliding community can use the "lessons learned" mental notes I made as I left the crash site last August.

Why land?

This is something that, in hindsight, was a good decision. However, what was going through my mind when I first saw the wreckage was that:

- a) nobody was walking from it, and;
- b) nobody was running towards it.

It was clearly badly broken, but I instinctively assumed that somebody was probably very badly injured and was not going to get much attention from passers-by; the field was some distance from houses and roads. All the clues led me to decide to land.

Which field?

I made a decision not to land in the same field as the crashed glider. This was for various reasons, but my general rule in field landings is not to be swayed one way or the other on a field choice just because a glider has landed in it. You need to make your own assessment, and this will depend on your own level of competence. I decided that the crashed glider might have hit an obstruction that was not immediately obvious and that a nearby field would be more suitable.

I am not advocating that you must land next to crashed gliders; sometimes it might be better to remain airborne and co-ordinate the rescue effort from there.

You may need to make a mental picture of the position of the crash site in relation to where you are going to land. By the time I landed, I thought I knew which direction to run (three hedges, two ditches!) but even with that picture in my head I still doubted that I was in the right field (in fact, I couldn't see



From left: BGA Chairman David Roberts with Tiger Moth Trophy winner Neil Goudie and BGA Treasurer John Birch during the awards ceremony at the RAF club in London. Neil was flying a regionals in August 2004 when he saw a seriously-injured competitor's wreckage in a field. John Birch nominated Neil for arranging for an emergency call to be made then landing in the field to give first aid, phoning a doctor friend for guidance until an air ambulance arrived. Terry Wilson and John Pote of Devon were first runners-up, in recognition of their part in rescuing an unconscious pilot from a blazing aircraft which had crashed just after take-off. These annual CAA awards recognise people who have used quick thinking, common sense and practical airmanship to avert a serious – or possibly fatal – accident

the wreckage until I was 25 metres from it). After a decision to land is made you must remember that you should go through all the necessary decision-making required to make a successful field landing. How long this takes will depend on a series of factors that only you can assess at the time.

Flying

I had just left two other gliders in the previous gaggle, and we had been chatting on the same frequency. They saw me spiral down, and I asked them to call in the co-ordinates to the competition control as I descended. Fortunately, one of the other pilots (Mike Roberts, in M19) had the presence of mind to call a Mayday on 121.5, and also managed to relay a message back to Gransden Lodge, where the competition was being held. In retrospect, I realise I hadn't really made my intentions clear. My instincts told me the best place to be was down next to the pilot. If, however, I had been on my own the decision to land should only have been made after calling the Mayday on 121.5. Calling a Mayday also relays what your own intentions are going to be and prevents the problem of relying on your mobile phone when you land.

Landing

I always carry my mobile phone in my trouser pocket (not much use if it's in the glider when you may have to parachute), and as soon as I had landed I made a call to the competition

control. They then relayed the message to the emergency services, which then contacted me to establish the pilot's injuries and description of the crash site.

I assumed, wrongly, that the crashed glider would have a working GPS, and without thinking I left my own hand-held GPS in the glider. So by the time I arrived at the glider, I had absolutely no idea where I was apart from a direction and distance to the next turning point. Carrying a GPS with me might have saved some vital seconds.

Not knowing my exact position, fortunately, proved less critical as the co-ordinates were being relayed through to the air ambulance by the Distress & Emergency frequency.

Final thoughts

What was really alarming about the whole event was how well hidden the crashed glider was in the field. It could have taken several days for it to be spotted by a passer-by. In addition, the pilot was very badly injured, eventually resulting in amputation below the knee of his right leg; he would have been unable to get out of the wreckage. It has made me consider purchasing a personal locator beacon.

The quick response and professionalism of all the emergency services and competition organisation, pilots and crews, certainly turned what could have easily been a fatal accident into one with a much more positive outcome.

Airprox in Yorkshire

IN MAY 2005 UKAB (the UK Airprox Board) deliberated an unfortunate incident in which a DG-1000 from Sutton Bank penetrated the airway near Barnard Castle in near-perfect visibility. The glider caused an Airprox with a Jetstream 41 at FL145. As can be seen on the drawing, right, this part of Class A airspace has a base of FL75. The Airprox Board assessed the cause as "Unauthorised penetration of Class A airspace by the DG-1000 pilot" and gave the incident a Risk Rating of 'B' – the safety of the aircraft was compromised.

During a telephone conversation with the investigating inspector, the DG-1000 pilot "confirmed he had not noted his level at the time of the incident and on reflection thought that his originally reported level of FL100 may have been in error. At the time he had been flying in excellent wave conditions, climbing at 8kt vertically, and could well have been closer to FL150. He had been cognisant of the airway and he had thought that he was further west of Barnard Castle, well clear of the airway."

The matter was subsequently handled appropriately by the board of Yorkshire GC but there are a couple of points worth noting under lessons learned.

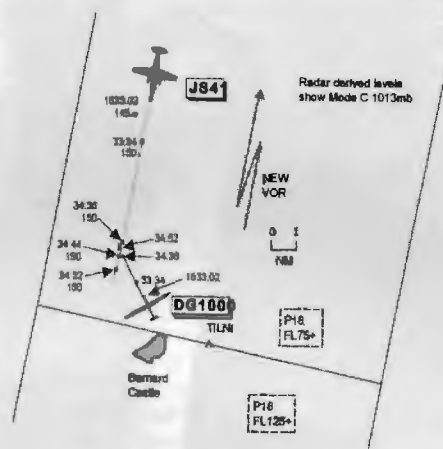
Firstly, a contributing factor was that neither pilot was using oxygen at the time of the incident. Oxygen should be used above FL100 and very definitely above FL120 as judgement will be impaired with the reduced levels of oxygen in the air. Climbing in strong wave conditions requires quite positive action to keep within these limits.

Secondly, keeping clear of Class A airspace without using a moving map is becoming very difficult. From 14,000ft it can be quite difficult to judge exact position over the ground and if flying without a moving map then an extra margin must be applied to ensure the glider remains clear of controlled airspace. Of course it goes without saying the airspace files on the moving map must be kept up to date and pilots must know how to use the equipment. If in doubt, do get help from colleagues on downloading airspace files and the correct settings and usage of GPS displays.

On the whole, glider pilots are very good at keeping clear of Class A airspace and incidents like this do damage to our otherwise good record.

General points

There have been several incidents recently concerning aerobatic aircraft and gliders or motorgliders, some of which have resulted in airproxes. Class G airspace is shared by all and therefore everyone has equal rights. Nevertheless, there seems to be an increase in aerobatic activity, on occasion carried out in what might be considered inappropriate



Above: Airprox number 191 of 2004 (diagram courtesy of the UK Airprox Board). Keeping clear of Class A airspace without using a moving map is becoming very difficult. From 14,000ft it can be quite difficult to judge exact position over the ground and if flying without a moving map then apply an extra margin to ensure the glider remains clear of controlled airspace. Of course it goes without saying the airspace files on the moving map must be kept up to date and pilots must know how to use the equipment

parts of Class G airspace (for example, too close to other active airfields, on the departure/arrival points or with no mode C transponder set). The lookout from the aerobating aircraft is likely to be impaired, especially those with limited experience. Do try to be extra vigilant, as some of these incidents have occurred in cloudbases of less than 3,000ft. Email me or give me a ring if you have been on the receiving end, even if it did not warrant an airprox report.

Recent liaison visits by the Airspace Committee to Lyneham and Brize Norton Air Traffic Control (ATC) units have resulted in useful exchanges of information and a better understanding of our very differing operations. Both ATC units do their best to be as helpful as possible to glider pilots but are faced with operating difficulties caused by not only their own known aircraft but crossing and even unidentified traffic.

If you are close to the zones, or passing over, do make a short radio call to establish contact and ease the controller's mind. We have had an incident recently when a glider correctly made a call but gave the wrong height, causing major consternation. Think what to say before transmitting and additionally do make sure you check your radios regularly and establish the best position for the microphone so that the transmitted message is quite clear.

Hugh Woodsend, BGA Airspace Committee
07785-288473/hugh_woodsend@compuserve.com



Andy Davis MBE

(www.whiteplanes.com)

B RITAIN'S gliding community reacted with great pleasure to the news that the current Standard Class world champion and British Team Coach, Andy Davis, earned an MBE in the Queen's Birthday Honours List for "services to gliding". Andy won his second world championships in 2003, following his first victory in the same class in 1993; he has competed in every World Championship since 1981. He was one of the founders of the British Team coaching operation that has helped British pilots secure many international medals in recent years – a track record of outstanding success that includes seven Gold medals at worlds level. Andy also chaired the committee co-ordinating the 2005 Junior Worlds (see p22). As well as his success as a pilot and much other national work, he is a committee member at his club, the Bristol & Gloucestershire GC.

Andy is one of several pilots representing the UK at this summer's Europeans at Nitra, Slovakia and Rayskala, Finland, and the women's worlds in Klux, Germany. The Finnish Europeans began with an extraordinary 1,011.8km task for the Open Class (and 833.8km for the 15-Metre Class), securing FAI 1,000km Diplomas for Pete Harvey and Kim Tipple – Russell Cheetham, 2003 Open Class World Champion, already had one... The 15-metre team are Leigh Wells and Patrick Naegeli. Team captain is John Popika. In Slovakia we have two world champions: Jez Hood (Junior Standard Class 2003, at Nitra) as well as Andy Davis. In the 18-Metre Class, brothers Steve Jones (former 18-metre World Champion and European 15-metre Champion) and Phil Jones seek to improve upon their Silver and Bronze medals in the 2003 Worlds. The Club Class has current World Silver Medallist Jay Rebbeck (also former World Junior Champion) and Owain Walters (former Junior Worlds Silver medallist). Team captain is Neil Lawson. At Klux, Rose Johnson and Liz Sparrow Bertoya join two former world champions in Gill Spreckley and Sarah Kelman, and Lucy Withall, a former Bronze medallist. Brian Spreckley is team captain. And at St Auben, France, in September, Andy Davis and Mike Young will compete in the 1st FAI World Sailplane Grand Prix.

Some great reports can be found on the team website www.glidingteam.co.uk – the official comp websites are: www.nitra2005.sk/ www.egc2005.fi/ www.wgpc2005.de/ www.cnnw.net/wsgp/ Finally, for Junior Worlds news see p22 and www.worldgliding2005.com



British team members and personnel photographed at the team training weekend at Bicester this June: Back row, left-right: Ian Craigie, Andy May, Leigh Wells, Steve Jones, Rose Johnson, Sarah Kelman, Brian Spreckley, Johnny Roberts, John Popika, Mark Holden, Jez Hood, Phil Jones, Pete Harvey, Neil Lawson. Front row, left-right: Liz Sparrow Bertoya, Lucy Withall, Russell Cheetham, Andy Davis, Patrick Naegeli, Kim Tipple, Jay Rebbeck, Owain Walters, Reb Rebbeck (Robin May, via www.whiteplanes.com)

THE weekend of June 18, 2005, saw the British team descend on Bicester for a pre-competition get-together of discussion and flying. With the proliferation of classes and teams over recent years, 'the' team has grown significantly to include Juniors, Standard, 15-Metre, 18-Metre, Open, Club and Women.

With each event (Europeans, Worlds, etc) requiring preparation, organisation and finance, there was plenty to discuss.

Over recent years, a team coaching programme has been developed, run largely by Brian Spreckley and Andy Davis, with support from other experienced team members. As a result of this, our superb

Nationals structure and the enthusiasm of our pilots, Team GB is now rated number one in the world. Keeping us there is our objective and Windrushers GC provided excellent facilities for us.

Saturday morning was hosted by team manager Brian Spreckley and covered topics such as briefing for the new 'Grand Prix' format (a more spectator-friendly racing event), feedback from comps, finances and the future. Women's team-member Dr Rose Johnson gave a presentation on doping controls, and Keith Auchterlonie, BGA Communications Officer, presented on PR support and press plan and the huge amount of work behind the scenes to raise

team and BGA profile. We also received the new team uniform, generously provided by sponsors Dickies clothing, Joint Aviation, Southern Sailplanes, Shirenewton and LX avionics Ltd. Then we tried the Grand Prix format, with three classes of Club, 15-Metre and Open Classes. A 2km start line and a countdown to a racing start, then all off together, first one around the course wins, gets the points and prizes. It was fun and fiercely competitive, with tasks on both Saturday and Sunday. Whether it becomes an established format remains to be seen, but watch out for the initial Grand Prix at St Auban in September.

Peter Harvey reporting, June 26, 2005

Book review: *Winning II*

WHEN I was a teenager first flying competitions, I had my own sporting bible... *Winning on the Wind*, George Moffat's inspiring book written to provide the competition glider pilot with an insight into what it takes to succeed at World Championship level. Like many aspiring pilots of the 80s and 90s, I found in this book a methodology on which I could base my own approach to the sport. Many a time after a disappointing day did I reach for this literary crutch to seek inspiration – on one occasion while I was still in a field! Strange how one doesn't feel the need for advice after a good day.

George has revisited his classic in order to modernise it in light of an additional 20-odd years' experience, taking into account advances in sailplane performance and enhanced technologies. Hence we now have *Winning II*. Anyone with a love of gliding literature will be delighted that Mike Bird, perhaps better known as *Platypus*, has written the foreword in his own uniquely insightful and witty prose.

For those who would like a headline summary on changes in competition gliding over the past 40 years, the first chapter is a must read. What a golden age of transformation George has experienced.

Winning by not Losing, the famous chapter from *Winning on the Wind* dedicated to low-loss flying, is as valid today as it was when written in the 70s. Tweaked to



take into account various rule changes, these nine pages are what I would suggest to any ambitious competition pilot to read ahead of any other soaring literature.

Noting the levelling-off in glider performance over recent years, the author has added a chapter devoted to changes in competitive soaring and has expanded the original four articles on *techniques* to 14. Gone is the original's section of flight reports on various glider types. Included is advice on competition preparation, thermal entry, a typical contest day, post-flight analysis and best of all (and pretty much unchanged): *attitudes that win*.

Never one to shy from controversy, Moffat includes a chapter on "leeching" that makes clear his contempt for

"these airborne parasites" – those who choose to follow proven pilots to better their position. Any pilots who adopt this practice would do well to buy the book, if only to read this section. Also under attack are contest directors who choose to under-task days in order to achieve a higher percentage of finishers. It's abundantly clear that George Moffat is a man who likes to be tested and loathes an under-set task. Like the leeches, the contest directors who appease the masses should have a read.

Winning II is definitely more of a trip down memory lane than the original, but this adds to its readability. The book contains some wonderful accounts of individual flights, from George's obtaining his Silver distance to winning the World Championships, as well as some brief biographies of individuals who have influenced him. The discerning European reader will need to make allowance for the American slant but, having done so, they will find the read enjoyable as well as rousing.

It was a risk for Moffat to write this book; after all, how many sequels reach the heights of their forerunners? This hazard has been avoided. The book is targeted at all cross-country pilots, from newcomer to seasoned pundit alike, and anybody with a desire to improve their soaring skills should read it. Moreover, in my opinion, *Winning II* takes its place alongside *Winning on the Wind* as a "must read" for any aspiring competition pilot.

WINNING II by George B. Moffat Published by Knauff and Grove ISBN 0-9704254-4-9, price: USD 32.95 excluding P&P For details of worldwide distribution see www.eglider.org or phone (USA) 814 355-2483

Threats and opportunities

A NEW EU Council Regulation has introduced the Single Payment Scheme (SPS), as part of a reform of the Common Agricultural Policy. Under the new Scheme farm subsidies are not allowable for any land that is used for non-agricultural purposes. The government Department for Environment, Food and Rural Affairs (DEFRA, formerly MAFF) decided to interpret the Regulation cautiously and has published guidance, specifying that any land which is used for non-agricultural purposes for more than 28 days in each year will be ineligible for the new payments. This is intended to be the case even for land where there is shared agricultural and non-agricultural use.

Unfortunately, among the activities defined by DEFRA as 'non-agricultural use' are 'paragliding, hang-gliding, ballooning etc'. It is not difficult to imagine that gliding would fall into the definition of 'etc'. In any situation where gliding and agriculture are using the same land, there is a danger that the land might be regarded as ineligible for the SPS. This could pose problems for gliding clubs occupying agricultural land on a licence for shared occupation with a farmer. Leased land is probably not affected as a lease confers exclusive use upon the lessee.

The British Hang Gliding and Paragliding Association and a number of motor sports governing bodies have taken legal action to have DEFRA's interpretation over-ruled and at present it looks as though they may be successful, which would mean that the threat to gliding would also be over. We will continue to monitor the situation and any club which is concerned about their position should contact the BGA Development team.

Wind farms

The Central Council of Physical Recreation

(the association of all sports governing bodies) is developing a policy on wind farms. The BGA and Royal Aero Club representative at the CCPR is a member of the working group that is drafting the policy, in order to make sure that air sports' particular needs are recognised. If there is any club which has any special concerns on this topic, please get in touch so that we can incorporate your views in our contribution to the debate.

European opportunity?

The Regional Development Committee of the European Parliament has recently voted to include sport as an activity eligible for funding under the European Regional Development Fund (ERDF).

The ERDF's purpose and the way it is managed aim to give effect to the Community's priorities, in particular to strengthen competitiveness and innovation, to create sustainable jobs, and to promote environmentally sound growth. If the full European Parliament approves the change to the regulation, sport will be listed as eligible under the 'European territorial cooperation' objective, which aims to develop cross-border economic and social activities through joint strategies, with applications which encourage entrepreneurship and cross-border trade being particularly favoured. Projects involving some links with other EU member countries – for example twinning with a European club or a European expedition, are therefore probably the most likely to succeed.

For further information, contact your regional government office or county council.

Diana King

Chairman, BGA Development Committee
23 June 2005

Dates for your diary



For more information about the Junior Worlds, see p22 of this S&G and visit www.worldgliding2005.com/

UK and international competitions

Women's Worlds	Klix, Germany	30/7-13/8
4th Junior Worlds	Husbands Bosworth	31/7-20/8
Club Class Nationals	Lasham	6/8-14/8
Open Class Nationals	Lasham	6/8-14/8
Regionals	Tibbenham	6/8-14/8
Standard Class Nationals	Nympsfield	20/8-28/8
Regionals	Dunstable	20/8-28/8
Regionals	Gransden	20/8-28/8
Junior Nationals	Bicester	21/8-29/8
Two-Seater Comp	Pocklington	21/8-28/8
Mountain Soaring Comp	Deeside	4/9-10/9
1st World Sailplane Grand Prix	Saint Auban	2/9-11/9
Saltby Open (Aerobatic)	Saltby	10/9-11/9

Other events

33rd International VGC Rally	Eggersdorf	27/7-6/8
Internat. Vintage Sailplane Meet	Elmira, USA	20/8-27/8
Slingsby Week & Rally	Yorkshire, Sutton Bank	27/8-4/9

BGA AGM and Conference 2006

You might want to note that next year's British Gliding Association Annual General Meeting and Conference will be on the weekend of March 11-12. The venue and programme details will be published in future issues

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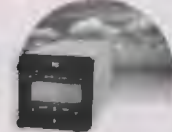


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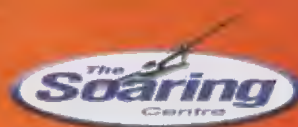
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STINC – Stupid Things I Now Confess – No. 3

IT WAS the last day of the 1999 Open Class Nationals at Lasham. There is not much to say about this task except that it was the sort of day when only Open Class ships could go anywhere at all. Lesser gliders would have stayed on the deck and the pilots would have been dispatched to the bar, probably with sighs of relief. The great majority of the contestants failed to make it round the course, so I was not unduly vexed to discover that I was probably going to land out.

Finally, I abandoned the struggle and decided to land at Thame (Haddenham) airfield where the Upward Bound people were winch-launching K-13s from the western end of the long grass runway. There would be lots of friendly muscle, and some company, while I awaited an aerotow retrieve. During the previous 40 years I had quite often taken an air retrieve from Thame after an over-ambitious out-and-return from Dunstable to the West Country: it was a useful bolt-hole about 30km west of my home club.

It was the last day of the competition so I might as well take a short, cheap tow to the London GC. There was no need to go back to Lasham. I would phone my crew, Marion Barritt, and ask her to drive the empty trailer straight back to Dunstable.

Having made all these smart executive decisions, I made my approach, swooped in – and found myself slithering to a bumpy halt on the belly of the glider with the wheel fully retracted. A fine way to impress all these young student pilots. Surely I hadn't done the same stupid thing twice in two days? The people who came running up assured me that the undercarriage had indeed been down as I approached. It was the unevenness of the ground that had collapsed it.

That itself was a warning sign. Another warning sign was when I saw a twin-engined aircraft taxi into position and take off away from us into the easterly wind, starting about halfway down the field. I am not much of a power pilot, having only a basic US single-

engine rating, but I think that if I were taking off in a twin I would invariably use all the runway I could get, in case of engine problems. After the event it dawned on me that the reason he (or she) did not use the western end of the runway was that it was far too rough.

The tug duly arrived from Dunstable and was hooked up. Out of habit – being used to a smallish field where one needed every inch – I elected to take off from the same spot as the K-13s. Being relatively light gliders and using a powerful winch, these wood and metal two-seaters needed very little take-off run. They were not bothered by the uneven ground, but leapt eagerly into the air after almost no run. Not so the ASW 22 behind the Dunstable tug. I was unduly worried about the possibility that the undercarriage would collapse again, which added to the workload. It is normally quite a demanding job even on smooth ground staying straight behind the tug, keeping the long, floppy wings from touching the ground, having one's left hand on the flap lever ready for the two changes in flap setting as flying speed is attained, but also being ready to move that left hand instantly to the release-knob in case it all goes wrong. (Having a belly-hook as distinct from a nose-hook also helps to make this an important concern.) On top of all that I was now glancing down at the undercarriage lever on the right-hand side, though on reflection what I was going to do if it jumped out of its

notch I cannot now imagine, since I would have to switch hands at a most delicate time.

You therefore might say that when the port wingtip touched at around 30 knots and the groundloop started, I was not in a state of perfect mental or physical readiness to abort the launch immediately as I should. I am not even sure whether the towline released itself, as it would do once the glider started going backwards. Anyway, a delay of at least one-and-a-half precious seconds converted a minor whoopsie into a very noisy pirouette. The bang felt moderately alarming inside the cockpit. To the spectators it looked and sounded horrendous. So when I said insouciantly, after being dragged back again, that I and a variety of very tough sailplanes had survived worse over the years (true) and got ready for another go, the man in charge stepped forward and put his foot down. I and my ship were grounded, he stated. The CFI (I am lacking a name, but if he writes to me I promise I shall leave him something in my will) told the Dunstable tuggie to fly home without any delay, and would not even allow the tuggie to speak to me. Maybe the CFI feared that with my golden tongue I would somehow try to persuade my fellow-member to launch me despite this total ban.

So the towplane headed home, and I rang my indefatigable crew, currently *en route* from Lasham to Dunstable, and asked her to make a detour via Haddenham village.

Somewhat grumpily I started to remove the wing-tape before derigging.

However, after taking off the tape that sealed the gap between the top of the fin and the tailplane, I was stunned to see that during the groundloop serious structural damage had occurred to the top of the fin. The tailplane was distinctly wobbly and looked quite capable of parting company entirely with the fin, especially if provoked by another take-off on this very rough terrain – or at least the functions of either the fixed tail or the elevator, if they had remained attached, would have been very badly compromised, which I think is a fancy word for screwed-up.

"Feeling all hot and cold" is an understatement when it comes to describing my



distinctly wobbly



with a safety pilot

sensations at that point and for quite some time afterwards – even now.

It was my last competition – with one exception. Six months later, after downing a fair amount of very good Scotch at the grand Elizabethan mansion of a distinguished former BGA chairman, I woke up in the night in my panelled room having the first of five heart-fibrillation episodes which, over five years, first persuaded me not to fly single-seaters, then later only to fly two-seaters with a safety pilot, and finally to sell up altogether. (Oddly enough it did not persuade me to stop drinking Scotch, though I do so in much smaller quantities.)

My only competition flying since then has been in the 2003 trans-USA race from Los Angeles to Kitty Hawk in an ASH 25 with George Moffat, taking the helm on alternate days.

Well, I thought I'd go out on a high before retiring and becoming just a passenger.

Some heavy moralising follows: you can skip this bit if you think you can't ever do something as stupid as Platypus, or if you value your life cheaply.

Just because you have got away with something before (in this case, taking another launch immediately after a vicious groundloop) don't assume you can get away with it again. You may have just been very lucky up till now.

Inspect any possible damage after a severe shock with great care – look for any untoward movement or flexing, and remove tape to get a better look.

Just because you have taken off from a particular site several times in the past in the prevailing westerlies, you must not assume that the field is symmetrical and that in the opposite direction it will be just as easy. Coming from an undulating hill site I tend to think of other people's flat aerodromes with long, straight runways as being, well, flat, and therefore smooth, luxurious and unproblematic. They are not. They can have hills or valleys in the middle and they can have horrible rough areas exacerbated by all sorts of history, ancient or recent, such as churned-up winter mud hardening in the spring. Booker used to have patches that even Dunstable would be ashamed of.

Brave New World

While reading the last *Sailplane & Gliding* I was quite suddenly arrested. I mean my mental attention was grabbed, rather than that the constabulary forcibly detained me for questioning; reading *Sailplane & Gliding*, even in a public place, is not yet a criminal offence, though we may be getting closer by the day. What caught my eye and stopped me in my tracks was a headline on page 10: "Pilot modifications and maintenance".

"Excellent!" I thought; it's high time somebody authoritative taught us how to modify and maintain pilots. British glider pilots are most of them pretty defective in all sorts of ways and are rather high-maintenance items, especially relative to their practical utility. In many cases the more clapped-out ones should be traded in for newer models that are better designed and a lot cheaper to run. But if we have to continue with the ones we have got, let's get some airworthiness directives out and ground them all till the mods have been implemented.

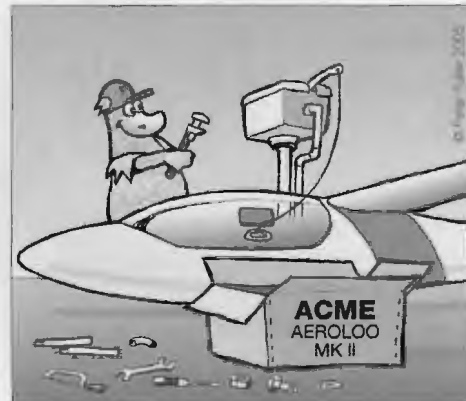
Upon further reading I realised with slight disappointment that the author meant modifications and maintenance BY pilots, not OF pilots. However, by this time my brain (*Hah! Ed.*) was racing away and I decided I might as well download my thoughts and get some constructive debate going.

The first mod that pilots need (especially in our hotter ships with very reclining seat-backs) is to lengthen their arms or, better still, to stretch their fingers by about double, so that they can reach the knobs and buttons on the instrument panel. I envisage that each hand should have ten multi-jointed, 359-degree* swivelling fingers including three opposable thumbs, with necessary extra bulges in the cerebral cortex to handle the extra coordinating software. The much cheaper and less technologically challenging alternative is to shorten pilots' legs so that they can sit closer to the panel. This does not require any cortical enhancement and comes a lot cheaper. However, drastically shorter legs may reduce one's romantic appeal (whereas fancier, super-intelligent fingers should enhance it) and clearly we want to be able to breed from the more successful designs. The hi-tech approach probably has longer-term development potential – it has legs, as you might say.

Up-hill struggle

The problems of having a pee in a glider have been done to death in this column over the past 40 years, but all the discussions have revolved around ways of modifying the aircraft with bits of metal and plastic, with no thought of improving the nut that holds

*Nature does not allow wheels: hence the limitation on the amount of rotation that is possible.



modifying the aircraft

the stick, as the Americans call the pilot. No mechanical system is satisfactory. Modifying the pilots is a more fruitful and creative approach. Quadrupling the bladder capacity for either sex is the simplest since it does not entail any sophisticated design innovation. It is just a matter of finding internal room for a larger piece of kit than we currently have, so some extra bulges may be required to accommodate.

More room for inventiveness can be found when discussing the male pilot's needs. A procedure for doubling or trebling of the length of the key piece of equipment in its flaccid and flexible state would confer immense benefits: the awkwardness of peeing up-hill would be a thing of the past, since one could make it go uphill, downhill, anywhere.

Here I ask you to use your imagination. Peter Fuller will NOT be illustrating this scheme, whatever you might think after the last edition, which came as quite a surprise to me. Or if he does illustrate it then the police will certainly arrest me and the entire staff of Sailplane & Gliding.

The benefit would be felt not only in the air (though at high altitudes we must bear in mind the need to keep any extremity with a high ratio of surface area to volume from freezing and even breaking off before the very preoccupied pilot has noticed anything more than a vague sensation of numbness in the nether parts) but on the ground, where the above-mentioned issues of attraction to the opposite sex for future breeding purposes come to the fore, so to speak.

Lastly it occurs to me that if you wish to eliminate problems with flaps, undercarriage levers and release knobs, and if you also believe in using the dive brakes to stabilise the ship in the early part of the take-off run as some people do, especially on the Continent, then four arms would be very handy. I think I'll make another trip to India (my last was with Mrs Platypus in 1979) to look at their amazing carvings. (*Oooooohh! Ed.*) No, not those carvings! Some people...

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The Platypus Papers: 50 years of powerless pilotage costs £19.95 + £3.50 p&p – buy at www.glding.co.uk

Flying, family and fun

Pete Harvey, who won this year's British Overseas Nationals, offers his impressions of a memorable competition – in his usual inimitable style



Simon Waterfall and Iain Evans at the 2.5km finish line at Ocana on the last day of the Senasa Challenge (British Overseas Nationals). They had just completed a three-hour Assigned Area Task at 137km/h. Day winner (and overall winner) Pete Harvey managed 149.7km/h on that day (Ian MacArthur)

I RECEIVED a call just before Christmas 2004: "Pete. Why don't we do the Overseas in Ocana next year as training for the Europeans?" Russell Cheetham, my many-times team buddy for the Open Class, always looks ahead.

"Because the Open Class get completely stuffed on handicap in anything like reasonable conditions and there's no point practising in Standard Class ships." I replied.

"Don't worry, I've got a cunning plan..."

Like many folks, I'd often toyed with the idea of doing the Overseas, but was put off by the distance and time investment for such an early event in the calendar. Brian and Gill Spreckley, who have successfully run the competition for many years, tried to convince me how good it can be, but I was unsure.

Until this year.

Ocana 2005 provided two weeks of stunning, record-breaking weather. A wonderful laid-back atmosphere, great facilities, a superbly organised organisation, strong competition and awesome conditions providing average speeds up to 149km/h! What more could a pilot want? Well, how about a swimming pool, tarmac runway, restaurant/hotel on site, easy landout options, convergence lines, mountains and minimal airspace? Yep, it's pretty well got the lot.

OK, the drive's not short from fortress UK, but Christine and the kids flew cheaply into Madrid, just 40 minutes away to the north. Many of the pilots and crew did this, too. Gill Spreckley, co-organiser, tells me the competition is so popular with the regulars that the crew enter their pilots for them!

And so we assembled, some 50 racing pilots from the UK, Portugal, Netherlands, Switzerland, Finland, France, South Africa, Kenya and Spain, awaiting words of wisdom about the day's mission from director Spreckley.

Unlike previous Overseas, when the Open Class were hammered by the UK-biased handicap system, the BGA Comps Committee decided to 'tweak' the handicap system to reduce the handicap difference as speeds increase. The fact that Russell Cheetham was responsible for the tweaking

wasn't lost on the Standard Class drivers and some gentle ribbing ensued, involving ropes and candle wax.

When asked, most pilots prefer tasks around turning points rather than assigned areas. However, with every type of glider from ASW 19 to ASW 22 competing, Brian had to be careful to set tasks that wouldn't disadvantage either the slower or faster superships. Consequently, assigned area

'As we approached the end of May, we experienced the hottest day ever recorded in Madrid – a touch off 40°C'

tasks were often the fairest, with Brian balancing the task areas to ensure everyone had a good crack at the better conditions. We thought that would mean the mountains, which is often was. Except when it wasn't. I have to admit as we flew the tasks and compared flights, it became clear that routing over, around, or between the many mini-ranges south of Toledo might work out better depending on the day. After two weeks I don't think I'm much wiser, except to say if it's not working over the lumps, then get over the flat valleys pronto!

There's an Overseas tradition similar to the *Tour de France*, where the leader wears a yellow jersey. In our case it's an old pair of boxer shorts, the wearing of which appears slightly more dangerous than aerotowing my Nimbus 4 uphill in the 40° heat. Mike

Young has a habit of wearing the boxers and did so for three days before Russell tried them on. Not a pretty sight.

Other folk starting strongly included Dave Findon, Rose Johnson and Richard Browne. Dave put his new-found form down to his recently refinished 4D. Refinish or not, it still needs steering and Dave was flying well. Rose has the best ASW 19 in the land – immaculately prepared and going really well, the glider too. Unfortunately (or luckily, depending upon your viewpoint) a landout put her down the rankings. I have also to confess some fettling on my Nimbus 4 after re-routing and refitting seals to my Nimbus. Russell was clearly unimpressed as I floated with his ASW 22, then ran with it too. I'm lovin' it (again).

Richard Johnson started with a bizarre incident involving wing drop, brake failure, a swing off the runway and Nissan 4WD re-profiling (in that order). It took another couple of days to repair his wing and longer still to fix the Nissan. Meanwhile John Tanner took over from Gill in the LS8 and celebrated with a day win and bottle of cola for his teetotal trouble.

Eric Heinonen won day 5 in a Ventus 2. Ending in 4th place, Eric became the highest placed non-British pilot overall.

The weather was rare for this time of year (how often have you heard that in a comp?) and the blue conditions gradually improved as the heat built up. As we approached the end of May, we experienced the hottest day ever recorded in Madrid – a touch off 40°.

The heat low in central Spain deepened and haze-base lifted to over 11,000ft.

More speed, more speed.

After six consecutive tasks we lost a couple of days to weather, but then conditions improved with a re-energised airmass. The cumulus returned, the convergence lines set up and speeds increased. Russell and I had been pair-flying as practice for the European Championships and we ended up sharing the leader's shorts after six days (an even worse sight than previously).

Then I managed a lucky day win and grabbed the shorts from Russ. Did it again the following day and the morning of the last day Russ entered the briefing room announcing I was his ex-team buddy (we had pre-arranged to stop team flying at some point in the comp). Gloves off, then.

Conditions were epic for the three-hour assigned area task. Of the 43 starters, only three were below 100km/h (actual speed) and the majority were over 120km/h. Richard Browne and Steve Ell managed 139.9km/h in their LS8s and the fastest was 149.8km/h in a Nimbus 4. Phil Jeffery (LS8 15m) was 20 minutes early (presumably not pushing far enough into the first sector and running out of space), but cracked off 144km/h (actual) for the 398km he flew.

What a finale.

The competition over, we retired to the bar for drinks and the swimming pool for prizegiving, whilst a local dance troupe provided the cultural distraction.

Lift seemed to work incredibly low. Sylvain Gerbaud (French 15-metre Europeans pilot) said he managed to climb away from 150ft below airfield level, Mike Young had a 'mare one day, spending 20 minutes just 300ft above the deck, and many others reported low saves. There were few landouts overall, which reflects the excellent task-setting and reasonable conditions. It was a safe, well run comp.

So thanks to the wonderful folks who made Senasa 2005 such a superb contest. Murial in the office, Brian and Gill – the driving force behind the event – and the Spanish Senasa organisation for hosting us.

If you're thinking of visiting Spain, Ocana is open most of the year and welcomes visitors. It's family friendly too, with Christine and our kids having a great time in the pool. It's a wonderful mix of flying, family and fun. Roll on, 2006.

1. 8188pts, N1, Pete Harvey, UK, Nimbus 4
2. 8059pts, E2, Russell Cheetham, UK, ASW 22b1
3. 7679pts, 57, Mike Young, UK, Discus 2
4. 7541pts, O2, Eric Heinonen, FIN, Ventus 2c (18m)
5. 7467pts, L58, Richard Browne, UK, LS8 (15m)
6. 7235pts, 48, David Findon, UK, Nimbus 40
7. 7231pts, X1, Gary Stingemore, UK, LS8 (15m)
8. 7038pts, CC, Sylvain Gerbaud, FRA, ASW 27
9. 6959pts, 805, Mark Holden, UK, Discus
10. 6872pts, E11, Stephen Ell, UK, LS8 (15m)

See also www.soaaringclub.com/Framesets/Competitions/BONNewstxt.htm

Full results in the December-January issue of S&G



Just like old times

John Gilbert Jnr of Essex & Suffolk GC relates how in May he soared his LS3 across the Channel



FOR MANY years now the thought of crossing the Channel to France has been in my mind. I used to read the stories of 1950s and 1960s crossings in Skylarks, and owning a Skylark 3 myself at the time, and being younger, it all sounded incredibly exciting. While I've moved on to glass now, I still have the Skylark.

Although if conditions are right a Channel crossing is not an especially difficult flight, the organisation and retrieve can be quite a deterrent. I purchased a life jacket last year but that was as far as it went! It was not until Wednesday, May 4, looking at the weather, that I saw brisk northwesterlies forecast with a decent cloudbase the next Friday. I decided I'd give it a go, but began to worry I might miss a good 300 or 500km day. Then I realised what a plonker I was being, thinking like that! The next day, my dad (John Gilbert senior) changed me some Euros and Bob Godden kindly agreed to crew. Having checked French NOTAMs, etc, I got myself rigged, with clothes and toothbrush packed.

By 11.00 the wind looked good for the flight but the sky didn't. It had gone to almost eight-eighths – not at all inspiring – so I drank a few cups of tea in the clubhouse, making regular visits to the window to look at an even more dismal sky. But at about 11.45 I decided to make my way to the launchpoint and launch, as one or two people were staying airborne. I declared Abbeville, put on my lifejacket, took a winch launch and found a broken one knot, which slowly got me to 2,500ft above site. I set off downwind to a better-looking cloud and a climb to base at 3,700ft.

Then came the hardest part of the flight: getting to and across the Thames!

There appeared to be wave influence, which left a huge dead area on track with the only marginally usable cu being along the coast and a lot of the time over the water all the way to Southend. Near Shoeburyness

I seemed to spend forever drifting out over the sea between 1,500ft and 2,000ft in weak climbs, pushing back to the only reachable scrap of Cu and starting all over again.

I even considered turning downwind over the water towards Margate, as there were some better-looking clouds over the water, but a look at the distance on the map soon stopped that silly idea!

Eventually I worked my way to Southend, considering giving up and landing at the airport, but I noticed a marked improvement in Kent, so kept going until I got to 3,000ft and crossed the Thames to Sheerness. Here the going was much easier: I was amazed to find cloudbase at 5,000ft (yippee!). A quick run to Dover, passed my details to London information and set course for Cap Gris Nez – it was then I realised how nervous I was, even though I was easily on glide. This was not helped by the strong sink I hit over the next few miles! I decided to deviate to some ragged cu that had blown out to sea, which produced zero sink and put the glide computer back where it had started.

Mid-Channel I told Lille information I'd almost certainly be landing in a field as the sea air appeared to stretch too far inland. I crossed the coast at around 2,500ft, and felt elated, but the clouds were still miles away. However I headed for a quarry and at about 1,300ft contacted a broken thermal, then another, and eventually got to the decent-looking clouds. After that it was again straightforward flying for the next 80km, slightly inland of track to stay under the clouds on the edge of the sea air. When I arrived at Abbeville and after I closed my flight plan, they invited me to eat (and drink) with them, which was great. Bob and my dad did extremely well and got to me by 12.30. We got back to the club at 7.30am, Bob having heroically done all the driving!

A straight distance of 213km is certainly not one of my longest flights but it's definitely my most memorable, and I've been giving some thought (with a little help from my dad, who seems to enjoy long retrieves!) to trying again, only going a lot further inland...

John, a full-rated instructor, has 1,350hrs gliding and two Diamonds. His longest flight is a 600km

The liberation that is flying

Joe Fisher, former chairman of Walking on Air, outlines the work of this award-winning training organisation

IN EARLY 1994 a young man in a wheelchair arrived at the Scottish Gliding Union base at Portmoak and requested an air experience flight. The SGU was using K-13 two-seat training gliders at that time and because of the man's large size and weight, and the depth of the K-13's cockpit, getting him in and out became a major exercise.

One of the members involved, Graham Lawrence, was sufficiently motivated to approach the management Board of the Scottish Gliding Union with a proposal to set up a flying training programme for disabled people who use wheelchairs. The Board was sympathetic but would only back the project if a number of members with appropriate expertise were prepared to support it in a manner that would make it self sufficient and financially independent. A steering committee was set up comprising Alan Bauld, a local businessman and the chairman of the SGU, Bruce Marshall, an engineer and Safety Officer of SGU, together with SGU directors Richard Hungerford, a financial consultant, Graham Lawrence, a transport manager, and me, a retired aeronautical design engineer.

By mid-1996 we had set up SGU Walking on Air Ltd as a non-profit making company and Registered Charity to operate as a club within a club, the long-established SGU. We were taking advice from the Spinal Injuries Unit of the Glasgow Southern General Hospital, compiling a business plan seeking sponsorship from Allied Dunbar, Sport Scotland and others, and drawing up aircraft and facility specifications to suit wheelchair-using, spinal-injured people.

Our customers

A majority of people with spinal injuries consists of individuals in their teens to mid-thirties, and before the accident damaged their spines many had been active sports people. Because of this we thought these were the most likely disabled people to want to participate in gliding. A survey conducted in the Spinal Unit returned a clear majority in favour of trying gliding, so this gave us confidence that the project would have a good level of support.

Apart from an inability to move their legs at will, other issues they faced included:

1. uncontrolled muscle spasm, which straightens the legs and could interfere with rudder pedals and control. In some cases the spasm brings the legs together, which can interfere with lateral stick control.



This team led by Derek Piggott (back row, centre) as P1 flew WA1 to 16th in the 2002 Gransden Regionals. From left: Leslie, helper, Rob Lewis, Derek, David Nisbet, helper Kay and disabled pilots Robert Daz and Alistair Murray

2. control of the upper body in terms of leaning forward or sideways when seated. So all controls, especially the tow release, must be reachable when firmly strapped in.

3. A vulnerability to bruising of the lower body, which could ulcerate if untreated.

4. in low-temperature environments, a vulnerability to frostbite, because of a lack of feeling in the lower limbs.

5. limited arm strength in some people means they need to be assisted in and out of the cockpit. A hoist would be required.

6. Some people have poor grip strength and require an aid to hold the controls.

Discussions as to whether we could cope with different disabilities resulted in an agreement to consider anyone who showed a desire to learn, and to assess each individually. If necessary we would make further modifications to the aircraft to enable them to have full control or they might have to fly with a safety pilot to operate anything they could not.

Our aims

Our intention from the outset was to train disabled people to fly sailplanes, and encourage them to reach the highest level they were capable of achieving, whether competition, cross-country flying, or instructing.

We therefore, as a minimum, required a two-seat aircraft that could have controls at each position configured to suit either a disabled (with hand-operated rudder) or able-bodied person with conventional controls. We would also need to alter our

club premises, adding entrance ramps, toilets and showers with wheelchair access. Our secondary aims were to introduce disabled pilots to the thrills of aerobatic flight; to aid disabled pilots in the purchase, modification and operation of their own sailplanes and to promote gliding as a sport accessible to all.

The aircraft

Because we wanted the support of a glider manufacturer we rejected using older, out-of-production, aircraft, and composite construction promised lower maintenance costs compared with wood or tube-and-fabric machines. Our specification therefore was:

1. A glass composite, existing trainer, stressed for aerobatics if possible.
2. Hand rudder control lever in each cockpit.
3. A means of disconnecting each set of rudder pedals independently (to avoid rudder interference from leg spasms).
4. A means of locking the airbrakes in various part-open positions, to be fully controllable from each cockpit.
5. Wingtip mini-wheels (in anticipation of some hard runway operations, and wings being dropped on landing while still rolling).
6. A main wheel brake, operated by final motion of airbrake lever (some of our customers might be unable to operate hand levers).
7. An oxygen system, since Portmoak is a wave site.
8. All equipment (especially the tow release) had to be operable by a securely-strapped-in disabled person.

Choosing a manufacturer to supply the above turned out to be straightforward, since only one out of four approached made us an offer. This was Alexander Schleicher, who had an existing LBA-approved design for the



South African Simon Smith (in chair) with SGU Deputy CFI Bob Petrie during a expedition to Bellarena

front cockpit hand rudder control in an K-21, and this mod also included an air-brake with multiple open lockable positions. Since their small design team was busy with various projects Schleicher's was reluctant to become involved with ours. However, their then Chief Designer Gerhard Waibel was very supportive and we negotiated a deal whereby I attached myself to their design office for six (which ended up being ten) weeks to design and draw our additional items, the aft cockpit hand control, the pedal disconnects and some other items. Gerhard and I also carried out the necessary proof load testing of the system after the control installation was complete.

The only problem with this deal is that the aft cockpit modification, the pedal disconnects and the wingtip wheels had to be approved under BGA arrangements since Schleicher's were not prepared to invest time and money for LBA approval. This was not a problem in 1998 and is not a problem in the UK for gliders imported before September 28, 2003: if anyone wants to buy a kit from Schleicher's and fit it to a K-21 which was imported before the current EASA regulations came into force, that is permitted. But if you want a new K-21 fitted out as Whisky

Alpha One, the Walking on Air sailplane, you will need to persuade Schleicher's to proceed with EASA approval or wait for the BGA to attain EASA design approval.

Our aircraft was completed in June 1998, the clubhouse alterations were finished in July and Walking on Air became operational in August of that year.

Since that date Walking on Air has flown more than 200 disabled people. We have some 25 "permanent" disabled members and have soloed or re-soloed nine disabled pilots. One with a Silver Badge is now training for a Basic Instructor Rating, another is working towards his Silver, and three more are working for their Bronze badges. Pilots from America, Belgium and South Africa have attended our summer courses and in May Ray Temchus, President of Freedoms Wings (the American organisation for disabled glider pilots), visited us to fly at Portmoak. Our man in South Africa, who has attended our summer courses over the last two years, sent welcome news recently to the effect that he is in the process of setting up a disabled flying operation there.

Since becoming operational we have discovered that there are a lot of people who want to fly and have disabilities other than spinal injuries – for example, who have lost a limb, who have MS, or sight or hearing impairments, or learning disabilities. We have flown some folk in all of these categories, but only after individual assessment and enquiry of responsible medical staff and carers, especially of the last group. We have advised several clubs and individuals about equipment and have endeavoured to encourage other clubs to cater for disabled people by mounting expeditions to Connell on the west coast, Cambridge in the south, Feshie in the north and Ulster (Bellarena) in Northern Ireland.

Last year our efforts were recognised by the British Disabled Flying Association with the award of their Jim Parker Memorial Trophy. This year we were honoured by the Royal Aero Club's award of a Certificate of Merit for our efforts.

That is our record to date, for the future Walking on Air will continue to introduce disabled folk to the joys of flying sailplanes and encourage other clubs to do the same.

Next issue: disabled-friendly mods

Note 1: The author was employed by Scottish Aviation Ltd, then British Aerospace as a Design engineer from 1955 until retiring as Design Manager in 1992. He was a founder member of Walking on Air Ltd and its Chairman from 2002 to May 2005. He remains its Technical Director and a Director of Scottish Gliding Union Ltd. He is a Full BGA instructor, a BGA glider and tug inspector and the BGA Regional Technical Officer for Scotland

Note 2: To approve a disabled control modification to a post-September 2003 glider, writes BGA Chief Technical Officer, Jim Hammerton, the services of an existing EASA design organisation will be required at commercial rates. The BGA is currently in negotiations with other sporting bodies to obtain EASA design approval. It is anticipated that issues such as approval of flying controls for disabled pilots will be achieved

What the pilots say

"There was an opportunity to do some flying before the competition started. Thermalling above the flatlands of Cambridgeshire was a very new experience for the Walking on Air regulars. As was flying with Derek Piggott – we could feel the experience seeping through the bulkhead"

– Alistair Murray (opposite, below) on the expedition to Gransden

"We were towed to 2,200ft to an area the locals call the bowl. Once released we traversed the hills looking for lift. There I was learning to turn right and left and still it was breathtaking. Nothing concentrates the mind more than doing things like that. You basically have your life in your hands. Able bodied or disabled, I forgot about being in a chair for the first time since my accident"

– Brian Thomas after his first flights in Whisky Alpha One

"I flew the K-21 solo and released 2,000ft above the strip. I worked up to cloudbase at 4,000ft to be joined by another glider, who then acted as my pathfinder and thermal indicator as we tracked eastwards high over the back of Loch Einich, on over the northern corries of Coire an t-Sneachda, Coire an Lochain to the ski slopes of Coire an Cass. Even in May the Cairngorms were still mantled by a blanket of snow. Their majesty and beauty were awe inspiring as I wheeled and circled in thermals high above. Soon I realised I would have to return to earth and the limitations of a wheelchair as my principal means of locomotion. This flight took me over terrain I never thought to see again and reunited me with an area I thought lost forever. But it did more than that, it gave me the wings to do it with, and an enduring love of the liberation that is flying"

– Steve Derwin (below) on his first expedition with WoA to Cairngorm GC. He has since become chairman of the British Disabled Flying Association



2005 British Junior Team

Club Class – LS1f: Ian Craigie (left)

Ian Craigie took up gliding only in 2001 when he joined the gliding club at Nottingham University. He rapidly progressed and, in 2003, he won the Lasham regional championships and came second in the UK Junior Nationals. As well as competition flying, Ian relishes the challenge of long-distance tasks and has flown in New Zealand, South Africa, Italy and in Australia, training with three-times World Champion, George Lee.

Standard Class – Discus 2: Jon Meyer (right)

A graduate in aeronautical engineering, Jon started gliding at 14 and flew his first competition at 17. He has more than 700hrs gliding and is particularly focused on racing. He has taken every opportunity offered by our excellent Junior training schemes, including flying in Spain, Italy and Australia (with George Lee). Jon hopes to ultimately progress to senior team level. He came third in the Pre-Worlds practice competition – the highest-placed British junior.

Club Class – Cirrus: Mark Holden (left)

Mark was introduced to gliding in 1991 by his father. He started learning to fly at his local club, Portsmouth Naval Gliding Club, but then took a short break to race dinghies. He returned to gliding when he was 14 and went on to solo on his 16th birthday. In 2004 Mark finished sixth at the Junior Pre-Worlds and third at the Junior Nationals held at Lasham. He too has trained with George Lee. As well as gliding, Mark also enjoys skiing in the winter and sailing when time permits.

Standard Class – LS8: Andy May (right)

At 18, Andy will be the youngest member of the team and is excited about competing in his first International competition. Since going solo at 16 he has flown in Regional and National competitions and clocked up around 500hrs gliding. Having been brought up around gliding and competitions – his father, Robin, is a former World Championship competitor and National Champion – he is passionate about racing sailplanes. Other hobbies are snowboarding and basketball.

Club Class – ASW 19: Johnny Roberts (left)

Johnny has been gliding for just over five years, in which time he has flown in Spain, most places in the UK and in Australia with George Lee. Johnny really enjoys the atmosphere and challenge of gliding competitions. Having more than 750hrs gliding, he likes all-out racing on the strong days and relishes the challenges of the weaker ones.

Standard Class – LS8: Mark Parker (right)

Mark Parker started gliding in 1996 at the age of 16. He currently has around 700hrs, including Diamond distance and goal, and also has experience working as a gliding instructor. He has competed in several regional and junior national competitions. In addition to gliding, Mark holds a UK Private Pilot's Licence, and flies in the Royal Air Force.

Photographs this page and opposite:
www.whiteplanes.com



Team Great and twice World Champion Andy Davis in his Discus 2 at team training recently. For the Junior Worlds, he has lent this state-of-the-art sailplane to Jim Steyer left. The high-placed 3rd is the pre-world



Welcome to the Worlds

The first World Championship to be held in the UK for 40 years is this August. Marilyn Hood reports on the final preparations

AS YOU read this, the contest team will be putting the finishing touches to the programme of events and setting up Hus Bos for the arrival of the competitors.

We were given a great boost in June with the announcement of an MBE for "services to gliding" awarded to Andy Davis. Andy is the current Standard Class World Champion, and coach and mentor to the British Team and this award is thoroughly deserved. In addition to his demanding day job as an airline pilot with British Airways, and serving at grassroots level on the committee of his own gliding club, he chaired the Joint Steering Committee that has overseen the organisation of the World Championship over the last two years and has worked very hard to ensure that the competition will be safe, affordable and a celebration of British gliding. He will be presenting the prizes at the closing ceremony on behalf of the Fédération Aéronautique Internationale (FAI) and the International Gliding Commission (IGC) and we shall have an opportunity then to thank him for his outstanding contribution.

We have also been heartened by the competition sponsorship that has been forthcoming and the level of enthusiasm shown by companies excited by the presence of a world-class aviation event taking place in the UK. We must acknowledge the generosity of all our major sponsors, who will be enjoying hospitality days at Hus Bos over the next three weeks, and hope we can suitably impress them with the spectacle of our

62 competitors returning over the finish lines! Our thanks go to ASTRAC, Fratelli Cosulich, DISuk, Coventry and Warwick Chamber of Commerce, Norfolkline, LandRover, Greenshires, Joint Aviation, RD/AFE and the many local businesses that have generously donated prizes.

On Saturday, August 6, Jez Hood, current Junior World Champion, will formally open the contest. We know that many glider pilots will be keen to come along, and we look forward to your support. Because this is the World Championships and the numbers involved are greater than for nationals, Hus Bos is putting in place a few additional checks that will help the event to run smoothly. Visitors, including visiting glider pilots, will need to register on arrival and obtain a car sticker for parking. Camping on the airfield is limited to competitors and crews only because of pressure of space. Local accommodation lists can be found by visiting www.worldgliding2005.com – please do not turn up with a tent expecting to be 'fitted in' – it won't be possible! Likewise caravans or motor homes cannot be accommodated on site – sorry!

Ron Bridges, Derek Westwood, Harry Middleton and the team are now working flat out to ensure that everything is ready – and relying on Met man Hugh Brookes to conjure up the last special ingredient – the weather – to make this competition truly memorable – for the excellence of the weather, of course!

Track record of racing success

THIS Junior team has a lot to live up to, given the British Team's successes this century in the biennial World Championships in various classes:

2004		
Club Class	Silver	Jay Rebbeck
2003		
Standard Class	Gold	Andy Davis
18-Metre Class	Silver	Steve Jones
18-Metre Class	Bronze	Phil Jones
Junior Standard	Gold	Jez Hood
Junior Standard	Silver	Luke Rebbeck
2002		
Club Class	Silver	Richard Hood
2001		
18-Metre Class	Gold	Steve Jones
Club Class	Gold	Pete Masson
Club Class	Silver	Richard Hood
Standard Class	Silver	Mike Young
Women's Standard	Gold	Sarah Kelman
Women's 15-Metre	Gold	Gill Spreckley
Junior Standard	Gold	Jay Rebbeck
Junior Standard	Silver	Jez Hood

At European Championship level, the British have also shown their mettle with an Open Class Gold (Russell Cheetham in 2004); 15-Metre Class Silver (Dave Watt, 2002) and 15-metre Class Gold and Silver (Steve Jones and Dave Watt, 2000)

The church at Csapod

Justin Wills discovered the disadvantages as well as the advantages of technology on a tricky competition flight in last year's Austrian nationals

THE opening ceremony of the 2004 Austrian Nationals at Wiener Neustadt was signalled by a deluge of rain. The practice period had produced the best weather I had ever seen in the European Alps, but the next three days proved unflyable. By the morning of the fourth day the organisers and the 120 competitors alike were ready to seize any opportunity the weather provided. At 1pm weak sunshine broke through the overcast and a horde of Sczmellacs with their flamboyant Hungarian tow pilots rocketed us into the sky.

All four classes had been set minimalist area tasks away from the cloud-covered mountains. For the 15-Metre Class the first turning point was an airfield at Pusztacsasad, 85km to the south-east in Hungary, with a 20km radius, then west to Neunkirchen with a 10km radius and finally back to Wiener Neustadt, giving a distance range of 160-270km.

Soaring conditions looked at best ephemeral, so having climbed gently to cloudbase at 4,000ft a.g.l. I started within five minutes of the line opening. The first 30km led across the broad Wiener Neustadt valley to the low wooded hills that separate Austria from the Hungarian plains. Some patches of sunshine on the western slopes produced a reasonable thermal back to cloudbase, but ahead a boundless area of thick medium cloud blanketed the region and was clearly drifting north-eastwards at right angles to my track, despite the lower wind being westerly. The only hope seemed to be a solitary decaying cumulus but this gave only reduced sink.

Convinced conditions would deteriorate further I continued gliding slowly towards the 20km radius line on my GPS, which I reached at 2,200ft. Now the big decision: either turn back into wind with every chance of landing in a wet, muddy field close to the Austro-Hungarian border, or continue south eastwards towards Pusztacsasad which, with a 10kt tailwind component, I should reach at 600ft. I chose the latter as it would maximise my admittedly feeble distance in case it was a contest day (requiring 25 per cent of competitors to exceed 100km) and provide the benefits of landing at an airfield.

I was now flying over a large forest and thus, despite the continuing reassurance of the GPS, it was with some relief that I spied a church dead ahead surrounded by a cluster of red roofs. I cleared the edge of the



"I turned the corner to the church and simultaneously two things happened: the car and trailer came charging round the far corner, and the church doors flew open allowing the entire population, apart from the presumably atheist Elvis, to pour into the street..."

(Illustration: Roland Bailey)

forest at 800ft with the GPS showing only 2km to go and everything looked fine except for one fairly major detail: for the life of me, I could not see the airfield.

My rather undetailed map showed it to be just south of the village, but all I could see in that direction was allotments. I continued a little further, to no avail.

By now the church spire was becoming an aerial obstacle and I clearly needed Plan B.

Forty-five seconds later I was sitting in a cut hay field. Now the big question: would my UK mobile in Hungary be able to contact my wife's UK mobile in Austria? After two abortive tries, success!

"Hello, I'm in a field 500 metres north of

the church at Pusztacsasad, please come and get me. And please tell the organisers that the airfield doesn't appear to exist any more."

I spent the next hour and a half checking the GPS co-ordinates with the task sheet (all correct), the field (needing more fertiliser), the access (directly off the road), and discovering Solitaire on my mobile.

In all this time only one vehicle went by.

Then Gillian rang: "I'm at Pusztacsasad airfield, where are you?"

"Can you see the church?"

"Yes."

"Has it got a wooden steeple and apricot-coloured walls?"

"Yes."

"OK, I'm beside the road just to the north of it. Can't think how I missed seeing the airfield."

Five minutes later: "I'm at the church, but the roads out of the village only run east-west."

"OK, try eastwards as it should then turn north."

Two minutes later: "The road has become very muddy with grass between the wheels and nowhere to turn round."

"OK, backtrack when you can, I'll walk to the church and meet you there."

So saying I set off at a gentle trot. As I entered the village I was confronted with a sign that read "Csapod". My head filled with the roaring sound of pennies dropping.

To confirm my suspicions I approached the only person I had seen, a Hungarian youth with an Elvis hairstyle who was busy polishing his lime-green Trabant.

"Pusztacsabad?" I asked in my best Hungarian, turning the palms of my hands upwards despairingly.

His reply was unintelligible, but by pointing to the south and holding up ten fingers the meaning was clear.

The phone rang again. Snatching it up I said: "Guess what? The co-ordinates they gave us are for the wrong village. I'm at Csapod, 10km north. The locals must have done a bulk deal with the ecclesiastical architect, and all the churches look the same. Come to this one."

I walked on, surprised by the lack of people but not dogs, all of whom made it vociferously clear I was trespassing on their territory.

Finally I turned the corner to the church and simultaneously two things happened: the car and trailer came charging round the far corner, and the church doors flew open allowing the entire population, apart from the presumably atheist Elvis, to pour into the street.

Thereafter everything was straightforward; a brief discussion with the villagers (thankfully one of them spoke German and turned out to be a Hungarian glider pilot), then back to the field, de-rig, and a swift return across the border without difficulties to Wiener Neustadt.

Thinking about the day over supper in the excellent airfield restaurant, I concluded that technology is like those rather intimidating intertwined pictures in the Kama Sutra, where one thing leads to another but you can't quite work out where anything starts or finishes: were it not for GPS I would never have landed at Csapod; without mobile phones I would probably still be there.

And, no, it wasn't a contest day.

Final Results 2004 Austrian nationals:

Open Class – Uli Schwenk (D) ASW 22BL;

18-Metre Class – Wolfgang Janowitsch (A)

Ventus 2CX; 15 Metre Class – Justin Wills

(GB) LS6; Standard Class – Joachim Kraus (D)

Discus 2

How current are you?

Try S&G's quiz, compiled by Bill Dean and based on the latest – 15th – edition of the BGA's *Laws & Rules for Glider Pilots*, to find out just how up to date you are. If you get stuck, the answers are on page 62

- 1) **Preface:** Which Civil Aviation Authority publication contains additional information and rules concerning licensing and operational safety?
- 2) **Preface:** Where are all pilots and owners recommended to check for changes caused by developing EU regulations affecting airworthiness and maintenance of gliders, and pilot qualifications?
- 3) **Insurance requirements:** What difference has EC regulation made to the minimum cover for heavy single seaters, and for second seat cover?
- 4) **Oxygen:** What is the maximum altitude for flying without oxygen?
- 5) **Oxygen:** What is recommended for flights above 10,000ft amsl?
- 6) **Airspace:** What should you do after a flight through Class D airspace?
- 7) **Signals:** What should you check on aerotow if the tug pilot waggles the rudder?
- 8) **Driving Licence:** What is different about retrieving with a motor caravan if you are 70?
- 9) **Towing Abroad:** What is different about speed cameras?
- 10) **Instructors aged 70:** What medical restrictions apply to instructors aged 70?
- 11) **Motor Glider Instructor Ratings:** Can a BGA Assistant Instructor hold a BGA MGIR?
- 12) **MGIRs:** What stage of a BGA MGIR must be held before teaching landings?
- 13) **Bronze Badge:** Is it permitted to issue a Bronze Badge if the candidate has not been tested for proficiency in a full spin?
- 14) **Bronze Badge:** May any of the tests be carried out in a motorglider?
- 15) **Ground Handling:** What is the minimum recommended length for a ground handling tow-rope?
- 16) **Ground Handling:** Is it recommended that gliders should always be parked with the into-wind wing down?
- 17) **Cockpit Pre-flight Checks:** At what point in the checks is it recommended that Eventualities be done?
- 18) **Motor Glider Cockpit Pre-flight Checks:** What are the recommended Eventualities?
- 19) **Undercarriage Warning Systems:** What is the recommendation about fitting these?
- 20) **Undercarriage Warning Systems:** What is the recommended action if a glider is seen to be about to land wheels up?
- 21) **Radio:** What are the recommendations about the use of call signs?
- 22) **Radio Frequencies:** When may 130.1 be used for local and other flying?
- 23) **Radio Frequencies:** What is the CGFF?
- 24) **Radio Frequencies:** Why may 129.9 be used only for ground retrieval purposes?
- 25) **And Finally:** Where can you get your own pocket-sized paper copy of the new edition of *Laws & Rules for Glider Pilots*, and how much does it cost?

Nosewheel or skid?



Top left: the nosewheel, a modification signed off in June 1985, will absorb impact energy but also cause rebound
Left: the skid's rubber mounting block, directly under the front seatpan, will transmit impact loads up the spine
Above: Les Neil releases the suspended ASK-13 (popularly known as a "K-13") for one of the series of tests

Tony Segal reports the results of his new research into whether a landing skid or a nosewheel affords more protection to the spine of the pilots of a K-13 in the event of a heavy landing on a hard surface



I WAS QUIETLY holding wingtips and hooking on launch cables at the Lasham launchpoint when I heard a loud bang. I looked round and saw a K-13 equipped with a skid impacting on its nose. The front seat pilot suffered a spinal fracture – he is now flying again. The rear pilot had slight back discomfort.

Some of the Lasham fleet of K-13s have landing skids, others have nosewheels. Both can be considered equally airworthy. The skid was described in a technical drawing, reference L-267.10-S2, signed by Kaiser himself on 1/6/66. The nosewheel modification was described in a technical drawing, reference L-267.130.21.S1, initialled by "JUW" on 21/6/85.

Following the accident I studied the load pathway in the event of an accident such as I had witnessed. The stiff wooden skid is attached at its front end by a bolt, the rear end sliding freely into a slot in the main wheel housing. Halfway along the skid is a firm rubber mounting block attached to the fuselage frame. This block is situated directly under the front seatpan. Impact loads will be transmitted up the spine of the pilot sitting in the front seat with little reduction in force.

A further point is that the pilot has an upright seating position, so there will be no resolution and reduction in spinal load as would occur with a semi-reclining position.

In the case of the nosewheel, the tyre will absorb considerable impact energy. However, it will also cause rebound as the stored energy is released. As the wheel is situated well forward of the front pilot, further energy will be absorbed as the impact shock wave travels back along the fuselage. This function of the fuselage in absorbing energy was shown in a previous impact test, on an SF34 glider (see *Drop-testing a two-seater*, April-May 2002, p22).

I decided I should carry out an experiment to measure the relative benefits and disadvantages of a skid as compared with a nosewheel. I spoke to Les Neil, Senior Consultant Engineer for Occupant Impact Protection at the Centre for Human Sciences, QinetiQ, Farnborough. I have worked with Les since my original impact test carried out on a complete Libelle glider in 1988 (see *Crashworthiness test*, June-July 1989, p130). Les and his colleagues, namely Graham Reece in charge of instrumentation, and Phil Murtha the test engineer, are a highly skilled team. It was decided that floor space could be cleared under the electric hoist suspended from the roof of the test track at QinetiQ to allow a K-13 fuselage to be dropped safely.

The test was observed by Jim Hammerton, the BGA's Chief Technical Officer. The other observer was Luke Cooper-Berry, studying

for his Master's Degree in aeronautical engineering at Imperial College London. For his examination project he was modelling the drop test using finite element analysis.

The test

The test glider with both manikins installed was raised from the floor by the hoist. It was found to balance exactly parallel to the floor. However, it was required to balance nose-down so that the nosewheel or skid would impact before the main wheel. Ballast was therefore removed from the tail and additional ballast secured in the nose of the glider to produce a nose-down attitude. Using the cockpit sill as a reference level, with the skid the nose-down value was 13°, and with the wheel 11.5°. Because the hoist was freely suspended from the roof of the test track, merely altering the relative lengths of the suspension cables would not have altered the attitude of the glider.

The empty weight of the glider was 316kg, compared with the official empty weight when new of 290kg. The manikins weighed 77.5kg each, giving a weight of glider plus the two manikins of 471kg. This is within the maximum take-off weight of 480kg. The centre of gravity was within normal limits.

The tyre pressures were set to 35 pounds per square inch for the nose and main wheels, and to 30 pounds per square inch for the tail wheel.

Eight drop tests were carried out during the course of one day. The test sequence was as follows:

Wheel, skid - skid, wheel - wheel, skid - skid, wheel.



Above, from left: Les Neil, a Senior Consultant Engineer at the Centre for Human Sciences, QinetiQ, Tony Segal and Luke Cooper-Berry, of Imperial College, prepare for a test. Tony is measuring the height of the drop.

Right: the fuselage was fitted with nosewheel or skid to compare the two (Photos : Jim Hammerton)

This sequence was chosen so as to shorten the time taken in changing the wheel and the skid in successive tests.

The drop height measured from the lowest point of the wheel or skid was 6 inches (150mm), 12 inches (300mm), 18 inches (450mm) and 24 inches (600mm). Assuming there was no aerodynamic drag, this gave an impact velocity of:

150mm drop height	- 1.72 m/s
300mm drop height	- 2.43 m/s
450mm drop height	- 2.97 m/s
600mm drop height	- 3.43 m/s

It should be noted that the impact surface was concrete, there was no air cushioning effect in the absence of the wings, and the damping effect of the tailplane was missing.

Results

The table below shows the compression

loading in Newtons on the lumbar spines of the manikins, together with the extent of forward rotation (moment) in Newton.metres.

The high-speed video showed increased rebound from the nosewheel as compared with the skid, but this was not considered to be significant.

High g readings were obtained in the tail of the glider, but these were of very short duration and so of low energy and therefore also considered not to be of significance.

Conclusion

The compression loads on the spines of both front and rear pilot manikins were greatly reduced in the case of a nosewheel as compared with a skid.

The forward rotation load (moment) was also reduced in the case of the nosewheel as compared with a skid, but the change was irregular in value.

It is concluded that the use of a nose-

wheel instead of a skid would reduce the incidence and the severity of pilot spinal injury in the event of an accident involving impact on the nose of the glider.

Note on spinal fracture

Yamada has produced the following figures for the breaking load in compression of the lumbar spine according to age:

20-39 years	-	7140 N
40-59 years	-	4670 N
60-79 years	-	3010 N

The usual spinal fracture found in a glider heavy landing accident is caused by a combination of vertical compression loading and forward rotation of the spine, producing an "anterior wedge fracture".

It is of interest that military pilots who eject from a fast jet aircraft are also found to have this type of fracture.

Overleaf: preparing the test, and more results



After the final, 2ft drop: note the deformed longeron. This was after being subjected to loads well beyond what the aircraft would be designed to withstand without structural damage (Tony Segal)

FRONT PILOT MANIKIN

Drop Height:	150mm	300mm	450mm	600mm
Lumbar Spine Load (N)				
WHEEL	1019 N	2564 N	3269 N	3529 N
SKID	3099 N	4185 N	4559 N	5028 N
Moment (N.m)				
WHEEL	35.36 N.m	55.77 N.m	56.47 N.m	66.29 N.m
SKID	73.76 N.m	65.73 N.m	76.89 N.m	68.42 N.m

REAR PILOT MANIKIN

Drop Height:	150mm	300mm	450mm	600mm
Lumbar Spine Load (N)				
WHEEL	636 N	1330 N	1677 N	1890 N
SKID	1709 N	2671 N	*2629 N	3774 N
Moment (N.m)				
WHEEL	31.50 N.m	35.91 N.m	22.66 N.m	24.24 N.m
SKID	46.12 N.m	43.10 N.m	35.51 N.m	30.32 N.m

*this reading appears to be in error for an unknown reason

Rallying round to prepare to find out...

THE parts for the test K-13 were collected from all over the UK gliding community. The fuselage was obtained from the **London GC**. Although the fuselage was a write-off, it was ideal for my purpose. It was already at Lasham, so thanks to the engineers **Phil Flack** and **Stuart Clay**, it was moved into the aircraft workshop for fitting-out.

Dave Dripps, the Lasham MT engineer, machined an axle for the nosewheel from a solid silver steel rod, and welded the specified reinforcing tubes and axle bosses to the airframe. The added tubes stiffened the nose of the glider, but it was considered that this would not affect the test significantly.

The axle bosses were welded above the relevant longeron and not below (as in the original design) in order to avoid interference when the skid was fitted.

Lasham member **Colin Raisey** designed and installed the ballast weights. The wings, tail surfaces and rudder were absent from the test glider. Their weight was simulated by lead fastened to Dexion bolted to strong points on the fuselage. The resulting centre of gravity was carefully calculated to conform to the design specifications.

Adrian Emck from Lasham made a skillful scarf joint to produce a solid skid from two broken halves of separate landing skids. He also made a glider seat for the test from fibre-glass, the materials coming from **Southdown Aero Services**.

A main wheel and bearing were borrowed from **The Soaring Centre**, Husbands Bosworth. **Basil Fairston** kindly brought the wheel down to **Zulu Glasstek** from where I collected it.

A main wheel housing was obtained from **Martin Breen** of High Wycombe. The housing had been stored at **Shenington GC**. Martin also supplied the tail wheel and the energy-absorbing rubber fittings for the main undercarriage. The nosewheel was obtained from

Southern Sailplanes. The wheels were fitted with new tyres and inner tubes obtained from **Southdown Aero Services**.

The test manikins were 50th percentile male Hybrid 111 dummies. They were placed directly on the seatpans without parachutes or seat cushions. The hollow in each seatback was filled with a wooden fillet. A four-point harness obtained from **Lasham** was installed for each manikin.

The manikins and the airframe were instrumented as follows:

Both manikins had load cells fitted in the lumbar spine, measuring in Newtons in the vertical (z) axis and the fore-and-aft (x) axis, and also measuring rotation (moment) in Newton.metres.

The load cells were installed in the manikin at an angle of 22° to the z axis of the manikins. Therefore a correction had to be applied to their readings, namely the secant for 22° (1.0785).

Accelerometers measuring in the z and x axes were installed in the pelvises of the manikins. Accelerometers were installed to record accelerations in the z and x axes in the nosewheel, the skid, the rear seat, the main wheel and the tail wheel.

Electric contact mats were placed on the floor under each glider wheel. The wheels had metal tape around their periphery. The resulting electric contact gave an exact impact time for each individual wheel and started the recording of the instrument readings.

Two high-speed video cameras were used, one taking a close-up of the skid or nosewheel, the other recording a general view of the impact. The cameras worked at 500 frames/second.

The suspension was four cables made from winch launch wire, attached to the fuselage with shackles and provided with bottle screws for fine adjustment. The cables were attached by ferrules, or by three U-bolts for

each join. A sample cable with loops at each end held in place by U-bolts was tested by **Dave Dripps** and **Colin Raisey** to a load of over half a ton, higher than the all-up-weight of the test glider and manikins. There was therefore a safety factor of over four times in the cable test rig. The cables were attached by a large shackle to a weapon release suspended from the electric hoist in the roof of the test track.

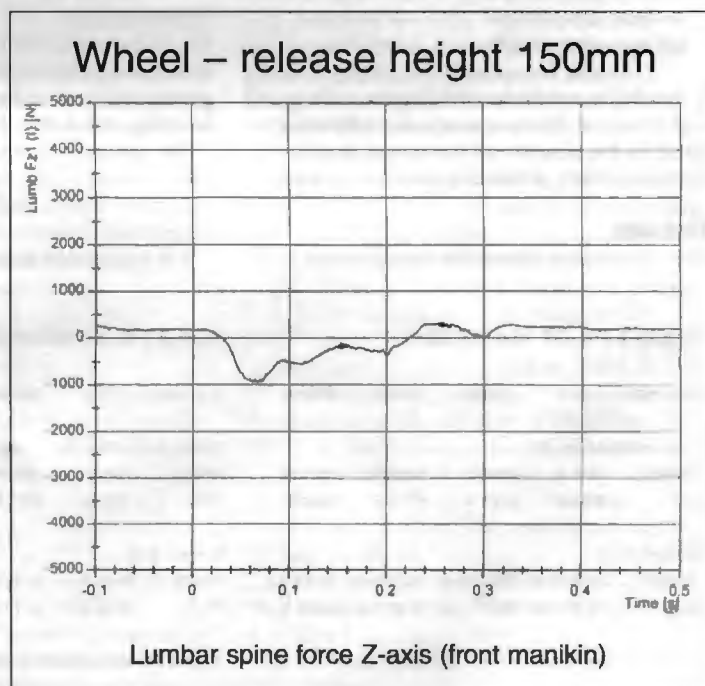
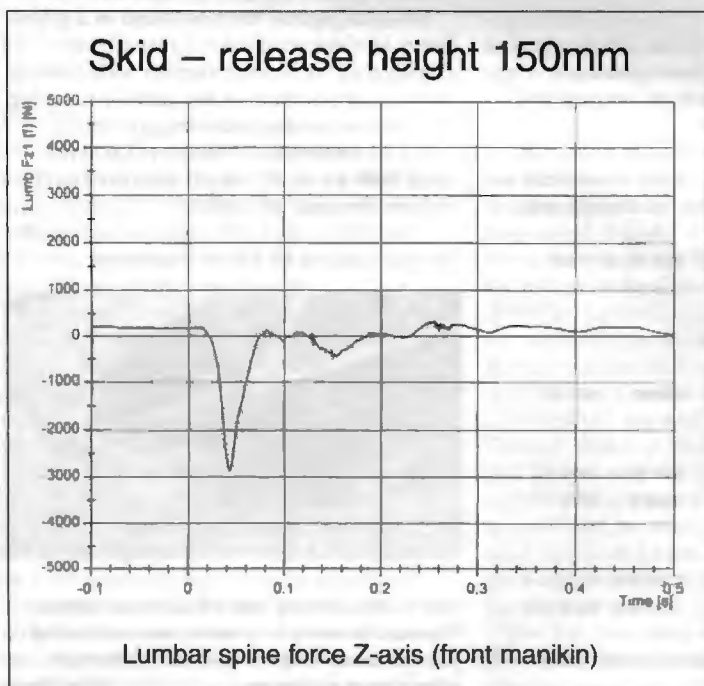
Owing to the short duration of the drop following release, there was no time for the fuselage to fall over sideways before it hit the ground. This had been demonstrated previously in the test on the SF34 glider.

To prevent the fuselage rolling over completely on to its side at the end of each test drop, two V-bars designed for carrying canoes on the roofs of cars were bolted across the fuselage, with the Vs pointing downwards and protected by firm rubber blocks. During the course of the test one V-bar broke, but by overlapping the two bars the test could continue.



The test team (from left): Phil Murtha, Tony Segal, Les Neil and Graham Reece – and the two manikins in the background!

...the difference a nosewheel makes





Kentish Vintage

MORE THAN 270 flights totalling 111 hours were made during the Vintage Glider Club National Rally this year, held from May 21-28 at Kent GC, Challock. The longest vintage glider flight was 6 hours 10 minutes and the club's Vintage Glider Group was joined by pilots and their gliders from across the UK, as well as from Germany, Hungary and Holland. As the South Downs ridge was giving good lift in strong south-westerlies, competition for the fastest flight to Rochester and back (54km out and return) became popular. Photos: 1. Attending vintage gliders included a Zlin-24 Krajaneck, holder of the 1947 Czech duration record of over 25hrs and now based at Booker. 2. Getting ready for the day's flying at Challock. 3. Yellow Prefect with one of the three T-21s at the event (Goofy, from Booker; Florence, Challock, and Daisy, from Weston on the Green). 4. Twenty-six of the rally's 31 pilots (24 aircraft registered) lined up in front of the Skylark 3 based at Kent GC, other Challock vintage gliders form the backdrop. From back to front, the T-21 (Florence), the Swallow (Sarah), the Prefect and the Oly 2b. Photos and captions: Paul Haliday. Further information: Darren Palmer



Plastic fantastic?

For decades gliders have been catapulted into the sky at the end of steel cables.

That could all be about to change.

Debb Evans and Jon Arnold tell us why

IT'S LIGHT, it's durable, and it looks like... yeah, your mother's washing line, actually. This, however, is the cleverest clothesline you'll ever see. Ultra High Molecular Weight Polyethylene Rope (UHMWPER) could be about to take the gliding world by storm.

Picture the scene down at the winch – there's 1,000 yards of steel cable spread out across the airfield, crossing the other cables, with half as much again hanging off the winch drum in various loops and knots. The parachute and strop have drifted off into the adjacent village and you know the locals are going to miss their Sunday roast because the winch cable has shorted out across the power cables. The parachute has landed in the parish councillor's finest flowerbeds. The cable's brand new (or was) and it's got to be cut, just so you've a fighting chance of sorting it all out before sunset!

Back at the launchpoint sit a dozen or so frustrated glider pilots who cannot get a launch – oh, and it's heaving, the tug is unserviceable and that 500km dead cert flight you were about to set off on has just disappeared up into the base of the best-looking cumulus you've seen in ages.

Several hours later, having placated the neighbours with the promises of free flights, you return to the launchpoint complete with cuts, grazes and a not-so-new shiny steel cable. During the first launch you take, you feel every cleat and join in the not-so-new cable as it passes through the rollers, and curse the 900ft launch you have just endured.

Most experienced glider pilots have been through something similar; you know how frustrating, hazardous, costly, and painful it can be. Not to mention the loss of the neighbours' goodwill...

When Bannerdown GC heard that there was a credible alternative to steel cable being used in Europe, they wanted to find out more. The club, based at Keevil, has always been heavily biased towards winch launching. From the 1980s, when the club did 10,000 wire launches per year, to more modest totals today (4,000-6,000 launches) Bannerdown has prided itself in always being at the forefront of cable launching within the RAFGSA.

Not everyone might be too keen to hook a glider on to a 5mm plastic rope, but this is hugely impressive stuff. It's actually made up of 12 strands of the UHMWPE fibres that are gel spun and turned into hollow rope – and it's stronger than steel. The breaking



Above: Plasma rope compared to 5mm steel cable (on the left). The rope develops a slightly furry outer layer after being used for a while. This protects the rope and inhibits further wear. Bannerdown runs the rope along a larmac runway, although this hasn't appeared to cause wear problems, mainly because it is so light.

Right: A drum of the rope fitted to the club's homebuilt TOST winch



strain of 4.6mm steel cable is best when it's brand new and it'll take around 3,900lbf. By comparison, 5mm UHMWPER will take 4,860lbf minimum and that will increase as the rope beds in, meaning fewer launch failures.

Unlike steel, which will try to unwind under tension, the UHMWPER is made of 12 interwoven strands so there is little or no torque at all – kiss goodbye to your lock-up spinner or swivel. UHMWPER stretches by only 1.5% and therefore stores little to no energy so there'll be little or no backlash if it breaks, making it much safer for the winch driver. Steel can stretch by up to 10% when under launch tension so if it breaks it can spring back at the glider or winch. UHMWPER has no memory so has no desire to coil. This in itself won't stop a snarl up but will make them much less of a problem. Sounding good so far?

With three twin-drum winches to choose from, Bannerdown felt they could afford to give it a go so started the research. Oscar Constable, the CFI, was instrumental in

surfing the net and doing the donkeywork. Initial investigations suggested the synthetic rope being used in Germany was too good to be true. UHMWPER had done over 3,000 launches at Landau without a break.

Let's talk about damage. Where steel will wear guide rollers and damage other things in its path, like drum cages and roller boxes, the UHMWPER will cause almost no wear at all. This is the same with handling. Most of us have had the unpleasant experience of picking up a cable without gloves and stabbing ourselves with a tiny shard of cable. Not so with UHMWPER (I mean, have you ever cut yourself on the washing line? I rest my case). UHMWPER doesn't absorb water and is coated with UV and abrasion protectant meaning fewer repairs and equipment.

One of the most impressive things when UHMWPER is in action is its weight: 1,250m of steel cable weigh in at around 120kg; UHMWPER is just 20kg, so one person can load a drum on their own. But, yes, there is a downside – it's not cheap.

To find out more

AS Chairman of the BGA Development Committee, I was fortunate to be at Keevil when Bannerdown took delivery of the first roll of Dyneema rope and did the first test launches. There were already two other clubs taking an interest in the new material and I had offered to assist by providing some sort of coordination of the project.

At Keevil, I met the representatives of Marlow, the UK suppliers, and they agreed to consider favourable terms for clubs interested in trying Dyneema. Following that meeting, we publicised this new opportunity through the BGA newsletter and this immediately attracted a lot of interest. To date we have been contacted by 28 clubs wanting to know more about the product. To all those clubs I have circulated the information I have collected and have aimed to facilitate communication of knowledge and ideas between all the interested groups. I have also negotiated discounted rates for clubs interested in buying a drum of rope from Marlow and we now have about five clubs planning to buy their first roll of rope shortly.

We have not so far been able to carry out any centralised testing (we have no facilities); I have received an offer from a volunteer willing to take a technical look at the project, but at this stage the main source of practical knowledge and experience is Bannerdown, who have now been using the rope for several weeks. For this reason I have been advising clubs to make their own full enquiries and to carry out any ground tests that they think appropriate, before going ahead with a purchase or starting to launch with Dyneema.

I would still be pleased to hear from any club that wants to find out more about the project.

Diana King
June 17, 2005



The rope is so light that it will sit on top of blades of grass and one person can move the rope at the winch by pulling on it from the launchpoint

Plasma rope on the TOST winch. The rope is far more flexible, as can be seen as it curls out of the winch rollers. It has been in use for around four months with no breaks or other problems

The Ultra High Molecular Weight Polyethylene Rope is stronger than steel, although its low melting point (150°C) means it can suffer elongation of the fibres when subject to heat. So minimising contact through rollers and pulleys – and the condition these pieces of equipment are in – is fairly important

All photos: Carl Peters

Steel costs about 35p/metre, but UHMWPER comes in at 75p/metre for a 1,250m length. However, that could be reduced if bought in larger quantities.

It's also worth mentioning that temperature and friction wear are a feature of steel cable. The UHMWPER, with a low melting point (150°C) can suffer elongation of the fibres when subject to heat. Therefore, minimising contact through rollers and pulleys and the condition of these items on the winch is fairly important.

So, with the homework complete, a small sample from Puget Sounds was obtained to prove that the SkyLaunch guillotines would cut the rope, which they could. Initially the Tost couldn't – the traditional scissor arrangement simply chewed the rope and crushed it between the blades rather than cutting the fibres. However, a simple mod to a blade and anvil configuration proved successful. The next step was trying it with a glider hooked on. The UHMWPER came from Marlow Ropes but they didn't have any long enough sections. Fortunately

the factory wove several strands together, and Bannerdown were in business.

The club has the Dyneema on one side of the Tost and traditional steel on the other and has been using it for several months.

A trip to the airfield also seems to have converted Marlow sales executive Gary Derbyshire, who is threatening to take up gliding himself: "This is a very exciting project for Marlow," he said. "Trials will demonstrate the many advantages of Dyneema Winchline such as: easy handling and spliceable; safer operation; reduced winch down time and less weight for the glider to lift."

So far the trial is going well, although it is still quite early days. The Dyneema is clearly much easier to handle, and Bannerdown is getting higher launches, but expect still more once pilots and winch drivers are fully used to such a light material. CFI Oscar Constable certainly has no regrets: "I believe the trial has been a success," he says. "The launches are smoother with quicker initial acceleration and a shorter take-off distance. Two-seat

training aircraft, such as the K-21 or K-13, get slightly better launch heights compared to steel cable, but aircraft like the T-21 get a good 500ft higher on the winch launch and Ventuses get approximately 20 per cent higher. We have fewer breaks, and the only uncertainty at the moment is value for money. Clearly the rope is more expensive, but we don't know how long it will last, as our trial has been relatively short, but so far it looks good – we'll keep you posted."

With many other clubs either buying or investigating Dyneema Winchline, it looks like there'll be more than gliders taking off this summer.

Writer and broadcaster Debb Evans first tried gliding six years ago. She and her husband, Willy, are Bannerdown members. In her spare time she commentates at airshows. Her other interests include scuba diving and water skiing



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THANKS to everyone who has sent us great subjects and space is tight, so if yours haven't made it more in future issues. If you'd like to know how to get your photos into print, p34). In the meantime

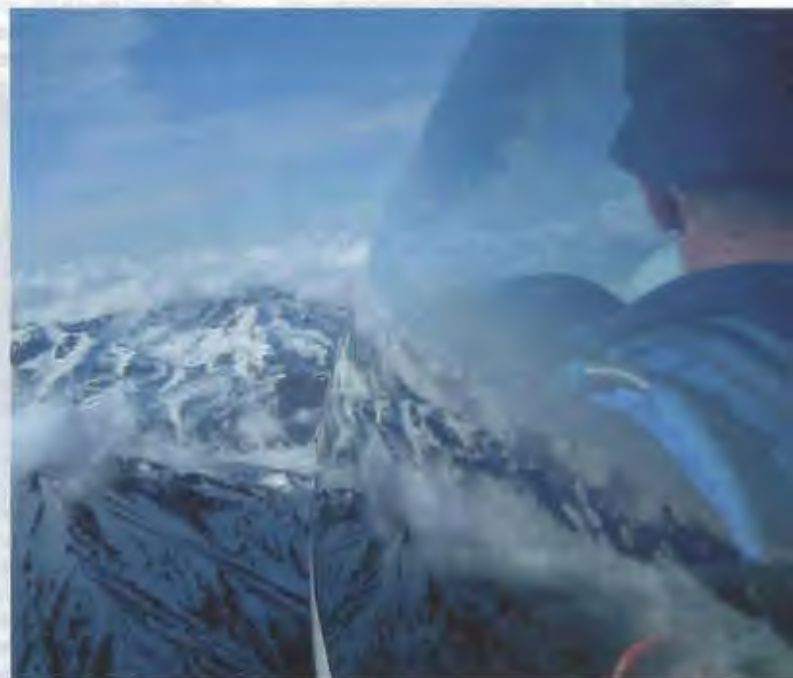
Brian Hammon, who recently soloed at A. Emma Cuthill enjoys a flight in Oxford GC. Ian Turnstall putting what's thought to be the FLARM in action: Roy Pentecost had the Mike Stringer in the front of Sierra India. Wrekin GC's CFI, Trev Cook, photographed. Caught on camera: four thermalling gliders in flight at 10,000ft above Cambridgeshire





great digital images at file sizes that reproduce well in print. We have to choose a balance of
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how more about supplying digital images to S&G, please see the April-May 2005 issue (Get your
irritime, many thanks to the talented readers who sent these in – captioned clockwise from top left:

at Aquila GC, took this shot of the K-13 that he's been learning to fly in, on its last landing of the day
GC's K-13, CCE, which is based at RAF Weston on the Green (Neil Swinton)
the UK's only airworthy Lo-100 through its paces at the RAFGSA Centre, Halton (Ian Gallacher)
the chance to try out the anti-collision system (on 920km of a 1,000km attempt) in Austria in May
a, his syndicate's Duo Discus, at La Cerdanya, Spain, in March (Robert John)
aphed by a fellow club member on an April expedition to Denbigh's Llewenni Parc site (Stu Duncan)
iders captured at 14.30hrs on August 3, 2003 from a Piper Navajo Chieftain on a photographic flight
re (Cities Revealed aerial photography ©The GeoInformation Group: www.citiesrevealed.com)



Those two days in May



On May 10-11, 2005, 30 years after Chris Garton flew the first BGA 750km Diploma, the number of pilots to claim solo UK 750 diplomas topped 50 – plus 10 in two-seaters. Overleaf, we reprint Chris's account of that first 750 and look at who's since flown one. On pp40-41 is a picture gallery of the first 50 solo diploma holders and the 10 dual P1s. But we start with Trevor Stuart (left) and the 50th BGA 750km Diploma...

PREPARATION, Preparation, Preparation are the three "P"s necessary to attempt long glider flights (some would argue "Practice, Patience and Perseverance"). My final preparations were made on Monday evening. Weatherjack was still rating Tuesday, May 10, 2005 as a '5' with light north-easterly winds. What task to do? This 750 business was rankling me. I had tried one last year, spent ten hours in the air, failed to complete and was not keen to try again. But . . . will I regret it when I'm 94?

OK, one more go. SeeYou was used to try and plot a 750km task, preferably a short one. No matter how hard I tried, it always looked huge! Finally, I settled on going crosswind from my home club, Nympsfield, across the Brecon Beacons, turning right into wind, doing a 180, running down-wind and turning left across the Beacons again. I choose Carmarthen-Matlock-Carmarthen – the task had been set, everything else was prepared and assembled by the front door.

"Who's crewing for you, Trevor?" I heard my wife cry. Oh, good point, back upstairs and go through the Nimbus list. The last person I flew was Richard Grey... and yes he could be on standby – thanks, Richard.

Arrived at the club around 8:30 to find that Ray Payne had already rigged! He kindly helped me. CFI Tim Macfadyen arrived clutching met man Sid Smith's forecast; evidently there was a large area of clag in the centre and east of the country. I felt smug: "I'm going west and then north-east," I said, and proudly showed Tim my task.

"You can't do that!" he said, "you can't use the same turning point twice – they have to be at least 10km apart". I was deflated: so much for preparation. I needed to use the lavatory – but not without taking the PDA out of the glider first. Anybody walking into the Gents would have heard a gentle "ping ping" from trap no 1 as Matlock was moved up to Sheffield and the final Carmarthen turn was pulled back to Carreg Cennen Castle.

Ray was first in the aerotow queue. He had planned a number of 750s but was unsure which to try. He seemed to like the look of mine so we agreed to pair-fly. We were ready to launch but no tug! We found John French: "You want four aerotows? OK, they won't take long," he said. Back to the launchpoint. Getting panic-stricken: my ASW 27 was fourth in line. Four aerotows at 15 minutes each (we all wanted 3,000ft-plus tows) meant an 11am start – too late, I felt.

Should I take a winch launch? No, push Barry Walker's glider out of the way – I was now third and John had arrived. John was right: the tows were quick. Ten minutes after launch I was crossing the start line at 3,200ft, horizon on and about to penetrate cloud. It's nerve-racking, this bit, flying on instruments not knowing what you're about to descend into. A smile forms as I climb in the first thermal, 3kts to 2,500ft (all heights QFE), but it didn't look good ahead. Tim called, he wanted to know whether to head south and chase Richard or west and chase us. I told him to go south. I called Ray, he was at Merthyr Tydfil! Merthyr Tydfil is deep in the mountains. How did he get there?

In Wales, cloudbase appeared to be going up and I had just taken a 4kt climb. Had I been a bit hasty advising Tim to go south? Getting used to running this line of hills in a north-easterly now, but unfortunately the wind had abated and gone easterly. I had just enough height to wave to two walkers atop the Bryn before disappearing below them. A few turns in weak lift here and there – just enough to keep me on the hills all the

'There before me was a glider pilot's playground: good streets on exactly the heading I wanted'

while running downwind at best glide. The first big climb – 5kts to nearly 5,000ft – came just before Carmarthen. I felt elated: this was going much better than my first 750 attempt. Radioed Ray, he was 30km ahead – time to switch to racing mode.

I turned Carmarthen and pointed the glider at Sheffield and there before me was a glider pilot's playground – good streets on exactly the heading I wanted. The ground had gone distinctly brown, not a good land-out area, but I was high, jumping from street to street and making good progress. WinPilot showed 90km/h task speed to date, rising slowly. Ray's tactics were obviously the same as we held the 30km gap all the way to short of Sheffield. It was here that I bumped into our met man Sid's bad patch. Ray assured me it had started to get better again. Too far from home to bottle out now. But I was down to about 1,000ft AGL and unable to find a climb – open dump valves and make for a town. Contacted zero sink on the outskirts of Chesterfield, one of those zeros that turns into two up – close dump valves. Back up to a safe height and Ray

calls: "What have you got, Trev?" He joins me a few minutes later 100ft below. We climb briefly together, I straighten up and head for Sheffield; he straightens up and heads for Wales. Blast, he's increased his lead. "Pair flying" is a friendly euphemism used by glider pilots flying the same task; really it means: "I'm going to thrash the Hell out of you" – and Ray was. Must try harder, can't afford another low scrape. I stayed high on the return leg, flying the streets as before; care was needed not to infringe airspace. Ray's lead grew to 50km before it was his turn to have some bad luck. East of track, he got low running into Brecon; west of track, I stayed high. The gap had closed considerably; this pair flying is such fun!

Still, I took a weak climb before doing a long slow glide into the next TP, Carreg Cennen Castle, making for a climb that appeared to be directly overhead. I saw Ray exit the top a few miles before I got there. Never mind, it was a steady 3.5kt and drifted me right through the TP quadrant – textbook! I took this climb a few turns into cloud and rolled out on a heading for Nympsfield. At the far end of the mountain range I could see a good cloud at the Brecon – a long way away. What to do?

I turned right of track heading for closer clouds and re-set the altimeter to 1013. There is an airway coming north out of Cardiff with a lower limit of FL55; cloudbase was now about 1,000ft higher. Bar doing anything stupid a completion looked in the bag. Stupidly, I held FL55 while still in the FL75 area. Ray and I emerged from the mountains equidistant from Nympsfield but with me considerably lower – there was nothing ahead. Ray was heading for clouds south of track, towards Severn Bridges. I took a deep breath, turned 30° and pegged the speed to 60kt. If I had enough height to clear the Forest of Dean I had enough height to land in a field the other side.

I floated across a small lake north-west of Caldicot. It seemed a good place to dump the remaining water. Brilliant: another zero, increasing to 1kt. Upwind Ray was climbing. Too low to join him I patiently worked my patch, finally achieving 4kt. Taking no chances I climbed 1,000ft above glide enabling a 130kt run past the clubhouse...

Magic – must do one of those again.

Our thanks to Bernard Smyth, editor of *Severn Skies*, for his permission to print this article before he does



P1 Andy Aveling of Lasham flew the 10th two-seater 750km diploma with Paul Davis on Wednesday, May 11



Paul Kite returns to Lasham after flying 754.3km in Nimbus 3 374. His is one of four 750s flown from the site on May 11 and ratified by the BGA before this issue of S&G went to press (photos this page: www.whiteplanes.com)

UK 750s – some facts and figures

THE average length of a ratified UK 750 diploma flight is 760km and the three longest so far are:

- Justin Wills (827.9km, LS6, 1986)
- Chris Garton (801.3km, Kestrel 19, 1976)
- Phil Jones (784km, Ventus C 15m, 1995).

In 1990, Andy Davis did the first Standard Class 750km (Discus, 757km). We are waiting for the first UK Club Class 750km Diploma.

THE UK 750km triangle speed records are:

Open & 20-Metre Class, 98.46km/h, Alister Kay, LS6C-18W, April 21, 2004; **15-Metre Class**, 87.02km/h, Ed Downham, ASW 27, June 26, 2004; **Standard Class**, 83.71km/h, Mike Young, LS-8, June 19, 2002.

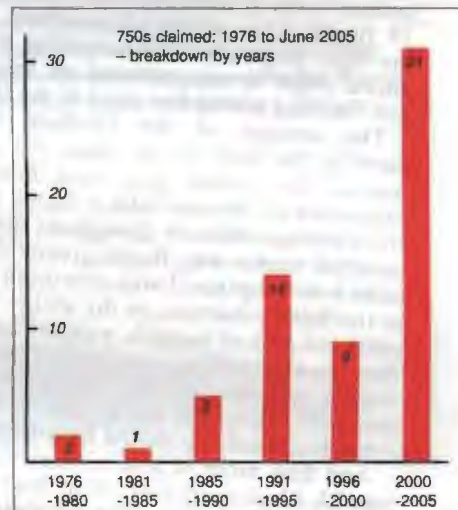
OF the 62 diplomas ratified by mid-June 2005, 20 started at Lasham. Next come Booker (6); Gransden (6); Nympsfield (6); Dunstable (5); Bicester (4) and Husbands Bosworth (4), while Lee-on-Solent and Parham (1 each) deserve an honourable mention, given their coastal settings.

THE only pilot to hold officially both a solo BGA 750km Diploma and a two-seater 750 diploma P1 is Chris Rollings. Derren Francis is the only 750km diploma P2 to later claim a UK solo 750.

FOR the first 50 solo diplomas, the types flown were (with the number of flights in brackets):

- ASH 25 (2); ASW 17 (1); ASW 20 (2);
- ASW 22 (2); ASW 27 (4); ASW 28 (2);
- DG-400 (1); DG-800 (1); Discus (2);
- Jantar 2A (1); LS6 (7); LS8 (7);
- Nimbus 2 (3); Nimbus 3 (5); Nimbus 4 (2);
- Vega 17 (1); Ventus C (2); Ventus 2 (5).

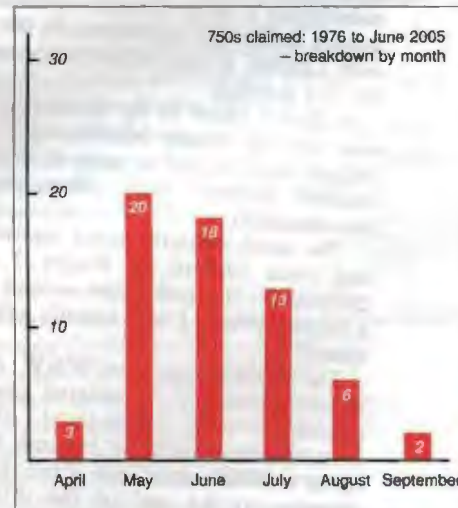
THE best day, with nine diplomas awarded, was July 22, 1995 – when Chris Rollings and Chris Pullen flew the first BGA 1,000km Diploma. (That 1,008.54km record was unbeaten until Russell Cheetham's 1,020.07km free distance in 2004.) Next is June 19, 2002 with 7 awards. Will May 11, 2005 deliver more than the six 750s claimed and ratified as we went to press?



Half the 62 solo and two-seat BGA 750km Diplomas ratified before June 14, 2005, were flown this century. Better kit, or met, or are we just getting more ambitious? The best year to date is 2002 (15); no diplomas were flown in 1977-9, 1981-4, 1987-9, 1991-2 or 1999-2001



Pete Reading in ASH 25 BB returns from a two-seat 750km above the trailers of two gliders that flew 750s that day. Sid Smith's Nympsfield forecast for the two days was: "(Tues 10) High intensifies with light north-northeasterlies but a trough line crossing eastern England AM will track and influence much of eastern and central southern England. Bright with large cu to 4.5k' elsewhere. (Weds 11) High centred over the UK with light variable southeasterly breezes (090/5 1k' and 090/10 5k'). Blue thermal initially with shallow cu to 5.5k' PM but sea-breezes likely. Not a bad day!"



May to July is high season for UK diplomas, but April, August and September have all seen successful claims



It was in the legendary summer of 1976 that Chris Garton (left) flew from Lasham to Durham Cathedral and back. He points out, though, that this was not the first UK 750km. That distinction goes to Hugh Hilditch, who in late April 1976 verbally declared a triangle from Lasham via Norwich and Llanfair Caereinion. Flying an unballasted Nimbus 2, 339, Hugh took TP pictures but had no barograph. Chris's account, below, of his own flight – the first official BGA 750km Diploma – is reprinted from the October-November 1976 S&G



A HARD DAY'S FLIGHT

CHRIS GARTON

During the afternoon and evening of July 21, the fresh north-westerly wind began to drop, shower activity decreased and the stratocumulus sheets began to disperse. This steady improvement in soaring conditions was a clear pointer to the prospects for the next day. I left the Kestrel 19 rigged and completed as many as possible of my pre-flight preparations that evening, so that the morning's efforts could be concentrated on selecting the right task and ensuring myself first place in the launch queue.

The concept of the Durham out-and-return had been at the back of my mind for some time. A good soaring day should give nine hours' flying, and my experience of 500 and 600km flights made me confident I could average 90km/h throughout this length of time. The principal reason why flights greater than 600km were not more commonplace, I was convinced was not the strength of the British thermals or the ability of the pilots, but the restricted area of suitable weather usually available other than on late-starting anticyclonic days. So the essentials were to spot the right day, make the correct decision and then stick one's neck out in front of fellow club members. After that, the flying should be straightforward!

And that, more or less, is what happened. By 08:30 on July 22, I had confirmed, from the London, Shannon and West Drayton Volmets, that the weather looked promising over almost the whole country. In particular, the Yorkshire airfields were reporting clear skies with light westerly winds.

At 09:25 the first cumulus appeared on the northern horizon. It seemed reluctant to come any closer, so rather than wait any longer and perhaps talk myself into redeclaring a more sensible distance, I decided to take a launch and set off regardless. At 09:52, I released at 3000ft over Lasham to start what proved to be a ten mile glide to the first thermal.

At first I chose to fly conservatively in conditions that were not yet totally reliable, so as not to risk having to jettison waterballast so early in the day. In the first hour I reached Oxford, only 70km, but acceptable in the circumstances.

The north-westerly wind started forming cloudstreets, and from Oxford to Rugby I stopped for only one thermal. At the end of the second hour I was at Leicester, a further 90km. I was already achieving my target cruise speed.

The wind backed to WNW north of Leicester, and streets gave way to isolated clouds. The Trent Valley produced only short-lived thermals, but beyond Nottingham conditions became excellent, with 6-8kt lift up to a 5000ft cloudbase. Passing between Doncaster and Barnsley at the end of the third hour, I had covered another 100km.

Soon after this, the thermals became weaker, more

distorted and difficult to use; cloudbase east of Leeds dropped to 4000ft. The wind by now was westerly, and I imagined the shorter land track this air had followed from Morecambe Bay to be the cause of the trouble, aggravated perhaps by some wave interference. At Leeming airfield, the end of the fourth hour had seen only 85km go by. The average, however, remained at 86km/h, and this arithmetic, coupled with the sight of better clouds ahead towards Darlington, spurred me on.

The last 20 miles to Durham were under an overcast sky. I crept into the turning point keeping a wary eye on the sunlit hills to the west, the cathedral was photographed with irreverent haste, and at 14:27 I started to run for home.

Cloudstreets a hindrance

In the hope of finding better thermals on the high ground near Sutton Bank, I followed a more easterly initial return track. By now the whole of the Vale of York was covered with magnificent cloudstreets emanating from the Pennines and lying west-east. As they were at right angles to my track, the streets were more of a hindrance than a help, and finding the best lift could be time-consuming. For some time after the streets disappeared, I still found myself going lower than for comfort in search of the right thermal.

South of Worksop, it all became easier again – perhaps my flying simply improved – and passing Nottingham at 16:40, with less than 200km to go, and already picking up a slight tailwind, I was beginning to feel quite confident. But this feeling invariably seems to presage some trouble ahead; and, sure enough, there, south of Rugby, lay a huge dead area of stratocumulus and industrial haze. A long glide to Silverstone, an anxious search under a decayed-looking cloud, and a good thermal suddenly materialised over a new patch of sunlight.

The rest was straightforward. At Oxford, with the cloudbase over 6500ft, I allowed myself the luxury of a cloud climb to 7900ft for a comfortable 29:1 final glide. Despite the tailwind I still cruised in slowly via the remaining active clouds and it was not until approaching Basingstoke that I could bring myself to burn off nearly 2000ft of excess height. The finish was at 18:48, the elapsed time being eight hours 56 minutes.

In summary, conditions in the south were up with the best of 1976; in the north they were good enough. The day presented no real problems, but the lack of favourable streeting meant it was hard work continually pushing to keep the speed up. I decided not to fly the following day.

The first 52 UK 750s – and the first 10 in two-seaters

Number	Date	Pilot	Km	Glider	Reg	Turning points
1	22-Jul-76	Chris Garton	801.3	Kestrel 19	402	Lasham-Durham Cathedral-Lasham
2	9-May-80	Dave Watt	761	ASW 20L	160 (?)	Booker-Lasham-Stanhope-Buckingham
3	28-May-85	Chris Rollings	770.5	Jantar 2A	58	Petersfield-Welshpool-York (remote start, from Booker)
4	29-May-86	Justin Wills	827.9	LS6	1	Rufforth-Chateau Gaillard (France)
5	7-Aug-90	Andy Davis	757	Discus	80	Nympsfield-A1(M)/M18 Junction-Lasham-Nympsfield
6	24-Jun-93	Mike Bird	758	ASW 22	527	Dunstable-Brentor-Lasham-Hinckley-Dunstable
7	21-Aug-94	Russell Cheetham	754	ASH 25	156	Saltby-Barnard Castle-Oundle-Rufforth-Saltby
8	21-Apr-95	G Dale	752	ASW 17	40 (Binky)	Lasham-Tuxford Power Station-Petersfield South-Watford Gap-Lasham
9	22-Jul-95	John Gorringe	752	ASH 25	BB	Lasham-Tuxford Power Station-Petersfield South-Watford Gap-Lasham
10	22-Jul-95	Dave Caunt	755	Nimbus 2	918	Booker-Gainsborough-Lasham-Melton Mast-Booker
11	22-Jul-95	Alan Purnell	752	Nimbus 3	340	Lasham-Tuxford Power Station-Petersfield South-Watford Gap-Lasham
12	22-Jul-95	Tim Macfadyen	769	ASW 20W	EEE	Nympsfield-Bury St Edmunds-Devizes-Cambridge South-Nympsfield
13	22-Jul-95	Chris Starkey	751	Kestrel 19	900	Lasham-Tuxford Power Station-Petersfield South-Watford Gap-Lasham
14	22-Jul-95	Phil Jones	784	Ventus C 15	210	Tibenham-Aston Down-Bury St Edmunds-Enstone-Tibenham
15	22-Jul-95	Pete Stratton	760	Nimbus 3DT	26	Bicester-Petersfield South-Burn-Basingstoke-Bicester
16	22-Jul-95	Ralph Jones	750	Nimbus 4	82	Lasham-Tuxford Power Station-Petersfield South-Watford Gap-Lasham
17	22-Jul-95	Steve Jones	754	Ventus 2	V2	Lasham-Syerston Tower-Basingstoke-Melton Mast-Lasham
18	13-May-96	Colin Short	767	Nimbus 2B	376	Lasham-Doncaster-Alton-Watford Gap-Lasham
19	13-May-96	Roy Pentecost	767	LS6A	630	Lasham-Doncaster-Alton-Watford Gap-Lasham
20	13-Jun-96	Iain Baker	763	Vega 17	EBA	Gransden Lodge-Doncaster-Corby-Sheffield North-Gransden Lodge
21	13-Jun-96	Mike Jordy	757	LS6C-18W	676	Husbands Bosworth-Lasham-Doncaster-Kingsclere-Husbands Bosworth
22	12-Jun-96	Peter Baker	772	Discus	144	Gransden Lodge-Swindon South-Norwich-Great Malvern-Gransden Lodge
23	23-Jun-96	Ian Cook	752	Ventus C 17.6	758	Lasham-Alton-Ludlow-Lasham
24	25-Jul-98	John Bridge	764.7	LS6C	245	Gransden Lodge-Frome-Thetford-Swindon South-Gransden Lodge
25	16-Apr-02	David Masson	755.5	LS6C-18W	LS6	Lasham-Doncaster-Popham-Watford Gap-Lasham
26	19-Jun-02	David Booth	753.3	LS8-18	790	Husbands Bosworth-Cantley-Birdlip-Bury St Edmunds-Husbands Bosworth
27	19-Jun-02	Brian Marsh	753.3	LS8-18	D7	Husbands Bosworth-Cantley-Birdlip-Bury St Edmunds-Husbands Bosworth
28	19-Jun-02	Al Clarke	775.5	Ventus 2CT	R11	Bicester-Hereford Racecourse-Tibenham-Pontillas-Bicester Tower
29	19-Jun-02	Sarah Steinberg	757.5	ASW 28	S1	Gransden Lodge-Hay on Wye-Tibenham-Banbury-Gransden Lodge
30	19-Jun-02	Mike Young	763.3	LS8-15	57	Gransden Lodge-Bruton-Whitchurch-Tibenham-Gransden Lodge
31	28-Jun-02	Jack Stephen	752.1	DG-400	G-BLRM	Loch Kinord-Dunoon-Rhynie-Rosneath-Aboyne
32	28-Jun-02	Graham McAndrew	754.2	Ventus 2CT 18	71	Lasham-Ludlow-Goodwood-Leominster-Lasham
33	19-Jun-02	Patrick Naegeli	755.9	Ventus 2CT	520	Lasham-Doncaster-Popham-Watford Gap-Lasham
34	19-Jun-02	Robert Thirkell	755.5	LS8-15	B3	Lasham-Doncaster-Popham-Watford Gap-Lasham
35	13-Jul-02	John Giddins	750.7	ASW 22	S22	Hinton in the Hedges-Westbury-Bury St Edmunds-Welshpool-Hinton
36	13-Jul-02	Ed Johnston	781.7	ASW 28	W7	Dunstable-Burn-Lasham-Saltby-Dunstable
37	31-May-02	Derren Francis	754.1	Ventus 2C	R11	Bicester-Hereford Cathedral-Tibenham-Hereford Racecourse-Bicester
38	31-May-02	Ken Hartley	754.1	Nimbus 3	J15	Bicester-Hereford Cathedral-Tibenham-Hereford Racecourse-Bicester
39	15-May-03	Ed Downham	756.8	ASW 27	N5	Dunstable-Burn-Bedford Bridge-Dunstable
40	6-May-03	Richard Hood	753.5	LS8	352	Gransden Lodge-Sarnesfield-Bury St Edmunds-Winchcombe-Gransden
41	15-Aug-03	Bob Grieve	752.8	LS8-18	L58	Tibenham-Great Malvern-Cambridge North-Stratford West-Tibenham
42	15-Aug-03	Craig Lowrie	759.6	DG-800B	G-DGLL	Parham-Welshpool-Kingsclere-Husbands Bosworth-Parham
43	22-May-04	Paul Brice	765.5	ASW 27B	427	Booker-North Hill-Bedford Bridge-Sherborne-Booker
44	22-May-04	Keith Walton	750.3	Nimbus 2C	EW	Fareham-Melton Mowbray-Petersfield West-Market Harborough-Fareham
45	25-Jun-04	Mike Clarke	752	Nimbus 4T	V1	Lasham-Telford-Petersfield West-Leicester M1 Services-Lasham
46	23-Sep-04	John Williams	753.1	LS8-18	Z7	Bridge of Calley-Bunessan Pier-Aboyne-Loch Buie-Bridge of Calley
47	11-May-05	Adrian Hatton	752.8	LS8C-18	C66	Husbands Bosworth-Lasham-Doncaster NW-Chieveley-Husbands Bosworth
48	11-May-05	Paul Kite	754.3	Nimbus 3	374	Lasham-Okehampton East-Chilbolton-Crediton West-Lasham
49	10-May-05	Ray Payne	765.6	ASW 27B	140	Nympsfield-Carmarthen-Sheffield East-Carreg Cennen Castle-Nympsfield
50	10-May-05	Trevor Stuart	765.6	ASW 27B	621	Nympsfield-Carmarthen-Sheffield East-Carreg Cennen Castle-Nympsfield
51	11-May-05	Richard Smith	757.2	Nimbus 3D	970	Nympsfield-Launceston-Bullington-Okehampton East-Nympsfield
52	11-May-05	Andrew Hall	758.6	LS6C	241	Lasham-Okehampton East-Odiham-North Hill-Lasham

Number	Date	Pilot in charge	Second pilot	Km	Glider & Reg	Turning points
1	3-Jul-90	Chris Rollings	Basil Fairston	771	ASH 25, 162	Petersfield-Welshpool-York (remote start, from Booker)
2	7-Aug-90	Barrie Elliott	Derren Francis	753	Nimbus 3DT, 26	Bicester-Welshpool-Bury St Edmunds-Westbury Chimney-Bicester
3	24-Jun-90	Robin May	Henry Rebbeck	758	ASH 25, 13	Dunstable-Brentor-Lasham-Hinckley-Dunstable
4	13-Aug-93	Alister Kay	Andrew Kay	754	ASH 25, 942	Booker-Petersfield-Shobdon-York-Booker
5	3-Jun-94	Chris Pullen	Anthony Danbury	755	ASH25, FLG	Dunstable-Shepton Mallett-Thetford-Devizes-Dunstable
6	4-May-96	Paul Harper Little	Chris Taylor	754	Nimbus 3DT, 970	Nympsfield-Parham-Welshpool-Alton-Nympsfield
7	8-Sep-97	Richard Allcoat	Neville Allcoat	770	DG-500 390	Portmoak-Edzell-Helensburgh-Aboyne-Rufforth
8	16-Apr-02	Bernie Morris	Mike Jeffcock	758	Nimbus 3DT, Y44	Lasham-Tuxford-Andover-Leicester-South-Lasham
9	11-May-05	Peter Reading	Martin Bester	752.5	ASH 25, BB	Lasham-Okehampton East-Alton-North Hill-Lasham
10	11-May-05	Andy Aveling	Paul Davis	758.6	Duo Discus T, 570	Lasham-Okehampton East-Odiham-North Hill-Lasham

This table records all claims ratified by the BGA in time for the deadline for this issue of S&G, June 14. We are, though, aware of several other impending claims from this year

NIFTY 750s: THE PILOTS



1) Chris Garton



2) Dave Watt



3) Chris Rollings



4) Justin Wills



5) Andy Davis



6) Mike Bird



7) Russell Cheetham



8) G Dale



9) John Goringe



10) Dave Caunt



11) Alan Purnell



12) Tim Macfadyen



13) Chris Starkey



14) Phil Jones



15) Pete Stratten



16) Ralph Jones



17) Steve Jones



18) Colin Short



19) Roy Pentecost



20) Iain Baker



21) Mike Jordy



22) Peter Baker



23) Ian Cook



24) John Bridge



25) David Masson



26) David Booth



27) Brian Marsh



28) Al Clarke



29) Sarah Kelman



30) Mike Young

Pilots who've claimed 750km Diplomas (solo). This page, photos 1, 2, 3, 4, 5, 7, 8, 9, 13, 14, 15, 16, 17, 18, 19, 21, 25, 26, 27, 28, 29 and 30 by www.whiteplanes.com



31) Jack Stephen



32) Graham McAndrew



33) Patrick Naegeli



34) Bob Thirkell



35) John Giddins



36) Ed Johnston



37) Derren Francis



38) Ken Hartley



39) Ed Downham



40) Rich Hood



41) Bob Grieve



42) Craig Lowrie



43) Paul Brice



44) Keith Walton



45) Mike Clarke



46) John Williams



47) Adrian Hatton



48) Paul Kite



49) Ray Payne



50) Trevor Stuart



1 (2-seat): Chris Rollings



2 (2-seat): Barrie Elliott



3 (2-seat): Robin May



4 (2-seat): Alister Kay



5 (2-seat): Chris Pullen



6 (2-seat): Paul Harper Little



7 (2-seat): Richard Allcoat



8 (2-seat): Bernie Morris



9 (2-seat): Peter Reading



10 (2-seat): Andy Aveling

Pilots who've claimed BGA 750km Diplomas, solo or P1 two-seat. Photos 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 43, 48, 49, 3, 4, 8, 9 and 10 by www.whiteplanes.com



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Above: Hutter 28 II "Kurier" on the c of g hook. D-8223 is a replica built by Vintage GC member Werner Kaluza

Below: Transparent fabric on the high-aspect ratio wing



Jochen Ewald flies (and falls in love with) the little Hutter 28 II, a glider 20 years ahead of its time. Only four were built – and there's just one airworthy example

Dimensions		
Wingspan	39ft 4.4in	12m
Length	16ft 2.1in	4.93m
Height	3ft 7.3in	1.10m
Wing area	94.7 sq.ft.	8.8 m ²
Wing aspect ratio	16.4	
Weights and Loadings		
Empty weight	234lb	106kg
Max all-up weight	441lb	200kg
Useful load	207lb	94kg
Max wing loading	4.66lb/sq.ft.	22.7kg/m ²
Performance		
V _{RE}	81kt	150km/h
Stalling speed	30.5 Kt	57km/h
Min sink	2.13ft at 34kt	0.65m/s at 63km/h
Best glide	1:28 at 43-46kt	80-85km/h

All photographs by Jochen Ewald

Designed in 1935-6 by Austrian brothers Wolfgang and Ulrich Hutter as a self-build kit, only four Hutter 28 IIs were ever built: two in Switzerland, one in Denmark and one in Czechoslovakia. One original, airworthy until the mid-70s, awaits restoration. The Kurier's small cockpit, advanced flying characteristics (responsiveness and low control forces) and the fact it was available only in plan form just before WW2 all conspired against its adoption



Above: Ronald Blume of the LBA (German civil aviation authority) discovers for himself how small the cockpit is

Below: A small rudder, hinged slightly forward of the fin





Sleek lines look modern but the bungee hook at the front of the skid is one clue to its 1930s origins. The original canopy was of bent Plexiglass sheets: Werner chose a blown one to improve lookout

Meeting of 28s: Hutter 28 & prototype ASW 28-18E at Idaflieg. The Hutter is a cross-country sailplane with performance between that of a K-8 and a K-6



The fuselage is shaped at the wingroot to leave room for the pilot's elbows.

The tailplane is so light it can be carried with two fingers. While fin, rudder and tailplane look tiny, they are effective. Jochen admires the designers' philosophy: to get a maximum of performance from a minimum of aircraft. The 12m-span beauty has a high wingloading similar to that of the K-6 – a world-beater in the 1960s



The two bolts that connect the tailplane and the fuselage are easy to fit.

Once the friction of the skid has been overcome – in Jochen's case after the elastic rope had stretched noticeably behind a microlight tug – the Hutter gets airborne easily and is stable, responsive and light on the controls; its roll-rate of 2 secs at 80km/h (43kt) harks forward to its aerobatic "grandson", the Salto. Jochen soared it in thermals at 70km/h (38kt) to 75km/h (41kt)



Inside the perfectly-crafted fuselage. The replica took four years and 2,000hrs to make. It won the German homebuilders association's 2004 first prize. Jochen, who flew it from Warburg, says: "Thanks, Werner, for lending me your precious little glider for such a wonderful flight".

Spoilers and an 18cm longer fuselage are Werner's main additions to the original 1935-6 design



In gliding's hot seat

Debb Evans talks to the Chief Executive of the BGA, Pete Stratten (right), about his own flying



Where & when did you start gliding?

At Cranwell GC in Lincolnshire in 1975. I was travelling home from school on the bus from nearby Sleaford one Friday when a mate told me that he was going gliding at the weekend and that I ought to give it a go. I'm glad I did!

What were your first impressions?

As a 14-year-old, into being outdoors and anything mechanical, I was impressed by the gliding club, made to feel very welcome and encouraged to get involved. I have to admit I can't recall a huge amount about my first flight there – a five-minute circuit in a K-7 with the CFI, Richard Cole (now a retired RAF fighter pilot, who is a cross-country pilot and instructor examiner in Yorkshire).

How about your first solo?

Just after I joined the club as a self-funded kid, I was pointedly advised that a great way of affording gliding at this particular site without having to pick up another half-dozen paper rounds was to join the Air Cadets. At that time, there was an RAF T-21 at Cranwell and the club management were happy to interpret the rules to the benefit of enthusiastic youngsters! So that's how I learned to fly. But due to strong autumn winds around my 16th birthday, I was quickly converted to the Blanik for the three solo trips that were par for the course back then.



Top: Pete behind his desk at the BGA office, Leicester
Above: Visiting Southdown GC for its 75th anniversary celebrations on Saturday, June 18, 2005, Pete (left) met Ray Walker (centre) and Silver pilot Alan Maynard



One of Pete's favourite views in gliding: heading towards a mountain in southern France

(Pete Stratten)

What happened next?

The next couple of years were a bit frustrating as I took quite a long time to get to grips with keeping the K-8 airborne. However, like many other people, I wasn't into gliding only for the flying; it was also the teenage lad stuff – messing about with aircraft, getting the chance to help fix things, being around something other kids could only dream of – and so struggling through the Silver Badge just seemed part of the fun. Somehow, I ended up on an instructor's course at 18 – I hope I didn't put too many people off gliding – and began a long period of spending just about every available hour at one gliding club or another. I'm still guilty of that!

How did you get your badges?

When I worked in Germany in the mid-80s, I had a half share in a Standard Cirrus. It was a fantastic glider that gave me a useful introduction to competition flying and provided the performance I needed to complete my Diamond Badge. The same Cirrus was also very nearly my undoing in 1985 during a cock-up of my own making following a competition finish. I had allowed myself to finish ultra-low downwind then pull up through a wind gradient over trees. The glider departed at a low height, but very fortunately my currency in stall and spin practices in the glider allowed me to recognise the problem and recover in time; I ended up, wings level, pointing up the



Pete flying his syndicate Ventus cT, 221, on an expedition to the French Alps

(Derren Francis)

landing strip. A few years ago, thanks to the loan of some big wings, I managed to float around 750km but the real goal, the FAI 1000km badge, is still a bit of a distant dream for me, I'm afraid.

What other ambitions do you have?

To both professionally and voluntarily help the sport evolve so that others can continue to enjoy it in the future. We can all help to achieve that by promoting it and by ensuring we don't give those whose understanding of flying is limited to balance sheets, or those who earn a living from wrapping us in cotton wool, the opportunity or excuse to damage gliding and general aviation.

What led you to your current job?

I've been working professionally in a number of roles within gliding for about 15 years. In 2003, I was ready for a career change and spent quite a bit of time deciding which way I wanted to go. Although I had identified other opportunities, I decided that the new role of BGA Chief Executive showed promise and that to work for our sport in a way that could influence outcomes would probably be a really satisfying job. I'll leave it for other people to judge me in future, but I'm enjoying what I'm doing!

What are your hopes for gliding?

First of all, I hope our sport will continue to be taken seriously by the UK Government and its Sports Councils. The BGA's track record of successful governance and the excellent results delivered by the British Team should not be underestimated: they raise our profile and standing among the huge number of non-mainstream sports in the UK, especially when we're fighting our corner in so many areas. As gliding in Europe evolves under EASA, I hope good sense will prevail and that we'll essentially be able to continue with self-regulation and minimal government involvement. Having said that, things are definitely changing and the BGA will continue to work very hard, particularly within the UK, to ensure that the needs of all its members are addressed. In many ways the success or otherwise of individual clubs is down to local efforts, but the BGA should always be available to provide help and advice at all levels.

So, why do you glide?

A tricky question! Firstly, having worked as a professional instructor I have lots of superb memories of seeing people's faces after they've achieved something and sharing the experience with them. I think that's one of the wonderful experiences in our sport that non-instructors probably miss out on. Secondly, I think gliding can be a vocation to some people – and there's certainly always something else to achieve. For someone like me, who dabbles in comps, heads off on expeditions and flies cross-country whenever possible on weekends, there's always the hope that the next flight will be even better than the last... ✈



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Mud, mud, glorious mud

Jim Ball recalls one fateful day last winter when all the glamour went out of the world of gliding

TO SOME people the exciting world of soaring flight may seem a very glamorous pursuit, made up of wonderful sunny days, and the liberal application of sun block. However, the truth can sometimes be less than glamorous! The following is a slightly apocryphal account of events that occurred shortly before Christmas 2004 at the East Sussex Gliding Club. Whilst events may have been embellished just a little by the author, this is a record of what happened that fateful day.

It had not been the gathered assembly's perverse intention to resolve the often vexed question: "How many pilots does it take to dig out a Supacat winch?" But, following the morning briefing, events would unfold that would answer this age-old question once and for all.

It has been suggested that I change people's identities in order to protect the innocent. However, we at East Sussex GC care little for that sort of bleeding-heart, namby-pamby liberalism, and I feel it is important to announce at this juncture that the winch driver/operator that day was soon-to-be-Basic-Instructor Phil Williams.

Phil decided to spare the field the ravages of the ex-army Bedford truck on which the winch was fitted. In order to do this he decided to stick to the edge of the field. Even where a hedge had been grubbed out and the ground was soft. Very soft.

It was the author who first realised the gravity of the situation, when I bounced down the field in a very antiquated Series III Land Rover. But what was a bogged-down Bedford truck to this master of off-road driving? Phil was assured that all his troubles were at an end, and that the lorry would be driven out without anyone being any the wiser about his momentary lapse of rational thought. So with a jaunty swagger I heaved myself up into the cab and smugly engaged low-range four-wheel drive. Oh yes, I had seen what these trucks could do; I would show Phil how to escape a patch of mud.

However, the Bedford lorries I had seen were in my days in the Territorial Army and they did not have a Supacat winch nailed to the flatbed (big nails). With an ill-placed confidence this author eased the clutch up and engaged the power.

There was a nasty creaking sound from the winch as the steps that led up to the cab were now starting to support the entire weight of the lorry and winch as it settled down, axle-deep in the bog. "Oh yes," said Phil, admiringly, "that's sorted it out... It's



Above: the ten-strong digging team included Roger, Jim, Tim, Phil, Adrian, Ozzie, John, Andy and Val;
Top: Tim Davies, resorting to a shovel;
Top right: that soft patch of ground was just too much;
Right: Elderly tractors were defeated... (Val Phillips)



good to see how a real professional does it".

A well-aimed and particularly slimy piece of Wealden clay splattered against the side of his head. With wounded pride both men sheepishly made their way up the field to inform the duty pilot that there might be a short delay in the day's proceedings.

I would like to say at this point that the assembled all pilots empathised with the situation that we found ourselves in and set

"Well, gentlemen," commented Adrian, "we seem to have established where the water table on this field is"

about coming up with positive thoughts on how to resolve the problem. Yes, that's what I would like to say. However, the reality was that we took an unmerciful ragging from the rest of the crew.

Tractors! That's what was needed. Three elderly Fordson tractors were duly brought down and ropes attached. Adrian Lyth, the senior instructor present, orchestrated all three machines to pull at once. And all three machines started sinking into the bog. Plan B was clearly going to be needed.

Unfortunately, Plan B involved the use of shovels. Lots of shovels. One pilot fainted, some wept openly and several others tried to make a run for the clubhouse when they realised this. Those who tried to escape were brought down by others, who threw large

clods of Wealden mud at them. It was at this point that all the instructors started to recall that they had to check for rodent infestation in the gliders, or go and make sure that the power supply to the kitchen had not been affected by the winch sinking into the mud. Some openly admitted that they had been diagnosed as suffering from PTSD (Post Traumatic Shovel Disorder) – a phobia related to undisclosed childhood trauma – and could not risk a relapse.

One of the newest club members had no such reservations and launched himself into the task, digging with such ferocity that everyone else stopped work and gathered round to watch him disappearing into a trench that was quickly filling with liquefied goo. "Well, gentlemen," commented Adrian, "We seem to have established where the water table on this field is".

"It's not so bad!" shouted Ozzie, still digging frantically, unaware that the mud was starting to ooze over the tops of his boots, then cursing as they filled with the freezing mixture of clay, mud and water...

With much unrelenting digging and the occasional use of good old Anglo-Saxon expletives, it was by lunchtime possible to drive the Bedford out of its clay pit. This was greeted by a laconic cheer from the mud-covered assembly. Then Phil Williams, whose driving had caused this calamitous event, commented: "Now, that wasn't such a chore, was it?" A well-aimed dollop of clay splattered against the side of his head. Such are the vicissitudes of gliding.

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HOW TO BUY IT: see *Tailfeathers*, page 17

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Overconfidence and luck

This contributor explains why just three minutes during a recent Inter-Club League task cured him of any desire to fly in cu-nims

AS BACKGROUND, I am a pilot with some 4,500 hours gliding in the logbook and considerable cloud flying experience. What I am about to relate is a salutary tale of overconfidence and luck.

I first encountered cu-nim flying in about 1967 on a cross-country in an Oly 460. I had done three climbs to over 6,000ft uneventfully. In the next cloud I climbed to about 10,000ft with smooth rapid lift, left the cloud and proceeded on track at about 70kt for about 15 minutes. When I got down to 3,000ft, which was below the original cloudbase, and was still in cloud, I became worried. Finally it dawned on me to open the clear vision panel. All became clear. I had a thick layer of ice on the canopy and had been flying into still air under the anvil of the cu-nim. Less than ten minutes later I was in a field.

Another experience was around 1980, when I heard on the BBC weather forecast that there was a possibility of cu-nims in the afternoon. I needed my Diamond height so I turned the oxygen on and took a launch. Two hours later I saw a small cumulus about four miles away that was doubling in size every couple of minutes. I raced underneath it and the PZL varios quickly wound off the clock. The climb was very smooth for most of the ascent. About 10-15 minutes later I reached some turbulence, indicating that I was near the top of the cloud, and straightened up out into brilliant sunshine at 21,000ft. A moment later the club called on the radio to say that a cu-nim was approaching the site. I flew around until it had passed and then landed with the Diamond in the bag.

So cu-nim flying isn't a problem, is it? Or so I thought, provided that they are not developed and you can stay above all the nasty turbulence and electricity.

Never let anyone tell you that!

Recently I was flying an Inter-Club League task on a day when a possibility of cu-nims was forecast by 14.00hrs. We were launched at 14.00hrs and I scratched around in 1kt thermals under patchy but steadily darkening skies for about an hour. A couple of showers developed but it was not difficult to fly around them and it was only one-eighth cloud and brilliant sunshine three miles to the north-west. However, it seemed like time to head back to the site, call it quits and de-rig to avoid getting wet. Cloud tops, when they could be seen, appeared to be going to around 6,000ft at the time.

On returning to the site, a 4kt climb was found, steadily increasing to 5, then 6kt. Cloudbase arrived (3,000ft) but a plan was

forming in my tiny mind – take a cloud climb to say 10,000ft then glide round the task. So up we went. Eight minutes after entering cloud I was at 8,700ft with all going to plan when the lift suddenly increased from around 9kt to 17kt.

Initial delight became tempered by the knowledge that the oxygen mask and regulator were in the trailer! I was still happy with an escape route out to the clear air in the north-west but modified the plan to perhaps climb to 12,000ft then set off.

At 12,000ft the lift abruptly increased to 24kt, at which point I pulled the airbrakes fully out and set full landing flap to stop the climb. This is when things started to really happen fast.

A bout of hail and turbulence temporarily distracted me from the overall flight planning since I needed all my concentration to keep control. In the next 30 seconds I had climbed to 14,000ft and the averager was showing 31kt UP! The turbulence reduced a little and I increased airspeed to 75kt and tried to straighten up on a heading. I knew I wanted to fly north-west but the trace

'The lift abruptly increased to 24kt – I pulled the airbrakes and set full landing flap to stop the climb. This is when things started to really happen fast'

shows I executed a larger radius circle and straightened up on a north-east heading one minute later at 17,000ft, still with full brake and landing flap at 75kt plus.

After a mile flying north I wandered round an inadvertent turn, by which time I was at over 20,000ft, still trying desperately to fly north-west to the clear air. A little meandering got me into the clear air and a fairly rapid descent. At 14,000ft I decided to close the airbrakes, only to find them frozen open. After some struggling, I managed to get them half closed and the descent rate reduced.

I finally got the brakes closed at 6,000ft and was able to glide back to the site and land uneventfully in torrential rain. De-rigging was a marine activity, even though the sunshine was only five miles away for the next two hours.

I am certainly cured of any desire to be more than six feet above the ground if cu-nims are even a possibility.

Summarising some of my mistakes and thinking of lessons to be learned:

1. Never ignore thunderstorm warnings or forecasts. If you see cloud developing fast then be prepared to land promptly.



If this looks fun, read the story (www.whiteplanes.com)

2. The whole episode from 14,000ft and attempting to descend with full brake/flap until the descent started at 20,800ft took less than three minutes. Events can overtake you very quickly when cu-nim power is involved.
3. If rates of climb increase above 10kt or so in cloud then immediately start your exit strategy if you don't have oxygen. It can take time to get out of a fast-developing cloud.
4. Should I have lowered the undercarriage and raised the turbo to increase drag when I was climbing uncontrollably? I was not certain of the limiting speeds for these so decided not to take the risk but possibly increased the risks by not doing so. Know everything about your aircraft – you never know when you might need the knowledge.
5. Should I have baled out? No. It crossed my mind but I remembered tales of pilots being carried up to their death or at least severe frostbite.
6. Don't rely on temperature sensors with fast climbs. I was 6,000ft above freezing level and heavily iced before the gauge reached zero.
7. Conditions can change incredibly rapidly, so be prepared. I knew this from previous experience but chose to ignore the fact.
8. Always have your oxygen ready if, after reading this article, you are still daft enough to want to fly when cu-nims are around.

I am well aware of the symptoms of anoxia and the risks and I was extremely lucky to survive. I think I remained conscious and at least semi-functional throughout, from the look of the trace and my recollections. It seems that I have an above-average oxygen deprivation tolerance level and the adrenalin (fear!) may have helped to keep me conscious. Happily, the glider is also undamaged. It could so easily have ended differently.

Nine lives – minus one

What the eye doesn't see...

FOR A WHOLE page of the DI Book the glider has been certified, by a succession of respectable citizens, as *Serviceable*, without comment. Turn over. Next entry said: "One canopy bolt knob missing for weeks, found under seat and refitted. *Serviceable*."

All nice and tidy. Eventually. Meanwhile, how many innocent pilots had, fortunately, not managed to find the missing knob, the wrong way, in flight! What do I mean? Well, first, did any of the signatories pause to wonder where the missing solid object had gone? And second, how lucky that it didn't fall or roll into and jam up any part of the flying control mechanism and put the aircraft out of the pilot's control.

Chance in a million? Bear with me while I tell you a tale of long ago, of how one day the proverbial nine lives were reduced by at least one for some of us.

Very early one morning

Maybe I was a bit tired, after happily hand-flying for a couple of hours or so, southwards through the starlight over France, while Robbie our skipper did his rounds and then had forty winks on the couch in the centre section. It was still dark when he came forward eventually, yawning and muttering about food. I ran the autopilot up to speed, switched it in and let him back into his seat, and we snuffled hungrily at our packets of sandwiches by torchlight. My torch, out of my kit.

Later, in the morning sunlight, we slid down the long invisible rails of a "Bomber

Command" approach towards Naples airfield. I stood beside Robbie, one hand lightly on the four close-grouped throttles, waiting for the round-out and his usual order to "Cut!"

It got a bit late and neither came but now the runway threshold was horribly near and high in the windscreen...

"QUICK-HERE-GIMME-A-HAND!" and I moved over very fast.

Four panic-stricken hands, pulling madly back on the same control yoke, had to make some impression. With a sudden PLRP like biting a grape only much more so, the yoke came back and we flared abruptly, only just in time. The Lancaster, blessed tolerant aircraft, bounced once, with justification, then settled down and rumbled along the runway.

Only a torch

We were both sweating but not only with Italy's overnight heat, as we fished my torch out from down behind the control column, and very funny it looked, all flat in the middle and bulged out at the ends like a large untidy hourglass.

Whose fault? Mine mostly of course, for missing a point on checking equipment before joining circuit. But we'd all have been equally dead. And it needn't have been a torch. Lots of other things would have done just as well.

Everything tidy

So if on DI you find some small fitting is missing, keep on looking until you're absolutely sure that the missing item is not loose anywhere in the aircraft. And when

you're airborne remember to keep everything tidy all the time... sunglasses case, camera, coins, pen, rigging tools...

Specially too before aerobatics. I mean, you'd be a bit vexed, wouldn't you, to find that you could not "ease gently out of the ensuing dive" because of some small solid object – such as the knob off a canopy bolt – in the wrong place.

Keeping everything tidy is just another of the many possible ways of keeping all those nine lives intact.

Diana King, writing in 2004 in the Stratford on Avon club newsletter, adds: My father, Robin Bull (aka The Canopy Doctor), wrote this piece in 1974, when he was a fully rated instructor at the Long Mynd, and it was printed in Sailplane & Gliding in December 1975-January 1976 (p249), but it is still just as valid today. Robin was a flight engineer on Lancasters in the wartime RAF and later took up gliding, continuing until shortly before his death in 1990.

This piece has particular significance for me. A few years after it was written I took off in my Olympia 460 on a bungy launch. The usual procedure is to fly off the launch and turn left along the hill. At some suitable point you turn right again to follow the hill back. When I tried to turn right, I couldn't. By the time I had found my syndicate partner's specs wedged down on the right of the stick, they were looking distinctly the worse for wear. After hearing Dad's story of the torch since I was quite a little girl, you'd think I'd have known better than to get caught that way myself. It just goes to show that you can't be too careful. ✂



The author used up one of his nine lives when a torch jammed a Lancaster's controls – but loose objects could wreak just as much havoc in gliders (www.whiteplanes.com)

Club focus



FEBRUARY 12, 2005 marked the 70th anniversary of the formation of Cambridge Gliding Club (CGC). On May 2005 the student fraternity marked the 70th anniversary of the formation of Cambridge University Gliding Club. This is just one example of how we seem to re-visit our past. The first flights of CGC were from Caxton Gibbet just to the north of Gransden, whilst Cambridge, Bourn and Duxford have also hosted our itinerant new-age lifestyle.

Today Cambridge GC is settled at Gransden Lodge. The move here in 1992 was a huge commitment by members and management in shifting hangers, putting up a new clubhouse and managing the finances. Worse though, was picking the stones out of the bare soil of 100 acres to ready the runways for seeding. The result is three first-class runways (22, 34 and 09). This was in fact the second move we have made to Gransden as we flew from here briefly in the 1950s. In 1999 we also reverted to our original name of Cambridge GC whilst the student membership kept the CUGC name and CU, their immaculate K-8. Today we still have Bluebell, the T-21, our first two-seat trainer, bought in 1950.

In the years following our move to Gransden, the fleet was upgraded to all glass and we can now boast one of the best in the country with excellent

availability. However good the facilities, a club must be judged by its geography and its suitability for soaring. It's unlikely that the founders of Cambridge University considered soaring potential as a factor in its location – wenchies and ale is more likely – but we can be grateful to them for their inspired choice.

Whatever the founders' motivation, the region has proven to be an outstanding source of thermals, thanks largely to much of the westerly moisture being dumped before it reaches us. The benefit has been that nearly 40% of UK Standard Class records have been set from Cambridge.

There is little by way of airspace restriction locally (200m to the south of the clubhouse – GRL – we have FL55, with the north, east and west being unlimited). The local terrain is among the flattest in the UK whilst the arable farmers unwittingly provide huge fields for outlanding, quite apart from the numerous local strips. Sea air incursion is rare locally but when a front forms it can provide a great ride home when returning from the east.

As we are a flat site, expeditions are becoming more frequent in the winter and spring with Portmoak, Sisteron, The Mynd, Sutton Bank and (new in 2005) Cerdanya favoured destinations. This continues a long tradition of wave flying pioneered

by the club's earlier members, such as Alan Purnell and Sigfrid Neumann. Indeed, it was Sigfrid who first flew easterly wave from the Mynd.

The focus now is on building the infrastructure. A new bathroom block is under construction and we have recently completed a new briefing room, office and CFI accommodation facilities.

In the last few weeks new solos have included Steve Hayes, Mark Collins, Peter Weston, Neale Hays, Fraser Badcock, Ian Somner, Cathy Prescott, Philip Scott (CUGC), David Stone (CUGC) and Radoslav Nespor (CUGC). Graeme Walker did 140km in a Skylark 3 for his Silver distance. Our "evening classes" in gliding have proven to be a great success in recruiting new members, whilst bookable training is helping *ab initios*.

We look forward to welcoming back our many regulars to our August regionals. We have a task week from September 5-9, with Phil Jones helping out – when work allows – please call for details.

The local attractions are Cambridge itself, with punting on the blue days, and many picturesque villages and excellent pubs. The area is great for cycling (very flat) and easy to get to via the M11 and A14. Visitors are always welcome.

Paul Harvey



Top left: When when you're this low, says Paul, give it away and pop in for a beer... (Paul Harvey and Mike Smith)

Top right: Flying east, looking down 016 parallel to 22 (Paul Harvey and Mike Smith)

Above: the outline of the club's site since 1992 (and briefly in the 1950s): Gransden Lodge (Mark Collins)

At a glance

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Club news



This column, from top:

George Green solos in Boggles the Blanik at **Andreas**; **Aquila's** Brian Hammon being congratulated on his first solo by instructor Tony Limb – see also Gliding Gallery; Andy Cunningham and Don Gosdon brought a Fox to **Cotswold** – more than a dozen members tried it out; **British Army Centre (Germany)** has a fleet of three two-seaters, three single-seaters and a motor Falke: this picture of its K-21 comes courtesy of Jochen Ewald



Andreas (Isle of Man)

THE winter weather kept us on the ground for ages and it hasn't improved much since! When it did relent, one of our RAEs/BGA scholarship winners, George Green, went solo and got excellent coverage in the local press. He and the CFI, Bob Fennell, also did an interview on Manx Radio. Our "travelling member" Robin Davenport has completed his Silver with a flight from Aston Down to Sherington in his K-6. Congratulations to him and George. Several of the early solo pilots from last year have bought into Dave Wiseman's Swallow which will free up the Blanik for the next batch of *ab initios*.

Brian Goodspeed

Aquila (Hinton-in-the-Hedges)

OVER the May Bank Holiday weekend, Aquila GC hosted the Midland Interclub League and achieved two good competition days. Oxford won the weekend against teams from Windrushers (Bicester), Sherington and Aquila. Aquila novice Jim Hughes caused much amusement, by landing in a field between a canal and a river. Only access via a lift bridge, which was securely padlocked! Six policemen in two cars and a van plus a set of boltcroppers ensured a safe retrieval! Also congratulations to student Brian Hammon on his first solo. Our picture shows Brian being congratulated by instructor Tony Limb. The other picture is best described as "A Bridge Too Far". A fun weekend enjoyed by all.

Karrol Smulovic

British Army (Germany) GC (Elmpt)

THE British Army (Germany) Gliding Centre (previously Kondor GC) has been formed at Javelin Barracks, Elmpt in Germany. The barracks was previously RAF Bruggen and the RAFGSA Phoenix GC flew there before the RAF finally left Germany. The BA(G)GC is a member of the AGA and has close association with the British army sport board in Germany. The Centre has a fleet of three (soon to be four) two seaters, three single seaters and a motor Falke. The primary purpose of the Centre is to introduce soldiers to the sport of gliding and encourage the further development of their flying. The airfield licensing allows only gliders and motorgliders, thus the aircraft are primarily winch launched, with the possibility of using motorglider tugs. It is possible to accept visiting pilots, but notice must be given to get access to the airfield. The first point of contact is Simon Duerden on simon.duerden@asm1.nl or 0031 40 2130696 (home) or 0031 40 2685443 (work). Simon Duerden

Bath, Wilts & North Dorset (The Park)

ATTENDANCE at weekends still continues to be good despite the weather not always being conducive for flying. The club held a successful open day with ideal weather conditions on May 29, it was well

This column, from top:

Lakes' newest member, Kate Frost, after her first solo flight following a PhD-induced lay-off; Jim Hughes, of **Aquila**, landed between a river and a canal – was this padlocked lift bridge a bridge too far? **London's** Steve Mills soloed on his 16th birthday after a check flight with brother Andy. Dad Trevor was tuggie; **Dorset** chairman Doug Every took this picture of a pupil from a local school: 16 were flown in two Wednesdays



Please send news to editor@sailplaneandgliding.co.uk or Helen Evans, 7 Olney Road, Minchinhampton, Stroud GL6 9BX to arrive by **August 16** for the October-November issue (later deadlines can be found at www.gliding.co.uk)

Club news

organised by Mark Hawkins, and supported by all of the club members, most of whom turned out to help. In fact we saw members we had not seen for some time. Despite the narrowness of our field we managed 75 launches, a combination of winch and aerotow, and sent home some very impressed and happy trial lesson pilots. Thank you Mark and everyone for your efforts. The club trip to Sutton Bank was highly successful despite the weather being poor and the flying minimal. The group entertained themselves and had a good "boys" week away. Congratulations to William Beswick, one of our hard working, dependable and keen cadets on going solo – well done Will and keep it up. The flying week in May was well supported by members, some not being daunted by the weather and spending a week not far from their aircraft in case the weather did change from wet to less wet.

Jan Smith

Bidford (Bidford)

CONGRATULATIONS to Bill Inglis on completing the first ever 750km from Bidford, which narrowly beat our previous best by Dave Findon last year of 749.4km. Unfortunately for David, it was done during an assigned area task in a competition and he didn't realise he was so close, or he would have started the engine later! Dave Smith has his Gold height and James Mace has completed his Silver and part one of the 100km diploma, Steve Smith has done his first solo in a glider after a lot of power time. Thanks go to Graham Wright for giving up a day to convert me on to the Pawnee and also to Keith Marchent for the donation of a new launchpoint caravan.

James Ward

Black Mountains (Talgarth)

OUR Rockpolishers Inter-Club weekend in May was a great success with a lot of kilometres flown and the mandatory barbecue and sunset. Sunday saw a 150km triangle set and the Nympsfield pilots showed their disdain for the task-setter by doing it twice! Task week at the end of August is fully subscribed and we are running a sweepstake as to how far Don Puttock and his team will take the K-13 this year. The committee are burning the midnight oil to come up with a five year strategic plan for the future of the club now that we are seeing increasing membership and levels of soaring. Figures to the end of May show a 25% increase in launches on 2004 but sadly the average time in the air has dropped back – to only 80 minutes per launch! Congratulations to Martin Pringle, who achieved his Diamond height in north-west wave close to the airfield. En route to the Alps, one of our members suffered a broken clutch cable near Grenoble and arrived at Sisteron complete with luggage in a taxi and the glider trailer hooked on the back!

Robbie Robertson

Booker (Wycombe Air Park)

WE believe that we now have at Booker the youngest CFI, Matt Cook, Regional Examiner, Andy Perkins (a few days younger than Matt); and Full Rated Instructor, Mike Collett, in the country. Mike completed his first 500 just two days before gaining his qualification. Recent flying achievements include 750s by Dave Watt and Andy Perkins, and first solos by Kristof Szentivanyi and Chris North. Our replacement K-13, freshly imported from Holland and anglicised by Dave Richardson is now in service, giving us four K-21s, three K-13s and the Duo Discus in club use. Booker Air Services are also on their way back to full strength, with a new engineer and confirmation from the CAA awaited that John Nichols will be ratified as Chief Engineer. Our second task week will be in August and bookings are almost complete for the annual Aboyne expedition. The team for the Europeans includes Booker members Jez Hood (Std), Owain Walters and Jay Rebbeck (both Club Class). By the time this is published

the results from Slovakia will be available.

Roger Neal

Borders (Milfield)

AT last someone has completed a Diamond goal from (and to) Milfield. On May 11 Andy Bardgett took his LS4b around a 313km triangle – Barnard Castle and Whiteadder Reservoir. On the same day Colin Stevens, in an attempt to fly his Libelle home to Pocklington, landed out near Derwent Reservoir and Richard Abercrombie managed a good 50km to Ashington in his ASW 15 but without a logger. On April 29, Andy B did one of his several Diamond climb repeats to circa 21,000ft. Since the departure of sheep from the airfield we have had a heavy mowing task. We have now replaced the old mower with a new Jaguar flail mower, which does the job admirably. The success of our ladies' *ab initio* week has prompted us to plan another for July 25-29. The club plans an expedition to Cambridge in August, where our Mike Charlton now labours as a professional.

Leonard Dent

Bowland Forest (Chipping)

A SUCCESSFUL *ab initio* course was held in May as well as a Eurofighter Typhoon visit/tour at Warton. Some were even lucky enough to fly the simulator. Our thanks to Willy Hackett (Assistant Rated instructor and Typhoon test pilot) for organising it. A number of pilots from Bannerdown paid a visit to our club over this week and we very much hope they enjoyed their stay. One of the clubs Student members came home to see us over the Spring Bank Holiday accompanied by a number of her colleagues from Portmoak. 'Piglet' came along with them, (yes pigs really do fly). We hope they enjoyed their time with us. Bob Pettifer ran a Bronze course over the Spring Bank Holiday Week, the weather held enough for all to get the task flights required. A successful lead up to the National Gliding Week saw club members and the club Astir on view at Preston flag market on June 11. Raising awareness of gliding among the general public, it also helped publicise Bowland Forest with a hope of encouraging younger people to get involved in gliding. Eight of our members completed an RT Licence course courtesy of Westair Flying Club, well done to all.

Tracy Joseph/Phil Punt

Bristol & Glos (Nympsfield)

WELL DONE Ray Payne and Trevor Stuart for doing 750km on May 10, the indifferent day, Richard Smith for doing 750 on the 11th, the good day, and Andy Billingham, Ian McCaveny and Martin Talbot for completing Silvers. Jon Baldock, Dominic Conway, Alison Mulder, Simon Robinson and Ed Wright all passed their Assistant Instructors course held at Nympsfield in April. Kevin Neave rejoined the ranks of the Assistant Instructors. Congratulations to all concerned for a vast amount of unpaid hard work. We are now short of Basic Instructors. Rockpolishers got off to a good start when we won at the Mynd. Fearless Fred (Ballard) did the first and second field landings of this life and won his first contest day. Michael Platt and Tim Maw landed the CFI in fields in the DG-505 after he had failed to get them around the tasks. The Std Nationals (August 20-28) is to be run by James Metcalfe and team. The club magazine, *Severn Skies*, is now on the website, www.bggc.co.uk

Bernard Smyth

Buckminster (Saltby)

THE inaugural Saltby Wood and Glass competition saw 22 gliders flying over 3600km on the May bank holiday weekend. Patience on the Monday was rewarded with 6,500ft cloudbases and off-the-clock lift. Winner in the Glass class was John Williams in his Libelle and for Wood, Jamie Whelan in his Dart. Thanks to all who helped make it a great weekend. George Rizk did his



Cranwell's Deputy Chief Flying Instructor checking the wind speed – 25kt, gusting 30kt-plus

first cross-country, a 100km triangle in the club Astir, and Caroline Bois flew to Kirtton to reclaim 'Rasher' and get her Silver distance. Dave Brooks has his five hours and Brian Griffin has flown his refurbished Skylark. The cross-country ladder is a frenzy of activity! The new hangar is progressing well. We are open seven days a week, all are welcome, please note we now use 129.975 as our contact frequency.

Chris Davison

Burn (Burn)

OUR AGM had a good turnout. The main item under discussion was the need to find a new site and all present showed commitment and enthusiasm for the objective of purchasing our own site. Our Spring Task Week only had two flying days but thanks to some inspired task setting by Dave Bell, three 300km and several 100km triangles were completed. Well done to Gary Marshall on finally winning his battle with his barograph and completing his Silver Badge and also both parts of the 100km diploma in the club PW5.

George Goodenough

Cairngorm (Feshiebridge)

MAYFEST was another resounding success with over 3,000 cross-country kilometres flown on the second week. Wednesday, May 11, with cloudbase at 7,700ft QFE (8560ft QNH) Ron Mackay, not wishing to be hurried, finally completed his Silver Badge and 100km diploma after his five-hour Silver duration 43 years ago! Craig Chathburn flew a 140km triangle in a K-8. Pete Thomson flew Silver distance for Silver completion, Chris Fiorentini flew a 100km triangle at a paltry 83km/h, Bob Forrest enjoyed a leisurely 170km before tea time, Bill Longstaff went on a Highland safari taking in Drumochter, Laggan, then across the entire Monadhliath mountain range to Inverness, before racing home in time for dinner, and Nick Norman galloped around a 299km (!), and for good measure, flew a further 100km on the same afternoon. Thursday 12th, Bob Forrest flew an enterprising 300km triangle for Diamond goal, and on the Friday, Bill and Nick flew an out and return to Crianlarich, while Alan Mossman took a trip down to Ben Nevis just for the hell of it. Thanks go out to our tuggies Ian, Chris, and Bob, duty instructor Ian Trotter, and our chefs Maggie and Luise. Octoberfest will run from September 24-October 9, 2005. Spaces are filling up rapidly so please book early by contacting Chris@capercaillie.flyer.co.uk or call 01540 673231 (no booking fee). More details at www.gliding.org

Chris Fiorentini

Chilterns Centre (RAF Halton)

CONGRATULATIONS to Nigel Smith and Ian Blythe on completing their Silvers by flying to Gransden Lodge and Ertstone respectively. We also say farewell and thank you to Ted Nurmah for his time as Centre Manager and latterly as CFI.

Andy Hyslop

Cleavelands (Dishforth)

MARK Desmond has sadly resigned as CFI and Paul Whitehead has taken on the role (albeit temporarily). The club wishes to extend heartfelt thanks to Mark for his hard work and dedication during very difficult times, and we hope he will continue to fly with us. At the AGM on 21st May, prizes went to Dick Cole (Cross-country trophy), and to the hardworking tug maintenance team of Bob Spiller and Colin Walker (CFI's trophy). 'French' Bob Crick (LUUGS) was awarded the Aspirant's trophy. The CFI also extended thanks to the 'tireless beavers' of the club, without whom it simply would not function, not least to Jim McLean and 'Debbie' Reynolds, who spend many hours in the glider workshop keeping the fleet flying. Congratulations to Fred Brown, who has soloed.

Polly Whitehead

Cornish (Perranporth)

WE are still operating from Perranporth Airfield and have formed a unique joint social club with the Perranporth Flying School. Membership means that people have access to both the flying school and gliding club. It has given us financial as well as social and flight training benefits. As a small club, we struggle on and would be delighted to welcome new members, especially if they come as gliding instructors! Persuade the family to come to Cornwall and visit us on the cliff tops and fly over the sea!

Shaunne Shaw

Cotswold (Aston Down)

DESPITE the rather poor weather so far this season one of our pundits has already managed a 500km but not many other notable cross countries as yet. Our open day during the May bank holiday was well attended and thanks to all the members who helped to make the day a success. The expedition to Portnoak at Easter was great fun but regrettably was badge-free with your scribe still hunting Diamond height. Gareth Ladd, Robert Brown and Tony Woodward have all gone solo during our course weeks this year and we have bought two additional K-8s for early solo pilots from the RAFGSA. Visiting aerobatic instructors Andy Cunningham and Don Gosdon were kind enough to bring their Fox for a sampler weekend and over a dozen club members were able to experience proper glider aerobatics. Robin Birch has completed restoration of his Cadet Mk 3 and it sits in the hangar complete with silver finish and its original ATC markings.

Frank Birlison

Cranwell (RAF Cranwell)

WE extend a sincere welcome to the Nottingham University CC who have now joined us with their fleet of aircraft, as a permanent and integral part of the gliding activities here at Cranwell (Many hands make light work!). You may have noticed that our DCFI, not to be outdone by the welcome you would receive should you travel to New York, has added his own tribute! (Or was he just checking the wind speed? 25kt gusting 30kt-plus on the day.) Club members have been actively competing in the Inter-Club League, which has been subject to the encouragement of Ged McKnight and the vagaries of the weather, which has been a mixed bag over the past few months, with fewer cross-country kilometres and flying hours being flown than in the same period last year.

Zeb Zamo

Dartmoor Gliding Society (Brentor)

FROM solo, through Silver, to Gold and Diamond goal confirmed, within a year, that's been Steve Clark's rapid progress this year, and is an achievement we should all seek to emulate, particularly since most of it was completed in South Africa! More persistence, hours in the air and sheer hard work than is possessed by any normally sane aviator have been demonstrated by Ged

Nevisky who, in his K-6e, was finally rewarded with his Silver, the first totally home-grown Silver at Brentor for many a year, well done Ged. Shortly thereafter syndicate partner Bob Jones managed his five hours in the same glider (he was last seen heading for Truro with the glider for some lucrative filming by a German film crew, and hasn't been seen since!). Another first goes to Mike Jardine, who went solo on April 24. Our thanks as ever go to the ground maintenance team who have significantly improved the performance of the 'new' winch, and have kept the airfield operational despite the rain. We continue to welcome newcomers from elsewhere, including Booker and Cudrose, and would be pleased to see members from other clubs temporarily incarcerated in the West Country 'on holiday' – we fly on Wednesdays, at weekends and bank holidays.

Martin Cropper

Deeside (Aboyne)

OUR season so far seems to have been a continuous spell of unsettled weather, and yet our flying statistics show we are exceeding our targets. This may be due in part to the popularity of the New Members' Evenings, which were successfully introduced last year, and to the Bronze Course Evenings, which are always well subscribed. Recent achievements include Ben Nicholson's first (glider) solo and Silver height for George Paterson. On the cross-country scene, there have been a few 300kms, while Roy Wilson found a decent spell one afternoon to clock another fast 500km at 109km/h.

Mary-Rose Smith

Denbigh (Denbigh)

OUR task week was not blessed with the best weather for thermal soaring, but with Cosford's tug down for the week, and some useful Welsh wave, a good number of soaring flights were achieved. Keith Butterworth is to be congratulated on getting signed off for aerotow. In June we ran a successful open weekend, with many trial lessons on both days. A charity contribution to the Make Poverty History campaign helped to increase publicity. John Sconce has completed his Cross-Country Endorsement, and is making good progress towards Silver, and Gary Jones has his Silver height. We welcome expeditions, and visitors continue to enjoy our unique combination of conditions. Want to give it a try – contact Keith in the office on 01745 813774.

Paul Jewell

Derby & Lancs (Camphill)

WELL at last some good flying weather! Mike Armstrong did Camphill's first 750km on May 11. Camphill-Cambridge-Usk-Oakington-Camphill, having warmed up the previous day with a mere 491 km. Paul Reavill has completed Silver with an out-and-return to Ferrybridge, 104 km. Rob Faulkner has re-joined and re-soloed after 35 years. We welcome Robert Theil as our summer instructor and Chris Chalmers-Brown as winch driver. We have some enthusiastic members competing in the Inter-Club League again after a few years' absence.

Dave Salmon

East Sussex (Ringmer)

OUR recent task week was blighted by poor weather but great advantage was taken of the one and only opportunity (Tuesday afternoon), which resulted in two Silver distances (Val Williams and Chris Winton) and four landouts. We refused to be deterred by:

- a) lightning strike on the fuel farm,
- b) tug carb reheat cable snapping and
- c) winch battery going flat!

Flight of the day went to Terry and Nic in the K-21, who not only got to Challock but also more impressively got back again! The gods eventually smiled and it waved all on the last day enabling massive climbs to – er, 1,900ft



Lasham's Mary Allen was sent solo by Tony Challans and dealt well with a cable break on her first solo flight

– but it felt a lot higher. The week however was an outstanding social success thanks to brilliant catering by Carol, Chris and Charlie (aged 8) and Nigel's cabaret crashing model aeroplanes! Plans are afoot for next year. Congratulations to Phil (winch burier – see p49), who is now a Basic Instructor; Jim Ball, who has gone solo; and Pete Pollard Wilkins, who has a Silver Badge. Visitors to our site should admire the new carefully-painted gateposts and refuse invitations to knock them down...

Adrian W Lyth

Essex (Ridgewell/North Weald)

MANY congratulations to Tom Fowles, Dave Carter, Darren Smith, Malcolm Elsey, Huluk Yildiz and Dave Charles on passing their Bronze written exam. Dave Charles has also achieved his two half-hour legs. Well done to you all. Although we are now at Ridgewell for the summer, our North Weald office is busy not only booking trial lessons for Ridgewell, but also taking bookings for the monthly special public weekend flights at North Weald. At Ridgewell, members are becoming current on the winch – makes a nice change from our aerotow-only home at North Weald.

Peter Perry

Essex & Suffolk (Wormingford)

ANOTHER period of uninspiring flying weather has not prevented some notable achievements. Johnny Gilbert flew a declared task from Wormingford to Abbeville in his LS3, about 270km, the novelty being the channel dash in the middle (see p19 of this issue). Well done to Malcolm Bradford, Colin Downes, Russ Tomkin and James Beach on their first solos. Also to Will Ellis, Silver distance, and Richard Robinson, BGA Cross-Country Endorsement. Paul Johnson now has an assistant rating. A great deal of work is being done upgrading our two winches and thanks go to all those involved.

Bob Godden

Fenland (RAF Marham)

THE Astir has proved its worth by doing a credible attempt at a 300. Mitch was in control and he made a valiant effort only to be let down by Mr GPS who told him that he had reached his second tumpoint only to find out later that he had been lied to by a good 1.5kms. But he was chuffed all the same. Who needs badges, anyway! Elsewhere, Gary Rose, who joined our club keen as mustard a couple of months ago has gone solo. Well done to him. We had a mini expedit to Halton. Led by Paul, he took his merry charges, Mitch and Nat, Bavers and Brenda, John DD and Mike and Sue. Lots of achievements, lots of conversions, lots of shopping and lots of fun too by the sound of it. We finally have a new BI. That'll be me then. Rick Bartlett and Graham French have been awarded Malcolm Club scholarships. The Janus is finally out of the workshop! With leather embroidered upholstery and pukka instrument panels, eventually. The trial flight nights have

Club news



Jamie McGregor of Northumbria on the day he soloed, with Instructor Dave Osborne



Jack Edwards soloed on his 16th birthday, on a Saturday, at South London GC

arrived. The first was a bit of a washout but thanks to everyone who made the effort anyway.

Graham French

Fulmar (Easterton)

FIRST congratulations this issue go to Billy Fisher, who completed his 50km to Feshiebridge – only the five hours to go now! Welcome to Roy Dalling, who takes over as The CFI after last month's AGM. Members are getting ready for the second round of the Scottish Inter-Club League, which will be at Easterton in late July, with all to play for after the first round was washed out at Portmoak. Finally, thanks to all those who helped at the recent Friends and Families day, from which we have gained some new members.

Mark Brown

Kent (Challock)

HERE in Kent, the soaring season got off to a rocketing start; with large-scale club events, including the 2005 National Vintage Glider Club Rally (see p29). We have also seen a full complement of personal achievements: David Crimmins and Lee Francis achieving BI Ratings; Paul Bateman, Richard Schofield, Andre Samuels and Dave Shearer achieving Assistant Instructor Ratings; and David Beams achieving his Full Cat Rating. Finally, 18-year-old Mirren Turnbull accomplished her Silver after a successful five-hour flight, almost compromised by heavy rain in the last 40 minutes. Mirren soloed on her 16th birthday in October 2002, and she is the youngest person so far to attain this standard ever at Kent GC. Congratulations to Mirren, and all our members above for their successes! KGC continues to flourish: to find out what's happening see www.kent-glider-club.co.uk

Darren N Palmer

Kestrel (Odiham)

CONGRATULATIONS to Shaun Davis of RAF Odiham who soloed in May. Our K-21, Discus and K-13 are in pristine condition after many months of refurbishment by Fred Field and Barry Sealey, supervised by Bernd Vermeulen. We have a new airfield caravan fitted out by Neil Armstrong and Shane Naish. The signalling box made by Shane is particularly impressive. Our season of short courses is well underway together with Friday evening flying to make use of the long days. We will be promoting gliding at the Aldershot Army show with a static display.

Simon Boyden

Lasham Gliding Society (Lasham)

AT the AGM held in April, Ross Stewart (past chairman) and Mike Miller-Smith (retiring committee member) were thanked for their excellent work. Richard Moyse was welcomed as the new chairman, and two new committee members were elected, Alistair Nunn and

John Carpenter. Mike Gee has been elected an Honorary Life Member for his brilliant service for many years as Treasurer, among his many other senior gliding executive positions. 750km flights have been achieved by Paul Kite, Andy Hall, Andy Aveling and Peter Reading. "Near misses" were 745km by Kay Draper and 730km by David Masson in our new DG-1000. Mary Allen was sent solo by Tony Challans and had a cable break. She calmly assessed the situation, did a 180° turn, and landed neatly and safely downwind. Two youth members are summer staff tug pilots, Nick Smith at Lasham and Luke Cooper-Berry at Booker. The Lasham Trust, led by Wally Kahn, having played a vital role in the purchase of the airfield, has supported the development of the flight simulator, and is now backing the disability flying initiative. We sadly report the death of Phil Phillips (ex-manager, acting CFI and ex-RAF Instructor), David Carrow (past chairman), John Wilkins (club member), and Henry McKinnon (past member). We miss them all.

Tony Segal

Lakes (Walney Island)

JUNE is with us and the weather steadily improves as we move to the longest day. May allowed us to get some good flying in, however, the highlight was the new members who joined. One in particular went solo. Our newest member, Kate Frost, is pictured on p55 after her first solo flight following a PhD induced lay-off. Kate went solo on her 16th birthday but her studies then got in the way (she is keeping the exact time gap a strict secret but we are not thinking plywood and goggles here). Now a local resident, she has been delighted with our club facilities and very warm welcome. Towing out over the sea and estuary makes Walney a truly unique site. An early flight took her straight into 10kt lift in wave to a glorious view of the Lakes.

Phil Storer

Lincolnshire (Strubby)

THE club flying week in May was a great success with flying on most days and some good soaring. Members also enjoyed an expedition to Sherington, where we were well looked after. On this trip Keith Brown flew a Silver distance in his K-6. Recent Wednesday flying has brought us some very good soaring conditions with the sea breeze convergence camping over the airfield and giving us exceptional conditions.

Dick Skerry

London (Dunstable)

CONGRATULATIONS to 16-year-old Steve Mills who went solo on his 16th birthday sent by his instructor brother Andy and aerotowed up by father Trevor. The Junior Worlds will see our cadet Andy May competing – we wish him luck. Robin May, Ed Downham, Carr

Withall, Barry Flower, Roger Colbett, Paul Watson, Tom Rose and Trevor Mills drove to Schanis, south-east of Zurich, in late May. Fairly good weather enabled them to do some good flights with Ed Downham breaking his own British National out-and-return record with 840km. Several other notable tasks took place including one by Tom Rose who flew 440km in a Standard Libelle on his first mountain flight – pretty impressive stuff!

Geoff Moore

Mendip (Halesland)

MOTHER Nature was very unkind when she produced unflyable weather for our open day and super soaring conditions a day later. Our hotshot pilots made the long journey north on their expedition to Sutton Bank. Although conditions were far from ideal, the Astir CS syndicate at last got the opportunity of flying their new acquisition and Yorkshire's DG-1000 proved irresistible to the now pearlless Terry Hatton. Meanwhile, back at home we were experiencing wave conditions which got one of the K-13s to the seaside at 4000ft over Burnham.

Keith Simmons

Midland (The Long Mynd)

IN the wake of Enterprise we still have a Task Week to come from August 20-28. The lottery of an English summer could well mean it's an Indian one and there is yet time for late entries. The 'Right to roam' negotiations are nearly completed with one small area of club land still being discussed. It's a question of definitions over what is a 'registered common'. We have a new tug pilot, David Hallsworth, and the tugmaster has been debating whether to feed him. Colin Knox has worked his magic and there is a brand new retrieve winch now operating. As many visitors know the system at its best can launch one glider every two minutes. Committee reshuffles never make headlines but a warm welcome back to old workhorses John Parry as secretary and Keith Mansell (who?) as treasurer. Just to restate the obvious; the Mynd in summer is a memorable place. Come and find out.

Roland Bailey

Nene Valley (Upwood)

THE Annual Friendly Bowling Competition with Welland GC was at Wellingborough, the results were Nene Valley won. Our mini task week was successful as we achieved 59 launches in 11 aircraft generating 55hrs 4 mins and a claimed 382km; Steve Jarvis got his 50km Silver distance. Peter Cappleman, after a break of four years, has resoloed and Ian Taylor, BI from Feshiebridge, has joined us our instructor team. Looks like Cranwell and Marham aren't the only clubs in East Anglia to have had wave this year: NVGC also had wave: one lucky pilot got 1 hr 11 mins trekking it. Spring Wave Camp next year!

Dave Mansfield

Newark & Notts (Winthorpe)

OVER our first Bank Holiday flying week of the year we seemed to spend more time working on trailers than flying. However, Ashley Sherwin and Nick Taylor still managed to solo. Mike Willett has also gone solo in the Motor Falke. Adam Thornton has managed to get a two hour long flight towards his Bronze. Our new CASC status has resulted in there being no council rates to pay this year. Flushed with success, the treasurer has splashed out on a share in an ASW 15.

Noel Kerr

Norfolk (Tibbenham)

WADE Leader and John Roche-Kelly have Bronze Badges. Phil Sillett, Tim Davies and Ben Magnani should soon be Assistant rated instructors, whilst Will Day, Mike Helliwell and Nick Owen will soon be on BI courses led by our resident Regional Examiner, Dave Munro. Andy Vidion (CFI) is certainly getting things underway in the training department! Phill Burton is working hard on the organisation of the fun and games for National Gliding Week. Our Spring task week was a washout, but we are lying second in the Inter-Club League as I write, largely thanks to the brave efforts of Peter Ryland. This year's Eastern Regionals (August 6-14) will be the last one to be run by Woody, Bonnie and the team. Our thanks for all their hard work over an incredible 15 consecutive years of running Regional and National Championships at Tibbenham.

Ray Hart

North Wales (Llantisilio)

I START with thanks to Brian Portlock, who has filled this space for some years. The early part of this year saw us honing our crosswind landing skills, now summer has arrived we are looking forward to making up for lost time. With our Blanik and K-7M up and running plus the K-8 and a Skylark 4, which is about to make a comeback after four seasons off line, the fleet should give us a good crack of the whip (weather permitting). We welcomed another new member recently – Nigel Jardine – bringing with him a T-31 in need of some TLC, plus a mobile workshop container and spare; these he will donate to the club when he has finished, thank you Nigel. Our youngest member Matt Hogan has made the maximum height gain allowed over our airfield, as P2 he is finding it hard to contain himself waiting for his 16th Birthday present, his first solo flight. Our recent club week was supported well: again the weather could have been a little kinder but on days we could not fly at least we were able to do some overdue jobs about the airfield.

Brian Williams

Northumbria (Currock Hill)

THE boundaries for our flying have been changed under a new agreement with Newcastle International Airport. The agreement allows us an acceptable degree of freedom within Class D airspace to the west and south of our airfield at Currock Hill, while safeguarding commercial flights' approach to runway 07 and climb-out from runway 25. We have a three-month trial period before the changes become permanent. Frank McLoughlin achieved an impressive flight of five hours and 17 minutes in his Pirat during the club's successful week at Portmoak in May. It's been a good time for younger members too. Stewart Campbell, 23, got his first Bronze leg with a 40 minute solo flight on the same day as he flew the club's Astir for the first time. And on the same day Chris Storey, 17, also had his first flight in the Astir. Jamie McGregor, 17 - already qualified to fly powered aircraft - later went solo in a Puchacz. Congratulations too to Don Welsh, Ian Plant and Ailsa Cooper, who have all qualified as assistant instructors.

Richard Harris

Nottingham University (Cranwell)

ON our annual trip to Portmoak, almost every day was



The Soaring Centre's Chris Cordwell, who soloed on his 16th birthday, with Dave Booth (Jonathan Walker)

flyable and plenty of ridge soaring, socialising and drinking was done by all. We said our goodbyes to Four Counties GC with an eventful farewell barbecue in May, after 15 brilliant years, which have seen NUGC go from strength to strength. Many of our members who had never flown before have now gone on to do very well in national competitions, and in some cases are instructing new members themselves. We owe much of this success to Four Counties, and wish them all the best in the future. Congratulations to Nick Selby, who went solo just before the move. NUGC now flies from RAF Cranwell with Cranwell GC. We arrived in style, breaking their launch records for a single day's flying and staying over for the whole bank holiday weekend. Cranwell have made us feel very welcome, and have even trusted Scott with their K-18, for his first flight in a single-seater. This year's president, Pete, decided that our first day there would be the perfect opportunity to show Cranwell how Intelligent students really were, and promptly landed our Astir wheels up. John Vadden has taken Pete's place as president for the next year, with the rest of the committee changing hands as well. Several members have been flying the Inter-Club League, with the weather not doing us any favours. We are looking forward to the Inter Units, jointly hosted by us and Durham Uni, and to our future at Cranwell.

Chris Emerson

Portsmouth Naval (Lee-On-Solent)

AS spring passes into summer, our club has come to resemble a nomadic tribe with many members away on expeditions. The furthest flung was a RNCGA trip to Spain. With the help of some detailed planning and P&O ferries, all the gliders, equipment, luggage and members converged on Ocana. Over the two weeks of soaring some 35 BGA/FAI badge claims were made by pilots including Nick Lambert, Andy Edney, Mike Wood, Danny McGrain, John Moore, Grant Bentley, Bill Blundel and Steve Moore. Everybody had a great time and we are already planning a bigger expedition next year. Mark Holden and our CFI Tony World extended their stay in Spain to compete in the Overseas Nationals where Mark finished a creditable 6th. Closer to home we have had expeditions to Keevil and Yeovilton. While the English weather can't compete with Spain (especially on Bank Holidays), our visits were no less enjoyable and our thanks go to both clubs for their hospitality. While much of the club was away, the Southampton University students have returned their K-8 to flying status after inspection problems with its

wings. Another new arrival is Sam and Andy Hepburn's Cadet Mk 3 which is allowing some of our members to sample the performance and handling of an earlier time – albeit not for long.

Steve Morgan

Peterborough & Spalding (Crowland)

FINALLY the weather has started to improve and we hope to see as many gliders as possible in the air. Our airfield is in excellent shape as are our gliders and tugs. Ant Halifax has converted to our Astir CS and Brian Wingate and Matt Bell are flying their first single-seater, our Pirat. Nick White has finally completed his Bronze and we should see him in his Pirat on cross-country flights soon. Our CFI's Jantar 1 is back from a full refurbishment and looks very good indeed. We look forward to our flying week (August 27-September 4) and having some fun. Visitors are as always welcome, be it for a trial flight or for glider pilots from other clubs to practise aerotowing. Our modellers continue to entertain us with stunning displays in the evenings.

Robert Theil

Scottish Gliding Union (Portmoak)

BY the time you read this we will, hopefully, have our brand new Junior on site. This aircraft is a replacement for a very popular old friend Junior FUS, which is now up for sale. Our other Junior (HRG) and our Pegase 90 have been put to good use by club members and visitors alike during the summer. We are running a Silver distance cross-country course from September 11-16. Our winter evening lectures included R/T courses and the first batch of achievements reported include those pilots now in possession of their R/T licence: Mike Cartney, Evan Pole and Jim Matlocks (RT Licence); Iain Duncan and Gordon Hunter (Bronze), Martin Ling (Bronze plus Cross-country Endorsement), Nigel Gough and John Guy (Gold height), visitor Frank McLoughlin (Silver duration) and last but by no means least Ron Mackie, who achieved his Silver with 100km diploma (52-and-a-half years after his solo) – just goes to show what a bit of determination can achieve.

Ian Easson

Shalbourne Soaring Society (Rivar Hill)

CONGRATULATIONS to James Hunneman for his solo and then rapid conversion to the club Astir, Derek Young for going solo (you try flying with a hand rudder!); we just need to modify a K-8 now), Phil Zelazowski for his solo, Alex Mackay and Gordon Shepherd for re-soloing after a break. I am sure that the rapidly growing number of Wednesday flyers is all due to Peter Mason's fathomless generosity with doughnut contributions. Sadly Ayala Liran has not been able to keep up her 100% record for landing out this year; she did actually complete a task at the end of May. Interclub (scrub?) fell victim to the weather, but we were buoyed by an excellent cross-country lecture session delivered by Jerry Pack, Steve Barber and Liz Sparrow. Liz gave us a great presentation about Team GB and their tactics for later this summer in Germany at the World Championships, of which she is a part.

Simon Holland

Shenington (Shenington)

THE big change at Shenington is the appearance of Glidex on the launchpoint bus, thanks to all Roy Colman's hard work. He has spent a staggering amount of time reconciling all our old paperwork. A few of us are flummoxed by all this new technology so Rita Sanford and Kathryn Bambrook among others are helping us to cope. We welcomed visitors from Lincolnshire GC. The Blue Grob 109 is now less blue. Apparently our CAA doesn't approve covering plastic surfaces exposed to sunlight in dark blue paint. Congratulations to John Whiting for his high standing in the Overseas Nationals.

Mary Meagher

Club news



Mike Cater (centre) being thanked for his sterling efforts as **Hus Bos** CFI with new CFI Joe Horwood (right) and the then chairman, Jonathan Walker (left)

➤ Shropshire Soaring Group (Sleep)

WE were all deeply saddened to hear of the death of Charles Webb on June 11. Charles and Ella have been among the strong foundations of our group since its move to Sleep around 30 years ago. We congratulate Alistair Gillson, our new CFI, on his NPPL. Our Thursday evening get-togethers coincide with Shropshire Aero Club evenings and are becoming extremely popular, with lots of new faces taking trial lessons. Weekend weather has frequently been less than kind, but there have been some very successful midweek days with excellent cross-country results. We are seeing continued support from our younger members. As the swallows arrive, around a quarter of our membership decides to reverse the flow by going to France and Spain. I have managed around 35 hours in my newly arrived Chevron since mid April, but contrary to rumours spread by Ric Prestwich, we were not overtaken by a duck.

Keith Field

South London (Kenley)

OUR CFI and club manager, Peter Poole, has had to have a hip replacement but we are pleased to say, is making excellent progress. Other instructors, in particular Tim Barr-Smith and Richard Fitch, have been providing coverage while Peter is grounded. Congratulations go to Jack Edwards who achieved his first solo on his sixteenth birthday, on a Saturday. As Saturday is a day when Kenley is usually used exclusively for Air Cadet training, our thanks go to the CO of 615 VGS who allowed us to have an early morning slot to get Jack in the air. Congratulations also to Mick Ely on Bronze. Optimism is being raised by negotiations in hand, which may see us doing some weekend flying in the summer. Watch this space.

Peter Bolton

Southdown (Parham)

WE are delighted to report we have recruited 35 new members so far this year, and the market analysts are



Windrushers: Evelyn Davies, who edits the **Oxford University GC's** newsletter, went solo over Easter

trying to pinpoint the reason. Our 75th anniversary is widely known in the area, but one theory is that the dropping of the joining fee may have something to do with it! We also have 14 new bursary students and Southdown continues its policy of getting the local youth involved in gliding. We sent a group to Aston Down recently and they secretly arranged for a massed balloon landing on our final day. We were amazed to find the clubhouse enveloped by a red balloon but, anxious to hide our ignorance of the art, we were reluctant to ask whether this was standard procedure? Messrs. Barker and Westgate, fresh from their out and return to Mount Etna, took their DG-400s across the channel en route to North Africa (*This will be reported in full in a future issue of S&G in another Travels with my Toothbrush series from Guy*). Sadly, we have to report the death of Peter Clowes, who fought a long and difficult battle with cancer. He was a gentle man in every sense, and our condolences are sent to Monique and the family.

Peter J Holloway

Seighford (Staffordshire)

IT is with great regret we report the sad loss of our longest-standing member, Charles Webb, after a short illness. Our immediate thoughts are with his wife Ella and family at this time. It is difficult to imagine Staffordshire GC without Charles. It's the end of an era and he will be greatly missed. Following a slow start to the soaring season, congratulations to Paul Cooper for claiming the 100km Early Bird Trophy at the end of April. Rangi de Abaffy is again at the top of the club ladder, having completed flights of 300 and 200km. Many thanks to all the helpers on the Open Days. A total of 82 visitors took to the air over the two days – a great effort! Congratulations to Dan Yates for his Bronze leg, and to Alan Jolly, now an Assistant Instructor. Thanks to Louise O'Grady and helpers for another fantastic Hangar Dance. We are currently looking forward to a number of soaring and flying weeks, including our Sponsored Cadetship – free flying to solo standard for young pilots aged 16-18 (please see www.staffordshiregliding.co.uk for more info).

Paul (Barney) Crump

Stratford on Avon (Snitterfield)

THE expedition to Sutton Bank resulted in some creditable flying for Phil Collier, Lee Ingram, Sharon Kerby, Phil Pickett and David Searle, who found themselves at or above Gold height on the same day. Rob Barlow (K-8) and Paul McCauley (ASW 15) clinched their five hours to claim Silver duration. Congratulations to all. Nearer home, Stratford has been busy mowing the lawn (100-plus acres) a constant battle for those hardy souls manning the big tractors/mowers. Thank you guys, you know who you are. The club ladder is well under way with Dave Benton, Mike Coffee, Martyn Davies, Barry Kerby and Phil Pickett battling it out for the top slots but we do of course rub it in that the weekday pilots have advantages over those poor souls who have to graft for a living! We are very pleased to learn that Laura Maksymowicz has been awarded a 250 pounds Caroline Trust Bursary to finance her future flying development. Laura is now at York University, flies at Rufforth, and returns to us during vacations. This bursary is available for female and disabled pilots aged 16-21 years on application by suitable candidates. Finally, well done Andy Kelly on first solos at Snitterfield plus belated thanks to our new site manager, Chris Bingham, on various engineering projects completed as planned.

Harry Williams

Trent Valley (Kirton in Lindsey)

VARIABLE weather in May and June made it difficult for pilots to achieve many cross-country flights. However, Gordon Bowes did manage 300km in his K-6. We completed the first leg of the wood and glass



Brian McDonnell presents **Welland's** Steve Burgess with his wings on his 16th birthday in April. By June, Steve had Bronze legs, longer hair and Silver height...

competition with Buckminster GC at Saltby. I'm sure I speak for all those from Trent Valley to say we had a great time with a welcome barbecue on the Saturday night; thank you. Saturday was, unfortunately, a non-flying day due to the high winds, but our team are currently leading. We are looking forward very much to the return leg, to be hosted at Trent Valley. Members are looking forward to a presentation from our neighbours, the Red Arrows. To help commemorate our 40th anniversary year, a visit by a T-31 (the club's first type) has been arranged for August to enable members to experience the club's early years.

Janet Holland

The Soaring Centre (Hus Bos)

CONGRATULATIONS to Chris Cordwell, a cadet who flew solo on his 16th birthday, to Mike Newton and Phillip Kendall, who both went solo, Ed Johnson on completing his Silver, and Patrick Musto on his Diamond goal. Linda Johnston has re-soloed. Malcolm Guard flew the first 300km of the season (also the first 300km off the winch), and Adrian Hatton completed his 750km on a cracking day in May. Interestingly Tony Lintott recently took his father flying, aged 91, which gave them a combined cockpit age of 155 years! We have three new basic instructors – Adam Gilmore, Richard Gardiner and Roy Carter, and two new full rated instructors – Tom Burton and Roy Spreckley. Well done to Russell Cheetham on coming second at the Overseas Nationals in Ocana, Spain in May. The 4th Junior World Gliding Championships are being held at the club from August 6-20. We have more than 60 pilots from 17 countries attending. All visitors are most welcome – it should be a fabulous competition!

Siobhan Crabb

Ulster (Bellarena)

THE official launch of our new DG-505 in April went very well, with the weather holding to permit guests to view our operation and facilities. Pat Toal, Permanent Secretary of the Department of Agriculture and Rural



Emily Sage with her instructor Chris Wick after her first solo at **Upavon** – on her 16th birthday

Development, officiated at the launch and mentioned the valuable contribution gliding made to NI tourism before taking his first flight. As he remarked at the time he had been to many launches but this was the first time he had launched himself! A lot of hard work went into organising this event and particular thanks go to Jay Nethercott, Alan Mc Killen, Tom Snoddy and last but not least to Mairie Mc Killen, who did a first-class job on the catering. The second visit to our site by Walking on Air was again well supported but sadly poor weather interfered with the flying. Thanks go to Joe Fisher and all his team for their continued and untiring dedication and commitment to ensuring that people with a disability are afforded the opportunity to enjoy our sport. The expedition to BIRR in Co Offaly for the Irish National Gliding Comps at the end of May was also sadly hostage to poor weather. Nevertheless some cross-country tasks were accomplished. Particular thanks to Jimmy Weston for organising the expedition. As they say in this part of the world, flying aside, the "craic was mighty"!

Seamus Doran

Vale of White Horse (Sandhill Farm)

THIS year our week-long cross-country competition got off to a good start with three task days, but that proved to be it. However our entrants thoroughly enjoyed themselves and there is no doubt that competitive flying like this stretches peoples' abilities and encourages them to build up their performance. Congratulations go to our winner, Tony McNicholas, with a convincing overall win, coming first on two of the three task days and second on the other day. Our thanks go to Steve Nash who, just as he did last year, very ably took on the role of task-setter, and to everyone else who helped during the week. Next year perhaps the weather will co-operate!

Graham Turner

Welland (Lyveden)

WITH the soaring season upon us Michael Neal is at the head of the Club Ladder with Mark Rushton in hot contention. We have a new Full rated instructor and CFI in Mark Prickett and Paul Cronk has his Assistant Rating. The club now has a Grob II with a trailer as well as using the private one so cross-country instruction is planned. Stephen Burgess finally went solo on his 16th Birthday in April and now in June has his Bronze flights and a Silver height. Our flying week starts on August 6; I hope it will be drier than last year's.

Strzeb

Windrushers (Bicester)

JULY sees the end of the first very successful year of Windrushers GC - the club continues to go from strength to strength and new members are always welcome (please email fly@windrushers.org.uk). We're also pleased to welcome The Faulkes Flying Foundation, which is now operating from Bicester. Recent flying achievements include solos by Rhian Thomas and Evelyn Davies and Silver durations by Felix Hoffman, Clive Dalzell and Paul McCormack (who also gained Silver height). Thanks to John Matcham for the great job installing our fuelling station - we can now offer fuel to visiting and resident powered aircraft - and farewell to Marie Norman, who is retiring after eight years as our airfield cook.

Rachel Brewin

Wrekin (RAF Cosford)

WE have had a number of attempts at 300km and 500km flights from Cosford by Paul Holdnal, Stu Duncan, Geoff Matthews and Mike Osborn. However, the Cheshire Gap has played a significant part for those unable to get back to site. Steve Briggs is valiantly trying to complete his 50km, with his first successful field landing now under his belt. (Bilford is south of here, just follow the M5!). RAF Cosford held its yearly Air Day, at which we displayed the BGA gliding simulator.

This is a great bit of kit and I recommend any club hosting or being part of a display to use it. We had fantastic feedback from parents, young kids and computer simulator trained teenagers, who were more than able to take off and land. (Us instructors had a pretty good time of it too). By the time you have read this we will have completed our longest day fly-in on June 18, followed by barbecue and party. Some members are involved with up and coming competitions and various rallies, so we wish them good luck.

Trev Cook

Wyvern (Upavon)

IN the first heat of the South-West Area Inter-Club League at North Hill, we gained a narrow one-point lead thanks to an intermediate class win by Terry King and two second places by novice entry Will Chappel. The second heat at Shalbourne was scrubbed by bad weather. In the third heat at Mendip Tochi Marwaha won the intermediate class, leaving WGC lying second to Bath, Wilts & North Dorset GC by two points. Meanwhile at Upavon, Steve Sorbie achieved a first solo after many years away from gliding and Paul Jessop completed his Bronze and Silver distance to Lasham. Congratulations also to the chairman's daughter, Emily Sage, who, taking a break from her GCSE exams, went solo on her 16th birthday. The new DG-1000 arrived in early June and soon took to the skies. Many conversions have taken place and all who have flown it have been impressed with its handling and performance, although our more vertically challenged pilots are finding that climbing aboard requires a head for heights.

Andy Gibson

York (Rufforth)

MIKE Cohler has now stood down as CFI and ace news correspondent to S&G. We thank Mike for all his hard work and dedication over the years and hope to see him as a regular club member from time to time. Mike is replaced as CFI by Richard Kalin, who has proved keen to keep us all current, competitive and safe. Richard himself managed an inspiring 500km on Bank Holiday Monday. With several Bronze pilots keen to make it to Silver this summer, Richard's focus on cross-country training has been well received, only to be confounded by some pretty appalling weather. Nevertheless, there have been a number of successes with Craig Olley achieving his Silver height and Andrew Batty getting his five hours in thermals in sub-zero conditions. The rejuvenated club Venture T-61 motorglider has seen some real action, not least for field landing checks, which proved timely for at least two of our increasingly ambitious Silver seekers. Congratulations also to Andrew Hutchinson who returned to solo after a long lay-off from gliding and to the increasingly active Yorkshire Inter-club League team. And finally, I'm not going to tell you anything about the clubhouse in this edition. Nothing at all!

Keith Batty

Yorkshire (Sutton Bank)

CONGRATULATIONS to Liam Watt (five hours), David Ashby (Diamond distance), Albert Newberry (Gold and Diamond distance), David Everett (Silver height and five hours) and John Marsh (Silver distance, completing his Silver). We've had a Bank Holiday and Inter-Club League weekend with three flying days! Congratulations to all who took part, and to the two visiting pilots who achieved part of their 100km diploma. Let's hope that this is the start of things to come. We have, however, had an incursion into airspace; this has been dealt with by the club in the appropriate manner. I would also like to welcome Joseline, our new office lady, I am sure that she will be a great asset to the club. Remember the Northerns are just around the corner and if you've not entered yet, contact the club for further details.

Marian Stanley

Jock Forbes - RAFGSA

JOCK Forbes (1920-2005), one the five founder members of the RAFGSA, has died aged 84 at his Texas home. Jock began gliding at Saltzgitter in 1945 while serving in the RAF and became a brilliant CFI there. His first contest was at Oerlinghausen in 1947. In a 1948 contest at Fassberg, he pioneered the use of radio in a glider, became the first RAF man to achieve a Gold C, and broke the British record for goal distance with a flight to Cologne. He flew a Weihe for Britain in the 1948 International Contest at Samedan, Switzerland, where he came 17th, was the best placed Briton in the 1950 Worlds in Orebro, Sweden, and - this time in a Slingsby 5ky - was beaten into third place by just five points at the 1952 Worlds in Madrid. He was present at a meeting in The Air Ministry in Whitehall on December 15, 1949 when the RAFGSA was born, under the chairmanship of Christopher Paul. In 1953 he retired from the RAF and from gliding, and went to the USA to seek a new life, for a time editing *Soaring*, the publication of the Soaring Society of America. Jock Forbes enjoyed an all-too-brief but brilliant gliding career, and the RAFGSA owes him a great debt for his early work with them.

Ian Macfadyen

Reg Ludgate - The Soaring Centre

REG Ludgate (1918-2005), who passed away in February, was one of those people who are the backbone of gliding. He joined the then Coventry GC in 1957, became an instructor in 1960 and was instrumental in buying the club's present site. In 1978 he took on, for the second time, the role of Technical Officer, which he held until his retirement, and the job of full-time instructor, which he did for over ten years. He was also a committee member and assistant CFI. His outstanding devotion and service were recognised when the club made him an honorary life member. Many of today's pilots have reason to be grateful for Reg's own special skills. His words of wisdom to a new, green CFI still resonate: "You can be a good CFI or you can be a popular one but you cannot be both!"

Ron Davidson

Phil Phillips - Lasham

IT IS with great sadness that we report that Phil Phillips (1935-2005) died on Friday, May 6. Of the dozen general managers employed by Lasham Gliding Society, David John Phillips was quite remarkable. He was not only the most universally loved, respected and admired of them all but he also stayed at his post for more than 13 years from 1982-1996. To have been able to cope with us members for so long is surely an outstanding achievement. For a time he also undertook the duties of CFI. Phil was the consummate airman - having started as an Engineering Apprentice with De Havilland before joining BOAC as a Flight Engineer. He joined the RAF in 1957. Serving first as an Engineer Officer, he was selected for pilot training in 1962. An accomplished instructor, he and his pupil were forced to bale out of their Jet Provost on one occasion after a bird strike. He retired from the RAF in 1979 and in 1982 joined Lasham. As well as his duties here, he quietly but very effectively contributed to the BGA's accident investigation team and flight safety committee. He was very active in the Popular Flying Association and was in charge of a number of their annual huge fly-in meetings at Cranfield. There is no doubt of Phil's contribution to Lasham's growth and success and his recent election as an Honorary Life Member showed our appreciation.

Wally Kahn

Ken O'Riley - Kent, Lasham, CSGC

OLDER pilots will remember Ken (1918-2005), especially if they flew at Detling, Lasham or Farnborough. He started instructing with the ATC, became CFI of Kent GC when it reformed in 1956, then of Lasham briefly in the 1960s. More recently, he was CFI of the Civil Service club at Farnborough. He died in May after a long illness and will be missed by his friends and family.

Nigel Stevenson

LAWS & RULES – QUIZ ANSWERS

The questions on page 25 cover some of the changes to the latest *Laws & Rules* as well as a small number of pre-existing rules. Our thanks to Bill Dean for researching the questions and answers. For the full story, you really need your own copy – see the answer to question 25, below...

1) Preface p3:

Additional information and rules concerning licensing and operational safety is contained in the CAA publication, LASORS (Licensing; Administration; Standardisation; Operating Requirements and Safety). LASORS is updated on a regular basis. At the date of publication of this 15th edition of Laws and Rules, the current edition of LASORS is the 2005 edition. LASORS is available in printed form from TSO (The Stationery Office); a PDF can be downloaded from the CAA web site at <http://www.caa.co.uk/docs/33/LASORS2005.PDF>

2) Preface p3:

Within the lifetime of this edition of *Laws & Rules*, elements of EU Regulations affecting airworthiness and maintenance of gliders and pilot qualifications, which are under development at the time of publication, may become effective and apply to BGA gliders and glider pilots. All pilots and owners are recommended to check the current situation with the BGA from time to time. Details will be available on the BGA website as appropriate.

3) Operational Regulation 1.8 p4-5:

Aircraft and gliders are required to comply with both EC Regulations and BGA Operating Regulations. EC Regulation 785 requires aircraft and gliders to be covered by third party insurance, full details of which are in the regulation. All gliders shall be covered by insurance for at least the minimum amounts that shall be decided from time to time by the BGA Executive Committee. These insurances shall be extended to cover the legal liability of the pilot while flying or otherwise operating the aircraft and the legal liability of the individual members of the insured club/syndicate to each other. At the time of publication, the minimum specified third party insurance including EC mandatory third party insurance requirements is:

Single seat	£1,000,000 third party
Single seat, 300kg MTOM and above	£1,300,000 third party
Two seat combined policy of	£2,000,000 third party
second seat with minimum 'passenger' seat allocation of 100,000 SDR (equivalent to approximately £85,000)	

4) 6.8 p11:

Pilots must take all reasonable steps to ensure that oxygen is used during any period when the glider is flying above Flight Level 100 (ANU 2000 Art 45)

5) Recommended Practice 31 p59:

For flights above 10,000ft amsl all pilots are recommended to use a supplementary oxygen supply with a visible contents gauge. In the event of illness in the air from any cause, a descent should be made to below 10,000ft amsl.

6) 6.18 p14:

There is a form to complete after flying through Class D airspace to provide statistics for both the BGA and the CAA. The form can be downloaded from the BGA web site (www.gliding.co.uk).

7) Operational Regulation 5.10 p10:

When aero-towing, the tug pilot shall indicate that the glider's airbrakes are open (or that the glider's drogue parachute is deployed) by wagging the rudder.

8) 11.2 p27:

Towing using a van or motorcaravan will normally require a driving licence C1 or C1+E category depending on trailer weight. On reaching age 70, you lose all except B, B+E (and Auto) unless you obtain medical certification at three-yearly

intervals. The requirement is the same as that for solo glider pilots (see Part 2.14), but must be submitted on DVLA Form D4.

9) 11.6 p30:

It is an offence in most Continental countries to carry any form of equipment that detects the presence of speed cameras. It is also an offence to indicate the presence of such cameras to other motorists.

10) 14.6 p41:

Instructors (in gliders) must certify to DVLA Group 2 standards and have this declaration endorsed by a GP. Renewals are at the same frequency as for solo pilots above. Professional instructors are still required to hold a JAA Class 2 medical certificate under CAA rules.

If an instructor cannot meet DVLA Group 2 standards, but can meet DVLA Group 1 standards, or is 70 or over, that instructor can continue as a Restricted Instructor (see below) subject to the consent of the Senior Regional Examiner.

Any instructor who holds a JAR Class 2 medical certificate, may continue to instruct within the limits of his rating, on reaching his 70th birthday.

The restricted instructor rating requires DVLA Group 1 standards to be met (and endorsed by a GP). Restricted instructors may undertake ground training and advanced instruction where the pupil pilot could reasonably be expected to make a successful landing following any incapacity of the instructor.

11) 15.5 p47:

The BGA MGIR Requirements:

- BGA Full Instructor Rating (gliders) or, for BGA MGIR Stage 1 only, a BGA Assistant Instructor Rating (gliders)
- Current SLMG PPL or PPL with SLMG or TMC rating or NPPA (SLMG)

12) 15.5 p47:

Stage 1 - Glider and Engine handling, upper air exercises, circuits, approaches and landings

13) 17.11 p51-52:

(b) Understanding and recognition of the symptoms of the stall, stall with wing drop and full spin, followed by the correct recovery. If sufficient height is not available for the full spin, then practice to the stall with wing drop stage is acceptable.

14) 17.11 p 52:

(d) Two field landings into a field or, if a suitable field is not adjacent to the club site, into a marked area of the airfield. The altimeter should be covered or the millibar scale offset for this practice. If a marked area of the airfield is used, it must be so chosen that there is little or no undershoot and that the circuit and approach do not coincide with the normal circuit and approach to the airfield. The test may be carried out in a motor glider.

15) Recommended Practice 1 p54:

A glider should not be moved without crew on the into-wind pit and at the nose unless towed by a vehicle using a rigid towbar and wingtip wheel. If towed by a vehicle using a tow rope, the tow rope should have a minimum length greater than the glider's semi-span.

16) Recommended Practice 2 p54:

A glider should be parked across wind so that any gusts or unexpected shifts of wind will come from aft not forward of the wing. Lightweight gliders should be parked with the into-wind wing upwind and the tail skid/wheel picketed or blocked on its lee side. A tyre jammed under the nose will help to prevent the tail jumping over the block in gusts. Heavier gliders, typically modern GRP types, can be parked with the downwind wing on the ground.

17) Recommended Practice 15 p 56:

The BGA recommended cockpit pre-flight check is:

- C - CONTROLS working freely and in the correct sense.
- B - BALLAST securely fastened; correct cockpit load.
- S - STRAPS/Harness for occupant(s) done up correctly and tightly.
- I - INSTRUMENTS working and set as required.
- F - FLAPS check operation and set for take-off.
- T - TRIM check operation and set for take-off.
- C - CANOPY shut and properly locked.
- B - BRAKES check operation, closed and properly locked.
- E - EVENTUALITIES consider launch failure and other options.

It will be noted that this procedure makes 'Eventualities' the final check before takeoff.

18) Recommended Practice 15 p56:

On motor gliders, the glider cockpit check should be followed by:

- P - Petrol on and enough for the flight.
- P - Propeller un-feathered or free. People clear.
- T - Throttle and mixture set.
- I - Ignition on contact.
- E - Engine eventualities.
- Who will deal with an engine problem on the climb out?
- What actions will be taken?
- Where is the safest option?
- When should the PIC risk a turn-back? (wind dependent).

19) Recommended Practice 26 p58:

The fitting of systems that warn the pilot of a glider that the undercarriage is not lowered during the landing approach IS NOT RECOMMENDED. This is because if such a system is fitted and is activated then the pilot is likely to attempt to lower the undercarriage during the final stages of landing. This could result in mishandling the aircraft, so causing an accident.

20) Recommended Practice 26 p58:

It is also recommended that if the glider is seen on the approach wheel-up, no attempt is made to warn that pilot, using radio or other means, for the same reason. The pilot should be allowed to land wheel-up.

21) Recommended Practice 33 p59:

Gliders should use one of the following displayed numbers, given in order of preference: Registration letters where a glider is registered with the UK CAA; Competition alpha-numeric number; the Trigraph (T/C) also known as "Three Letter Coding", all with the optional suffix 'GLIDER'.

Aeronautical Ground Stations

- Vehicles - Should use either the suffix 'MOBILE', or 'RETRIEVAL'
- Portables - Should use the suffix 'MOBILE', 'WINCH', 'LAUNCH' or 'LAUNCHPOINT' where a portable station is used at the winching or launching point in addition to the fixed station.
- Fixed - Should use either the suffix 'BASE' or 'GLIDER BASE'

22) Recommended Practice 34 p 60:

130.1 MHz

Primary Use: Competition start and finish lines; Local and other flying. Secondary use: Training (lead and follow).

23) Recommended Practice 34 p 60:

129.975 MHz -- As a control frequency within a 10NM radius and up to a height of 3,000ft above certain approved airfields. (Common Glider Field Frequency)

24) Recommended Practice 34 p 60:

This frequency is shared and used for communications associated with parachuting, hang gliding and para gliding.

25)

The latest edition of *Laws & Rules*, the 15th, can be ordered from the BGA Shop (0116 253 1051), priced £2.25, plus 50p P&P. You can also order via www.gliding.co.uk



In the second instalment of our regular series gleaned from UK Air Accident Investigation Branch bulletins, here are two recent gliding-related AAIB summaries

Registration: G-BRCG
Type: Grob G109
Location: Pocklington Airfield,
 East Yorkshire
Date: 06 March 2005

Summary: After an uneventful navigational exercise from Gamston, the pilot flew a shallower than normal approach to asphalt Runway 36 at Pocklington. The surface wind was 020°/10kt and the runway was dry. The approach was flown at 60-65kt with the throttle at idle and the airbrake marginally open; stabilising the approach on this type of motorglider. At approximately 100ft AGL the aircraft sank rapidly. Although the pilot had time to retract the airbrakes his application of power was delayed as he had to change hands on the control column; the throttle being positioned on the opposite side to the airbrake control. Before these actions could take effect the aircraft landed heavily in rough grass in the undershoot, approximately 60 metres short of the runway threshold. The landing gear collapsed and the aircraft slid to a halt on its fuselage. The two occupants, who were both wearing four-point harnesses, were able to vacate the aircraft normally without injury. The pilot reported that, in the prevailing wind conditions, a three-metre high earth bank, located 20 metres short of the runway threshold, may have created an area of sink. Exposure to this sink was exacerbated by the increased time at low level brought about by the shallower than normal approach angle. The aircraft's high aspect ratio wings are particularly susceptible to loss of lift and subsequent sink can occur very rapidly. – From the AAIB's May 2005 Bulletin, available in full at www.aaib.dft.gov.uk/publications/bulletins/may_2005.cfm

Registrations: BGA 1116
 & BGA 3259
Types: Slingsby T50 Skylark 4
 & Schempp-Hirth Ventus C†
Date: 26 April 2004

Summary: The Ventus and Skylark gliders collided while gliding at approximately 4,000ft AGL a short distance west of Lasham airfield. Both were severely damaged. Visibility was generally in excess of 5km, but was variable and decreased with height. The investigation concluded that the gliders had approached each other about 28° off head-on, probably while both were flying straight and level. Following the collision, the pilot of the Skylark parachuted to the ground with no injuries. The pilot of the Ventus was injured in the collision and was still in his aircraft when the main wreckage impacted the ground. One recommendation has been made, for a study to assess means of improving light aircraft conspicuity and for the adoption of measures likely to be effective.

Safety Recommendation 2005-008

It is recommended that the Civil Aviation Authority should promote international co-operation and action to improve the conspicuity of gliders and light aircraft through visual and electronic methods.

Safety Recommendation 2005-046

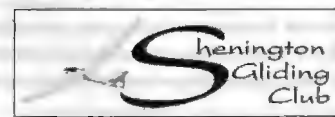
The British Gliding Association should review its operational advice to and training for glider pilots with respect to flying in IMC and marginal VMC conditions. – From the AAIB's May 2005 Bulletin, available in full at www.aaib.dft.gov.uk/publications/bulletins/may_2005.cfm

Accident/incident summaries by Dave Wright

AIRCRAFT				DATE		PILOT(S)		
Ref	Type	BGA No	Damage	Time	Place	Age	Injury	P1 Hours
027	K-21	R28	Minor	02-Apr-05 1510	Dishforth	39 31	None None	1345 6
The glider was positioned forward of the usual launch point which resulted in considerable slack in the cable. "Take up slack" was signalled but the cable next snapped taut and broke causing minor damage to the fuselage. This may have either been due to an unclear "all out signal" or too fast a take up of the cable. Procedures have been re-briefed.								
028	Grob Twin Acro	3077	Substantial	25-Mar-05 1730	Nympsfield	52 37	None None	226 49
On the sixth flight of the day P1 saw an unusual mark on the leading edge of the right wing and decided to land. Inspection revealed a shear/tension failure of the wing shell. This was probably caused by overstressing of the wing during a rolling pull out spin recovery on the previous flight.								
029	Std Libelle	1518	Minor	05-Apr-05 1135	Dunstable		None	40
The pilot was seen to make a somewhat low final turn and approach, probably to compensate for the airbrakes on this type being less effective than those on the training gliders. On final approach the airbrakes were extended and the glider landed heavily in the upsloping undershoot area. Inspection revealed a bent undercarriage leg.								
030	LS1C	—	None	—May-05	Incident Rpt	62	None	192
The visiting pilot was taking his first winch launch on type. After carefully thinking through the launch, but not seeking a briefing, he took the wire. The acceleration was more rapid than he was used to at his home club and the glider rapidly pitched up, probably as the air-moving tailplane was stalled. He released, recovered and landed ahead.								
031	Club Libelle	—	None	—Apr-05	Incident Rpt	34	None	65
The pilot was making a crosswind landing when, during roundout, he kicked in right rudder and the into wind wing lifted. With full landing flap selected he could not control this and the other wingtip touched the ground before the mainwheel. The glider landed heavily and ground looped through 180 degrees but was undamaged.								
032	SZD Puchacz 4313		Minor	22-Apr-05 1258	Rattlesden	60 67	None None	850 70
P2 flew a very good annual check flight then P1 suggested a slightly downwind landing back towards the launchpoint. After a good approach P2 reduced airbrake a little as they descended through the wind gradient but this was insufficient. P1 shut the brakes too late to prevent a heavy landing and bounce.								
033	Open Cirrus	5022	Minor	02-Apr-05 1320	Rattlesden	48	None	182
This was the pilot's first flight of the season in his glider. Whilst in current flying practice, he had only flown a retractable undercarriage glider once in the last seven months. After a short, re-familiarisation flight he failed to confirm the undercarriage was down during his landing checks and landed wheel up on the runway.								
034	Pegase 101A 4930		Minor	01-May-05 1902	Rattlesden	48	None	155
After an intensive day's training on an assistant instructor course the pilot took a solo flight, during which he practised "the patter". After a short flight he landed on the runway with the wheel up, causing minor damage to the fuselage.								
035	Ventus B	—	Minor	08-Apr-05 1300	Seighford	54	None	441
During a winch launch from a 100ft wide strip cut in 4 to 6-inch deep grass, the pilot slipped back in his seat and quickly checked he had full rudder movement. It is possible that this, combined with a crosswind, started a yawing movement and the glider dropped a wing, picking up a nearby cable. A prompt power cut and a careful landing ahead reduced the damage.								
036	Discus	4360	Write-off	02-May-05 1435	Pocklington	56	Minor	102
During the early winch launch ground roll the glider's left wing dropped and touched the ground. As the pilot went to release, the glider slewed into the air, rotated about the left wing before hitting the ground nose first and coming to a halt inverted. The glider was substantially damaged and the pilot received cuts and bruises to his left leg.								
037	Pegase 101	2990	Write-off	02-May-05 1442	Bettenham	17	None	95
During a cross-country flight the conditions deteriorated and so the pilot decided to land at a nearby gliding site. Focused on the glide to the site he failed to realise he was too low and slow until too late. During a hurried landing straight into a crop field he hit a tree, which spun the glider into the ground.								

BGA Badges

No	Pilot	Club (place of flight)	Date	2375	George Newberry	Yorkshire	11.5.05
BGA 750KM DIPLOMA (see also p39)				Gold height			
47	Adrian Hutton	The Soaring Centre	11.05.05	Geoffrey Moore	London (Cerdanya)	30.3.05	
48	Paul Kite	Lasham	11.05.05	J. Ward Hills	Cambridge (Cerdanya)	30.3.05	
50	Ray Payne	Bristol & Glos	10.05.05	Derrick Sandford	Shenington	9.4.05	
50	Trevor Stuart	Bristol & Glos	10.05.05	Martin Pingel	Black Mountains	9.4.05	
51	Richard Smith	Bristol & Glos	11.05.05				
50	Andrew Hall	Lasham	11.05.05	Gold distance			
BGA TWO-SEATER 750KM DIPLOMA				Gordon Burkert	Bidford	7.8.04	
09	Peter Reading/Martin Bester (Lasham)	11.05.05		Sheena Fear	PSGC (Narromine)	23.2.05	
10	Andy Aveling/Paul Davis (Lasham)	11.05.05		Sarmed Mirza	Cairngorm (Leszno)	6.8.04	
DIAMOND BADGE				Andrew Bardgett	Borders	11.5.05	
693	Paul Shuttleworth	Midland (Ontur, Spain)	18.6.04	Claire Alston	DSGC (Nympsfield)	6.7.04	
694	Debbie Scholey	Lasham (New Tempe)	26.1.05	Martin Pingel	Black Mountains	23.5.04	
695	George Crawford	Oxford (McCaftrey)	26.9.04	George Newberry	Yorkshire	11.5.05	
696	Nigel Stevenson	Lasham	11.05.05	Patrick Musto	Soaring Centre	10.5.05	
Diamond distance				SILVER BADGE			
1-1028	Mike Till	Soaring Ctre (Benalla)	26.11.04	11496	Gerald Fishenden	Heron	26.3.05
1-1029	Nigel Stevenson	Lasham	11.05.05	11497	Sarmed Mirza	Cairngorm	25.7.04
Diamond goal				11498	Elizabeth Eddie	Deeside	5.4.05
2-3063	James Ewence	Yorkshire	16.5.04	11499	Gerald Coles	Essex & Suffolk	5.4.05
2-3064	Sheena Fear	PSGC (Narromine)	23.2.05	11500	Andy Billingham	Bristol & Glos	11.5.05
2-3065	Sarmed Mirza	Cairngorm (Leszno)	6.8.04	11501	Paul Reavill	Derby & Lancs	10.5.05
2-3066	Andrew Bardgett	Borders	11.5.05	11502	Rolf Kern	Booker	8.5.05
2-3067	Claire Alston	DSGC (Nympsfield)	6.7.04	11503	J. Ward Hills	Cambridge	30.3.05
2-3068	George Newberry	Yorkshire	11.5.05	11504	James Barry	Lasham	21.4.05
2-3069	Patrick Musto	Soaring centre	10.5.05	11505	Michael Barrett	North Devon	11.5.05
DIAMOND HEIGHT				11506	Gary Marshall	Burn	14.5.05
3-1638	William Bullimore	Cambridge (Cerdanya)	31.3.05	11507	Gerald Nevisky	Dartmoor	16.4.04
GOLD BADGE				11508	David Cowley	Southdown	5.3.05
2369	Gordon Burkert	Bidford (Gransden Lodge)	7.8.04	11509	Ronald Mackie	SGU	11.5.05
2370	Sheena Fear	PSGC (Narromine)	23.2.05	11510	Michael Parkin	Lasham	11.5.05
2371	Andrew Bardgett	Borders	11.5.05	BGA CROSS-COUNTRY DIPLOMA			
2372	Geoffrey Moore	London (Cerdanya)	30.3.05	955	Eugene Lambert	Cotswold	9.5.05
2373	Derrick Sandford	Shenington (Talgarth)	9.4.05	956	David Cowley	Southdown	5.3.05
2374	Martin Pingel	Black Mountains	9.4.05	957	Will Ellis	Essex & Suffolk	11.5.05
AEROBATIC BADGE				958	Ronald Mackie	SGU	11.5.05
				Std Known	David Gethin	Bowland	19.6.05



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An automatic logbook also calculates your flight time and automatically records departure and arrival locations. When used with Garmin's free logbook software—FlightBook—this feature makes light work of maintaining your logbook. Your flight information will be stored in the unit and can be downloaded to this exclusive Flightbook software at any time.

Like all of Garmin's new aviation portables, the GPSMAP 96C also provides advanced navigation capabilities on the road or water. It features a built-in basemap depicting highways, major roads, lakes, rivers, railroads and state and national borders. It also provides automatic-route generation, off-route recalculation, and turn-by-turn directions with audible tones to alert the driver of upcoming turns.

When coupled with optional MapSource City Select® software, GPSMAP 96C enables the user to locate and route to more than 5 million points of interest, including hotels, restaurants, service stations, ATMs and more. For pilots who also like to captain a boat, these units have a Marine mode. Using optional MapSource BlueChart® software, users can navigate the high seas or nearby lakes with ease.

An added bonus: The GPSMAP 96C is not only waterproof, but also floats!

The GPSMAP 96C: One nav fits all.



Garmin GPSMAP 96

Garmin GPSMAP 96C
(Full colour display, 119MB storage)
GARMINGPSMAP96C £425.00

Garmin GPSMAP 96
(Black & White display, 23MB storage)
GARMINGPSMAP96 £309.00

Instrument Panel Fits

RD Aviation's workshop is available for all your panel installation requirements. With many years experience in panel installations RD can offer advice on anything from a complete panel fit to a single instrument installation. Call Peter on 01865 841441 or online at www.afeonline.com for detailed advice about your specific requirements.

Calibrations

RD can calibrate secure data loggers, barographs, ASIs and Altimeters. Turn around is typically a couple of days and prices, while dependent on instrument type, average £20 per calibration.

Oxygen refilling/test

RD can recharge your oxygen cylinder while you wait. Due to the very high charges levied by courier companies for the delivery of charged oxygen bottles, we are unable to deliver charged bottles, but will undertake to recharge your bottle while you wait. Please call before bringing in a bottle for charging to ensure one of our qualified oxygen staff is present to do the recharge. Oxford office only. £20.00 per recharge. If your oxygen bottle has not been tested within the last 5 years (or 3 years if your bottle is Kevlar) then it will need to be serviced before recharge. This service will take approx 10 days and the cost includes a recharge once serviced (again you will need to collect your bottle if you want it filled). Please note price is for service and recharge only. Any repairs undertaken will be quoted to the customer and upon acceptance charged accordingly.

CYL/TEST £82.25

Parachute repack

RD can repack your safety parachute for you. As standard, please allow an average of two weeks turnaround time.

REPACK £32.50

Call for our latest catalogue



All prices include VAT at 17.5%

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